

ISSN 0115-8724



Philippine Science & Technology ABSTRACTS



Science and Technology Information Institute
INFORMATION RESOURCES AND ANALYSIS DIVISION
Department of Science and Technology
Bicutan, Taguig City, Metro Manila
Philippines

January-June 2012

PHILIPPINE SCIENCE AND TECHNOLOGY ABSTRACTS

Bimonthly classified abstracts of the latest Philippine
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AGRICULTURE	0001-0013
BIOLOGY	0014-0018
BOTANY	0019-0028
CHEMISTRY	0029-0030
ENGINEERING	0031-0038
ENVIRONMENTAL SCIENCE	0039-0040
FOOD SCIENCE AND TECHNOLOGY	0041-0050
FORESTRY	0051
GENETICS	0052
HEALTH AND WELLNESS	0053-0072
INDUSTRY	0073-0074
INFORMATION AND COMMUNICATIONS TECHNOLOGY	0075-0086
MEDICINE	0087-0374
NUTRITION	0375-0377
SCIENCE AND TECHNOLOGY	0378
SOCIAL SCIENCES	0379-0381
VETERINARY MEDICINE	0382
ZOOLOGY	0383-0384

January-June 2012

Published by:

Information Resources and Analysis Division
SCIENCE AND TECHNOLOGY INFORMATION INSTITUTE
Bicutan, Taguig City
Philippines

AGRICULTURE

- 0001 Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations. Roupsard, O., Lamanda, N., Jourdan, C., Navarro, M.N.V., Mialet-Serra, I., Dauzat, J., Sileye, T.. **The Philippine Journal of Coconut Studies**, 2008 , 33(2):24-37

This article reviews scientific information in order to prepare application of coconut plantations to the Clean Development Mechanism (CDM) of the Kyoto Protocol. It sums up some theories for describing the C cycle within a given plantation, separating the coconut trees, the under-storey, and the soil. It synthesizes recent reports about the C cycle (stocks and fluxes) of a chronosequence of coconut plantations, considered to be a reference for productivity (high level of fertility, no drought). It gives figures for the potential C balance of a coconut plantation and compares them to other tropical humid evergreen forests. Although the results should not be extrapolated without caution, they highlight some main traits of this peculiar crop, such as high productivity and a large C allocation into organs displaying rapid turnover (bunches of fruits, fine roots, leaves, peduncle, and spikelets), the fate of which is to be turned into litter. Moreover, results bring new insights into the physiology of this plant, which is of high interest for understanding the components of yield, such as reserve dynamics. They also confirm that litter management is crucial for the C fixation and the sustainability of coconut cultivation, especially when the levels of inputs are low.

C allocation. C balance. *Cocos nucifera* L.. Productivity. Soil organic matter. Litter. Agriculture.

- 0002 Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects. Roupsard, O., Hamel, O., Henry, M., Rouziere, A., Sileye, T., Labouisse, J.-P.. **The Philippine Journal of Coconut Studies**, 2008 , 33(2):38-54

The following article is a review of possible strategies of the coconut sector facing the carbon market, through the Clean Development Mechanism(CDM) of the Protocol of Kyoto, but also through Non-Kyoto (voluntary) initiatives. It sums up the conditions for certifying plantations, together with recent statistics of similar projects accepted by UNFCCC, which are currently displaying a rapid growth rate. It stresses the complexity of the CDM, but also the accessibility for coconut energy & afforestation + reforestation (A/R) projects, considering that coconut plantations do actually correspond to the definition of "forest".

Using recent scientific information on C cycle of coconut plantations and coconut oil, it proposes also a simulation of the expected potential profitability of coconut energetic and A/R projects. From the point of view of the farmer and of the oil mill, in absence of any CDM project (the reference here), the value-added comes mainly from local processing of the copra into coconut oil. When implementing a short term A/R project (t-CER), the value-added by C fixation in the ecosystem would be ca. +15 to +19%, as compared to the copra oil references. When implementing a long term-project (I-CER), the value-added would reach +40 to +52%. When implementing an energy-oil project solely, the value-added by C fixation in the coconut oil would be only +5% (this not including other benefits at national scale, however). When implementing a dual A/R + energy-oil project, the value-added by

fixation would be +19% for t-CER, and +45% for I-CER with respect to the copra and oil references. These results are just potential values given for example, suspected to vary much according to the actual conditions of coconut plantation productivity, management and also C market conditions. However, the simulation clearly supports every APCC initiative in this direction.

Afforestation. Reforestation. Kyoto and Non-Kyoto. Mitigation. Renewable energies. Coconut plantation. Agriculture.

- 0003 Coconut productivity and production potential in coastal areas of the Philippines (A research note). Magat, S. S.. **The Philippine Journal of Coconut Studies**, 2008 , 33(2):55-63

This paper aims to provide a substantial understanding of the nature, strengths, opportunities and technical constraints to overcome in the coastal lands in the country for coconut production. Such vital information is immensely important and valuable in most development activities, allocation of investment resources or capitals, and strategic industry directions and goals, in short, the medium and the long term visions.

Among the significant natural resources of the Philippine coconut industry is the extensive 3.2 M ha of coconut lands, of which about 32% or 1 M ha as estimated are situated in coastal areas (coastal-flat and coastal-upland) planted with at least 100 M bearing trees. In recent years, coastal coconut lands had reached an average of 55 nuts/tree (5,500/ha) or with a range: 49.7 – 66.5 nuts/tree. In terms of annual copra (dried coconut meat <13% moisture), it has an average of 1.385 t copra, higher by 100 kg/ha over inland coconut areas. This difference is largely attributed to better chloride nutrition of coastal coconuts which impacts on the well known CI factor for thicker meat or higher copra weight compared to inland coconuts where natural chloride levels coming from aerial sea salt spray, is usually much below adequacy levels in inland areas.

Available strategies or technologies to increase coconut production and farm productivity in coastal areas, done singly or combination, as: 1) coconut rehabilitation of current stands by crop nutrition and fertilization management; 2) replanting of senile trees and/or expansion of plantings; and 3) intercropping of coastal coconuts or farm diversification techniques are discussed.

Coconut palm. Coconut productivity. *Cocos nucifera*. Coconut coastal areas. Fertilizer application. Replanting. Intercropping. Agriculture.

- 0004 Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits. Magat, S. S.. **The Philippine Journal of Coconut Studies**, 2008 , 33(2):1-23

A recent and modern working concepts and principles in CBFS and its indicative social, ecological and economic values of the covered practices and presented. With a modern and productive coconut-based farming systems (CBFS) in mind, a conceptual model is presented to serve as guide for practitioners, research and

extension workers, policy and decision-makers and development managers aimed at increasing efficiencies of coconut land resources and maximizing benefits from coconut farming, and many more.

At least seven (7) principles in more progressive CBFS are briefly mentioned and its implications are discussed. Considered all together, the practitioner-farmers and development managers and investors should be able to identify location-specific CBFS priorities and options to achieve the best socio-economic benefits with viable and sustainable agricultural and environmental gains.

Available methods in valuation of food (nutrition) and environment uses and functions of coconut through their direct and indirect values are presented. Moreover, under the four (4) production options in coconut production (mature nut as copra, young nut, de-husked nuts and coconut sap), both the food and environmental uses showed varying total coconut economic values (TCEVs). In these four primary production systems, except the coconut sap-based option, the ecological (environmental) values and/or services surpassed the food/nutrition value by at least 2 times.

Coconut. Coconut-based farming system. Coconut production systems. Total coconut economic value. Agriculture.

- 0005 Development of rapid methods of detecting pesticide residues in stored grains. Calumpang, S. M. F., Morillo, G. G. L., Flavier, M. E., Santos, J. H., Quintana, B. B.. **The Philippine Agricultural Scientist**, 2001 , 84(3):246-254

In a continuing program to expand the applicability of rapid test kits (RTKs) produced by the National Crop Protection Center, methods were developed for the fast, semi-quantitative detection of residues of 4 insecticides belonging to 3 pesticide groups, i.e., deltamethrin and cypermethrin (both pyrethroids), malathion (an organophosphate), and carbaryl (a carbamate), used in stored farm produce, i.e., mungbean (*Vigna radiata*), corn (*Zea mays*), and rice (*Oryza sativa*) whether whole or milled. RTKs are necessary for quick analysis of commercial farm produce which may contain pesticide residues beyond the maximum residue limits (MRLs), standards set by the FAO-WHO-supported Codex Alimentarius Commission to protect consumers all over the world.

With the new methods, residues could be detected at 2 mg kg⁻¹ for deltamethrin, at 0.30 mg kg⁻¹ for cypermethrin, and at 8 mg kg⁻¹ for malathion in mungbean, corn, and rice grains. Carbaryl in mungbean could be detected at 5 mg kg⁻¹. The new rapid tests for malathion and carbaryl could easily detect residues equal to or higher than their Codex maximum residue limits (CXLs) in the grains, while those developed for deltamethrin and cypermethrin could detect residues at levels slightly higher than their respective CXLs. Residue levels detected using the rapid tests agreed closely with the theoretical spiking levels. Precision and accuracy of the detection methods were validated through conventional methods such as gas liquid chromatography or ultraviolet spectrophotometry where appropriate.

Agriculture. Acceptable daily pesticide intake. Corn. Cypermethrin. Deltamethrin. Grains. Insecticide residues. Malathion. Maximum residue limits. Mungbean. Rapid test kit. Rice. Carbaryl. Insecticide toxicology.

- 0006 Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy. Mateo, Carmencita D., Savage, James E.. **The Philippine Agricultural Scientist**, 2001 , 84(3):282-290

For 12 weeks, 13 dietary treatments were given to 56-weeks-old laying hens to compare the effects of carbohydrate sources (corn, sorghum, and wheat), protein level (13% vs. 16%) and energy level (3170 vs. 2868 metabolizable energy kcal kg⁻¹) on the hens performance, liver composition, and liver pathology.

Fatty liver hemorrhagic syndrome (FLHS) was most prevalent in birds fed corn and sorghum diets and their livers were significantly larger than those of birds fed wheat diets.

There was no effect on liver weight in hens given diets containing different levels of protein and energy. Increase in the level of energy in the wheat diets resulted in significantly larger livers in laying hens. A higher incidence of FLHS was observed in birds that were fed the lower protein level than in birds fed the higher level.

Based on the results, high-energy and low-protein diets can be said to be associated with the incidence of FLHS in laying hens.

Agriculture. Nutrition. Poultry. Fatty liver hemorrhagic syndrome. Liver score. Liver Lipids. Sorghum. Wheat. Corn. Dietary treatment. Energy. Protein.

- 0007 Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis. Calumpang, S. M. F., Morillo, G. G. L., Flavier, M. E., Quintana, B. B.. **The Philippine Agricultural Scientist**, 2001 , 84(4):462-374

The trials were aimed at increasing the sensitivity, versatility, coverage and usefulness of the National Crop Protection Center (NCPC) rapid test kits (RTKs) for analyzing selected insecticides in fruit and root vegetables by developing color charts, factoring-in weight correction values for samples, changing the extracting solvent, and testing the kits in analyzing contents of commercial insecticide formulations.

Semi-quantitative color detection limits (color charts) of selected organophosphate, carbamate and pyrethroid insecticides were developed using the appropriate NCPC RTKs. The organophosphate insecticide methamidophos displayed a blue color. The carbamate insecticides exhibited various colors: blue by carbaryl, violet by carbofuran, a stable pink spot by BPMC, and orange spot by methomyl, unusual for a carbamate. The pyrethroid insecticides, deltamethrin and cypermethrin, were both violet under ultraviolet radiation. Cyfluthrin and methiocarb could not be detected at the levels tested.

The minimum and maximum detection limits were 0.05 and 0.7 µg for methamidophos, 0.05 and 0.09 µg for both carbaryl and carbofuran, 0.05 and 0.06 µg for methomyl, and 0.05 and 0.07 µg for both cypermethrin and deltamethrin.

The weight correction factor (WCF) specific for eggplant, tomato, potato, radish, bitter gourd, cucumber and carrot was determined. It was established that without the WCF, a gross over-estimation of residue levels could occur and this might give rise to problems in the field.

The current commercial NCPC RTKs use acetone as extracting solvent. It was established that ethyl acetate was superior to acetone in extracting from cabbage the following insecticides: chlorpyrifos, diazinon, malathion, methamidophos, triazophos, carbaryl and profenofos. Residues in cabbage present at the maximum residue limits, ranging from 0.1 to 8 mg kg⁻¹, could be detected without having to concentrate the extract by heating. Methods were also developed for other insecticide residues (carbaryl, fenvalerate, and deltamethrin) present at CXL levels in stored products such as rice, corn and mungbean.

Data showed that with the RTKs, rapid assessment of insecticide formulations can be done to determine quality of formulated products in the field in case of doubt.

Chemistry. Rapid test kit. Insecticide residues. Weight correction factor. Color charts. Organophosphates. Carbamates. Pyrethroids. Agriculture. Formulations. Insecticide toxicology.

- 0008 Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines. Corpuz-Raros, Leonila A.. **The Philippine Agricultural Scientist**, 2001 , 84(3):255-277

Further records of Philippine predatory mites belonging to the family Phytoseiidae are presented including description of four new species (*Amblyseius davaoensis* Corpuz-Raros, *A. syzygii* Corpuz-Raros, *A. zamboangaensis* Corpuz-Raros, and *Paraphytoseius binuang* Corpuz-Raros), and records of three new species (*A. markwelli* Schicha, *A. victoriensis* Womersley and *A. womersleyi* Schicha). The newly discovered males of four previously known species (*A. darwinensis* Schicha, *A. semirregularis* Schicha and Corpuz-Raros, *Proprioseius schichai* Corpuz-Raros and *Typhlodromus diumbokus* Schicha and Corpuz-Raros) are described for the first time. New plant habitats for 56 species as well as new distribution records of 18 species of phytoseiids in various Philippine islands are also reported.

Agriculture. Entomology. Amblyseius. Philippine mites. Predatory mites. Typhlodromus. Phytoseiidae. Acari.

- 0009 Histology of the pancreatic islets of the Philippine carabao (*Bubalus bubalis* L.). Baltazar, E. T., Maala, C. P., Landicho, E. F.. **The Philippine Agricultural Scientist**, 2001, 84(3):278-281

The pancreatic islets are groups of hormone-secreting (endocrine) cells forming "islands" in the "sea" of digestive enzyme-secreting (exocrine) cells in the pancreas. The islets secrete the hormones insulin and glucagon, which are essential for the metabolism of sugars, the lack of which will lead to diabetes. Many studies have been done on the microscopic structure or morphology (histology) of the pancreatic islets of other species, but there is none on the carabao.

Specimens from a slaughterhouse were examined using different stains. f1) hematoxylin

and eosin (H&E), (2) Vorhoeffs elastic tissue stain, (3) Masson's trichrome stain, (4) silver stain, and (3) Gomori's chromium hematoxylin-phloxine stain. Based on the results of the study, the pancreatic islets of the carabao resemble those of other domestic animal species. The islets vary in shape and number and apparently are more concentrated in the right lobe than in the left lobe and the pancreatic body. They are not clearly differentiated from the exocrine cell of the pancreas because of their poorly developed capsule composed of two types of fibers: the collagenous and reticular fibers. Dark and light islets are demonstrated in hematoxylin- and eosin-stained sections, the first such report in mammals. Dark islets contain more cells than the light ones. Alpha and beta cells are demonstrated in Gomori's chromium-hematoxylin phloxine stained sections. Beta cells are generally concentrated at the center of the islet while alpha cells are peripheral or at the outer part. Three cell types in the islets can be identified with the use of Masson's trichrome stain. The present findings augment the scarce information on the microscopic morphology of the pancreatic islets of the carabao. These findings will help to provide a better understanding of the role of the pancreas in carbohydrate metabolism.

Bubalus bubalis. Veterinary anatomy. Pancreatic islets. Philippine carabao. Pancreas. Agriculture.

- 0010 Modified-atmosphere packaging of mangosteen (*Garcinia mangostana* L.). Anabesa, M. S., Capirig, T. S., Regulacion, A. T., Esguerra, E. B., Lizada, M.C.C.. **The Philippine Agricultural Scientist**, 1995 , 84(3):241-244

Mangosteen (*Garcinia mangostana* L.) is considered as one of the most exquisite fruits. However, it can last only for 3 to 4 days under room conditions. The shelf-life of mangosteen fruits harvested at four different stages of maturity was extended by 3 to 5 days under room conditions by individually wrapping the fruits with cling wrap made of polyvinyl chloride film. As the cling wrap provided an effective barrier against moisture loss, weight loss in the fruits was reduced and hardening of the fruit pericarp was delayed. Hardening of the peel should be delayed, because once the peel hardens, the fruit is no longer edible. The cling wrap did not affect the eating quality of the fruits. Panelists rated both the film-wrapped and the unwrapped fruits as having the characteristic flavor and aroma of ripe mangosteen.

Crop Science. Mangosteen. *Garcinia mangostana* L.. Shelf-life. Agriculture.

- 0011 Response of maize (*Zea mays* L.) to various modes and levels of silicon application. Nieuwenhuis, Pailin Lales, Joven S.. **The Philippine Agricultural Scientist**, 2001 , 84(4):397-400

Silicon is the second most abundant element in the soil. Crops such as rice, barley, cucumber, wheat, sorghum and sugarcane absorb silicon in greater amounts than nitrogen, phosphorus and potassium, and yet silicon is not recognized as a major plant nutrient. Beneficial effects on plants are observed with the interaction of silicon with the other elements (e.g., manganese and aluminum). It is affected by both external or environmental factors and biotic factors (insect, microorganisms, weeds).

Maize or com is sensitive to silicon. Little information is known about the response of maize to silicon, hence, this study. Root and shoot growth was reduced at different plant

heights with the application of 200-400 ppm silicon dioxide (SiO₂) applied as sodium metasilicate pentahydrate (Na₂SiO₃·5H₂O) in the root system. Photosynthesis was quite low despite the high stomatal conductance or the entry of carbon dioxide (CO₂) through the stomates into the plant and high transpiration rate, compared with the control (untreated plants). Application of 200 ppm SiO₂ to the leaves increased leaf area and stalk diameter but doubling the amount of silicon resulted in smaller leaf area and thinner stem. With silicon applied through the nutrient solution, plants showed typical symptoms of P deficiency (purpling of the midrib). With silicon sprayed on the leaves, plants did not exhibit such symptoms.

Agriculture. Maize. *Zea mays* L.. Silicon application. Soil nutrition.

- 0012 Responses of floating weed, *Pistia stratiotes* Linn., to lead (Pb) uptake. Baysa, Marieta C.. **Acta Manilana**, 2004 , :29-32

The phytoremediation potential of *Pistia stratiotes* Linn. was assessed for lead (Pb) accumulation from nutrient-rich water. *Pistia* plants were grown in half-strength Hoagland nutrient solution containing various Pb concentrations: 0, 0.1, 0.5, 1.0, and 3.0 mg Pb L⁻¹. The Pb concentration in plant tissues significantly increased and the biological concentration factor (BCF) significantly decreased with increasing Pb levels in the growth medium. There was no significant effect of Pb treatment on the total plant biomass. Leaf production was not significantly different between the control and those grown at higher concentrations of Pb. The total chlorophyll content significantly reduced with increasing Pb exposure.

Lead uptake. *Pistia stratiotes* Linn.. Agronomy. Aquatic weed. Lead accumulation. Growth response. Water pollution. Agriculture.

- 0013 Rheological properties of mango (*Mangifera indica* L.) fruits in relation to handling and transport. Peralta, E. K., Valerio, R.F., Esguerra, E. B.. **The Philippine Agricultural Scientist**, 2001 , 84(3):232-240

Compression, impact and vibration tests were conducted on 'Carabao' mango. Fruits at the green stage (peel color index 1 or PCI 1) withstood up to 80 kg of load with no significant internal damage. Compressive strength was reduced to 20 kg at the breaker stage (PCI 2) and 5 kg at 30% yellow peel color (PCI 3). This indicates that fruits should be transported immediately after harvest while their compressive strength is high. Cell rupture in the fruits occurred at 2.45 kN at PCI 1, at 0.63 kN at 0.50 kN at PCI 3. This implies that mango at the green stage can be stacked up to 5 layers using ordinary 20-kg capacity cartons. Stacking is not recommended for fruits at advanced stages of ripeness.

The average impact coefficient across all drop heights ranged from 12.25 to 94.52 cm joule⁻¹. This means that mango should never be dropped from a height greater than 0.26 m if the impact surface is carton, plastic or solid ground.

Fruits in the top layers of crates subjected to simulated vibration were more susceptible to bruising than fruits in the bottom layers. A vibration intensity of 0.091 at 21,600 cycles (60 rpm for 6 h) resulted in bruising near the peel. Mangoes should therefore be properly cushioned during transport at vibration intensity.

Bioyield. Compression. Mango. Postharvest handling. Rheology. Threshold values. Vibration. Impact. Agriculture.

BIOLOGY

- 0014 Cytology of *Musa exotica* R. valmayor sp. novo. Mendioro, Merlyn S., Villamael, Luisa N.. **The Philippine Agricultural Scientist**, 1995 , 84(3):245-254

With the report of a new plant species, it becomes necessary to determine its chromosome number so that the species can be properly classified and diagnosed.

Sporocytes of a new species of wild banana, *Musa exotica* R. Valmayor sp. nov., were collected. The sporocytes were fixed in a solution consisting of one part acetic acid to three parts 95% ethyl alcohol plus a drop of ferrous chloride for 24 hours at room temperature. They were transferred to 70% alcohol and stored in a refrigerator before they were examined for characteristics of the chromosomes. The modified acetocarmine smear technique was used in preparing the sporocytes. Based on cytological examination, the chromosomes clumped tightly during early prophase I. Cells were counted at metaphase I and at anaphase I. At all counts, the chromosome number of *M. exotica* R. Valmayor is $2n=20$.

Callimusa. *Musa exotica*. Cytology. Banana, wild. *Musa exotica* R. Valmayor sp. nov.. Biology.

- 0015 Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (*Cocos nucifera* L.). Santos, G. A. . **The Philippine Journal of Coconut Studies**, 2007 , 32(1&2):57-72

Knowing the disadvantages of the farmers' practice of using F_2 s, research for high yielding open pollinated varieties or OPVs using plant-breeding method apart from mass selection, reciprocal recurrent selection and progeny testing is needed. Breeding for a synthetic or a composite variety is an approach that has been proposed a long time ago in India and Sri Lanka. Unfortunately, the success of hybrid varieties in coconut suppressed the interest in other methods of breeding and relatively little or no attention has been given to the development of synthetic or composite varieties.

In Philippine Coconut Authority (PCA), the possibility of producing a synthetic coconut variety was initiated in 1979 with the establishment of selfed lines (S_1) of Laguna (LAG) and Bago-Oshiro (BAO) tall coconut populations at the Zamboanga Research Center (ZRC). It was hypothesized that the allogamous nature of tall coconut varieties makes them suitable parents for a "synthetic variety".

The paper discusses the practical and technical merits and disadvantages of this approach to achieve a more suitable type of high yield planting materials for small coconut farmers. It also presents new data on the performance of the hybrid parents as well as the new directions being followed in the light of fresh evidence obtained from the application of DNA technology.

Chemistry. Composite variety. Mass selection. Progeny testing. Reciprocal recurrent selection. Hybridization. Biology. Synthetic variety.

- 0016 Diagnostic primers for the detection of *Xanthomonas oryzae* pv. *oryzicola*. Perez, M. T. M., Raymundo, A. K., Eborá, R. V., Leach, J. E.. **The Philippine Agricultural Scientist**, 2001 , 84(4):408-418

A previously cloned repetitive element from *Xanthomonas oryzae* pv. *oryzicola*, R41 shares 44.8% identity with IS1112 cloned from *X. oryzae* pv. *oryzae*. Based on sequences in the non-homologous regions, primers were synthesized and used for polymerase chain reaction (PCR). Two unique fragments amplified from *X. oryzae* pv. *oryzicola* by the primer pair R41PR4 and R413 were cloned, sequenced, and used as basis for primer design. Six primer pairs based on the first clone, 2R41-3e, did not yield unique amplified products. From the five primer pairs based on 2R14-1j, the second clone, only the primer pair PR41-1F1 and PR41-1R showed differential patterns for the two pathovars of *X. oryzae*. When the primer PR41-1R was used alone, an intense 378 bp fragment was amplified in the 39 *X. oryzae* pv. *oryzicola* and 26 *X. oryzae* pv. *oryzae* strains except for two American, two North American, and three African isolates. Amplification was also observed in other *Xanthomonas species*, but the banding patterns produced were distinguishable from those observed in the *X. oryzae* pathovars. The exception was the causal organism of brown blotch, which also produced the 378 bp band. When PR41-1F1 was used alone, *X. oryzae* pv. *oryzicola* can be differentiated from the *X. oryzae* pv. *oryzae* strains. DNA from other *Xanthomonas* and other genera were also amplified but with a much different banding pattern. For PCR diagnosis of *X. oryzae* pv. *oryzicola*, the PR41-1R primer or the previously reported *Hrp* primers should first be used to diagnose *X. oryzae* pathovars; distinction of *X. oryzae* pv. *oryzicola* from *X. oryzae* pv. *oryzae* is achieved by amplification using the PR41-1F1 primer.

Bacterial leaf blight. Pathogen detection. Polymerase chain reaction. Rice disease. *Xanthomonas oryzae* pv. *oryzicola*. Biology.

- 0017 Microbial growths on various types of treated water. Vitug, Maria Imelda D., Cuyugan, Carmelita B.. **Makati Medical Center Proceedings**, 1999 , :84-88

Safe, uncontaminated drinking water is of utmost importance in public health maintenance. With this in mind, a descriptive study on 4 types of treated water samples, namely, distilled, reverse osmosis, autoclaved and boiled water were tested for microbial growths by inoculating in McConkey agar and Lactose broths in 8 hour intervals for a duration of 3 days. Samples were divided into 2 groups and subjected to room (group A) and refrigerated (group B) temperatures. After incubation for 48 hours, faecal coliforms were not detected in any of the samples but each type of treated water exhibited growths of different kinds of opportunistic pathogens, namely, *Pseudomonas*, *Acinetobacter* and *Enterobacter*. Reverse osmosis samples had the most number of microbial colony counts identified as *Pseudomonas* species of up to 7333 CFU/100ml in 72 hours which were not found in boiled water. Prolonged exposure to room air favored growths of these pathogens while keeping them at refrigerated temperature significantly decreased their growths.

Microbiology. Water supply-analysis. Water purification methods. Time factors. Water supply standards. Quality control. Biology.

- 0018 Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance. Pagulayan, Roberto C.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):39-44

The Philippine Islands is recognized worldwide for the richness of its molluscan fauna. An ongoing partial count came up with a figure of 7,287 species. A great contribution to our knowledge of this diversity was due to the vast literature that came out arising from the collection activities which begun in the early part of the 19th century. This paper presents an overview of taxonomic studies on Philippine molluscs with an update on studies done on two medically significant freshwater groups-Lymnaeidae and Ampullariidae.

Biology. Marine biology. Molluscs. Lymnaeidae. Ampullariidae. Snails. Freshwater.

BOTANY

- 0019 Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology. Rivera, R. L., Emmanuel, E. E., Reyes, S. M. **The Philippine Journal of Coconut Studies**, 2011 , :1-20

With some modifications of the classical breeding method, a scheme was formulated to produce the base populations (Syn_0) of the first synthetic coconut variety using single crosses from six outstanding tall cultivars. The possibility of generating an array of parental palms bearing balanced heterozygosity and stable yield is now being pursued through the application of classical breeding approaches and the advances in microsatellite marker technology.

Using the equation of Eberhart et al. (1967), eight double cross populations with the highest predicted copra and nut yields were identified and became the basis for the selection of ten t x t single crosses as parental materials in the production of seednuts for the establishments of 2nd generation breeding lines (Syn_1). Coconut seedfarm establishment was completed following the field planting of 1,921 progeny seedlings.

DNA analyses of the test materials provided promising results towards generating an array of parental palms bearing balanced heterozygosity with stable yield. Using four SSR markers, Syn_1 have higher levels of heterozygosity compare to Syn_0 and the parental populations. In some cases, levels of heterozygosity were sustained with greater evenness in allelic frequencies towards the advance generations. Genetic diversity of Syn_1 was very high at 0.92.

Assisted pollination. Coconut synthetic variety. Controlled hand pollination. Genetic diversity. Heterozygosity. Microsatellite marker (SSR). Botany.

- 0020 Aguinaldo, the first Philippine cultivar of a processing-type soursop (*Annona muricata* L.). Magdalita, P. M., Villegas, V. N., Aquino, A. L.. **The Philippine Agricultural Scientist**, 2001, 84(4):432-434

Guayabano (soursop) has extremely good potential in the export market, especially with the popularity of fruit juices packed in carton boxes. This prompted the search for a processing type of guayabano. An ideal processing variety is sour, big, soft when ripe, has high proportion of edible parts and with a good aroma. In 1990, staff from the University of the Philippines Los Banos initiated a project and conducted mass selection of potential mother trees in Southern Luzon, their choice narrowed down to 36 superior trees. The next phase was carried out after 3 years: fruit selection. The choice was made on one open-pollinated seedling tree of unknown parentage in an orchard in Cavite, the home province of the Revolutionary General Emilio Aguinaldo, hence the name 'Aguinaldo' for the selection. After another 3 years, 'Aguinaldo' was registered with the National Seed Industry Council (NSIC).

In 2000, UPLB released this cultivar. 'Aguinaldo' is the first Philippine variety of a processing-type of soursop. 'Aguinaldo' fruit is relatively well formed, weighs more than 1 kilogram, has a mild aroma, and has a white juicy pulp that is delicately fibrous. When ripe, the fruit is soft. The skin is yellowish green. The fruit has a large edible portion (77.6%) and contains 70 seeds. The tree is a regular (annual) and prolific bearer, and bears fruits from January to April. 'Aguinaldo' soursop may be propagated by cleft grafting or by inarching.

Botany. *Annona muricata*. Aguinaldo. Processing-type. Soursop. Guyabano.

- 0021 Classification and characterization of *Musa exotica*, *M. alinsanaya* and *M. acuminata* ssp. *errans*. Valmayor, Ramon V.. **The Philippine Agricultural Scientist**, 2001, 84(3):325-331

The detailed descriptions of two new species and one new subspecies of banana are presented. The new species are named *Musa exotica* R. Valmayor and *Musa alinsanaya* (Brewbaker and Gorrez) R. Valmayor; the new subspecies is named *Musa acuminata* Colla ssp. *errans* (Blanco; Brewbaker and Gorrez) R. Valmayor. Accompanying the descriptions are diagnoses rationalizing the new status of the cultivars as species and subspecies and how their names were selected. Characterization and photographs provide strong evidences of the uniqueness of the three cultivars. A short report by Mendiola that *Musa exotica* has 10 pairs of chromosomes supports the claim that it can be classified under section *Callimusa*.

Botany. Cytology. *Musa*. *Musa acuminata*. *Musa alinsanaya*. *Musa exotica*. Saging matsing .Alinsanaya. Banana.

- 0022 Conspecificity of *Nepenthes alata* Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data. Alejandro, Grecebio Jonathan D., Baysa, Justinne Patricia C., Lemana, Bismark Oliver C., Madulara, Glaiza M., Madulid, Rosie S., Madulid, Domingo A.. **Acta Manilana**, 2007, :15-21

With the distinct morphological variation existing in *Nepenthes alata* Blco. population found in Mt. Guisguis, Zambales, the Internal Transcribes Spacer population (ITS) region (ITS1, 5.8S gene, ITS2) was sequenced in four variants of *N. alata* population (labeled as N01, N02, N03, N04) to evaluate its potential value as source of character variations. The four ITS sequences of *N. alata* population are newly published here. The whole ITS region of the four variants consisted 655 positions or base pairs (bp). The ITS1 and ITS2 regions were uniform in size with 258 bp and 233 bp, respectively. The 5.8 S gene was identical and uniform in size with 164 bp. Pairwise comparisons among the four population samples yielded 0% variation in the whole ITS region. The results based on ITS sequence data strongly suggest that the four variants of *N. alata* population are conspecific.

Plant biology. ITS1. ITS2. 5.8S gene. *Nepenthes alatan*. rDNA. Botany.

- 0023 Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines. Cabauatan, Jane G., del Rosario, Romualdo M.. **Acta Manilana**, 2007 , :23-36

The key for the search of an appropriate system of long term management and maintenance of ethnobotanical diversity and plant utilization needs various and rich un-codified folk systems of knowledge, experiences, attitudes and better perception.

A positive acceptance on continuous utilization of plant resources to support their socio-economic and cultural needs was revealed by a favorable attitude towards ethnobotany and high perception towards management of ethnobotanical resources by the Ybanag ethnic minority. This justified their openness to a more conducive social climate for a re-establishment of a more efficient and sufficient traditional plant knowledge practices /Indigenous knowledge (IK) and program/ project for better management, conservation and sustainability of plant resources. Their strong traditional knowledge on plant usage revealed a total of 395 species, representing 269 genera in 100 families of plants. About 975 uses totals with the highest fidelity index ranging from 75 to 100 on its major uses, all of which has almost similar uses for various purposes, in their socio-economic activities and other cultural practices. Among the list of plant resources, majority were identified for health and medicine. Agriculture through farming played a very important role of maintaining, conserving their resources and preserving their ancestral domain. Among the new findings not mentioned in previous literature were those plant resources that were utilized in their few remaining and unreported practices. Awareness on conservation measures among this group needs extensive implementation.

Thus, the formulation of a simple and workable strategy to strengthen ethnobotanical practices and traditional plant knowledge is recommended. More researches on pharmaceutical and nutraceutical efficacy are encouraged.

Ethnobotany. Management. Traditional plant knowledge practices. Perception. Attitudes. Botany.

- 0024 Fungal root endophytes from *Musa* spp. as biological control agents against the plant pathogen *Fusarium oxysporum*. Dagamac, Nikki Heherson A., Sogono, Paolo G., Cabalfin, Rizza Celina B., Adducul, Andre Cedric Y., dela Cruz, Thomas Edison E.. **Acta Manilana**, 2008 , :27-35

Endophytic fungi as biological control agents pose a novel and promising alternative for plant disease management. Thus, our research study aimed to test whether locally isolated banana root endophytes (BRE) can be used as potential biocontrol agents against *Fusarium oxysporum* (Foc.). Seventy-five BREs were isolated from roots samples of banana cultivars collected from different sites in Manila and Quezon City. Twenty-five selected isolates were screened for their antagonistic interactions against *F. oxysporum* using the dual-culture method, but only three of them inhibited the test fungus either on contact (BRE 18 & BRE 71) or at a distance (BRE 14). Morphocultural characterization identified them as belonging to the genus *Aspergillus*. Further antagonistic testing showed that the three BREs significantly reduced the colony radial growth of *F. oxysporum*, particularly when the BREs were grown 15 days prior to Foc inoculation,. Extraction of secondary metabolites was done to test the antifungal properties of the three BREs. The crude culture extracts failed to inhibit the fungus using the paper disk diffusion assay, though they were able to remarkably decrease spore germination. Thus, the isolated banana root endophytes showed potential application for biological control.

Botany. Mycology. Plant pathology. *Musa* spp.. *Fusarium oxysporum*. *Aspergillus* sp.. Antagonistic activities. Biocontrol agent. Fungal root endophytes.

- 0025 Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines. Raymundo, A. D., Bajet, N. B., Sumalde, A. C., Cipriano, B. P., Borromeo, R., Garcia, B. S., Tapalla, P., Fabellar, N.. **The Philippine Agricultural Scientist**, 2001 , 84(4):352-361

This paper reports on a project of the Fiber Industry Development Authority (FIDA), the University of the Philippines Los Baños (UPLB), and the National Agriculture and Fisheries Council (NAFC), specifically the mapping of the distribution and spread of bunchy-top and mosaic of abaca by utilizing the decision tool called geographic information system (GIS). The choice of GIS is based on a combination of features that cannot be found in other decision tools, i.e., that GIS can show (1) temporal relationships between factors, (2) spatial relationships between factors, and (3) relationships between temporal and spatial factors that might affect abaca integrated pest management (IPM).

Spatial data gathered from a nationwide survey and presented as GIS maps reveal the occurrence and severity of the diseases in the Bicol Region, Eastern Visayas, Southern Mindanao and CARAGA (Agusan del Norte, Agusan del Sur, Surigao del Norte, and Surigao del Sur).

The GIS maps show that in the Bicol Region, i.e., the provinces of Camarines Norte, Camarines Sur, Albay, Sorsogon, and Catanduanes are heavily affected by bunchy-top and mosaic. Many abaca farms have been either wiped out by the viruses and/or abandoned by farmers due to disease devastation. Surveys indicated that the highest incidences of both diseases are in Sorsogon and Catanduanes. Disease distribution tends to be aggregated so that some towns within a province are more heavily affected than others. These are areas that are still relatively free of the diseases. In Eastern Visayas, mosaic is rampant in Northern Samar. Low to moderate levels of the disease are observed in Leyte and Southern Leyte.

The "hot spot" of the disease are both in the Bicol and Eastern Visayas regions. These areas can then be targeted as priority for disease eradication. Data will continue to be gathered and plotted. Over time, the progress of the abaca IPM program on both diseases can be ascertained through GIS maps as basis for further decision-making.

Abaca. Bunchy-top . Mosaic. Disease distribution. Disease eradication . Geographic Information System. GIS. Manila hemp. *Musa textilis* Nee. Botany.

- 0026 Molecular differentiation of selected *Pandanus* spp. by random amplified polymorphic DNA (RAPD) analysis. Sarile, Angelita S., Menguito, Corazon A.. **Acta Manilana**, 2007 , :59-68

Random Amplified Polymorphic DNA (RAPD) was utilized to analyze the genetic material of six *Padanus* species and four varieties. DNA was amplified using 60 arbitrary decamer primers with 60-70% GC content. Of the 60 primers, 12 produced multibanded fingerprints for the ten *Pandanus* spp. A total of 457 fragments was amplified, 31% of which were polymorphic, and whose sizes ranged from 204-2344 base pairs.

From the RAPD data, a dendrogram was constructed based on similarity coefficient using NTSYSpc (Rohlf,2000). Three clusters were generated: cluster I consisted of *P. tectorius*, *P. sanderi*, *P. amaryllifolius* '\variegatus', *P. tectorius* '\vietchii' and *P. dubius*. Cluster II grouped together *P. tectorius* var. '\laevis' cv, *P. tectorius* var. '\laevis' and *P. luzonensis* while cluster III consisted of *P. amaryllifolius* and *P. simplex*. Bootstrap analysis demonstrated that subgroups consisting of *P. tectorius*, *P. sanderi*, *P. amaryllifolius* '\variegatus', *P. tectorius* '\vietchii' and *P. tectorius* var. '\laevis' cv, *P. tectorius* var. '\laevis' were robust (100% confidence estimate). Results also demonstrated that *P. sanderi* and *P. amaryllifolius* '\variegatus' appeared to have identical RAPD DNA profiles in 22 primers while *P. luzonensis* appeared to be most distantly related to *P. dubius* with the smallest similarity coefficient of 0.062.

RAPD. Dendrogram. *Pandanus*. Botany.

- 0027 *Rafflesia panchoana* (Rafflesiaceae), a new species from Luzon Island, Philippines. Agoo, Esperanza Maribel G. , Madulid, Domingo A., Buot, Inocencio E. Jr. **Acta Manilana**, 2007 , :43-47

A new species, *Rafflesia panchoana* Madulid, Buot & Agoo, is described from Mt. Makiling, Luzon Island, Philippines. It is similar in size to *R. manillana* Teschem. but differs in having an upright or slightly inclined diaphragm, smaller warts on the perigone lobes, elongated or stretched windows on the underside of the diaphragm, and bristles on the rim of the annulus.

Rafflesia panchoana. *Rafflesia manillana*. Threatened plant. Endemic plant. Mt. Makiling. Botany.

- 0028 Synonymy of the three *Villaria rolfe* species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data. Alejandro, Grecebio Jonathan D., Arlegui, D.L.A., Espino, E.A., Layson, E.G., Rosales, R.F.B.. **Acta Manilana**, 2008 , :7-15

The endemic Philippine Rubiaceae genus *Villaria* Rolfe comprises about five species of shrubs to small trees which are poorly known due to inadequate descriptions. Based on

preliminary investigations, three *Villaria* species [*V. philippinensis* Rolfe, *V. odorata* (Blanc.) Merr. and *V. rolfei* Vidal] were noted to be morphologically almost similar. To date, no further studies have been done to resolve the complexity of the three species. Morphological characterizations were done through detailed comparison of their vegetative and reproductive parts as well as SEM investigations using loaned herbarium specimens (CAHUP, L, NY, PNH, US) and new collections (USTH). For molecular study, the Internal Transcribed Spacer (ITS) of the nuclear ribosomal DNA (nrDNA) was utilized. Three new *Villaria* ITS sequences are newly published here. Genomic DNA from silica gel-dried leaves was extracted, amplified, purified, sequenced and analyzed. Results showed that only minor variations are present in the leaf sizes and shapes of the three *Villaria* species, other morphological and SEM of seeds and pollen were similar. For the ITS sequence data, the aligned data matrix of the three *Villaria* species comprised 607 base pairs (bp). The ITS1, 5.8S gene and ITS2 regions were uniform in size with 234 bp, 164 bp and 209 bp, respectively. Among the three *Villaria* species no variations were found in the ITS1 and 5.8S gene while 0.66% sequence divergence was found in the ITS2 region. This insignificant difference in pairwise comparison was found in *V. rolfei*. Based on morphology and ITS sequence data, the present study strongly suggests that the three *Villaria* species are conspecific. Following the third principle of ICBN based on priority of publication, *Villaria philippinensis* is retained as legitimate name, *V. odorata* and *V. rolfei* become the synonyms. The first detailed description and botanical illustration of *V. philippinensis* are provided.

ITS. nrDNA. Rubiaceae. Synonymy. *Villaria*. Botany.

CHEMISTRY

- 0029 A comparative cytochemical study of mature makapuno and normal coconut endosperm. Sebastian, L. C., Mujer, C. V., Mendoza, E. M. T.. **The Philippine Journal of Coconut Studies**, 2011 , :31-43

By employing differential staining procedures, the writers were able to characterize the cells of mature makapuno and normal endosperms, and localize their chemical components. Compared with normal cells, the makapuno cells exhibited more loose cell wall to cell wall contact, indistinguishable cell borders, irregular sizes, and greater elongation. In both the makapuno cells and normal cells, there were insoluble polysaccharides in the cell wall, cytoplasm, and inclusion bodies. Moreover, lipids and protein bodies tended to increase towards the testa of both samples, indicating the livelihood that these organelles were synthesized early in the development of the endosperm.

The results further confirmed that cytochemical differences between the normal and makapuno endosperm, which may attest to the tumor-like character of the latter.

Chemistry. Cytochemical study. Makapuno. Coconut. Coconut endosperm.

- 0030 Development of an ammonia and amine sensor based on Bromthymol blue. Quinto, Edna C., Sevilla, Fortunato B. III. **Acta Manilana**, 2007 , :49-57

The development of accurate and reliable sensing devices for amine and ammonia is a significant contribution to monitoring these vapors at low concentration in industrial and manufacturing operations such as refrigeration, fertilizer or in agricultural activities such as intensive animal rearing. This study presents the development of a simple amine and ammonia sensor based on an acetate film coated with Bromthymol blue housed in a sample cell. The cell is made to fit in a Perkin Elmer Lambda 35 UV-vis spectrophotometer. The headspace gas of standard solutions of ammonia and trimethylamine (TMA) were used as analytes to gather response characteristics of the device. Measurements done at 600 nm showed stable readings with a relative standard deviation of 4.64% (n=1201). The sensor showed favorable characteristics for an inexpensive device. It has a response time of 1 minute, with repeatability equal to 1.65% RSD (n=6). The sensor remained active within 12 months of storage in vials. It has a linear response to ammonia within a concentration range of 20 to 90 ppm (n=5) with correlation of $R^2=0.9942$ and a limit of detection (LOD) equal to 15.4 ppm. For TMA it has a linear response within a concentration range of 5 to 200 ppm (n=6) with a correlation of $R^2=0.991$ and an LOD=43 ppm.

Bromthymol blue. Trimethylamine sensor. Ammonia sensor. Chemistry.

ENGINEERING

- 0031 Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk. Valencia, S. A., Pascua, M. C., Movillon, J. L., Braza, H. G., Reblora, M. A.. **The Philippine Agricultural Scientist**, 2001 , 84(3):304-312

The kinetics of the adsorption and equilibrium adsorption isotherms of four dyes – Basic Rhodamine Red (BRR), Basic Methylene Blue (BMB), Reactive Procion Red (RPR), and Reactive Procion Blue (RPB) – on cornstalk were investigated. The capacity of cornstalk to adsorb is high for basic dyes and low for reactive dyes. Within 12 h, the two basic dyes were reduced by about 75% in solution, the two reactive dyes only about 7%. The cornstalk adsorbed an average of 115.76 mg BRR, 111.50 mg BMB, 211.64 mg RPB, and 102.73 mg RPR per min. The pith had at least twice the adsorptive capacity of the skin. The maximum adsorptive capacities obtained for the two basic dyestuffs were high, i.e., 296.56 mg (pith), 156.27 mg (skin), and 180.38 mg (whole cornstalk) of BRR and 476.19 mg (pith), 285.71 mg (skin), and 333.33 mg (whole cornstalk) of BMB per gram.

Engineering. Chemical engineering. Adsorption technology. Basic dyes. Dyestuffs. Textile dyes. Wastewater treatment. Cornstalk. Reactive dyes.

- 0032 Corn oil methyl ester as fuel for diesel engines. Aguirre, Ivy Loren P., Comia, Ana Marie T., Perez, Michael Ryan F., Dimaano, Maria Natalia R.. **Acta Manilana**, 2006 , :33-43

This paper presents the conversion of corn oil to its methyl ester through transesterification. The parameters for the transesterification process of the corn oil were

controlled at 90°C and 2 hours of reaction with methanol and sodium hydroxide. ASTM test procedures were employed for the characterization of the Corn Oil Methyl Ester (CoME) properties both in its pure and blended form. Comparative analyses of chemical and thermophysical properties showed that CoME is highly comparable to the Coconut Methyl Ester (CME) and the Philippine Diesel. Smoke emission tests showed lesser smoke emission for CoME than for the commercially available diesel fuel. The result of the tests verified the potential of the CoME as fuel substitute for diesel engines.

Corn oil methyl ester (CoME). Transesterification . Coconut methyl ester (CME). Biodiesel. Engineering.

- 0033 Deactivation behaviour of different supported Ni-catalysts under the conditions of the vacuum carburization of steel with acetylene. Andres, Dorothy, Reimert, Rainer, Mouanda, Gelase Mbadinga. **Acta Manilana**, 2006 , :15-26

The vacuum carburization of steel is a process for hardening steel components which offers excellent mechanical properties and improved processing conditions. In this process, carbon is released by pyrolysis and is allowed to diffuse into the steel surface. The pyrolysis also produces polymeric, aromatic and long-chained hydrocarbons which result to coke formation that leads to operational problems. The goal of this study is to convert these hydrocarbons into short-chained hydrocarbons in the presence of a Ni catalyst supported on 2 different supports, namely, alpha-SiC and gamma-Al₂O₃.

Different supported Ni-catalysts were prepared by incipient wetness impregnation(I) and Sol-Gel method (SG). Their catalytic and regeneration activities were studied in a Thermal Gravimetric Analyzer (TGA) at a pressure of 1 bar. The gaseous products were analyzed by Fourier Transform-IR, Gas Chromatography. The reduction of the active metal in the catalyst is also monitored by the consumption of H₂ by a Thermal Conductivity Detector (TCD). TRP, BET, N₂ physisorption and CO-chemisorption have also been used to characterize the catalysts. The thermoanalytic investigations have shown that the alpha-SiC supported catalysts prepared with Sol-Gel method showed higher activity but, also high coke production. Catalyst on the same support prepared using impregnation method showed further formation of NiO during the regeneration with air. As the new carburization cycle starts, NiO was apparently reduced by C₂H₂. It also showed a decreasing regeneration capability with proceeding cycles. Gamma-Al₂O₃ as support material has achieved high conversion of C₆H₆ as compared to alpha-SiC and better selectivity with respect to C₆H₆ conversion. Pore size and distribution also played an important role in the selectivity of the catalyst both for C₂H₂ and C₆H₆.

Steel. Ni-catalyst. Vacuum carburization. Metallurgy. Engineering.

- 0034 Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride. Movillon, J. L., Valencia, S. A., Demafelis, R. B., Matibag, E. V.. **The Philippine Agricultural Scientist**, 2001 , 84(3):297-303

Coconut shell (containing 11.05% water, 63.20% volatile combustible matter, 1% ash, and 24.75% fixed carbon) was chemically activated with NH₄Cl for 1 h at different temperature setting (400,600, and 800 C) and at different NH₄Cl-shell ratio (1:4, 1:6,

1:8). A laboratory-scale locally manufactured pyrolyzer was used in the chemical activation process. Based on carbon recovery and decolorizing capability, the optimum treatment combination for chemical activation of coconut shell is at 800 C and at a NH_4Cl -shell ratio of 1:4.

Engineering. Chemical engineering. Ammonium chloride. Chemical activation. Coconut shell. Activated carbon. Adsorption.

- 0035 Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates. Cui, Karina Milagros R., Binag, Christina A.. **Acta Manilana**, 2007 , :9-14

Nanowires of polythiophene (PTp) were electrochemically synthesized using the pores of the prepared anodic alumina oxide (AAO) templates. The anodization experiments were performed using Al foil to create alumina pores having pore diameters of 150-250 nm. The electrochemical polymerization synthesis of PTp nanowires was carried out using a potentiostatic condition in a three-electrode system. The best electropolymerization conditions were 0.1 M thiophene (Tp) monomer, 0.1 M tetrabutylammonium perchlorate (TBAClO_4) dopant, in 10.00 mL acetonitrile, at a temperature of $0 \pm 1^\circ\text{C}$, without stirring the polymerization solution using 1.6 V at 2 mA/cm^2 current density. Four-point probe conductivity tests were done to determine the electrical properties of the PTp nanowires formed. PTp nanowires revealed a higher conductivity of 11.30 S/cm (0.50% RSD, $n=3$) compared to the bulk polymerized Al foil (1.45 S/cm). The Scanning Electron image of PTp nanowires showed uniform cylindrical nodules with diameter of 150-250nm. In this study, the facile AAO template synthesis method utilized for PTp nanowires growth gave higher conductivity that could find wider environmental and medical applications.

Engineering. Electrosynthesis. Nanowires. Polythiophene. Anodic alumina oxide. SEM. Template synthesis.

- 0036 Polyaniline/graphite composites: *In-situ* synthesis and characterization. Santiago, Karen S., Rañola, Rey Alfred G., Flores, Pierre Abner T., Puno, Ivan Hugo A., Montano, Elizabeth , Sevilla , Fortunato B. III. **Acta Manilana**, 2008 , :37-42

A polyaniline/graphite ($\text{PA}/\text{C}_{\text{graphite}}$) composite was successfully synthesized by an *in-situ* polymerization process. The composite was characterized through various techniques. Structural investigations were carried out through FTIR spectroscopy and SEM-EDX methods. The analyses of the composite clearly demonstrate the incorporation of graphitic units into the polymer backbone during polymerization as a result of graphite's doping effect. UV-Vis studies and two-point probe conductivity measurement proved that this phenomenon led to an increase in electrical conductivity.

Engineering. Material science. Conducting polymer composite. Graphite. Conductivity. Spectroscopy. Microscopy. Polyaniline .

- 0037 Purification and characterization of a poly(β -Hydroxybutyrate) depolymerase from Burkholderia

cepacia. Alava, Benedicta, Menguito, Corazon A.. **Acta Manilana**, 2006 , :27-38

Polyhydroxybutyrate (PHB) depolymerases are enzymes that can hydrolyze PHBs, a group of biodegradable thermoplastics, *Burkholderia cepacia*, isolated from a Metro Manila landfill, secreted a PHB depolymerase when grown in a minimum medium containing 0.2% w/v PHB. Depolymerase activity reached its maximum during the stationary phase of cell growth at approximately 21 hours of culture.

The PHB depolymerase from *B. cepacia* was purified by $(\text{NH}_4)_2\text{SO}_4$ precipitation, DEAE and CM ion exchange column chromatography. A 7 mL enzyme (PhaZ_{Bc}) concentrate of 0.702 mg/mL was obtained from a 0.5L cell free culture. The enzyme was purified to homogeneity with a yield of 57.9% and a 3.3-fold increase in activity. The SDS-PAGE results showed a single protein of high purity and a molecular mass of approximately 39.2 kDa. The enzyme was optimally active at a temperature of 30°C and at pH 7.0. Kinetic profile showed that the depolymerase has an average specific activity of $12 \times 10^3 \mu\text{g PHB per mg enzyme per minute}$. The V_{max} and K_m were determined as $44.36 \mu\text{M}_{\text{max PHB per mg enzyme per minute}}$ and $1.31 \mu\text{M}$, respectively. The PHB depolymerase was partially inactivated by phenylmethylsulfonyl fluoride, dithiothreitol, 2-mercaptoethanol, EDTA, and Tween 80. An increase in enzyme activity was observed in the presence of Mg^{2+} and Na^+ .

Burkholderia cepacia. Enzyme activity. Polyhydroxybutyrate depolymerase. Engineering.

0038 Stimulation of ethanol production by Maillard reaction products using different yeast concentrations. Abrigo, C. S. Jr., Valencia, S. A., Movillon, J. L., Reblora, M. A., Gascon, J. B.. **The Philippine Agricultural Scientist**, 2001 , 84(4):419-424

Back-slopping or recycling of distillery slop is an alternative method of handling and managing wastewater from distilleries. Using fresh distillery slop as diluent for molasses fermentation is a promising technology that needs elaboration, such as the effect of its components on the efficiency of ethanol fermentation. A colorant like melanoidin, a Maillard reaction product, is one such component.

The effect of synthetic melanoidin solution on ethanol fermentation efficiency was studied in the laboratory. Maximum fermentation efficiencies of 63.53 per cent, 90.50 per cent, and 82.45 per cent. were obtained at 1.4 per cent melanoidin with the use of 10, 20 and 30 g L⁻¹ yeast concentrations, respectively. Results of statistical analysis showed significant differences in efficiencies at 5 per cent level of significance.

Addition of melanoidin increased alcohol fermentation. The yeasts tolerated melanoidin concentrations up to 2.1 per cent. The presence of unreacted glucose in the melanoidin solution signified incomplete conversion of amino-sugars to melanoidin. Findings imply that distillery slops containing melanoidins may be recycled up to five times without any harmful effect on the yeast.

Chemical engineering. Alcohol. Brix. Fermentation. Glucose. Melanoidin. Slops. Sucrose. Yeast. Engineering. Efficiency.

ENVIRONMENTAL SCIENCE

- 0039 The center's disaster plan. de Padua, Donna G., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1995 , :62-67

The past few years have borne witness to a spate of disasters that wracked our country testing not only the Filipino's endurance but also his ability to rise above death and destruction. Sadly, most hospitals are ill-equipped to cope with such catastrophes simply because they are unprepared, lacking even the most basic disaster plan. As an integral part of any community's emergency response capacity it is incumbent upon all hospitals to anticipate and meet these crises forearmed with a Level I Disaster Emergency Management Plan.

Disaster plan. Emergency response capacity. Medical disaster. Disaster planning and management. Environmental science.

- 0040 Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale. Paningbatan, Eduardo P. Jr.. **The Philippine Agricultural Scientist**, 2001 , 84(4):388-393

A Geographic Information System (GIS)-assisted simulation model of the dynamic processes of soil erosion and hydrology of a watershed has been developed, called *Predicting Catchment Runoff and Soil Erosion for Sustainability (PCARES)*. PCARES is a physical model that can simulate runoff and soil erosion of a catchment area during a rainfall event. The basic inputs to run the model include raster maps of the elevation, soil, and land use pattern of the catchment, and a time series on the amount of rainfall. Important outputs include a map of source erosion and runoff discharge and sediment yield at the outlet of a catchment area.

For validation of the model, the Mapawa catchment area in Bukidnon, Southern Philippines was parameterized in terms of the PCARES' input requirements to assess the impact of land surface-cover treatments on water quantity and quality. The treatment were: (1) bare surface, (2) current vegetation with minimal soil conservation measures and (3) forest cover. The bare surface gave the highest water and sediment discharge rates while the forest cover gave the least runoff with almost no sediment load. The results demonstrate both the power of the simulation model and the enormous positive effect of surface cover in managing soil erosion and runoff in a watershed. The model may also be useful in predicting the impacts on conservation of research and development projects even before they are carried out in the watershed.

Soil conservation. Geographic information system. Hydrology. Land use. Parameterization. Runoff. Soil erosion. Watershed management. Environmental science. Computer simulation model.

FOOD SCIENCE AND TECHNOLOGY

- 0041 Bacteriological characteristics of breastmilk under various storage conditions. Mortel, Noemi D.V., Dizon-Co, Lourdes Ann. **Makati Medical Center Proceedings**, 1998 , :76-80

A descriptive study was conducted at Makati Medical Center Nursery from May to July 1997 to determine the types of bacterial growth of breastmilk stored at room temperature, inside a clay pot, and refrigerator. The relation between bacterial proliferation and milk pH was also investigated.

Ten milk samples were obtained by manual expression. The volume of breastmilk collected per mother were stored in 3 glass containers labeled according to storage venue #1 at newborn intermediate care ward,#2 inside a clay pot, and #3 in the nursery refrigerator. Ten milk baseline determination of pH and culture after 8,12, 24 hours storage in three venues.

There is a direct relationship between storage temperature with milk bacterial colony count (BCC) of *Acinetobacter*, and *Staphylococcus aureus*. These 2 and coagulase negative staphylococcus (CONS) are the predominant isolates in our pool of milk samples. A few samples grew *Pseudomonas*, *Klebsiella*, and *Bacillus subtilis*. There is a direct relationship between BCC of *Acinetobacter* and *Staphylococcus aureus* and length of time of storage in the ward and the clay pot.

Mean pH at collection time is 7.1. It remains neutral (mean of 7.15-7.55) in the refrigerated samples. The pH declines in all samples stored at room temperature and the clay pot.

The refrigerated samples have the lowest bacterial colony count and neutral pH up to 24 hours after collection. There is no advantage in storing milk in a clay pot compared to storing at nursery room temperature in terms of bacterial proliferation and pH.

Food science. Breast feeding. Milk, human-chemistry. Women, Working. Time Factors. Food science and technology.

- 0042 Batch fermentation of *Corynebacterium glutamicum* from sugarcane muscovado syrup for lysine production. Abrigo, C. S. Jr., Movillon, J. L., Acda, R. I., Valencia, S. A., Borines, M. G., Garciano, S. L.. **The Philippine Agricultural Scientist**, 2001 , 84(3):291-296

Lysine was produced from sugarcane muscovado syrup using flask cultures of *Corynebacterium glutamicum* and a 5-L batch fermentor. Optimum results were produced at an initial pH 7, aeration rate of 1.0 volume per minute, agitation rate of 25 rpm, and 60 g L⁻¹ sugar concentration. Based on the results of ANOVA, the parameters significantly affected lysine production.

Fermentation. Muscovado. Sugarcane. Sugar technology. Lysine. Food science and technology.

- 0043 Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging. Diamante, Donna Mae O., Lapada, Catherine M. , Quijano, Jennifer P., Bayquen, Aristeo V. . **Acta Manilana**, 2008 , :17-26

Conventional plastics manufactured from non-renewable fossil fuels contribute heavily to solid waste disposal. This study showed that the proper selection of enhancer added to the polysaccharide kappa-carrageenan (kC) can improve the properties of the resulting water soluble plastic film. This study is focused on the effect of the three enhancers (glycerol, carbopol and boric acid) on the solubility, tensile strength and water vapor permeability of kC-based film which may be used for fruit packaging. Through carboxymethylation process, kC was modified with monochloroacetic acid (MCA) as the etherifying agent. Using kC and carboxymethyl-kappa-carrageenan (CMkC) as the base polymers, three formulations containing increasing amount of enhancers were prepared. Fruit packaging properties were the basis for the experimentation. The resulting plastic films were soluble in water, and insoluble in 1.0 N HCl, 1M NaOH, and seawater. In the mechanical tests (tensile strength measured by Universal testing Machine), the kC-based film enhanced with the smallest amount (0.15%) of boric acid showed the best result among other enhanced plastic films. In the water vapor permeability test, the kC-based film infused with the largest amount (0.23%) of carbopol content was the least permeable. The kC-based film sample containing the highest amount (0.56%) of boric acid exhibited the accepted chemical, and mechanical properties whereas, CMkC-based film with highest glycerol content (0.21%) showed flexibility, smoothness and clarity.

Kappa-carrageenan. Carboxymethylation. Fruit packaging. Water soluble plastic. Carbopol. Boric acid. Glycerol. Food science and technology.

- 0044 Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos. Dulla, Katherine A., Sabulase, Veronica C., Revilleza, Ma. Jamela R., Hurtada, Wilma A.. **Philippine Journal of Nutrition**, 2005 , 52(3-4):1-8

The effect of boiling, blanching or drying on the antioxidant activity and total phenolic content of 14 different fruits, vegetables and root crops commonly found in the Filipino diet was investigated. The β -carotene bleaching assay was used to determine the antioxidant activities of the methanolic extracts of the samples. The antioxidant activities of all the root crops including unripe jackfruit (*Artocarpus heterophyllus*) significantly decreased (22-53%) upon boiling. Blanching green leafy vegetables at different time intervals also resulted in the decrease in the sample's antioxidant activity except for kamote (*Ipomoea batatas*) leaves. However, the antioxidant activity of commercially prepared dried mango (*Mangifera indica*) and pineapple (*Ananas comosus*) were significantly higher than the fresh samples. The total phenolic contents of the methanolic plant extracts were determined using the Folin-Ciocalteu phenolic reagent. All of the boiled samples had a significantly lower total phenolic content than fresh samples except for eggplant (*Solanum melongena*) The blanched leafy green vegetables were also observed to have significant decrease in total phenolic content. Dried mangoes and pineapples, consistent with their higher antioxidant also had significantly higher total phenolic content than the fresh fruits. Results indicated the different methods of processing plant foods have different effects on its antioxidant activities and phenolic contents.

Antioxidant activity. Phenolics. Fruits. Vegetables. Processing. Food science and technology. Food composition. Food processing.

- 0045 Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese. Barraquio, V. L., Militante, S. T., Gonzaga, J. O., Emata, O. C.. **The Philippine Agricultural Scientist**, 2001, 84(4):382-387

A probiotic is any food product containing beneficial microbes like *Lactobacillus casei* and *L. acidophilus* that improve the balance of microorganisms in the intestine of the consumer. Specifically, probiotics can aid in the digestion of lactose, the main sugar from milk and in controlling cholesterol. Many people have stomachs that are lactose-intolerant. Probiotics can also control intestinal infections and exert antitumor activity.

A probiotic soft white cheese locally known as 'kesong puti' was prepared using a commercially available fermented milk drink as starter. This is an alternative to the use of pure bacteria I colonies grown specifically for the purpose, which is difficult. This is the first study in the manufacture of soft white cheese using fermented milk drink to start the process. The manufacture of probiotic soft white cheese could open new markets and maximize use of locally produced milk and milk products.

L. casei together with other useful lactic acid bacteria survived and multiplied under the conditions in which the soft white cheese was prepared. Laboratory examination after 1 week refrigeration indicated that the probiotic soft cheese can provide sufficient amount of beneficial bacteria to the consumer. Four other types of useful bacteria were found and still have to be identified. The ability of *L. casei* and other lactic acid bacteria present in the probiotic to withstand refrigeration is essential in ensuring sufficient amounts of the bacteria that can promote the health benefits derived from consumption of probiotic soft white cheese.

Cottage-type enterprise. Fermented milk drink. Lactic acid bacteria. *Lactobacillus casei*. Probiotic. White soft cheese. Starter. Food science and technology.

- 0046 Food flavors as potential preservative systems. de Castro-Ontengco, Delia, Capal, Teresita V., Melo, Catherine L., Dayap, Lourdes A.. **Acta Manilana**, 2004, :23-27

Essential oils were hydro-distilled from selected flavoring plants to determine their inhibitory effects to common bacteria implicated in food-borne illnesses. Using the agar dilution method to determine the minimum inhibitory concentrations of the oils, the broadest spectrum of activity was exhibited by lemongrass and thyme leaf oils, both of which were active at $\leq 0.125\%$ (v/v) against *Staphylococcus aureus* (*Sa*), *Escherichia coli* (*Ec*), and *Salmonella typhi* (*St*). Ginger rhizome and pomelo rind oils both inhibited the growth of *Sa* and *St* the same concentration, while peppermint and guava leaf, and turmeric rhizome oils were active against *Sa* only. Testing the effect of the individual components against reference strains *Sa* ATCC 25923 and *Ec* ATCC 25922, the following were observed: eugenol, geraniol and chavicol were inhibitory to *Sa* and *Ec* at 0.125% (v/v); citral inhibited *Sa* at the same concentration but was inactive against *Ec*; terpineol was active against *Ec* at 0.25% (v/v), while limonene, linalool, and cineole were ineffective against both organisms at 0.25% (v/v).

Essential oils. Food. Antimicrobial activity. Ginger. Guava. Peppermint. Pomelo. Food science and technology.

- 0047 Fractional crystallization of coconut oil in acetone. Siahaan, D., del Rosario, O. M., del Rosario, R. R.. **The Philippine Agricultural Scientist**, 2001 , 84(4):375-381

Low-temperature solvent fractional crystallization was employed to enrich long-chain saturated fatty acids (LCSFA) and medium-chain fatty acids (MCFA) or unsaturated fatty acids (UFA) in coconut oil (CNO), and to optimize conditions for increased yield of high melting-point solid fractions (coco-stearin). Tests showed that acetone was the most suitable solvent. The optimum conditions for crystallization were 10 C for 6 h in an acetone-CNO ratio of 2:1. By single-step fractionation (SSF), coco-stearin was enriched by 4.6%, while by multiple-step fractionation (MSF), coco-stearin III was enriched by 4.4%. By SSF, UFA was enriched in olein by 13.6%, in olein by 15.6%, and in CNO by 10.8%. The yield of coco-stearin in SSF was 28.3% and in MSF 21.7%.

Acetone. Coconut oil. Long-chain saturated fatty acids. Medium-chain fatty acids. Solvent fractional crystallization. Unsaturated fatty acids. Food science and technology.

- 0048 Minimum boiling time and temperature to eliminate diarrheal pathogens in water. De Torres, Carina I., King-Joaquino, Sally . **Makati Medical Center Proceedings**, 1998 , :72-75

A prospective study was done to determine the minimum boiling time and temperature to eliminate pathogens transmitted by drinking bacteriologically contaminated water. Autoclaved tap water was inoculated with predetermined amount of inoculum of common bacterial pathogens causing diarrhea namely *Escherichia coli*, *Shigella dysenteriae*, *non typhoidal Salmonella (paratyphi A and B)*, and *Vibrio cholera*. Sample specimen of *Escherichia coli*, *Shigella dysenteriae* and *non typhoidal Salmonella A and B* suspension were inoculated on lactose broth and MacConkey agar plates. Thiosulfate citrate bile sucrose agar plates and lactose broth were utilized for *Vibrio cholera*. Results revealed that heating water to a temperature of 70 degrees centigrade or the length of time to bring the water to its boiling point is adequate to decontaminate it from all these microorganisms. Absence of growth of *Escherichia coli*, *Shigella dysenteriae*, *Salmonella paratyphi A and B*, and *Vibrio cholera* were noted on further boiling at 5 minutes, 10 minutes, 15 minutes, 20 minutes, 25 minutes, 30 minutes.

Food science and technology. Food safety. Decontamination. *Escherichia coli*. e-coli. *Shigella-Dysenteriae* *Salmonella*. Water Analysis. *Vibrio Cholerae*. Diarrhea-Complications. Water treatment.

- 0049 Modified atmosphere packing of mangosteen (*Garcinia mangostana* L.). Anabesa, M. S., Capirig, T. S., Regulacion, A. T. , Esguerra, E. B., Lizada, M. C. C.. **The Philippine Agricultural Scientist**, 2001, 84(3):241-244

Mangosteen (*Garcinia mangostana* L.) is considered as one of the most exquisite fruits. However, it can last only for 3 to 4 days under room conditions.

The shelf-life of mangosteen fruits harvested at four different stages of maturity was extended by 3 to 5 days under room conditions by individually wrapping the fruits with cling wrap made of polyvinyl chloride film. As the cling wrap provided an effective barrier against moisture loss, weight loss in the fruits was reduced and hardening of the fruit pericarp was delayed. Hardening of the peel should be delayed, because once the peel hardens, the fruit is no longer edible. The cling wrap did not affect the eating quality of the fruits. Panelists rated both the film-wrapped and the unwrapped fruits as having the characteristic flavor and aroma of ripe mangosteen.

Mangosteen. Maturity. Modified atmosphere. Packaging. Total soluble solids. Food science and technology.

- 0050 Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall. del Rosario, R. R., Gabuya, E. S.. **The Philippine Journal of Coconut Studies**, 2011 , :44-50

The cell wall materials from makapuno and non-makapuno kernels were isolated and then fractionated into their component polysaccharides. Significant differences were observed in the water-soluble and alkali-extractable fractions. Analysis of the hydrolysis products of the fractions from both types of nuts showed variation in kind and number of sugars present.

Food science and technology. Food composition. Coconut. Makapuno. Polysaccharide.

FORESTRY

- 0051 Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines. Lasco, R.D., Sales, R. F. , Estrella, R., Saplaco, S. R., Castillo, A. S. A., Cruz, R. V. O., Pulhin, F. B.. **The Philippine Agricultural Scientist**, 2001 , 84(4):401-407

Carbon dioxide is the most abundant greenhouse gas (GHG) that causes global warming. Thus, land uses such as an agroforestry system have a significant role in moderating climate change since they can be sources and sinks of carbon. The aim of the study was to generate data on the carbon stocks of two agroforestry systems, specifically a *Gmelina arborea-Theobroma cacao* multistorey system and an alley cropping system with *Gliricidia sepium* hedges at the agroforestry research and demonstration area inside a forest reserve in Southern Luzon, Philippines.

The multistorey system had a mean biomass of 258 Mg C ha⁻¹ and a carbon density of 185 Mg C ha⁻¹. Carbon was stored in the various pools in the following order of magnitude: soil > tree biomass (above-ground) > necromass > understorey vegetation > roots. The *Gliricidia* hedgerow had a biomass density of 3.8 Mg C ha⁻¹; total carbon density was 93 Mg C ha⁻¹, of which 92 Mg C ha⁻¹ was in the soil.

Agroforestry systems. Alley cropping. Cacao. Carbon sink. Carbon stocks. Climate change. Gliricidia sepium. Gmelina arborea. Multistorey system. Theobroma cacao. Forestry.

GENETICS

0052 Biotechnology research in the Philippines. De La Cruz, Reynaldo E.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):12-19

Biotechnology can be defined in two ways. First, biotechnology is defined broadly as "any technique that uses living organisms or parts of organisms to make or modify products, to improve plants or animals, or to develop microorganisms for specific uses. Secondly, biotechnology is defined in the narrow sense as "the industrial use of recombinant DNA, cell fusion, and novel bioprocessing techniques".

Technologies within the broad definition include traditional processes such as fermentation, cheese production, micropropagation techniques, and microbial based fertilizers and pesticides. Technologies within the narrow definition include protoplast fusion, use of recombinant DNA for diagnostics and genetic engineering of plants and microorganisms.

Since biotechnology became an established discipline in the late 70's so much had happened in the research and development sector worldwide. The development countries had led the way in research and development sector worldwide. The developed countries had led the way in research and development because of the potential income derivable from biotechnology.

The Philippines became a serious player in biotechnology research and development with the establishment of the National Institutes of Biotechnology and Applied Microbiology (BIOTECH) at UP Los Baños in 1979. The research and development thrust of BIOTECH was mainly in promoting biotechnology for agricultural, industrial and environmental applications. Under Philippines 2000, biotechnology is considered as one of the flagships that will bring the country into NIChood by the year 2000. This year, four National Institute of Molecular Biology and Biotechnology (NIMBB) has been established within the University of the Philippines system. The NIMBB in UP Los Baños will continue to spearhead research and development in agriculture and environmental biotechnology the NIMBB in UP Diliman in industrial biotechnology; UP Manila in health-related biotechnology; and UP Visayas in marine biotechnology.

The paper will present an overview of the biotechnology research and development activities in the Philippines, the constraints, and potential areas for growth.

Genetics. Biotechnology.

HEALTH AND WELLNESS

- 0053 Adverse health effects of organic solvent exposure: A critical review. Ambas, Cristina D.. **Acta Medica Philippina**, 2007 , 41(1):59-61

Several groups on occupational health and preventive medicine have expressed major concern over organic solvent exposure and its possible adverse health effects on humans. This has been extensively studied for over a century and well described in many recent studies. However, there also exist several research gaps in studying its dose-response relationship and the real attribution of organic solvent exposure to cause the disease. Some of the symptoms studied are not specific to the occupational disease because of mixed exposures and are often already an existing medical condition of the worker. Some are biased to show that the exposed workers are impaired and the unexposed workers are not. Inadvertent lack of study in the important socio-demographic factors to ensure the comparability of the study groups and the elimination of confounders like alcohol intake and smoking are among the factors that are commonly overlooked in the study of volatile chemicals. Lastly, some of the diagnostic tools used to prove the hypothesis on the pathological process that caused the impairment are non-sensitive and non-specific.

Organic solvents exposure. Confounder. Bias. Sensitivity. Specificity. Risk assessment. Biomarkers. Psychoorganic. Neurasthenic . Public safety. Toxic exposure. Health and wellness.

- 0054 Anthropometric measurements of public elementary school students in district IV of Manila. Ng Tsai, Yruma, MEM, Javier, MJH, Lopez, PNL, Lipardo, DS, Espaldon, MJH **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):9-17

Background and Purpose: Musculoskeletal discomfort and low back pain could arise from the mismatch between the school furniture and the body dimensions of the children. Lack of normative anthropometric measurements of Filipino children serving as basis for chair construction could be the reason for this problem. This study aims to obtain sample anthropometric measurements in sitting of Filipino school-aged children from District IV, Manila. **Methodology:** 578 children (M:278 F:300) aged 6-12 years old enrolled in school of District IV, Manila were selected using purposive sampling. Pertinent anthropometric measurements in sitting were taken. Children were instructed to sit up straight with shoulders relaxed and head in midline. Each participant were seated on a monoblock chair without backrest while maintaining a 90°-90° hip-knee angle measurement. **Results:** The results showed a statistically significant difference between age groups in the measurements for most of the body dimensions of children from age 6-11 years old showing increasing trend. Measurements between 11 and 12 year old age groups were not statistically significant. There was a statistically significant difference between male and female measurements particularly in the 8, 11 and 12 age groups. **Discussion and Conclusion:** School-aged children will not all fit in one standard chair because of the significant differences in measurements across age group and gender. The group recommends a careful examination of school furniture construction, taking into consideration the changing antropometric data of the children as they grow older and the gender differences between school-aged children.

Anthropometry. Ergonomics. Children. Chair Design. Health and wellness.

- 0055 Assessment of disaster preparedness in selected public schools in Luzon, Philippines. Guevarra, Jonathan P. , Ancheta, Caridad A. , De la Pena, Jason O. , Ortega, Adelwisa R. , Lariosa, Theresita R. **Acta Medica Philippina**, 2007 , 41(2):78-84

Objectives: This study described the status of disaster preparedness of selected public schools. This study also described the school's disaster preparedness plan and determined awareness of key school personnel on disaster preparedness programs (both national and local) and Department of Education (DepEd) disaster-related policies.

Methodology: From January to March 2006, 37 key personnel from elementary and secondary schools were interviewed using an interview guide. A written permit was secured from the Department of Education (DepEd) division superintendent and informed consent was obtained from the respondents prior to the interview. The school profile and data on each school's disaster preparedness were collected. The data was analyzed using descriptive statistics.

Results: Of the 37 schools covered in the study, most (59%) of them came from the National Capital Region and most of them were elementary schools. Thirty five schools (95%) reported to have formed disaster committees. However, less than one third (30%) of the respondent schools had disaster preparedness plans. The majority (95%) of the public schools conducted drills once a year. Fire and earthquake drills were the most common types of drill conducted in these schools. Fifty-one percent (51 %) were not used as centers of evacuation during the disasters that occurred in the last five years. The majority (95%) of the public school key personnel were aware of the National or Local Disaster Management Programs. All respondents were aware of disaster-related DepEd policies.

Conclusions: This study provided a glimpse of the efforts that teachers and students are preparing in times of emergencies and disasters. Specific hazards that affect schools may have to be addressed. Examples of these are "chemical spills", food poisoning and infectious disease outbreaks. These may also be considered in the preparation of the school's preparedness plans.

Recommendations: A comprehensive training program on disaster preparedness in schools (natural and health-related) is highly recommended for school officials, personnel and students. Special emphasis should be given on how to prepare a comprehensive school disaster preparedness plan and an assessment of vulnerabilities and risks (for possible emergencies/disasters) so that the drills and training can be made more focused. It is recommended that these schools be re-oriented on the management of evacuation camps (for schools) since they serve as evacuation centers during emergencies. Studies on common vulnerabilities, hazard mapping for schools and knowledge and skills assessment on emergency and disaster planning may also be beneficial.

Public safety. Disaster preparedness. Disaster-related programs and policies. Preparedness action plan. Health and wellness.

- 0056 Challenges in the control of food and water-borne parasitoses in the Philippines. Belizario, Vicente Y. Jr., Anastacio, Marilyn Benedith M. . **Acta Medica Philippina**, 2007 , 41(1):54-58

In the past two to three decades, food and water-borne parasitoses have been considered to have a substantial impact on public health in Asia with the increasing numbers of cases despite economic growth and development. Illness due to contaminated food is perhaps the most widespread health problem, and it is an important cause of reduced economic productivity and quality of life of those infected. In the Philippines, a number of parasitic infections brought about by food and water contamination are present: schistosomiasis, heterophyidiasis, paragonimiasis, echinostomiasis/artyfechi- nostomosis, taeniasis, and intestinal capillariasis among others. Water-borne protozoa including *Entamoeba*, *Giardia*, *Blastocystis* and coccidians continue to be important causes of diarrheal diseases, and infected individuals may be asymptomatic carriers. Food-handlers may also contaminate food and water by inadequate hand washing practices of infected persons or carriers. Pollution, poverty, and population growth are the three principal determinants of the epidemiology and public health impact of food and water-borne parasitoses. Disease recognition by clinical practitioners, diagnosticians, and laboratory workers is also a major challenge in the control of these parasitoses, which signifies a need to further strengthen the diagnostic capability of health personnel especially in endemic areas. Moreover, the real challenges of a control center on health education and food safety since people contract most of these infections by eating raw, improperly prepared, or food contaminated with parasite infective stages.

(no keywords)

Food and water-borne parasitoses. Parasitic diseases. Health education. Food safety. Health and wellness.

- 0057 Disease control priorities for child health in the tropics. Santos-Ocampo, Perla D., Rogacion, Jossie M. **Acta Medica Philippina**, 2008 , 42(1):8-16

Child health is an important indicator in measuring national development. This is particularly true in developing countries with meager resources where children constitute a large percentage of the population. One cannot overemphasize its significance in tropical, developing countries like those in Asia and Africa where childhood morbidity and mortality are highest especially in the under-five age bracket. It is also in these countries where infectious diseases consistently rank as major causes of deaths. Realizing the short-term and long-term devastating effects on the health of individual children of developing nations and the resulting implications on national development. The formulation of strategies to address these problems in the context of economic evaluation has increasingly become a priority for developing countries. Economic evaluation deals with costs and consequences. It is basically determining which of the available interventions will utilize the least amount of resources without sacrificing the effectiveness of such strategies and the benefits that are gained from their implementation.

This paper discusses economic evaluation of strategies to control specific diseases in children in the tropics as published in Disease Control Priorities Project (second edition): diarrhea. respiratory diseases. tuberculosis (TB). malaria. HIV/AIDS and malnutrition. It uses cost-effectiveness analysis (CEA) utilizing disability-adjusted life years (DALYs) as the consequence or effect. One DALY represents the loss of one year of equivalent full

health. For diarrhea, the most cost-effective strategy is breastfeeding promotion. Improved case management, using the Integrated Management of Childhood Illness (IMCI) approach has resulted in significant reduction in mortality in children with Acute Respiratory Infections below five years old. Direct Observed Therapy Short-course(DOTS) is currently considered the most cost-effective intervention even in the most severe and infectious forms of TB. The use of combination drug treatment is the most cost-effective strategy in the treatment of malaria. Interventions directed towards both the host and the vector of malaria are also considered cost-effective. Data on cost-effective strategies in preventing AIDS are lacking and treatment strategies are expensive because of the prohibitive cost of drugs used for treatment. Community-based health programs have been found to be most cost-effective in the battle against malnutrition.

Economic evaluation of interventions and strategies to reduce childhood illness, disability and death has become imperative and is very important in developing countries with limited resources such as those in the tropics.

Health. Child Health. Cost-effectiveness analysis. DALY. Childhood diseases . Health and wellness.

- 0058 Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study. Ventura, MG, Chua, CDM, Espiritu, JE, Gonzalez, MB, Lopez, SMO **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):34-40

Objectives: The purpose of this study is to investigate the effect of a taping technique on pain and ROM of shoulder on athletes with impingement syndrome. **Methodology:** Nine subjects each went through three different testing days: experimental, controlled and sham days. Pain Visual Analog Scale (PVAS), a tape measure and a still digital photo measurement was used to measure the outcome before and after tape the taping technique. ANOVA was used to test the homogeneity of the pretest results and t-test was used to test the correlation of the pre and post test values for pain and ROM. **Results:** There was a statistically significant decrease in pain, as well as in ROM in the experimental test. No significant effect was seen in the sham and controlled test. **Conclusion:** Results suggest that the taping technique can significantly decrease the pain of the athlete; however, a concomitant decrease in ROM was noted.

Range of motion. Shoulder impingement syndrome. Shoulder. Shoulder pain. Health and wellness.

- 0059 Establishing risk assessment indices for occupational injuries at work in the Philippines: Strategies for prevention. Lu, Jinky Leilanie. **Acta Medica Philippina**, 2005 , 39(2):36-40

The study looked into the occupational hazards and injuries among 500 workers in 10 semiconductor industries in the Cavite Export Processing Zone in the Philippines. It also looked into the risk factors associated with injuries among workers. The 10 semiconductor industries are involved in the production of microchips and electronics. This is a parametric study using stratified sampling, workplace ambient monitoring, safety investigation, medical records review, survey questionnaires and interviews. Results of the study showed that noise was the most common physical agent, 67-100% present in all industry sizes. Medium-scale industries had low compliance on provision of administrative and engineering control measures. Selective interviews indicated the

following problems: lack of ventilation, lack of protective equipment, need for overtime, frequent accidents/injuries during night shifts and prolonged standing. For the 500 workers who were given questionnaires, problems cited for work conditions include poor housekeeping, slippery floors, uneven floors, no machine guard, insufficient work area and insufficient warehouse/storage area. The top five most frequent stressors were overtime, fast-paced work, repetitive work, mental fatigue and visual strain. The most prevalent injuries were cuts and bruises at 65.5%. When hazards and injuries were associated, the results showed significant association between the following: noise with hearing loss ($p=0.019$), poor illumination with eye strain ($p=0.007$), vibration with muscle injury ($p=0.046$), excessive work with low back injury ($p=0.000$), poor housekeeping with slipping ($p=0.021$), slippery floor with ($p=0.032$), and with uneven floors with falls ($p=0.003$). All these injuries occurred in the workplace due to lack of machine guards, improper use of tools, non-ergonomically designed tools, fast workplace and unsafe conditions. Cutting from a machine caused three amputations. In conclusion, the study showed that there occupational injuries are prevalent in the electronic industries, and they are work-related.

Occupational injury. Hazard exposures. Semiconductors. Health and wellness.

- 0060 Experimental smoking among schoolchildren in Barangay Singkamas, Makati City. Famador, Jay Arnold F., Flores, Angela C., Ejercito, Carlos Jr., Felix, Kennard Q. , Padlan, Michael C., Lazaro, Giselle Mary S., Gepte, Aguedo Troy D. IV, Lupisan, Socorro P.. **Makati Medical Center Proceedings**, 1999 , :20-24

Objective: The study was conducted to determine the prevalence of experimental smoking and its associated factors among schoolchildren in Barangay Singkamas, Makati City.

Methods: A cross-sectional study utilizing an administered questionnaire was undertaken among fifth and sixth graders (mean age, 12.02+1.0 years; range, 10 to 15 years).

Result: Of the 234 respondents, twenty-two percent had tried smoking. Mean age at first attempt at smoking was 10.6+1.5 years. Having a parent, a sibling or a friend who smoked was significantly associated with experimental smoking. Experimental smoking was significantly higher among males. The two most common sources of the first cigarette were the father (42%) and those personally bought (25%). The most common reason for smoking was “to try something new” (42%) followed by “others smoked” (21%).

Conclusion: There is a high prevalence of experimental smoking among the fifth and sixth graders of the F. Benitez Elementary School. The early onset of experimentation suggests that smoking prevention program should target younger children. An effective prevention program will have to properly address issues of parental smoking and peer pressure. Associating smoking early with a negative image may be practical approach to prevention.

Adolescent-behavior. Smoking-prevention and control. Smoking-economics. Health-Education. Age-factors. Health and wellness.

- 0061 Gluteal taping on running performance of healthy young adults: A randomized controlled pilot study. Cerdania, JT, Ang, A, Asuque, JD, Bucasas, PA, Datinguinoo L., De Belen, JJ., Eugenio, EC, Maralit, SM **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):51-54

Objective: To determine the effect of gluteal taping on gluteal muscle activity, running speed and stride length. **Methodology:** University students were recruited to participate. Of 46 students who gave consent, 33 were included and randomly allocated into a TAPE group (N=15) or a control (NMES) group (N=18). Baseline running time over 100 m, stride length and gluteal muscle EMG activity were measured. These were followed by either gluteal taping (TAPE) or 10 minutes of electrical stimulation (NMES). Running time, stride length, and EMG activity were then re-measured. Data were analyzed using planned contrasts within an ANOVA framework with significance testing done at $p < 0.05$. **Results:** Running time decreased in both groups but this only approached statistical significance ($F=3.94$, $p=0.057$); there were no significant differences between groups. Changes in stride length were variable and were not statistically significant ($F=0.09$, $p=0.766$); no significant between-group differences were noted. EMG activity of the gluteus maximus decreased after both taping and NMES but this was not statistically significant ($F=0.511$, $p=0.480$). **Conclusion:** This study has demonstrated that gluteal taping decreases running time over a 100-m distance in healthy young adults but not a statistically significant level.

Running. Gluteal taping. Stride length. Health and wellness.

- 0062 Improvements in maximal oxygen consumption among elderly Tai Chi Chuan practitioners. Dizon, JMR, Briones, MC, Cundangan, MC, De Leon, J, Lagman, E., Precilla, L., Pua, JH, Racela, AMR **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):52-54

Background and purpose. This study was undertaken to provide information about the therapeutic effects of Tai Chi Chuan in improving the maximal oxygen consumption (VO_{2max}) of the elderly. **Participants.** Twelve residents (11 females, 1 male) of Metro Manila with a mean age of 60.45 ± 6.72 years were included in the study. **Methodology.** Tai Chi with 24 basic postures was used as the exercise protocol, 5 times a week for 6 consecutive weeks. The Bruce Treadmill Protocol together with COSMED K4 b² metabolic cart was utilized to assess VO_{2max} prior to and after 6 weeks of Tai Chi sessions. Pre and post-test values were analyzed using the COSMED K4 b² ver 6.0. **Results.** Statistical analysis revealed a significant improvement in VO_{2max} after 6 weeks with a mean increase of 6.20 ± 4.39 ml/kg/min. **Conclusion.** This study proves that Tai Chi training can improve cardiovascular endurance as measured by VO_{2max} among geriatric individuals.

Tai Chi Chuan. Maximal Oxygen Consumption. VO_{2max} . Health and wellness.

- 0063 Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP. Guilas AA, Lagman, RAZ, Go, JD, Liao, LAS, Mamaril, GP, Rueca, JRQ, Tapire, KM. **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):18-26

Objectives: To determine the common types and sites of lower extremity injury in badminton varsity players in the UAAP and to determine the effects of playing surface and shoe type in relation to injuries of the lower extremity in this population. **Methodology:** A survey of college varsity players participating in the UAAP Badminton

League using questionnaires was performed to determine the types and sites of lower extremity injury incurred during games as well as the frequency of lower extremity injury per playing surface and shoe type. All participants underwent assessment of range of motion, muscle strength, leg length discrepancies, and posture after completing the questionnaire to rule out injuries brought about by the pre-existing postural deviations, decreased muscle strength and joint motion, and unequal leg lengths of the players. **Results:** Seventy-five UAAP badminton players (mean playing years=12.5) answered the questionnaires. Seventy-two percent experienced overuse lower limb injuries when playing badminton, with a higher incidence in females. A greater portion of participants who play on wooden surfaces "always" and "most of the time" present with injuries compared to those who played on other surfaces types. Ninety-nine percent of participants used badminton shoes during play. **Conclusion:** Ligamentous injuries involving the ankle and foot are the most common types of injuries incurred by UAAP badminton athletes. A greater proportion of athletes who play in wooden courts incurred injuries. There were inconclusive findings on the effects of footwear on injury occurrence since 99% of participants used badminton shoes during play.

Badminton. Overuse injury. Playing surface. Shoe. Health and wellness.

- 0064 Kinematics of bowling. Cerdania, JCT, Aldea, BY, Alcantara, Jr. RP, Lacson, EMC, Magday, EA, Pimentel, ICC **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):54-55

Purpose: The study aims to describe and compare the kinematics between beginner and advanced bowlers, and male and female bowlers. **Methodology:** Ten subjects, 5 beginner and 5 advanced bowlers participated, using snowball sampling method. Reflective markers were placed on the following anatomic landmarks: shoulder, elbow, hip, knee, and the ankle. Participants were made to execute a game while being recorded through a video camera. Observational analysis was used to describe the kinematics for each game. Codes, in 30-degree ranges, were used to determine the range of movement of every joint. An inter-rater and intra-rater reliability test was done for assessment of range of movement. Mode function was employed to measure frequency and standard deviation was used to measure dispersion of frequency. Chi square test was applied to measure significant differences of data. **Results:** There was a high inter-rater and intra-rater reliability. Advanced bowlers utilized the 5-step approach while the beginner bowlers used the 4-step approach when throwing. There was less variability in the joint angles seen in the performance of advanced bowlers unlike in the beginner bowlers. **Conclusion:** Differences were noted between beginner and advanced bowlers in terms of their kinematics in throwing. An understanding of the results in kinematics with determine focus of training in beginner bowlers.

Advanced and beginner bowlers. Kinematics. 4 and 5 step-approach. Bowling. Health and wellness.

- 0065 Mid-arm circumference, calf circumference and foot length as indicators of low birthweight. Alano, Loretta Stephanie D., Martinez, Ma. Lourdes C.. **Makati Medical Center Proceedings**, 1995 , :34-38

The correlation of mid-arm circumference (MAC), calf circumference (CC) and footlength (FL) to birthweight and their reliability in predicting low birth weight (BW \leq 2500 gm) were investigated in 206 neonates born in Makati Medical Center. A

positive linear correlation between MAC, CC, FL and birthweight were established. Value ≤ 9.3 cm for MAC, ≤ 10.1 cm. for CC and ≤ 7.6 cm. for footlength were indicative of LBW with 95% level of confidence. Calf circumference showed the highest correlation coefficient ($r=0.9467$) $p<0.05$. Therefore, in the absence of weighing scales, MAC, CC, FL may be used in identifying low birthweight infants who may be at increased risk for neonatal morbidity and mortality.

Medicine. Anthropometry. Calf circumference. Foot length. Low birthweight. Health and wellness. Mid-arm circumference.

- 0066 Performance of community-living Filipino adults aged 21-87 years on the functional reach test. Magtoto, LS, Abalos, EG, Barraca, A., Catillo, J., Lumbrera, I., Porciuncula F. **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):27-33

Objectives: The Functional Reach test (FR) is used to detect balance impairment and change in balance performance over time. This test measures the maximal distance one can reach forward beyond arm's length while maintaining balance over a fixed base of support. This study aims to determine FR values of a selected group of Filipino adults and elderly on the functional reach test; to compare Filipino FR values with American standard values & to determine the correlation between forward and sideward reaching, and those of FRT and factors such as age, gender and anthropometric characteristics. **Methodology:** This research is a cross-sectional, observational study on forward and sideward functional reach where 162 males and females aged 21 and 87 were selected from specific areas in Metro Manila. All participants were asked to lean forward and sideward as far as possible without losing balance or taking a step. **Results:** There was a difference between local and American standard values. A strong positive correlation between forward and sideward reaching was found at 0.827. Height, age, arm's length, trunk length, and shoulder length were found to affect FR. **Conclusion:** The standard American values may not be used as reference values for Filipino patients. Forward and sideward reach has a strong positive correlation, therefore a person with good antero-posterior stability would possess efficient lateral stability. Anthropometric values influence FR scores.

Health and wellness. Balance. Elderly. Adults. Functional Reach Test.

- 0067 Prevalence of back pain among adolescents in the city of Manila and its association to backpack use. Peralta, CR, Villamor, TL, Mendoza, MP, Tolentino, EA, Valmonte, CM **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):57-58

Objective: To determine the prevalence of back pain among adolescent students in the city of Manila, the viability of the contributing factors to adolescent back pain, and the association of back pain to backpack use. **Methods:** Students aged 12 to 18 years old, recruited from different schools in the city of Manila were included in this study. Subjects were asked to answer a questionnaire regarding their health, activities, and bag use. Subjects' weight, height and bag load were also measured. Percentage of subjects with back pain defined the prevalence of back pain in this population. **Results:** One thousand six hundred eighteen students participated in this study, 40.11% of which reported to have back pain with the greater proportion in girls of 14 years of age.

Independent t-tests showed that students with back pain seemed to be older, with higher BMI values, and carried heavier bag loads than those without back pain. Seventy-one percent of participants used back packs in school and there seems to be a significant association between presence of back pain in adolescents and use of back packs based on the chi-square values. **Conclusions:** There is a considerable prevalence of back pain among adolescent students in the city of Manila, majority of which were girls aged 14, with higher BMI valued and heavier daily back pack loads. A direct relationship exists between the use of back packs and the development of back pain in these students. There is a need to conduct an information campaign that will help reduce the incidence of adolescent back pain in our school children.

Backpack. Adolescents. Back pain. Health and wellness.

- 0068 Prevalence of low back pain among jeepney drivers in Metro Manila: A descriptive study. Atlas, AP, David, JAZ, Erese, RR, Alejandrino, PMB, de Claro, MC, Agawa, RA **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):56-57

Background and Objectives: Jeepney drivers assume the sitting position for prolonged periods of time because of the requirements of their occupation, which could lead to musculoskeletal impairments specifically low back pain (LBP). The objectives of this study are to gather sufficient data regarding the prevalence of low back pain (LBP) in jeepney drivers taking different routes in Metro Manila and determine the occupational related factors that may cause LBP. **Methodology:** All 420 randomized participants were given two questionnaires: the Nordic Low Back Pain Questionnaire and the questionnaire on occupational-working patterns. Survey analysis was used to interpret the data collected. **Results:** The results have shown that 87.90% of the subjects have LBP which are related to factors such as incorporation of rest periods, length of time driving and use of back support. Most of the subjects (55.06%) have claimed working for 11 to 15 hours. Around 59.83% subjects incorporated less than 6 rest periods within the day and 60.11% subjects claimed that they use back support. **Conclusions:** There is a high prevalence in low back pain among jeepney drivers in Metro Manila and this may affect work productivity due to taking time off work and time taken taken to seek medical attention. Jeepney drivers with pain commonly experience it from 1-7 days during the last 12 months . Majority of drivers do not seek medical advice. This has significant impact on the financial capabilities, both of the driver and the company as it requires additional cost for medications and consultation. The use of back support during driving seems to decrease the occurrence of low back pain.

Health and wellness. Low back pain. Nordic LBP questionnaire. Jeepney drivers (not MeSH).

- 0069 Risk factors associated with osteoporosis among Filipino adults. Tanchoco, Celeste, Villadolid, Milagros F., Duante, Charmaine A., Limbaga, Ma. Luz S., Yee, Grace A.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss:9-29

Objective: To determine the prevalence of risk factors to osteoporosis among Filipino adults. **Design:** Cross-sectional using interviews and pre-tested questionnaire using a stratified two-stage sampling of geographic areas. **Setting:** 77 provinces, two cities outside Metro Manila, 10 cities/clusters within Metro Manila, and 10 highly urbanized

centers. **Participants:** 3,023 subjects 40 years old and above. **Results:** There were 1,509 males and 1,514 females as subjects. Mean age was 54.8 for males and 53.5 years females. Prevalence of fractures of all types were highest in Cordillera Autonomous Region (17.8%), Western Visayas (16.7%), Central Visayas (15.1%) and Central Luzon (13.2). Prevalence rates of fractures were higher in males than females (13.6% vs. 6.9%). Wrist fracture was more common than that of the hip and leg. Prevalence of fractures increases with age for both sexes. Large body build tends to lead to a higher prevalence of Fractures. Almost all (70.3%) of the women with a history of fracture were menopausal. For males, osteoporosis is linked to smoking, low milk intake, and alcohol intake. Among females, non-use of HRT, low milk intake and less frequency of walking slopes were associated with osteoporosis. **Conclusions:** The identified risk factors provide a basis for intensified activities and intervention program such as; weight control, physical fitness, smoking cessation, control of alcohol intake, promotion of intake of calcium-rich foods, and hormone replacement therapy.

Osteoporosis. Fractures. HRT. Nutrition survey. Milk intake. Health and wellness.

- 0070 The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study. Montalban, Joselito M. , Marcelo, Alvin B. **Acta Medica Philippina**, 2007 , 41(2):90-94

There is an increasing trend in the number of deployed as well as documented overseas Filipino workers (OFWs) in recent years. Hong Kong is one of the most popular destination countries, especially for domestic helpers (DHs). A great majority of OFWs are female DHs who work long hours and receive meager pay and so are susceptible to illness and yet are incapable of paying for proper health care. The present research was a descriptive cross-sectional study of the medical service utilization pattern of Filipino DHs in Hong Kong, and employed the structured interview method for gathering data. Results showed that they utilize medical services that can be delivered remotely through Telemedicine, which essentially employs the same technology originally developed for use in manned space flight and that they generally favor the adoption of this technology to improve their access to health care services. However, universal coverage of medical insurance for them may limit the practical usefulness of this service. Nevertheless, save for certain licensing restrictions, a telemedicine clinic for OFWs in Hong Kong or any other country may be a feasible enterprise.

Health. Overseas Filipino worker. Domestic helper. Telemedicine . Health care. Hong Kong. Medical services. Health and wellness.

- 0071 A validation framework and key performance indicators for the assessment of PHILHEALTH performance. Paterno, Ramon P. , Agomaa, Albert , Hilario, Michael John, Kilayco, Mary Clarisse. **Acta Medica Philippina**, 2007 , 41(1):13-23

PhilHealth, the corporation tasked with implementing the National Health Insurance Program (NHIP) of the Philippines is now entering its 12th year of operations. RA 7875 mandated PhilHealth to "provide all citizens of the Philippines with the mechanism to gain financial access to health services ... especially that segment of the population who cannot afford such services." In terms of generating Health Financing, PhilHealth's

Premium Collection of P18.3 Billion in 2005 was much greater than the 2005 P9.7 Billion budget of the entire Department of Health (DOH). PhilHealth is in a position to greatly influence the way health care is delivered in the Philippines and ultimately affect the health status of Filipinos. To date however, no baseline evaluation study has been done regarding its performance with its mandated Social Health Insurance role and its function in Health Financing.

This paper aims to describe a validation framework for the evaluation of PhilHealth performance as mandated by RA 9241 and to identify Key Performance Areas and Indicators for PhilHealth for the conduct of a baseline and subsequent validation studies. The key processes of Phil Health were identified from the laws that established it (RA 7875 as amended by RA 9241) and its Implementing Rules and Regulations (IRR). These were then analyzed through the lenses of the five policy goals-Equity, Quality, Effectiveness, Efficiency and Sustainability-to formulate key performance areas and indicators per Health Policy goal.

The preliminary results were presented to major stakeholders involved with Phil Health in a PhilHealth Colloquium in May 2005 and were finalized based on an adaptation of the WHO framework of Carrin and James for Social Health Insurance. The Validation Framework identified the following key performance areas for the evaluation of PhilHealth performance: coverage, support value, availability of accredited facilities/providers, utilization rates, beneficiary and service provider satisfaction, administrative efficiency, sustainability, Medium Term Philippine Development Plan Social Health Insurance (SHI) targets and SHI share of the National Health Expenditures.

Health and wellness. PhilHealth. Social Health Insurance. Validation Framework.

- 0072 Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review. Warren, KJC, Chua, CDM, Tagala, AA, Cadiz, BO, Maglanque, NP II **Philippine Journal of Allied Health Sciences**, 2006 , 1(1):41-50

Objectives: The aim of this study is to conduct a literature review of available evidence on selected outcome measures commonly used during rehabilitation following Anterior Cruciate Ligament Repair (ACL-R) with emphasis on their validity and reliability. **Methodology:** A comprehensive search for articles was performed through manual and electronic searches using predetermined keywords. Full text articles related to pre-identified outcome measures specifically, pain assessment scales, range of motion measurement, circumference measures, functional performance tests, and the Cincinnati Knee Rating System, were reviewed. **Results:** A total of 20 articles were included in the review. The outcome measures selected for the study were found to be valid and yielded moderate to high reliability. **Conclusion and Recommendations:** The outcome measures that were found to be valid and reliable were summarized into an evaluation form with a user's guide that outlines the testing procedures for use in the clinical setting.

Anterior cruciate ligament . ACL. Validity and reliability. Outcome measures. Health and wellness.

INDUSTRY

- 0073 An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Tall. Magat, S. S., Canja, L. H. . **The Philippine Journal of Coconut Studies**, 2007 , 32(1&2):23-39

Two known tall varieties of coconut in the country were considered in this analytic work to generate indicative information and knowledge on the productivity economics in growing tall coconut varieties. These are Laguna Tall (LAGT) and Baybay Tall (BAYT) grown at the genetic blocks of Zamboanga Research Center of Philippine Coconut Authority (PCA-ZRC), in San Ramon, Zamboanga City, which is a coastal-flat area of Western Mindanao and an intermediate growing zone of coconut. The data from establishment, maintenance and yield for the first 15 yr from field planting (FP) were used in this simple production economic analysis, a practical tool for decision-making in coconut farming.

Between the two coconut tall varieties evaluated, Baybay Tall has consistently demonstrated its high yields and its highly desirable attributes than the traditional Laguna Tall variety. BAYT had an earlier initial harvest of 6 yr compared to 7 yr of LAGT. It also generated higher gross return, net returns, benefit-cost ratio (BCR) of 1.66-4.12 vs. 14 yr at a copra price of P14/kg. Based on the results, BAYT deserves more attention in terms of profitability; suggesting more planting materials should be grown in coconut farm locations similar to conditions of intermediate growing zone of coconut. Implications in coconut planting/replanting, palm productivity and profitability as influenced by the different planting materials are discussed with respect to policies in coconut industry development. (PhP 49=1US\$)

Coconut production. Coconut palms. Tall variety. Replanting. Coconut productivity. Economic profitability. Nuts. Copra yield. Industry.

- 0074 Livestock and poultry diseases of economic importance in the Philippines: An overview. Manuel, Mauro F.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):20

The Philippine climate is tropical with abundant rainfall that can go over 160 inches, high humidity of up to 51% and temperature range of 70 to 85°F. These conditions made the country favorable for the development, multiplication and survival of ecto- and endoparasites. One of the major constraints in livestock and poultry production performance is parasitism. This paper is as overview of the economically important parasitic diseases affecting food animals in the Philippines with emphasis on their impact in the development of livestock and poultry industry.

Industry. Livestock and poultry--industry. Poultry--production. Food animals. Livestock and poultry--diseases.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

- 0075 Comparative study of linux distribution for desktop use. Quinton, Suzette, Vida, Sheilafel, Ruiz, Erwin, Liguít, Michael, Cabeza, Ivy, Gonzales, Joanna, Pagador, Emily, Peter, Banzon. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):36-44

This paper tests different Linux distributions to come up with a recommended open source operating system best suited for desktop computers. Benchmarking was done to statistically compute the performance of each Linux distribution. A user survey was also conducted to complement the result of the benchmark.

The Linux Benchmarking Toolkit was used to benchmark three of the most popular Linux distributions: Caldera 3.1, Red Hat 7.2, and Mandrake 8.1. Each distribution was installed on a Pentium III machine and subjected to four benchmarking suites.

The user survey subjects a set of individuals to installation sessions. The total number of successful installations was considered. Respondents were also asked for the easiest operating system to install and their recommendations.

Open source. Linux. Operating System. Bench marking. Information and Communications Technology.

- 0076 Cooperative actions in implementing e-Government. Laysa, Ma. Peñafrañcia D., Sudario, Juli Ana E., Sabido IX, Delfin Jay M.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):61-66

Computerization efforts in the Philippine government started as early as 1969, with the evangelization efforts of then Executive Secretary Alejandro Melchor and the subsequent establishment of the National Computer Center in June 1971. An important milestone for ICT development in the Philippines and for e-Government in particular is the enactment of the E-Commerce Act (Republic Act 8792) by the Philippine Congress in June 2000. Specific provisions for the establishment of a government electronic online network were included in the Act. Each agency was required to submit an e-Commerce Plan of Action, which detailed how it will migrate critical frontline services to the Web.

This paper discusses the collaborative efforts of the government agencies involved and also the contributions made by the private sector, non-government organizations, civil society, academe and international institutions in the areas of policy making, ICT infrastructures expansion, applications development and capability building.

There is much work to do in order to realize the benefits of e-Government. But the government cannot do this alone. Government should work hand in hand with the private sector to implement the necessary projects and ensure that the whole nation benefits from the adoption of e-Government.

Government. Cooperative actions. Information and Communications Technology.

- 0077 Design of a narrowband hairpin filter on PTFE laminate. Salamat, Carlota D., Lorenzo, Maria Abigail D., Roxas Jr., Eusebio Jaybee B.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):49-52

This paper presents a practical design procedure for hairpin resonator filters using a PTFE-based laminate. The design process starts with the theoretical design of the filter. Optimization of the design is achieved using the software Genesys of EagleWare. Finally, the results of the implementation of the design are presented. Some of the advantages of using PTFE-based laminates are also highlighted.

PTFE and . Hairpin Filter. Information and Communications Technology.

- 0078 Developing a windows® 2000 serial driver for bluetooth™. Ballesteros, Janice M., Borres, Mabeth M., Botardo, Lucelle C., Caccam, Anne Margrette Q., Galang, Bienvenido Jr. H., Pucyutan, Billy S.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):28-31

Developing applications over Bluetooth™ requires a device driver to enable communication with the Bluetooth™ host controller. A device driver is a software component that provides input and output services between peripherals and the Host Operating System. This paper describes the development of a serial device driver for Bluetooth™ in the Windows® 2000 platform. This is in line with the Advanced Science and Technology Institute's effort in developing a Bluetooth™ Host-side protocol stack.

Bluetooth. Windows® 2000. Device driver. Operating system. Information and Communications Technology.

- 0079 Dynamic lightpath allocation via destination-initiated group wavelength reservation in a unicast wavelength-routed WDM all-optical network. Carlos, Dominador P., Sabido IX, Delfin Jay M.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):10-16

Wavelength reservation protocols address the issue of allocating wavelength channels in order to establish light path connections in an optical network.

In this paper, we propose the destination-initiated group wavelength reservation. As opposed to other protocols that proceed with the reservation in the forward direction, the proposed scheme makes its reservation in the backward course. In this way, network resources are efficiently reserved and utilized. Added to this, the probability of establishing succeeding connections is maximized.

We used NS-2 as the platform where we implemented the simulation tool to evaluate the protocol. Results show that the proposed reservation protocol performs well compared to other protocols in terms of blocking probability, utilization and latency. Its relative advantage grows obvious as the network traffic becomes congested.

Optical network. Reservation protocol. NS-2. Performance curves. Information and Communications Technology.

- 0080 A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem. Mendoza, Rene C.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):17-21

The Simple Network Management Protocol (SNMP) is a widely accepted network management protocol very much in use today. By arranging and grouping the pertinent data of a network device into a Management Information Base (MIB), the device becomes easier to manage through SNMP applications.

Nowadays, most of the network devices being sold in the market have built-in SNMP features. Unfortunately, the EFDATA SDM300A satellite modem didn't have SNMP features at the time it was released. By making a MIB for the modem, SNMP-based applications such as the popular Multi-Router Traffic Grapher (MRTG) can poll the modem and graph its status remotely.

Two major steps were undertaken in making the MIB module for the SDM300A: Modeling the MIB module and Generation of the SNMP agent. Using the UCD-SNMP package, a skeletal code for the MIB module was generated. The skeletal code was modified to incorporate the MIB objects of the modem and the communication interface to the modem. The final code was compiled and linked with the UCD-SNMP agent producing a new agent that can now get data from the modem. Data from the modem is cached periodically to speed up communication between agent, satellite modem and querying clients.

SNMP. MIB. Network Management. UCD-SNMP. Proxy agent. Information and Communications Technology.

- 0081 Measuring performance of IP networks using content metrics. Yu, William Emmanuel S., Paraz, Miguel A.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):4-9

In this highly network dependent world, companies, institutions and organizations are increasingly becoming network-aware. The growth of the Internet has shown that people are becoming more and more dependent on IP networking and the Internet.

The study uses content metrics as a means to measure IP network performance. This allows researchers to factor in lower layer infrastructure considerations as well as integrate usage trends. Content metrics also is a cost-effective means of doing IP research as it does not require a great deal of diverse types of data. In the end, this methodology may prove to be useful for content and service providers in making hosting or bandwidth procurement decisions. Improved connectivity decisions shall lead to a more efficient use of the Philippine Internet, even for non-content applications.

Internet. Trac Analysis. Content Metrics. Network Performance. Information and Communications Technology.

- 0082 Microelectronics design for the Philippine electronics industry: An essential for global competitiveness. Deoma, Aileen Joy A., Tabangcura, Michelle Marga C., Sabido IX, Delfin Jay M.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):45-48

Microelectronics has become an integral part of the Philippine economy, with electronics exports being the country's top dollar earner for the past few years. However, there are more aspects to consider in this technology, and a shift in our country's top dollar earner for the past few years. However, there are more aspects to consider in this technology, and a shift in our country's efforts may be needed for the Philippine electronics industry to survive. This paper offers a brief introduction on Microelectronics design and its importance, and tackles the present status and weakness of the local electronics industry. Strategies that the government and the academe have begun to adopt to address these weakness will also be presented. Finally, the paper offers recommendations and future directions necessary for the country to survive and thrive in the global new economy.

Microelectronics. Philippines. Philippine Electronics Industry. Information and Communications Technology.

- 0083 Peak-to-average power ratio reduction solutions for OFDM. Santos, Christopher Gerald. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):22-27

PAPR or Peak-to-Average Power Ratio Reduction methods are presented. The solutions are grouped according to the methodology used in addressing the PAPR problem. The first set discusses the coding methods wherein m-codes, Golay codes and Trellis-Coded Modulation are presented. Carrier-Interferometry Codes are then presented. Then finally two famous statistical methods are presented: Selected Mapping and Partial Transmit Sequences. Although each of these solutions reduces PAPR, it affects the system in terms of throughput, complexity and bandwidth. Analysis of how each solution affects the overall system performance is presented in this paper. Finally a recommendation is given on the use of each solution.

OFDM. Wireless. PAPR. Information and Communications Technology.

- 0084 Protection of electronic health data in the Philippines. Maramba, Incencio Daniel C.. **Acta Medica Philippina**, 2005 , 39(2):55-65

Electronic data processing has become the lifeblood of the Information Age. This means that there is a vast amount of personal and private data that are being stored in these databases. In the data banks of Health Services and Health Care organizations around the globe are stored the most intimate details of a patient's health history. It therefore becomes imperative to ensure that only the properly authorized people can view such private data at only such time that it is needed. Regulations have been drawn up to ensure the protection of personal data, the purposes of which are:

- to ensure that personal data are not viewed and disseminated by unauthorized personnel.
- to ensure that stored personal data are accurate and up to date.
- to detect instances of abuse or potential for abuse and apply remedial action.

This paper will report on the following:

- The Ethical Basis of Data Protection
- The Principles and Practice of Data Protection, and the role of Information Technology in Data Protection.
- The state of data protection in the Republic of the Philippines, its adherence to the internationally recognized principles of data protection, legislation related to electronic data records, as well as some examples of Electronic Data Protection as implemented in various Health Information Systems.
- Conclusion and some recommendations about the conduct of data protection in the Republic of the Philippines.

Data processing. Health data. Data protection. Health information system. Information and Communications Technology.

0085 Telephone survey sampling and interview as research tools in Metro Manila Philippines. Ngelangel, Corazon A., Cordero, Cynthia P., Lacaya, Lydon. **Acta Medica Philippina**, 1993 , 29(2):80-86

Objective: To evaluate telephone survey sampling and interview as research tools in Metro Manila.

Setting: Metro Manila households with telephones.

Participants: Stratified random sampling of non-business addresses from 1989 Metro Manila telephone directory. Excluded business and office addresses. Eldest &/ or most responsible woman in the household interviewed. Total of 84% (629/750) households were contacted, of which only 44% (277) participated. Sample size to detect a difference of $\geq 20\%$ in participated response is 124 per group ($\alpha=0.05$, $\beta=0.10$, participated response to $F=70\%$, $P=50\%$, $M=15\%$).

Intervention: Telephone (P) vs face-to-face (F) vs mailed (M) self-administered interviews on woman & child health care knowledge, beliefs, practices.

Main Outcome Measures: Interview response rate, reasons for non-contact and non-response, duration of subject-finding and interview, proportion of unanswered questions, mean age of respondent, and quality of interview as graded by interviewers. Interview techniques standardized and interviews trained and questionnaire pre-tested.

Results: Telephone interview was better than mailed self-administered one ($p<0.05$, chi-square). Response to telephone interview (74%) was comparable to face-to-face interview (66%). Initiating a telephone interview was logistically easier than that for a face-to-face interview. Telephone responders were largely accurate and reliable. Quality of telephone interview was lesser in completeness, proportion of answered questions and interview-responder rapport. As a sampling frame, the phone list is biased towards higher socio-economic population (higher academic degree & better constructed houses).

Conclusion: Telephone interview and listing can be used as research tools in Metro Manila for 1) studies on middle to high socio-economic groups, 2) studies on health information-dissemination interventions particularly on smoking, family planning cancer screening programs, breast-feeding, 3) short-interview surveys, and 4) follow-up interviews.

Telephone surveys. Telephone interviews. Research tools. Information and Communications Technology.

- 0086 Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting. Ballesteros, Janice M., Borres, Mabeth M., Botardo, Lucelle C., Caccam, Anne Margrette Q., Galang, Bienvenido Jr. H., Pucyutan, Billy S.. **Philippine Journal of ICT & Microelectronics**, 2002 , 1(2):32-35

This paper describes the second phase of the Bluetooth research efforts at the Department of Science and Technology-Advanced Science and Technology Institute (DOST-ASTI), Philippines. Formal Methods were explored in the development of the Bluetooth Host-side Protocol Stack in the first phase resulting to a Specification and Description Language (SDL) model of the stack. Validation was performed using the Object GEODE SDL Stimulator. Design errors were corrected and the SDL model was shown to comply with the Bluetooth test specifications. However, in order to locate and correct real-time problems, the SDL model must be tested in a real-time environment. This paper explains how the SDL Model of the Bluetooth Host-side Protocol Stack is validated and verified through code generation and porting using the Object GEODE design tool.

Bluetooth. WPAN. Communications protocol software. SDL. Validation and verification. Porting. Information and Communications Technology.

MEDICINE

- 0087 24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria. Javier, Saturnino P., Anastacio, Roberto V.. **Makati Medical Center Proceedings**, 1995 , :2-7

There is no local data on the 24-hour ambulatory blood pressure monitoring (ABPM) profiles of patients classified according to severity of hypertension based on the criteria set forth in the 1993 5th Report of the US Joint National Committee on Detection, Evaluation and Treatment of High Blood Pressure (JNC- V). We thus evaluated the ABPM recordings of 448 Filipinos (51 % males, mean age 54 ± 13 years) who underwent ABPM for various indications with a Kenz BPM AM-200 monitor (Suzuken Co. Ltd, Japan) programmed to record BP every 30 minutes for 24 hours. Based on office BP, 85 (17%) and 50 (11 %) patients were classified as normal and high normal BP. The rest were classified as mild (24%), moderate (27%), severe (18%) and very severe (3%) hypertension.

Overall, the 24- hour ambulatory BP levels are considerably lower than the corresponding clinical levels. These findings will certainly be valuable in the follow-up evaluation and management of hypertensive patients guided by ambulatory BP monitoring.

Antihypertensive agents- therapeutic use . Blood pressure monitoring, ambulatory

Electrocardiography. Hypertrophy, left ventricular . Myocardial infarction-diagnosis . Troponin I. Medicine.

- 0088 A 3 year descriptive study on hepatobiliary scanning in pediatric patients. Baltazar, Wilma A., Rivera, Luis F. Jr.. **Makati Medical Center Proceedings**, 1993 , :28-32

To evaluate the diagnostic information gained from HIDA scan and to cite the incidence of the hepatobiliary diseases as diagnosed by HIDA scan in pediatric patients. METHODS: This retrospective study reviewed the charts and HIDA scan results of 18 children, < or = 4 months old, admitted to the MMC for jaundice between 1995-1998. RESULTS: The majority of the 18 patients enrolled in the study presented with jaundice were admitted to MMC as pay patients, male, with a mean age of 50.7 days, had conjugated hyperbilirubinemia, showed leukocytosis with elevated liver function tests, and hepatitis profile negative. Ultrasound was done as the initial imaging modality and a majority showed a contracted or non-visualized gallbladder. HIDA scan results showed 9 patients with biliary atresia of whom 6 were confirmed by histopath, 2 patients diagnosed by histopath to have cholestasis had biliary atresia and biliary obstruction, respectively by HIDA scan. 2 patients with hepatitis by HIDA scan and another 2 with normal HIDA scan findings matched their respective clinical diagnoses. CONCLUSION: HIDA scan is an important imaging modality that can be used to diagnose cholestasis and is recommended in aiding the physician to make a correct diagnosis, but requires cautious interpretation and correlation with history, physical examination findings, biochemical tests, ultrasound findings and if possible, percutaneous liver biopsy.

Infant, newborn. Biliary tract radionuclide imaging. Retrospective studies . Child. Medicine.

- 0089 Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila. Ramos, John Donnie A., Concepcion, Zelda Sue A., Pineda, Beverly Ann P., Romano, Elizabeth L., Saep, Julius Bryan G., Tagura, Maria Jennelyn Rose M.. **Acta Manilana**, 2006 , :7-14

Allergic diseases are chronic immune disorders mostly triggered by allergens, a major source being house dust mite (HDM). This study investigates different HDM species in dust samples collected from houses of selected Filipino allergic patients in Metro Manila and their sensitization profiles. Dust samples were collected for the isolation and identification of mites by flotation method using 85% lactic acid. Sera from 73 Filipino allergic patients were tested for sensitization to mite allergens using the RIDA Allergy Screen Test while ELISA was used to determine the reactivity of patients' serum IgE against allergens in dust extracts. *Dermatophagoides sp.* and *Blomia sp.* are the most predominant mite species in the samples examined in addition to four species not previously reported in Philippine dust samples. Average mite density was 206 mites/gram of dust, an HDM count considered as risk factor for allergy sensitization. Sensitization profiles of the allergic patients tested showed that 89%, 87%, and 69% are sensitized to *B. tropicalis* (Bt.), *D. farinae*, (Df) and *D. pteronyssinus* (Dp) extracts, respectively. Major allergens Blo t 5 and Der p 1 were found to exhibit majority of the positive serum IgE reactions among local allergic patients. A positive correlation between HDM counts and the production of specific IgE among allergic patients was established in the study. The results presented herein validate the clinical importance of house dust mites in allergic sensitizations among Filipino allergic patients and will serve as a reference for the proper diagnosis and management of house dust mite allergy in the

local setting.

House dust mite. Acarofauna. Allergen. *Blomia tropicalis*. *Dermatophagoides*. Medicine.

- 0090 Accuracy of fetal weight estimation by ultrasound using the Hadlock formulae. Reyles, Ramon T. , Payaoan-Mendoza, Geraldine **Makati Medical Center Proceedings**, 2001 , :69-71

The knowledge of fetal weight is important in the management of obstetric dilemmas such as alteration in intrauterine growth, both acceleration and deceleration, premature labor and fetal malpresentation, thus any method of that accurately estimates fetal weight is of benefit to the practicing clinician. The objective of this study is to assess the accuracy of the fetal weight estimation by ultrasound using the Hadlock formulae. The results of this study showed that 89% of the estimated fetal weight will be within 15% of the actual body weight. There are many factors that may affect the accuracy of estimation, this includes, poor resolution, alteration in the amniotic fluid index, thick maternal abdomen, extremes of weight and most of all the skill of the sonologist making the biometric measurements. Proper adjustments were made to minimize the error.

Ultrasonography, prenatal. Birth weight. Medicine.

- 0091 Accuracy of ultrasound in diagnosing Intrauterine growth retardation. Espina, Carla Victoria M., Reyles, Ramon T.. **Makati Medical Center Proceedings**, 2004 , :49-52

Intrauterine growth retardation continues to be among the most commonly recognized abnormalities of the fetal condition. This is a retrospective study to determine the accuracy of ultrasound in predicting the outcomes of antenatally diagnosed IUGR in this institution. A retrospective review of ultrasound findings of patients with singleton pregnancies scanned at the Ultrasound Section of the Department of OB-GYN from January to December 2001 was done. The sensitivity, specificity, positive and negative predictive values of ultrasound diagnosis of IUGR compared with neonatal outcome were calculated using the two-tailed student t-test and chi test with a significance level of $p < 0.05$. Validity testing showed that ultrasonography is 67.35% accurate in predicting IUGR using *estimated fetal weight* as a parameter. It is also 100% sensitive and 55.56% specific in detecting IUGR. The positive predictive value was 44.83% and the negative predictive value was 100%. Recommendations for increasing the sample size and uniformity of sonologist to counteract interobserver differences in skill and interpretation of ultrasound findings are suggested.

Fetal growth retardation. Pregnancy-complications. Ultrasonography, prenatal. Retrospective studies. Medicine.

- 0092 Acute esophageal food impaction treated by gas forming agent. Lesiasel, Edwin R., Tomas, Jaime G., Legaspi, Joselito R.. **Makati Medical Center Proceedings**, 1996 , :77-78

Acute esophageal food impaction is a common clinical problem. Various methods or treatments have been used to relieve the impaction, including topical proteolytic enzymes, glucagon IV extraction with a foley catheter or esophagoscopy. Some authors favor using combination therapy with a gas forming agent, IV glucagon, and water.^{1-4,6} We present a case of distal esophagus food impaction (fish ball) which has been treated with gas forming agent (E-Z Gas). This is the first case treated with such a method at the Makati Medical Center.

Esophageal and gastric varices. Gas forming. Esophagoscopy. Medicine.

- 0093 Acute subdural hematoma: A five-year review. Ty, Henry. **Acta Medica Philippina**, 1994 , 30(2(4)):208-213

Eighty-three cases of acute subdural hematoma admitted to the Philippine General Hospital from 1983 to 1993 were reviewed. This profile, management and outcome of the cases are presented. The typical patient is a young Filipino male, frequently a pedestrian or intoxicated driver involved in a traffic accident and secondarily a victim of assault or fall injury. Forty-eight % arrived with severe head injuries requiring immediate surgical decompression. The choice of diagnostic procedure is dependent on its availability. In those with severe head injuries, the operative mortality is 54.1% with an overall mortality of 50.0%. In all cases, the overall mortality is 30.1%. The mean age of non-survivors is 33.5 years. The mortality reaches 40% in those associated with confusion and 67% in those with systematic injuries.

Acute subdural hematoma. Vehicular accident. Blunt trauma. Carotid angiography. Medicine.

- 0094 Adnexal mass in pregnancy: A review of cases that underwent surgical management (ten years experience). Jose, Jennifer Marie B., Borromeo, Romana G.. **Makati Medical Center Proceedings**, 2003, :79-82

Adnexal masses during pregnancy are common dilemmas faces by practicing gynecologists. Maternal and fetal records of 118 cases of adnexal mass associated with intrauterine pregnancy that required laparotomy were reviewed. Data collected included age, gravidity, parity, gestational age at the time of diagnosis and delivery, ultrasonographic findings, presenting symptoms, pregnancy outcomes, maternal and neonatal complication and surgical pathologic findings. The *Chi square test* was used for statistical analysis. A P value<0.05 was considered significant. The *z-test* was also computed for each fetal outcome. Surgery for asymptomatic adnexal mass is performed to remove a possible malignancy or forestall other complications. This study emphasizes the timing of laparotomy does not affect maternal morbidity and fetal outcome in term or preterm delivery. However, the chances of adverse perinatal outcome is significantly higher when laparotomy is done after 28 weeks.

Medicine. Pregnancy-complications-neoplastic-therapy. Pregnancy-outcome. Adnexal-diseases-surgery.

- 0095 Adverse drug reactions among pediatric patients. Mendiola, Joann Mari A., Dizon-Co, Lourdes Ann. **Makati Medical Center Proceedings**, 2002 , :67-77

Objectives: To review adverse drug reactions (ADR) among pediatric patients confined at the Makati Medical Center; to describe the epidemiologic characteristics of these patients; to identify the most common group of drugs and the most common body-organ system involved; to propose a form that will be suitable for reporting ADRs in pediatric patients. Design: Descriptive Study. Setting: Makati Medical Center. Participants: Forty-nine patients eighteen years old and below who developed ADRs while admitted at Makati Medical Center from January 1 995-December 2000. Interventions: ADR reports submitted to the Bureau of Food and Drug ADR database were reviewed. Information on the patient's age, sex, characteristics of adverse drug reaction, drug treatment, concomitant drugs used and type of reporter were collected. Data were analyzed by means of frequency distribution and were represented graphically. Results: Of the 49 pediatric patients involved, 61.2 % were males with a male female ratio of 1.6: 1. Majority were less than one year old. The most common body-organ system implicated was the skin (48%) with rashes as the most common clinical manifestation (33.3 %). The drug class most frequently reported was the anti-infectives (43.3 %). The most frequent drugs implicated were Cefuroxime and Paracetamol. About two-thirds of the patients were given more than one drug. Clinical pharmacists were the significant contributors of the reports (46.9%). Conclusion: This study shows that out of 365 ADR reports submitted by MMC, 13.4% involved pediatric patients. Males are more affected than females and majority were less than a year old. The most common reaction listed is rashes and the most common body-organ system involved is the skin. The most common drugs listed are Cefuroxime and Paracetamol and the most common drug group reported are the anti-infectives. Majority of the ADRs were reported by the pharmacists. The results of this study may be influenced by the patterns of drug use. The most common prescribed drugs are the ones often implicated in pediatric patients.

Drug adverse effects. Retrospective studies. Pediatrics. Medicine.

- 0096 Adverse outcomes among surgical patients in a tertiary teaching hospital. Lapitan, Marie Carmela M. , Almonte, Josefina R. **Acta Medica Philippina**, 2008 , 42(1):29-37

Background: The clinical outcome of any surgical patient is dependent on the interplay of a multiplicity of factors. The objective of the study is to examine the factors identified as contributory to the occurrence of morbidities and mortalities among surgical patients at a tertiary teaching hospital.

Methodology: This study involved a descriptive analysis of the records of charity patients seen by the PGH Department of Surgery over a 2-year period (2005-2006) using secondary data obtained from the department's Integrated Surgical Information System (ISIS). All cases that incurred morbidities or who became mortalities were analyzed for contributory factors to the occurrence of the adverse events, as identified by surgeons. Contributory factors analyzed included Institutional Limits, Surgical Team Limits, Other Caregiver Limits, Patient Medical Limits, and Patient Psychosocial Limits. Analysis of data was performed using measures of central tendency using Microsoft Excel. Results: The department attended to 13,591 patients and performed 15,652 major operations over the study period with a service mortality (SMT) rate of 3.36% (456

cases), an operative mortality (OMT) rate of 2.48% (388 cases), a service morbidity (SMB) rate of 3.22% (437 cases), and an operative morbidity (OMB) rate of 3.51% (550 cases). The most frequently cited contributory factors to patient mortality were patient medical limits (SMT = 98.1%, OMT = 90.8%), followed by surgical team errors (SMT = 43.4%, OMT = 48.0%). The most frequently cited contributory factors to patient morbidity were surgical team errors (SMB = 92.3%, OMB = 78.0%), followed by patient medical limits (SMB = 55.9%, OMB = 42.2%). The most frequently cited surgical team errors for the mortality cases were delayed recognition of the problem (SMT = 28.8%, OMT = 26.7%), inadequate post-op care (SMT = 16.7%, OMT = 17.6%), and poor surgical technique (SMT = 14.6%, OMT = 16.2%). The most frequently cited surgical team errors for the morbidity cases were poor surgical technique (SMB = 75.7%, OMB = 73.9%), inadequate post-op care (SMB = 14.8%, OMB = 9.8%), and intra-op judgment error (SMB = 5.6%, OMB = 5.6%). The most frequently cited institutional limits contributing to mortalities were no antibiotics (SMT = 60.7%, OMT = 54.2%) and lack of blood (SMT = 19.0%, OMT = 20.5%); for the morbidities, it was no antibiotics (SMB = 88.2%, OMB = 92.9%). The most frequently cited other caregiver error for the mortality cases was delayed delivery of care by other services (SMT = 52.2%, OMT = 52.0%), while for the morbidity cases, they were inadequate nursing care (SMB = 52.6%) and poor anesthetic care (OMB = 50.0%).

Conclusions and Recommendations: (a) Majority of the mortalities were affected by severity of the disease condition and presence of co-morbid conditions. Employment of severity stratification and institution of clinical practice guidelines may help reduce the mortality statistics. (b) The surgical team errors may be categorized into cognitive and technical errors. The impact of cognitive errors was greater in the mortality cases, while the impact of technical errors was greater in the morbidity cases. Recommendations that may reduce the commission of surgical errors include employment of deliberate practice, lobbying for training policy change, and getting to the root causes of cognitive deficiencies through focus group discussions (FGDs). (c) Proper dialogue with concerned units should be encouraged to echo relevant issues in order to reduce adverse outcomes in health care delivery.

Adverse outcome. Surgical patients. Teaching hospital. Medicine.

0097 Aeroallergen sensitization and serum immunoglobulin levels of Filipino children with chronic and recurrent otitis media. Salvador-Tayag, Felicia Racquel L., Sumpaico, Madeleine W., Recto, Marysia T.. **The Journal of the Philippine Medical Association**, 2004, Cent. iss.:94-105

BACKGROUND: Otitis media (OM) is a common childhood illness which when neglected and not properly addressed, can have many severe and debilitating complications. The cause of OM is multifactorial and allergy and immunodeficiency have always been considered risk factors.

OBJECTIVES: 1. To determine the aeroallergen sensitization and serum immunoglobulin levels of Filipino pediatric patients with chronic suppurative and recurrent otitis media, 2. To correlate the age of onset, duration and number of otitis media per year with the level of serum immunoglobulin and the sensitization to aeroallergens and 3. To correlate the level of IgE and skin prick test result with the presence of rhinoconjunctivitis symptoms.

STUDY DESIGN: Cross-sectional prospective

METHODOLOGY: Pediatric patients with chronic suppurative and recurrent otitis media were interviewed regarding their allergic and immunologic history. They underwent skin prick testing to 27 aeroallergens and serum immunoglobulin determination using the radial immunodiffusion method.

RESULTS: There were 40 patients included in the study with ages 2 to 17 years (mean=12); 28 of which were males. Majority (37.5%) had their onset of otitis media between 2-4 years old, with a duration ranging from months to as long as 15 years and an average of 1-3 occurrence of OM/year. There were 62.5% who were positive to at least one aeroallergen in the skin prick test and 47.5% had rhinoconjunctivitis symptoms confirming their concomitant allergic rhinitis. Using the odds ratio test, there is a 4.75 increased risk of having a positive skin test result if nasal symptoms were present as opposed to those with throat or eye symptoms alone and those with no symptoms at all. Serum IgE of all patients were elevated and this was not statistically correlated with having rhinoconjunctivitis symptoms. Most of patients had normal IgM, IgG and IgA levels. The serum immunoglobulin levels and the skin test results were not correlated with the age of onset, duration of symptoms and the number of episodes of OM per year except for IgG and the duration of OM which had a positive correlation ($p < 0.03$).

CONCLUSION: More than half of patients with chronic and recurrent otitis media had symptoms of allergic rhinitis and positive skin test results. Their serum immunoglobulin levels were mostly within normal limits. Serum IgG is positively correlated with the duration of OM. Serum IgE of those with rhinoconjunctivitis symptoms were not significantly different from those without symptoms. Lastly, those with nasal symptoms had an increased chance of a positive skin test result than those with throat, eye or no symptoms at all.

Medicine. Otitis media. Aeroallergen sensitization. Serum immunoglobulin.

0098 Allergy. Agbayani, Benigno F.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss.:81-93

Background: During the last quarter of this century, many strides in the knowledge of allergic diseases have accrued and so is the increase in incidence. Allergy consist of an aura of diseases, which include predominantly atopic dermatitis, allergic rhinitis and bronchial asthma. Allergy is an inherited disease, which exacerbates with onslaught of environmental triggers. Our environment has deteriorated in recent years, foremost is air pollution and our life style. This may have strong bearing with the present increase of all allergy worldwide. **Objectives:** To review and provide new information on allergy here and abroad. **Methods:** Review of medical literature in allergy and relevant information. **Results:** There is an increasing incidence of allergies worldwide. Advances in treatment are abundant but in general, remains to be mainly symptomatic. Diagnostic parameters have expanded and the diagnosis is now more precise than before the turn of the century. **Conclusion:** More progress will be forthcoming in the first quarter of this century. Foremost is the use of shorter courses of immunotherapy with the use of DNA antigens. Furthermore, the introduction of anti-IgE will add to the coterie of treatment options to curtail IgE's encumbrances. The use of passive immunization with IgG endowed with antibodies against the patient's specific allergens will be developed to provide ready to use protection in to provide a transient relief in curbing immediate allergic reaction as well as to test the efficacy of immunotherapy before it is implemented. And perhaps, with the ethical consideration, cloning and stem cell technology might prosper paving for a more successful and rational immunologic therapy as a means to treat allergic diseases,

and other chronically untreatable diseases.

Medicine. Atopy. Allergic diseases.

- 0099 Altered sensorium in five patients noted to be in non-convulsive status epilepticus: A case series. Arkoncel III, Arturo Martin P., Cruz, Edwin A.. **Makati Medical Center Proceedings**, 2003 , :40-45

Altered mental sensorium has always been a problem of many physicians. Knowledge in the vast differential diagnoses provides the physician an algorithm on the proper diagnosis and treatment of patients. One of these which has been rarely thought of is the entity called Non-convulsive Status Epilepticus. This paper presents five cases of patients who presented with altered sensorium and who were documented by ambulatory EEG and video EEG to be in Non-convulsive Status Epilepticus. The quick recognition as well as treatment of such cases less damage to the CNS.

Medicine. Neurologic examination. Status epilepticus-diagnosis. Electroencephalography.

- 0100 Ambulatory treatment of hemorrhoids by rubber band ligation: A 4-year review. Almendras-Bautista, Liza Marie, Sta. Maria, Arlene C., Magsanoc, Carlos M.. **Makati Medical Center Proceedings**, 2004 , :33-38

In the last 20 years, a variety of outpatient procedures have been introduced in the management of symptomatic hemorrhoids, and the current trend of treatment is non-operative. Rubber band ligation, as a treatment of symptomatic hemorrhoids has been practiced in Makati Medical Center since the latter half of the past decade. This retrospective study reviews the results, and aims to assess the efficiency and feasibility of performing rubber band ligation for hemorrhoids on an outpatient basis at Makati Medical Center. *Results:* A total of 103 rubber band ligation procedures in 36 patients with symptomatic hemorrhoids were performed from October 1999 to July 2003. The success rate of the procedure was 99% and the overall treatment failure rate was less than 1%. Complications such as bleeding and post ligation pain were not significant. *Conclusion.* Rubber band ligation as treatment for hemorrhoidal pathology achieves results similar to traditional methods. The procedure can be done on an outpatient setting, is relatively painless with satisfactory control of the disease and allows the patient to resume normal activity immediately, making it cost effective.

Hemorrhoids. Rubber band ligation. Medicine.

- 0101 Analysis of factors determining response to hepatitis B vaccination among hemodialysis patients. Villarama, Ma. Gina D., Cayco, Antonio B.. **Makati Medical Center Proceedings**, 2004 , :10-16

Hepatitis B infection is a known complication among hemodialysis (HD) patients, because of their impaired cellular and humoral response and because of increased exposure to blood products. Hepatitis B vaccine is known to be effective in producing

protection against hepatitis B virus in HD patients, however the antibody response or seroconversion is variable and very little information is available about the factors contributing to the reduced antibody response to Hepatitis B vaccination. This study attempts to determine the seroconversion rate and to identify factors associated with a positive response to hepatitis B vaccination among HD patients in Makati Medical Center.

A retrospective study was done among HD patients at the Kidney Unit of the Makati Medical Center from 1998 to 2002. A total of 32 patients qualified in the study Baseline and post-vaccination anti-HBs antibody titers were monitored. Age, gender, dose, serum albumin, blood urea nitrogen (BUN), timing of vaccination, concomitant hepatitis C infection and diabetes mellitus (DM) were correlated and developed anti-HBs antibody titer.

Ten out of 32 patients seroconverted and developed anti-HBs titers post-vaccination, with seroconversion rate of 31.3%. Gender, dose, concomitant DM and Hepatitis C infection did not show any correlation with regards to anti-Hbs titer post vaccination. Age showed a trend to correlate negatively with anti-Hbs titers. Higher levels of BUN, albumin and longer interval between first dialysis and vaccination all trend to correlate with higher anti-Hbs titer. Test of significance of all parameters however failed to meet p value <0.05. None of the parameters proved predictive of negative or positive response to vaccination.

Hemodialysis. Restrospective studies. Hepatitis B vaccines. Medicine.

- 0102 Angiogenesis inhibition by commercial soybean oil on duck chorioallantoic membrane in ovo. Almelor, LG, Badando, H, Cabral, A, Canlas, K, Chan, G, Collado, FM, Degal, E, Dumlao, DA, Firaza, PN, Geronimo, MM, Hernandez, DP, Jauculan, MC, Loreto, LEA, Melendres, G, Nicolas, K, Paningbatan, J., Pontejos, P, Roa, MB, Saban, TM, Sembrana, CB, Sy Su, KM, Tiuseco, KA, Vizconde, E. **Acta Medica Philippina**, 2005 , 39(1):69

Angiogenesis inhibition is one of the fast developing approaches against tumor proliferation and metastasis. The angiogenesis-inhibition property of naturally-occurring peroxisome proliferator-activator receptor (PPAR) ligands, particularly of linoleic and linolenic acids that are present in commercially available soy bean oil, was investigated using chorioallantoic membrane (CAM) assay. Human recombinant fibroblast growth factor (rhFGF) was utilized to stimulate human growth conditions on the CAM. Three groups consisting of 20 eggs each were treated with gelatin sponges containing: (1) rhFGF alone, the negative control; (2) soy bean oil and rhFGF, the treatment group; and (3) rosiglitazone and rhFGF, the positive control. After incubation for 5 days, both macroscopic and microscopic methods of counting were employed. The treatment group demonstrated inhibition although it did not differ significantly from the negative control group ($\alpha=0.05$, $df=35$, $t_{cr}=2.03$, $t= 1.92$).

Medicine. Angiogenesis inhibition. Soybean oil. Linoleic acid. Linolenic acids.

- 0103 Anti-*babesia rodhaini* monoclonal antibodies: Effect against *babesia* Spp. and *Plasmodium Berghei*. Claveria, Florencia G.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):161-163

Babesia species are tick-borne intraerythrocytic protozoan parasites that infect a wide range of vertebrates worldwide (Ristic, 1988). Babesia causes the disease piroplasmiasis, babesiosis or tick fever. Babesia rodhaini and Babesia microti are two species infecting wild rodents that have been successfully established in laboratory-reared mice and have proven to be very useful in experimental studies related to host-protection against Babesia spp. infection. Until recently, in most vaccine-related research such as that of Tetzlaff et al., (1990) on B. microti using polyspecific sera, and those of Figueroa et al., (1989) Wright et al., (1985, 1983), Smith et al., (1979) on bovine babesiosis, greater emphasis has been directed towards the immunochemical analysis of Babesia antigens and their capacity to induce protective immunity. In this paper, we report our preliminary findings on the effect of anti-B rodhaini mAb against B rodhaini, Babesia microti and the closely-related Plasmodium berghei.

Medicine. Babesia. Protozoan parasites. Tick fever. Piroplasmiasis.

- 0104 Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?. Macalintal, Clavel M., Lapitan, Raul L.. **Makati Medical Center Proceedings**, 2000 , :74-78

Objective: To determine whether anticoagulation with unfractionated heparin administered for 12-24 hours of post coronary stent implantation in acute coronary syndromes would give additional clinical benefit. **Design:** Retrospective Study **Background:** The clinical benefit of coronary artery stenting performed in conjunction with coronary angioplasty is limited by the risk of thrombotic occlusion of the stent as well as hemorrhagic and vascular complications of intensive anticoagulation. Dual therapy with Aspirin and Ticlopidine has been shown to be as effective as or more effective than conventional anticoagulation after implantation of intracoronary metallic stents. However, the safety and efficacy of antiplatelet therapy alone in acute coronary syndromes has not been fully evaluated. **Methods:** 63 acute coronary syndrome patients (72 lesions) without extensive dissections were treated with coronary stents between January 1997 and January 1999. Group A received Aspirin and Ticlopidine alone and group B received Aspirin, Ticlopidine and Unfractionated Heparin. We evaluated the risk and benefits of unfractionated heparin, administered for 12-24 hours after the procedure, on the early and late clinical outcomes (death, recurrent MI, emergent CABG, stent thrombosis/stent restenosis, vascular complications and target vessel revascularization.) **Results:** Overall angiographic result was obtained in 100% of patients. Overall procedural result was 94%, 100% in group A, and 88% in group B (p=ns). Overall mortality and major complications were relatively low at 3.2% and 4.8% respectively. (p=ns). There were no events of recurrent MI and emergent CABG in the study group. Vascular complications were mainly access site hematoma in the heparin group (p=ns). At 6 months follow-up, overall cardiac event free survival was 87%, 93% in group A and 82% in group B (p=ns). There were no significant differences in both groups regarding death, recurrent MI and repeat target vessel revascularization. **Conclusion:** Anticoagulation with unfractionated heparin post coronary artery stenting in acute coronary syndromes without angiographically extensive dissection and thrombus formation does not have any additional clinical benefit.

Angioplasty, transluminal percutaneous-coronary adverse effects. Anticoagulants-therapeutic use. Coronary artery-bypass. Myocardial infarction-diagnosis. Heparin. Medicine.

- 0105 *Ascaris lumbricoides* antigen-specific IgE profiles of parasite-infected Filipino patients. Valmonte, Gardette R., Cauyan, Gil A., Alava, Icynt K., Barsaga, Neil C., Claveria, Dorothy N., Timbol, Aeden E., Umerez, Angelo R., Ramos, John Donnie A.. **Acta Manilana**, 2006 , :44-48

An evaluation of the IgE reactivity of 86 serum samples from intestinal parasite-infected patients to *A. lumbricoides* soma and uterus antigens was performed. Enzyme-linked Immunosorbent Assay (ELISA) showed that the concentration of *A. lumbricoides* antigen-specific IgE were elevated in subjects infected with *T. trichiura*, *B. hominis*, and *E. vermicularis*. *A. lumbricoides* soma antigens exhibited significantly higher IgE reactivity than uterus antigens, indicating that soma antigens can induce IgE-mediated host reactions greater than *A. lumbricoides* egg antigens. This study provides the *A. lumbricoides*-specific IgE profiles of Filipino parasite-infested patients which could be utilized the determination of cross-reactivity among antigens from *A. lumbricoides* and may serve as an important basis for vaccine preparation and immunodiagnosis.

Medicine. Cross-reactivity. Immunoglobulin E. *Ascaris lumbricoides*.

- 0106 Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and comparison with the semi-quantitative urine culture. Valle, Demetrio L. Jr., Andrade, Jeannie I. , Basio, Lolita S., Valdez, Jocelyn A., Ruiz, Aurora, Quizon, Evangeline, Cacpal, Alicia M., Pantangco, Elias E.. **Makati Medical Center Proceedings**, 2001 , :80-84

The prompt detection of bacteriuria is vital because of its positive impact on patient management and its imminent capacity to enhance the cost-effective use of health care resources.² A dependable screening test for the presence or absence of bacteriuria gives clinicians important information for immediate management.^{2,4} In this study, urine samples received in our laboratory in October to Mid-December 2000; obtained by clean-voided, midstream or catheterization methods underwent semiquantitative culture and then processed by the AutoCype Prep Gram stain. Processing of the urine samples was achieved utilizing the AutoCype Prep System (Burlington, NC 27215) which uses a method for converting a liquid suspension into a consistent homogenous thin-layer of sediment while maintaining diagnostic specimen material or structures. Results of the AutoCype Prep Gram stain were correlated with the semi-quantitative culture.^{2,4} The total number of urine specimens was 445, with 344 from females and 101 from males. The specimens were from adults except for 20 specimens from patients younger than 16 years of age seen in the Pediatric ward and emergency department. The overall results showed that the AutoCype Prep Gram stain compared with a culture standard, had an

Medicine. Gram stain. Cytocentrifugation. Bacteriuria. Urine culture.

- 0107 An assessment of the role of tracheal aspirate gram stain in guiding antibiotic selection in a pediatric intensive care unit 1999-2001. Inting, Lovella G., Garcia, Robert Dennis J.. **Makati Medical Center Proceedings**, 2002 , :61-65

Objectives: To determine the degree of agreement between the tracheal aspirate gram

stain that shows gram negative rods and fungi with the subsequent culture from the same specimen; to describe common organisms isolated from intubated mechanically ventilated children at PICU; to describe the antibiotic sensitivity pattern of these common organisms. *Design:* Descriptive. *Setting:* Makati Medical Center Pediatric Intensive Care Unit (PICU). *Participants:* Twenty-seven intubated patients, with a total of 43 tracheal aspirate gram stains and cultures, admitted at the PICU from January 1999 to May 2001. *Interventions:* Chart review done on patients included in the study. Results of tracheal aspirate culture and gram stain were tabulated. Common isolates also noted. Antibiotic tracheal sensitivity pattern of these common organisms were also listed. *Main Outcome Measures:* Degree of agreement between tracheal aspirate gram stain and culture was determined via tabulating mean pair agreement index for both gram negative rods and fungi. To account for chance, kappa coefficient was computed for both. *Results:* Poor agreement noted between tracheal aspirate gram stain and culture for gram negative rods but with intermediate agreement for fungi. Implications of such results were discussed. Common organisms isolated were listed, most common isolate being *Pseudomonas spp.* Susceptibility studies showed most of these organisms to be sensitive to Piperacillin-Tazocin. *Conclusion:* Results of tracheal aspirate gram stain showed a poor correlation to culture from gram negative rods but with intermediate correlation for fungi. Thus, it is not a reliable guide for empiric antibiotic treatment in critically ill patients at the PICU. Organisms isolated and results of susceptibility tests were no different from reports of similar studies done.

Drug resistance, microbial. Fungi-isolation and purification. Infant. Gram-negative bacteria-isolation and purification. Medicine.

- 0108 Association of homocysteine levels to traditional risk factors in unstable angina and non-ST elevation myocardial infarction: implications from the FINEST study. Nevado Jr, Jose B., Imasa, Marcelo Severino B. **Acta Medica Philippina**, 2008 , 42(1):22-28

Background: Increased blood homocysteine level is a risk factor for unstable angina and non-ST elevation myocardial infarction (NSTEMI). Studies associate homocysteine levels with conventional cardiovascular risk factors - smoking, diabetes, hypertension, advanced age, and dyslipidemia - in subjects with evidence of having coronary artery disease.

Objective: This study seeks to determine the effect of conventional cardiovascular risk factors on homocysteine levels of patients with intermediate to high-risk unstable angina and non ST elevation myocardial infarction (NSTEMI).

Results: Data were taken from 219 patients with unstable angina and non ST elevation myocardial infarction (NSTEMI) with onset within the past two weeks and who were included in a folic acid supplementation trial (ISRCTN30249553). Using univariate analysis, baseline homocysteine levels are positively correlated with age ($p=0.008$) and significant smoking history, both current and past ($p=0.028$), but negatively correlated with body mass index (BMI) ($p<0.001$). No significant association was detected with diabetes mellitus, hypertension, dyslipidemia and sex.

Conclusion: Homocysteine levels increase with age and smoking, but decrease with BMI, in patients with unstable angina and NSTEMI.

Homocysteine. Risk factors. Unstable angina. Myocardial infarction. Medicine.

- 0109 Autologous ossicular grafts in one-stage surgery for chronic otitis media. Villarta, Jr, Romeo L. , Abes, Generoso T., Llanes, Erasmo Gonzalo DV. , Chan, Abner C. **Acta Medica Philippina**, 2008 , 42(1):68-72

Objectives: One hundred thirty-four (134) patients who underwent one-stage surgery for chronic otitis media using autologous ossicular grafts were evaluated to determine functional hearing outcomes.

Method: Records of 134 patients who underwent one-stage surgery for chronic otitis media in an otologic practice at a university tertiary hospital from December 1987 to December 2003 were evaluated.

Results: Approximately 52% were males and 48% were females, with 140 ears evaluated. One hundred sixteen (116,83%) had primary surgery and 24 (17%) had previous surgeries. Cholesteatoma was seen in 82 (58%), and not in 58 (18%) (with 24 dry ears and 34 discharging ears). Canal-down mastoidectomy was performed in 98 patients (70%) as opposed to 42 (30%) with canal-up procedure. One third (33.86%) had postoperative air-bone gap (ABG) of less than 10 dB while more than 50% of cases had 20 dB or less average postoperative ABG at 0.5, 1,2 and 4 kHz frequencies. However, about one fourth of cases (27%) had worse mean postoperative ABG. In general, a postoperative ABG of 10 dB was noted more frequently in cases with intact superstructure than those without stapes superstructure across the four frequencies. Most common complications included recurrent ear discharge, epithelial cyst formation, and tympanic membrane graft perforation.

Conclusion: One-stage surgery for chronic otitis media using autologous tissues is a reasonable alternative to accomplish the dual aims of tympanoplasty. The complication rate is low while postoperative hearing results are not markedly different from results obtained with two-stage procedures. Canal-down or canal-up mastoidectomy may both be carried out depending on the nature of the pathology without prejudice to the short term postoperative hearing results. Simplified ossicular connection may be done to connect the stapes with either the malleus or the tympanic membrane graft to improve hearing. Improvements in procedures and techniques should be aimed not only to eradicate disease and improve hearing but also to avoid further injury to the cochlea.

Chronic otitis media. Autologous ossicular graft. One-stage surgery. Medicine.

- 0110 Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao. Belizario, Vicente Y., de Leon, Winifreda U., Wambangco, Michael Angelo L., Esparar, Donato G.. **Acta Medica Philippina**, 2005 , 39(2):11-21

Common intestinal helminth infections, which adversely affect child growth and development, nutritional status and cognitive capacity, remain as one of the major public health problems in the Philippines. Documented experiences have shown that significant decreases in morbidity and parasite transmission are likely with mass treatment strategies. However, local baseline parasitologic data, which are essential before such an intervention can be instituted, are still lacking. This study therefore aimed to address this problem by conducting a survey on elementary schools in different areas in the

Philippines. Methodology used was adapted from World Health Organization (WHO) protocol and modified to accommodate Department of Education Health and Nutrition Center (DepEd-HNC) specifications. Stool specimens were collected, processed and examined utilizing Kato-Katz method that allowed both qualitative and quantitative assessment of the status infection. Arithmetic and geometric mean egg counts were also derived. In this study, all areas covered had cumulative prevalence levels above 50% with variation in levels across schools in each area and across schools in each area and across areas. *Ascaris*, *Trichuris* and hookworm were seen in all areas surveyed with the first two present in all schools. The results of this study call attention to the seemingly neglected problem of helminth infections being a major cause of morbidity in Filipino children up to this {very} day.

Trichuris. Hookworm. Ascaris. Epidemiology. School-based control program. Soil-transmitted helminthiasis. Medicine.

- 0111 Blood pressure measurements in the first six hours of life. Ramos, Gina Eliza M., Espiritu-Dolendo, Rita. **Makati Medical Center Proceedings**, 1999 , :71-76

Hourly blood pressure measurements for the first 6 hours of life were taken in a total of 367 neonates. The indirect or oscillometric technique using the Siemens monitor was used.

The study population was divided into Group A and B. The Group A (n=329) comprised of healthy neonates and Group B (n=38) of abnormal neonates with varied diseases such as sepsis, bronchopneumonia, born of mothers with hypertension or preeclampsia, HMD with or without need of a mechanical ventilation, low Apgar score and congenital anomaly. Data were subjected to one way ANOVA.

The average systolic and diastolic and mean BP of Group A were tabulated according to birth weights. A positive correlation was obtained ($p < 0.05$). Mean systolic and diastolic BP values of Group B did not significantly show different values.

Medicine. Blood pressure-monitors. Infant. Newborn.

- 0112 Brain metastasis: An evaluation of the preoperative diagnostic work-up. Padilla, Rolando S. Jr., Sibayan, Renato Q.. **Makati Medical Center Proceedings**, 1997 , :84-87

This is a retrospective study of the evaluation of various preoperative diagnostic tests in locating the primary lesion in 50 patients with a solitary brain lesion seen on computerized tomography and suspected to be metastatic. These patients underwent craniotomy and 54% had primary tumors 40% metastatic tumors and 6.1% non-neoplastic lesions. Of 20 patients with metastasis, the primary was identified in 19 patients with the following locations: 11 pulmonary, 3 breast, 2 thyroid and 2 colon. In 2 patients, no primary was identified. Using simple conditional probability theory, it was established that probability of a brain metastatic lesion in patients without a previous history of diagnosed non-nervous system cancer, negative chest x-ray, and normal CEA was 14.7%. However, in patients with a previous history of diagnosed non-nervous

system cancer, the probability of having a metastatic lesion is high (88%). Extensive testing preoperatively may be justified in these cases of its value in surgical decision-making and long-term prognosis.

Medicine. Brain neoplasms-diagnosis. Brain neoplasms-pathology. Craniotomy. Tomography. Neoplasm, metastatic.

- 0113 Candidate vaccine antigen against schistosomiasis japonica is homologous to a family of actin-associating protein. Kurtis, Jonathan D., Ramirez, Bernadette L., Dong, Krista L., Wiest, Peter M., Johnson, Joan H., Olds, Richard G.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):105-119

In the murine model of *Schistosoma japonicum* infection, immunization with irradiated cercariae or freeze/thawed schistosomula induces partial protection against cercarial challenge. This protective activity can be transferred to naive mice with the immunoglobulin fraction of immune sera. The objective of the following study was to identify immunogens responsible for generating this protective antibody response. We produce an anti-schistosome monoclonal antibody (Mab A6, IgM isotype) which reduces worm burdens following cercarial challenge by up to 47% ($p \leq 0.001$) as compared to controls. Mab A6 recognized a 67 kD antigen in adult worm extract (Sj 67) and binds to the surface of living schistosomula. Immunoscreening in adult worm cDNA expression library with Mab A6 identified a reactive *S. japonicum* cDNA. Expression of a 456 codon fragment of this DNA in *Escherichia coli* produced a 61 kD fusion protein recognized by Mab A6 in an immunoblot. The predicted translation product has significant homology with a newly identified family of actin-associating proteins. These data suggest that Sj 67 is a surface antigen with homology to cytoskeleton-associating proteins and is recognized by a protective monoclonal antibody.

Medicine. Schistosomiasis japonica.

- 0114 Carbon dioxide laser-assisted external dacryocystorhinostomy: A modified approach to nasolacrimal duct obstruction. Baens, Elaine T., Lopez, Victor B.. **Makati Medical Center Proceedings**, 1996 , :68-70

A variety of techniques have been described in the treatment of nasolacrimal duct obstruction. Since the advent of the conventional external dacryocystorhinostomy [DCR], modifications of this procedure have been made. The introduction of lasers in DCR via an endonasal and endocanalicular approach appears to have several advantages over the classic external DCR. Reports with longer follow-up present that only approximately 75% of patients maintain patent nasolacrimal fistulas after endonasal laser DCR despite excellent and encouraging short-term results as compared with the establishment 90% success rate of external DCR. The authors propose a new surgical technique which combines the advantages of both the highly successful external DCR and carbon dioxide (CO₂) laser surgery.

Dacryocystorhinostomy. Nasolacrimal Duct. Carbon-dioxide. Medicine.

- 0115 Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity. Garcia, Josefita A., Bagabaldo, Zenaida G.. **Makati Medical Center Proceedings**, 2003 , :35-39

Objective: To determine the frequency of known conditions associated with symptomatic Carpal Tunnel Syndrome, in particular, diabetes and obesity. *Methods:* The study had 349 patients who underwent nerve conduction testing during January to August 2000 diagnosed to have Carpal Tunnel Syndrome. A review of the history was done to determine whether they were diabetic or not. Body mass index was calculated. *Summary of Results:* The mean age of the Patients under study is 47.03. The mode shows that the observed age that occurs most frequently is 53. The median shows that 50% of the patients are aged below 47. The youngest and oldest patients under study are aged 15 and 88 respectively. In terms of gender, 35.53% of patients with CTS are males and 64.47% are females. The mean BMI is 24.79, which shows that on the average, CTS patients are not obese. *Frequency analysis:* 10.6% of patients with the CTS are obese and 7.45% of patients with CTS are diabetic. *Conclusion:* This research paper, though not a study of prevalence rates, has shown values that are not far from prevalence studies and only confirmed our aim to find out whether by frequency to which diabetes and obesity occurs in Carpal Tunnel Syndrome can be comparable to a study of much larger proportions.

Body Mass Index. Carpal tunnel syndrome-diagnosis. Diabetes mellitus. Obesity. Age factors. Medicine.

- 0116 Cathepsins from extracts of *Schistosoma Japonicum* adult worms and eggs. Leonardo, Lydia R., Day, Sharon R., Dalton, John P., Clough, Karen A., Tiu, Wilfred U., Garcia, Edito G., Brindley, Paul J.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):120-126

Schistosoma japonicum adult worms and eggs synthesize and secrete both cathepsin L and B cysteine proteinases. The specific activities of cathepsin L were many fold higher than that of cathepsin B. Schistosome cathepsin L proteinases may be involved in the digestion of hemoglobin obtained from host erythrocytes. Their presence in schistosome eggs may be associated with pathogenic reactions in organs and tissues where these eggs may be trapped and the enzymes released. Since these enzymes must play some important biological role in the metabolism of schistosomes, they can be considered potential vaccines and/or chemotherapeutic targets.

Medicine. *Schistosoma japonicum*. Cathepsins.

- 0117 Characterization of mutations at nucleotide 1138 of the fibroblast growth factor receptor 3 Gene in Filipino patients with achondroplasia. Abaya, Christian Eric, Asprer, Joanna Stella T., Silao, Catherine Lynn T., Chiong, Mary Anne D, David-Padilla, Carmencita. **Acta Medica Philippina**, 2008 , 42(2):14-16

Introduction, Achondroplasia is the most common form of short limbed dwarfism with a birth incidence between 1:7,500 and 1:70,000. In >97% of cases, this autosomal dominant disorder is associated with a G to A or a G to C mutation at nucleotide 1138 in exon 10 of the fibroblast growth factor receptor 3 (FGFR3) gene. Both mutations result in the substitution of a glycine (Gly) to arginine (Arg) residue at position 380 in the transmembrane domain of the FGFR3 protein.

Methods. To assess the presence of this mutation in 11 unrelated Filipino patients with achondroplasia, RFLP digestion of their PCR amplified genomic DNA was done. The PCR products were digested with the restriction enzymes SfcI and MspI to determine the G 1138A transition and the G 1138C transversion, respectively.

Results. We report that ten of the 11 patients were heterozygous for the G to A mutation. Only one patient had the G to C mutation in the same position.

Conclusion. Majority of Filipino patients with achondroplasia have the same mutation most often defined in patients with achondroplasia from other countries. This further supports that the majority of patients with achondroplasia have a Gly to Arg substitution caused by a G to A change at nt 1138 of the FGFR3 gene.

Achondroplasia. Filipino. FGFR3. Medicine.

- 0118 Cholangiocarcinoma and gallbladder carcinoma: comparison of risk factors. Pollisco, Cynthia C., Benitez, Benjamin G.. **Makati Medical Center Proceedings**, 2004 , :16-20

A cross-sectional retrospective study comparing the clinical profile and risk factors of gallbladder carcinoma and cholangiocarcinoma patients from three hospitals in Metro Manila was done. A total of 40 cases from Santo Tomas University Hospital (STUH), East Avenue Medical Center and Makati Medical Center from 1992-2001 were reviewed. Of the forty patients, 28 (70%) had gallbladder carcinoma and 12 (30%) had cholangiocarcinoma. Gallbladder carcinoma patients were mostly females (71.4%) with a mean age of 60 ± 15.7 and patients with cholangiocarcinomas were mostly males (67.7%) and were older with a mean age of 72.5 ± 2.2 . Nineteen (67.9%) of gallbladder cancers presented in an advanced stage (stage IV), while patients with cholangiocarcinoma presented in earlier stages (25% in stage I, 33.3% in stage 3). Most patients with gallbladder carcinoma had gallbladder stone and cholecystitis (85.7% and 64%, respectively). However, these were not present among most patients with cholangiocarcinoma. Family history of cancer and porcelain gallbladder were not seen in the majority of patients in both groups. There were not much difference in the presenting signs and symptoms among the two groups. Signs and symptoms were similar in both groups. Liver profile as well as tumor markers were not available for all patients. For those with data, the transaminases, alkaline phosphatase and total bilirubin were elevated in a majority of patients in both groups. *Conclusion.* Although both gallbladder and cholangiocarcinoma are biliary tract neoplasms, the demographic characteristics and risk factors of the two are very different.

Gallbladder neoplasms-diagnosis. Risk factors. Cholangiocarcinoma-diagnosis. Medicine.

- 0119 Chronic bundle branch block: clinical and angiographic correlates and early prognostic impact. Lim, Trinidad A. , King, Anthony B., Nambayan-Abad, Adoracion M.. **Makati Medical Center Proceedings**, 1996 , :59-63

Bundle branch block during acute myocardial infarction has implicated lesions in the left anterior descending artery or its septal branches. It also been shown to confer a high risk

of severe heart failure and in-hospital mortality in the setting. However, its significance in chronic coronary artery disease is not known hence this study. 32 out of 460 patients with coronary arteriogram were identified to have chronic bundle branch block. They were found to have extensive coronary artery disease, more prevalent involvement of the left main, proximal left circumflex and proximal left anterior arteries, and worse left ventricular function than those without bundle branch block. No particular wall motion abnormality predominated however.

Previous studies showed left bundle branch block to be a strong predictor of mortality independent of other variables but this study did not. Chronic bundle branch block therefore, is unlikely to be due infarction of the proximal conducting system.

Coronary disease. Myocardial infarction. Bundle branch block. Medicine.

0120 Chronic idiopathic urticaria (CIU), unveiled. Agbayani, Benigno F.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss.:67-80

Background: Chronic urticaria is a skin disorder that is a dilemma for both dermatologists and allergists alike because 50% of its causation is unknown and treatment remains to be symptomatic. The success of diagnosis and treatment of any chronic diseases which chronic urticaria is included is measured and relies on the identification of the etiologic cause and the unraveling of its patho-physiologic mechanism(s). At the present time this is not always possible.

Objective: To review the recent relevant articles on chronic urticaria, more specifically Chronic Idiopathic Urticaria (CIU).

Results: In the early nineties, the etiology of 70% cases of chronic urticaria is unknown and is appropriately labeled as chronic idiopathic urticaria. Of late, the discovery and emergence of autoimmune mechanisms as a cause of chronic idiopathic urticaria has open a Pandora's box and is attributed to autoimmune antibodies against a subunit of high affinity IgE receptor alpha (FceRIa), autoimmune IgG anti IgE autoantibody, to a protein that is not an immunoglobulin and to food additives that is able to stimulate the release of histamine from mast cells and basophiles receptors nevertheless.

Towards the year 2000, the first 3rd generation antihistamine was introduced and is now available and more of its kind are coming in the near future. The first 3rd generation antihistamine Fexofenadine was found to control the appearance of the urticaria effectively. Furthermore, it has a safety profile not associated with sedation, drug interaction, cardiac toxicity observed in the 1st and 2nd generation of antihistamines. It can be used for a longer duration at once a day intake.

More 3rd generation antihistamines are being introduced recently. It is an ideal symptomatic treatment of chronic idiopathic urticaria. Assuming that histamine is the major root cause of all forms of urticaria, antihistamine will be an important treatment drug in controlling symptoms of urticaria and other immediate type hypersensitivity reactions.

Conclusion: Chronic Idiopathic Urticaria is a disorder that has been demonstrated to have multiple etiologic causes but with a common pathologic pathway associated with the release of histamine and other minor mediators causing the classical wheal and flare reaction associated with urticarial lesions. While awaiting the results of several ongoing

studies to determine further the root causes or etiology of chronic idiopathic urticaria employing innovative diagnostic schemes and laboratory investigations, it may be prudent meanwhile, to use a long-acting, efficacious, non-sedating 3rd generation antihistamine with its wide margin of safety. This drug however, has very little efficacious effect on urticarial vasculitis save for the symptomatic treatment of itching associated with this disorder. Presumably because the allergic type reaction associated with the classic immediate Type 1 hypersensitivity reaction is not in operation in urticarial vasculitis but is due to type 3 hypersensitivity reaction attributed to immunocomplex formation causing inflammation along vascular vessel walls.

Medicine. Chronic urticaria. Urticarial vasculitis .

- 0121 Classification and grading of intracranial lesions: Design and rationale of a new system. Alvarez, Victor M.. **Makati Medical Center Proceedings**, 1999 , :97-102

Objective: To describe the design and rationale of a new system of classifying and grading intracranial lesions. *Methods:* Intracranial lesions were organized into disease groups. The most relevant characteristics that best describe the lesion in each disease group were selected and defined. The characteristics were dichotomized and given numerical scores which were added to obtain the lesion grade. Pairs of defined characteristics were utilized to designate to which class and subclass each lesion would belong. *Results:* An illustrative use in classifying and grading brain tumors was presented. The system facilitated the selection and evaluation of different treatment methods. *Conclusion:* Intracranial lesions were both classified and graded using a new system which utilized pairs of relevant characteristics dichotomized into opposite attributes and used to designate the class and also scored to obtain the lesion grade.

Medicine. Medicine. Brain lesions-treatment selection. Brain lesions-classification and grading.

- 0122 The clinical epidemiology of bancroftian filariasis in an endemic village in Sorsogon, Philippines. Belizario, V., Lariosa, T., Pesigan, A., Leonardia, W., Llanto, R.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):61-69

Lymphatic filariasis is one of the neglected public health problems in the Philippines. The true status of the problem remains unknown due to limitations in control efforts and the use of mere microfilaremia as an index of endemicity. This study exemplifies methods which will describe more accurately the clinical epidemiology of the disease. A more fitting description of its impact on affected individuals and their communities may then help attract more attention of health and local authorities to allocate more resources and to direct better control efforts.

Bancroftian filariasis. Lymphatic filariasis. Clinical epidemiology. Medicine.

- 0123 Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate. Galban, Angelita B. , Vitasa, Benjamin C. , Cortes-Maramba, Nelia P. , Borja, Maridel P.

Background: Through the years denture processing with polymethyl methacrylate (PMMA) has been studied extensively to achieve outstanding physical properties and the natural aesthetics of the material. However, the hazardous effect that methyl methacrylate (MMA) monomer brings to the dental technician while handling the material during denture fabrication remains the same.

Objectives: The general objective of the study was to evaluate the peripheral neuropathy among dental laboratory technicians exposed to methyl methacrylate in comparison to unexposed control. The specific objectives were to (a) compare urine levels of monomer derivative trichloroethyl methacrylate ester among exposed and unexposed workers; (b) characterize local neurotoxicity based on the following criteria: clinical manifestations on fingers and hands, nerve stimulation tests on motor and sensory nerves, dynamometer measurements on hand and pinch grips, and sensory modalities; and (c) determine the possible relationship between methyl methacrylate exposure and local neurotoxicity.

Methods: A cross sectional design was used to compare two sets of technicians: the exposed group (n = 48) and unexposed group (n=26). The following procedures were done on all subjects: measurement of urine levels of the monomer derivative, survey of clinical signs and symptoms being experienced, nerve stimulation tests on specific sensory and motor nerves, measurement of hand and pinch grips, and neurological examination for sensory perception changes.

Results: Urine levels of the monomer derivative trichloroethyl methacrylate ester was detected more frequently among the exposed (54%) than the unexposed (4%). Clinical signs and symptoms reported by both groups of subjects were numbness, coldness, pain and pallor. Sixty percent of the exposed and 54% of the unexposed manifested at least one of these signs and symptoms. Sixty-four percent of exposed subjects had abnormal nerve stimulation test results compared to 11% among the unexposed. Ten percent of the exposed had below normal grips with concomitant abnormal nerve stimulation test against 4% among the unexposed. Among the exposed technicians sensory changes in pain, vibration and temperature perceptions were observed (12%) which ranged from mild to severe deficits. However, there were no statistically significant associations found between urine levels of the derivative, signs and symptoms, grip measurements, sensory perceptions, and the resulting abnormal nerve stimulation tests. Logistic regression analysis showed that peripheral neuropathy was significantly associated with work exposure to the monomer ($p < 0.02$) which places exposed technicians at higher risk of developing the disease than the unexposed.

Conclusions: This study confirms that work exposure to the MMA monomer gives rise to acquired peripheral neuropathy that is of axonal degeneration type with concurrent demyelination. However, this methyl methacrylate-related peripheral neuropathy is not always accompanied by clinical signs and symptoms, abnormal hand and pinch grip measurements, changes in sensory modalities and elevated urine levels of the monomer derivative. Subclinical cases of peripheral neuropathy can also occur.

Peripheral neuropathy. Dental technicians. Methyl methacrylate. Denture fabrication. Medicine.

Six patients who were found to have a DSM-IV diagnosis of chronic, treatment-resistant schizophrenia, with well-documented histories of being refractory to treatment with commercially available neuroleptics, had a 12-week open trial of clozapine (mean 12th week daily dose 433 mg). Clozapine's efficacy was measured using the BPRS, CGI and PIP rating scales. Safety was measured using the vital signs, CBC, and WBC monitoring, ECG and AIMS scoring. There was a significant decrease in the total BPRS score on the 12th week of treatment compared to baseline ratings. Clozapine was also found to be effective for both the positive and negative cluster of symptoms. It was also found to significantly improve conceptual disorganization, suspiciousness, unusual thought content, emotional withdrawal and blunted affect. The most common adverse effects were drowsiness, hypersalivation and weight gain. Only one patient developed grand mal seizures. Agranulocytosis was not found in any patient.

This open trial indicates that clozapine is highly effective in chronic, treatment resistant cases of schizophrenia. However, the patients complained of too much drowsiness and salivation. The trial is still on-going and a study with a bigger sample size and a longer trial period will follow.

Clozapine. Therapeutic use. Schizophrenia. Antipsychotic drug. Medicine.

- 0125 Clinical experience with risperidone. Macapagal, Grace A., Guarin, Ellen G., Garduno-Cruz, Monina A., Jurilla, Eduardo L.. **Makati Medical Center Proceedings**, 2000 , :47-53

Thirty two patients who were found to have a DSM-IV diagnosis of Chronic Schizophrenia with well-documented histories of being refractory to treatment with conventional neuroleptics, had an 8-week open trial of Risperidone (mean 8th week daily dose of 6.28 mgs.) Clinical efficiency was measured using BPRS and CGI rating scales, monitored weekly initially then once every 2 weeks for the succeeding 4 weeks. There was a significant decrease in the total BPRS score on the 8th week of treatment compared to baseline ratings. Risperidone was noted to have a higher percentage of improvement for the positive rather than the negative cluster of symptoms. Significant improvement was noted early in the trial period for following symptoms: conceptual disorganization, depressive mood, hostility, suspiciousness, hallucinatory behavior, motor retardation, uncooperativeness, unusual thought content and blunted affect. The most common adverse effects were restlessness, akathisia, agitation, sleep disturbances and dizziness. This open-trial indicates that Risperidone is highly effective in chronic, treatment-resistant cases of Schizophrenia.

Medicine. Antipsychotic agents-therapeutic use. Risperidone-therapeutic use. Schizophrenic.

- 0126 Clinical features of pruritus among patients undergoing hemodialysis. Salvador, Catherine C., Leelin, Thelma V.. **Makati Medical Center Proceedings**, 1997 , :64-69

Persistent Pruritus is the most common symptom among chronic renal failure patients undergoing hemodialysis, In this study, the prevalence, severity, and character of pruritus were investigated as well as the management which provided relief of the symptoms.

Also included were the other cutaneous manifestations noted. These patients were asked to complete a questionnaire to define further the nature of uremic pruritus. Of the 41 respondents, 32 (78%) reported "PROLONGED BOTHERSOME ITCHINESS" at the time surveyed. Among this group, 69% had mild pruritus mostly generalized, 75% experienced it occasionally and 41% noted peak of severity only during dialysis. Topical emollients and orally administered antipruritic agents provided relief in only 11 (40%) and 2 (6%) patients, respectively. These data provided basis for high incidence of uremic pruritus.

Medicine. Dialysis. Hemodialysis. Hemolytic-uremic syndrome. Pruritus.

- 0127 Clinical practice guidelines of the Philippine General Hospital for the management of thyroid nodules and well-differentiated thyroid carcinoma (2008). PGH Working Group on Thyroid Cancer **Acta Medica Philippina**, 2008 , 42(1):56-67

The development of a hospital-based clinical practice guideline (CPG) on thyroid nodules and well-differentiated thyroid cancers presents enormous challenges, mainly because thyroid diseases are managed by a diverse field of health professionals. Endocrinologists, surgeons, otorhinolaryngologists, and nuclear medicine specialists all play a role in the management of both thyroid nodules and well-differentiated thyroid cancers.

The main objective of this endeavor is to formulate guidelines for the appropriate management of thyroid cancer patients seen at Philippine General Hospital.

Clinical practice guidelines. Thyroid nodules. Thyroid carcinoma. Medicine.

- 0128 Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999. Escay, Tomas Paulino R., Lapitan, Raul L., Alimurung, Benjamin N.. **Makati Medical Center Proceedings**, 2001 , :21-28

Objective: To evaluate the clinical profile, clinical course, management practices and long term follow-up of patients diagnosed to have hypertrophic obstructive cardiomyopathy by echocardiography. *Method:* Retrospective survey of 2D echocardiographic studies done at the Heart Station of Makati Medical Center over a 52-month period from June 1995 to November 1999. *Patient:* 23-82 years of age with 2D echo evidence of asymmetric septal hypertrophy accompanied by systolic anterior motion of the mitral valve leaflet producing a subaortic gradient. *Results:* Of the 28 patients with echocardiographic findings diagnostic of HOCM, 21 patients were included in the final study. Indications for echocardiographic study included symptoms of dyspnea, palpitations, chest pains, dizziness, easy fatigability and syncope presumed to be cardiovascular related, clinical event such as CVA and an abnormal 12-lead EKG. The clinical profile of the patients were a mean age of 58, 67% were females, 95% were Filipinos of Filipino-Chinese and only two patient were known to have a family history of HOCM. All 21 patients were initially managed medically by either beta-blockers, calcium-antagonists or both in combination. Amiodarone was added to the treatment regimen in four patients with documented NSVT. Three patients received dual-chamber DDD pacemakers. Eighteen patients were followed up after a mean of four years

including the three patients on DDD pacemakers. Most noted improvement in symptoms and exercise tolerance and repeat echocardiographic studies in most of these patients showed significant improvement in LVOT gradient. *Conclusions:* A 2D echo should be performed in any patients with recent onset of symptoms or a clinical event presumed to be cardiovascular related more so if accompanied by an abnormal 12-lead EKG and or a murmur on physical examination. Asymmetric septal hypertrophy without systolic anterior motion of the mitral valve leaflet does not rule out the diagnosis of HOCM especially in young subjects. In patients who fail to improve or worsen despite maximum medical management, transcatheter alcohol septal ablation or septal myotomy-myectomy should be considered.

Cardiomyopathy. Echocardiography. Doppler. Hypertrophic-diagnosis. Hypertrophic obstructive cardiomyopathy. Medicine.

- 0129 Clinical profile of diphtheria cases, RITM. Co Pua, Joseph, Festin, Georgina, Gutierrez, Laarni, Reyes, Maria Celia **Acta Medica Philippina**, 1994 , 30(2(3)):172-177

A retrospective study of Diphtheria cases admitted at the Research Institute of Tropical Medicine (RITM) was done. A total of 27 cases admitted from January 1989-September 1993 was described according to sex, age, immunization status and duration of illness prior to consultation. Mortality secondary to complication in the heart and respiratory system accounted for less than 5%. Widespread implementation of Expanded Program of Immunization is warranted to conquer such infection.

Diphtheria. DPT vaccine. Medicine.

- 0130 Clinical profile of patients with ovarian carcinoma at the Philippine General Hospital - a thirteen year review. Sia Su, Ma. Lilibeth L., Manuel-Limson, Genara. **Acta Medica Philippina**, 1993 , 29(1):12-17

Ovarian Carcinoma is the second most common genital tract carcinoma but it is the most deadly of all the gynecologic malignancies. In fact the mortality rate from ovarian cancer is higher than those from cervical and endometrial cancer combined. This paper is a descriptive retrospective review of the ovarian cancer cases seen at the Gynecologic Oncology Unit of the Philippine General Hospital over a 13-year period, (1978-1991).

Cancer. Ovarian carcinoma. Medicine.

- 0131 Clinical profile of renal biopsy with findings of glomerular crescent. de Lara-Valenzona, Maria Rhodora, Cayco, Antonio V.. **Makati Medical Center Proceedings**, 2001 , :45-51

A review of the outpatient and inpatient records of patients who underwent renal biopsy from August 1995 to August 2000 in Makati Medical Center showed 26 of the 117 patients were with glomerular crescents. Sixty percent were females with mean age of 30 years. Proteinuria is the indication for performing a renal biopsy in 73% of the patients

and hematuria for 61%. Forty six percent had both hematuria and proteinuria as an indication for a biopsy. Half of the patients with crescents on biopsy had no known systemic disease at the time of biopsy. Twenty six percent of them were known to have systemic lupus erythematosus. Forty two percent had a renal clinical diagnosis of acute glomerulonephritis, 30% with nephritic syndrome, 15% with rapidly progressive glomerulonephritis. On light microscopy, 35% had a histopathologic diagnosis of membranoproliferative glomerulonephritis. Twenty three percent were Lupus Nephritis Class IV. Seven percent had a diagnosis of mesangioproliferative glomerulonephritis. This is also true for glomerulosclerosis and diffuse proliferative glomerulonephritis. Membrano proliferative glomerulonephritis was likewise the histopathologic diagnosis in 34% of patients on electron microscopy and 23% was Lupus Nephritis. Two were classified as Lupus nephritis Class IV, three Lupus nephritis Class IV/V and one Lupus nephritis Class III. Membranoproliferative glomerulonephritis was the histopathologic diagnosis on both light microscopy and electron microscopy in 30% of patients. With treatment, there is a significant decrease in 24 hour urine protein excretion to non-nephrotic level at six months post biopsy. An exacerbation of the degree of proteinuria was seen at year one though at levels less than 3 grams/day. The decrease in protein excretion continued at year to a level less than 1 gram/day and less than 500mg/day at year four.

Glomerulonephritis. Hematuria. Proteinuria. Kidney transplantation. Medicine.

- 0132 CLOtesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?. Fores, Edgardo D., Yu-Tecson, Gina N.. **Makati Medical Center Proceedings**, 1996 , :66-67

Fundic and antral biopsies were compared for CLOtest positive yield for Helicobacter pylori in peptic ulcer disease. Seventy eight out of two hundred ninety eight (26%) of fundic biopsies turned CLO+ versus eighty seven out of one hundred fifty seven (55%) of antral biopsies. Antral biopsy should still be considered the standard site for CLOtest. CLOtest results were also analyzed according to age, sex, and diagnosis. Recommendations are made based on study results.

Biopsy. Helicobacter pylori. Urease analysis. Peptic ulcer. Medicine.

- 0133 Cognitive-behavioral treatment for eating disorders. Chua, Joselita U., Ramos-Salceda, Pacita, Gustilo-Villasor, Ma. Teresa. **Makati Medical Center Proceedings**, 1996 , :71-76

Anorexia Nervosa and Bulimia Nervosa are Eating Disorders with both psychiatric and medical ramifications. This study aims to formulate a comprehensive in-patient program for the evaluation and management of patients with such disorders, with emphasis on the cognitive-bahavioral approach adapted from a 21-day program. This approach is directed at the patient\'s beliefs and attitudes. Accompanying this presentation is a report on the application of the pilot program on a patient with bulimia nervosa.

Anorexia nervosa. Bulimia. Eating disorders. Medicine.

- 0134 Combined heterotopic pregnancy. Moreno, Miguel Martin N. III, Ifurung-Gonzales, Elizabeth C., Narciso, Francisco V.. **Makati Medical Center Proceedings**, 1995 , :101-103

The diagnosis of a Combined Heterotopic Pregnancy (CHP) is likely to be missed prior to surgery because of its rarity and simulation to Acute Appendicitis or Twisted Right Ovarian Cyst. Constant awareness of such pathology is essential because of the increasing incidence of ectopic pregnancies due to increasing number of entities such as pelvic inflammatory diseases specifically salpingitis, sexually transmitted diseases, previous ectopic pregnancies and the increase in the use of chemical induction of ovulation. If not for the clinical history of an intrauterine pregnancy combined with the pathological diagnosis of an extrauterine pregnancy, this case would have not been documented.

Medicine. Combined heterotopic pregnancy. CHP. Pregnancy.

- 0135 Common sonographic features of ectopic pregnancy. Magsanoc-Remorca, Melodie Grace, Villafria, Maria Fe P., Romano, Vincente V.. **Makati Medical Center Proceedings**, 1998 , :89-92

Endovaginal sonograms (EVS) of 30 documented cases of ectopic pregnancies were reviewed retrospectively. The study showed that the ultrasound findings correlated best with the presence of an ectopic gestation. Aside from direct visualization of extrauterine gestational sac with fetal pole, the combination of an adnexal mass and free pelvic fluid were identified in 9 patients (30% of the study population). Other auxiliary sonographic findings that may aided the sonologist were the demonstration of free pelvic fluid alone, seen in 5 cases (17%); ectopic sac-like structure alone in 4 patients (13.5%) and presence of decidual cast or pseudogestational sac identified in one patient (3%) in the study. It is important that EVS of women suspected of having ectopic pregnancy must be performed meticulously by an experienced sonologist with due consideration to possible sonographic pitfalls.

Ectopic pregnancy is an increasingly common and potentially catastrophic condition in which patients often present with vague abdominal pain and/or vaginal bleeding. The prevalence of ectopic pregnancy is increasing owing to an increase in assisted conception, tubal reconstructive surgery and pelvic inflammatory disease. Its diagnosis remain difficult and is dependent on clinical history, gynecologic examination, serum human chorionic gonadotrophin (HCG) levels and the correlation of these findings with the appearance of uterine contents and adnexal regions at sonography. Recent studies showed that with combined laboratory and improved imaging modalities such as endovaginal ultrasound, there is earlier diagnosis of pregnancy, causing significant reduction in maternal mortality and morbidity. This study aims to describe the common sonographic presentations of ectopic (tubal) pregnancy that could aid the sonologists and clinicians alike in its early diagnosis.

Pregnancy, ectopic. Pregnancy, ectopic-ultrasonography. Ultrasonography, prenatal. Medicine.

- 0136 The comparative efficacy of 40% zinc oxide ointment versus white petrolatum in the treatment of diaper

dermatitis: An experimental, double-blind study. Ty-Tinio, Patricia L., Leelin-Sarroso, Donna Marie V.. **Makati Medical Center Proceedings**, 2002 , :45-51

Background: Petrolatum and Zinc Oxide are well-known topical agents for the treatment of diaper dermatitis. Although these preparations are widely used in the Philippines, there have been no comparative studies. *Objective:* To determine and compare the efficacy of 40% Zinc Oxide ointment and White Petrolatum in the treatment of irritant diaper dermatitis. *Methods:* Ninety-nine infants (age 7 days to 11 months) with diaper dermatitis were recruited from Makati Medical Center and Pembo Community Health Center. The subjects were randomly assigned into two groups: 40% Zinc oxide ointment and White Petrolatum. The severity of the dermatitis was graded on a five point Diaper Dermatitis Rating Scale on the day of consult, the third and seventh day of treatment. *Results:* The two groups were compared on the third and seventh days of treatment using the independent t-test ($p=0.01$) which revealed no statistically significant difference between the two groups. *Conclusion:* Both agents were effective in the treatment of Diaper Dermatitis. Considering the cost of 40% Zinc Oxide ointment compared to White Petrolatum, initial treatment with White Petrolatum is recommended, especially in our setting.

Diaper dermatitis. White petrolatum. Zinc oxide ointment, 40%. Medicine.

- 0137 A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting. Mejia, Samantha Joan M., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2004 , :21-31

Background: Hypersensitivity reactions are exemplified by appearance of cutaneous manifestations and may be accompanied by gastrointestinal symptoms. These reactions occur upon exposure to an immunogen. Antihistamines of the H1 type are the mainstays of therapy. Recent evidence points to the emerging role of H2-antagonists in the treatment of allergic reactions. *Objective:* This study aims to compare the efficacy of administering an intravenous combination of the "conventional" diphenhydramine (50mg) and hydrocortisone (200mg) with an intravenous combination of diphenhydramine (50mg) and famotidine (20mg) in the treatment of allergic reactions. *Study Design:* This is a prospective, randomized, single-blind, non-placebo controlled experimental therapeutic trial. *Setting:* The Emergency Department of the Makati Medical Center. *Study Population:* All male and female patients aged 15-60 years old with symptoms of allergic reactions presenting to the Emergency Department within 24 hours from symptom onset. Subject selection was done by non-profitability or convenience sampling. *Intervention:* Patients were divided into two treatment groups after simple randomization and given either of the drug combinations under study. Patients were blinded as to what treatment was administered. Patients were evaluated at 15-minute intervals from the time of drug administration for a maximum of two hours. *Outcome Measures:* The outcome measures used to compare the efficacy of the treatment given were the 10-mm Visual Analogue scale and a devised 10-point Erythema- Rash-and Angioedema Scale. Data collected were statistically analyzed using the t-test, Chi-square test, Mann Whitney U test and Analysis of Variance. *Results:* Patients in the diphenhydramine-famotidine group had a markedly earlier and faster resolution of the symptoms of erythema and rashes accompanied by a significant decrease in the VAS scores as compared to the diphenhydramine-hydrocortisone group. Patients in the hydrocortisone group had better response in terms of angioedema. Patients belonging to the famotidine group were discharged 15 minutes earlier on the average as compared to

patients in the other treatment group. *Conclusion:* An intravenous combination of diphenhydramine and famotidine is generally more effective for the treatment of hypersensitivity reactions in the emergency room setting.

Diphenhydramine. Drug hypersensitivity-etiology. Emergency room. Famotidine-adverse effect. Hypersensitivity. Delayed chemically induced. Anti-inflammatory agents. Medicine.

- 0138 Comparative single-blind randomized placebo-controlled clinical trial of a polyherbal formulation containing *asparagus racemosus* and *cheiranthus cheiri* in oligospermia. Abbas, Asad, Jamil, Shakir, Qadeer, Ashhar, Zafar, Shadab. **Acta Manilana**, 2004 , :33-38

The effect of PHF (Polyherbal Formulation) containing *Asparagus racemosus* and *Cheiranthus cheiri* was studied by a single-blind randomized placebo-controlled clinical trial, conducted in 50 patients (20-40 yrs) suffering from azoospermia and oligozoospermia. Two capsules of PHF were given (thrice daily, p.o.) to the patients for 3 months. Patients were examined at the time of diagnosis, after 1, 2 and 3 months. Clinical efficacy was measured using 4-point scale of sperm count and volume of semen. Side effects, if any, were also noted during the study. In patients of low and high grade, increased sperm in oligozoospermia was found statistically significant after 3 months. PHF also significantly increase the volume of semen. There were no side effects observed during the course of study. It is considered that PHF to be a useful drug for oligozoospermia and low volume of semen.

Polyherbal formulation. Medicine. Single-blind study. Oligospermia.

- 0139 A comparative study of etiologic agents in primary bacterial skin infections occurring in MMC Dermatology Out-Patient Department and Medical Missions in Nagcarlan, Laguna. Leelin-Sarroso, Donna Marie, Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 1996 , :50-54

Commonly seen primary skin infections in MMC OPD-Dermatology clinic were compared to patients seen in medical missions in Nagcarlan, Laguna. Etiologic microorganisms and their antibiotic sensitiveness were likewise compared. A total of 91 patients were included, 54 from MMC and 37 from Laguna. Furunculosis and impetigo were the most common skin infections found in both groups with furunculosis being the most common in MMC while impetigo in Laguna. *Staphylococcus aureus* followed by Group A beta hemolytic *Streptococcus* were the two most common isolates from the two groups. It was revealed that some microorganisms responded differently to specific antibiotics between the two groups. It is therefore recommended that bacteriologic and antibiotic sensitivity for superficial primary skin infections be done on a regular basis for every center.

Furunculosis. *Staphylococcus aureus*. Impetigo. Medicine.

- 0140 Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study. Reyes, Marc Lamberto C., Singson, Hector

Hypertension remains a common but treatable problem worldwide. It is an important modifiable risk factor that may pose a threat to one's physical well-being and lifestyle, as well as it cause mortality if left unmanaged. In this study, a comparison is made between the efficacy of sublingual **Captopril** and sublingual **Clonidine** in the management of hypertensive urgencies. *Materials and Methods:* Study population was taken from numerous hypertensive patients being seen in the Emergency Department of Makati Medical Center from January 1, 2000 to April 1, 2001. *Inclusion criteria:* Requires each patient to be a known hypertensive maintained on a variety of medications, between the age of 35 to 65 years, and diagnosed to have urgent hypertension. Hypertensive urgency is defined here with as an initial diastolic blood pressure (DBP) of 120mmHg or greater, and without signs of end organ dama. *Procedures and Intervention:* Subjects were assigned to Group A-Captopril or Group B-Clonidine via simple random sampling. Group A (60) received Captopril, supplied as 25 mg tablets sublingually, given hourly until target BP is reached or with a maximum of four doses. Group B (68) received Clonidine as 0.075 mg tablets sublingually, given hourly until target BP is reached or up to a maximum of four doses. After the initial doses of medications was administered, supine blood pressure and pulse rate were recorded every 10 minutes for the first two hours, then every 15 minutes for the remaining two hours, or until the target BP is reached. The target BP readings $\leq 140/90$ mm Hg. At each interval, a clinical survey is performed to record symptoms and signs of possible adverse drug reactions. *Data and Results:* One hundred and twenty-eight subjects (128) were included in the study, sixty (60) for the Group A-Captopril group and sixty-eight (68) for the Group B-Clonidine group. Fifty eight percent (35/60) of the patients who received Captopril achieved the goal blood pressure of 140/90 within 120 minutes. By 240 minutes, 83% (50/60) of them reached this goal. Of the 60 patients in this group, nine of them (15%) failed to respond to the treatment. **(For the Clonidine group, 71% (48/68) of the patients who received clonidine achieved the goal blood pressure of 140/90 within 120 minutes. By 240 minutes, 93% (63/68) of them reached this goal. Of the 68 patients in this group, five (7%) failed to respond to the treatment).** *Conclusion:* Results and statistical analyses of the study present to us showed that clonidine has a relatively faster onset of action and longer duration of action compared to captopril. It has safely and effectively lowered the systolic and diastolic pressures of the patients in the study at a rate and extent comparable with that of Captopril. Both drugs, however, are associated with systemic side effects, however, clonidine showed more side effects.

Comparative studies. Captopril-therapeutic use. Emergency service-hospital. Hypertention-complication. Medicine.

- 0141 A comparison of active compression/decompression cardio-pulmonary resuscitation (ACD-CPR) versus standard cardio-pulmonary resuscitation (Std-CPR) at the emergency department. Maghirang, Eligio Santiago V., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2003 , :46-50

Active-Compression/Decompression CPR (ACD-CPR) by means of a portable handheld suction device was introduced to improve resuscitation outcomes. Results would vary from European and American studies. Presently, ACD-CPR is classified as Class II-B (acceptable but more evidence needed) in the latest ACLS guidelines of the American Heart Association. This pioneering study aimed in evaluating ACD-CPR vs. Standard CPR in the local setting. This might even contribute to the evidences needed to prove ACD-CPR's value. In a period of eight months, qualified patients needing CPR in the

Emergency Room of the Makati Medical Center were rendered ACD-CPR or Standard CPR. Data garnered were subjected to a Correlation and Stepwise Regression Technique. Results were neutral indicating that method of CPR did not affect resuscitation outcome. But the information gathered depicted ACD-CPR is still an acceptable alternative.

Medicine. Cardiopulmonary-resuscitation-mortality. Emergency-medical-services. Survival-Analysis.

- 0142 The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department. Ocampo, Philip N., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1995 , :72-75

The primary goal of treatment in an asthmatic exacerbation is the prompt reversal of airflow obstruction, with accompanying relief of dyspnea. Asthmatic attacks frequently require immediate care resulting to Emergency Department (ED) visit which will either provide fast relief or prolonged treatment and subsequent hospital admission. This study was done to compare the efficacy of combined nebulized steroids and Beta-2-agonist with Beta-2-agonist alone in the treatment of acute exacerbation of asthma in adults in the ED. Parameters used were: rate of hospital admission, change in Pulmonary Index Score and improvement in the Peak Expiratory Flow Rate (PEFR) at 0, 30, and 60 minutes after drug administration. This is an open-label comparative study which involved 32 patients ages 14 to 50 years with no previous intake of steroids in the last 4 weeks Three inhalations of either combined steroids and Beta-2-agonist or Beta-2-agonist alone were given at 20-minute intervals. Afterwhich patients were evaluated according to the parameters mentioned. Admission rate for the combined steroid/Beta-2-agonist was significantly decreased at 31% compared to the beta-2-agonist group (56%). Pulmonary Index Score was significantly lower and PEFR was significantly increased in the combination group.

Nebulized steroids. Beta-2-agonist. Acute asthma-treatment. Adults. Medicine.

- 0143 Comparison of epirubicin and doxorubicin combination therapy for intermediate and high grade non-Hodkin's lymphoma. Villalon, Antonio H., Guincia, A.A., Machica, MEG. **Acta Medica Philippina**, 1993 , 29(2):111-115

One proven combination chemotherapy for intermediate and high grade non-hodgkin's lymphoma is the cyclophosphamide, doxorubicin, vincristine, prednisone (CHOP) combination. However, a problem in maintaining complete response has frequently been encountered due to the disturbing cardiotoxicity of doxorubicin. This paper presents the local data of a multicenter clinical trial comparing to the effectivity and safety of doxorubicin with epirubicin, an anthracycline which is reportedly less cardiotoxic. A total of 31 evaluable patients were studied: 15 received CHOP while 16 received CEOP. Response rate for CHOP (CR=67%, RR=94%) was demonstrated to be slightly superior to CEOP (CR=44% RR=75%). However, comparison of pretreatment patients' and disease's characteristics revealed those in patients receiving CEOP to exhibit poorer prognostic parameters in term of age, extent of disease and performance status. Toxicity was tolerable in both arms except for one patient who developed grade 1 cardiotoxicity and another one who developed severe neutropenia both in the CHOP arm. Mean duration of response mean duration of survival was observed to be longer in CHOP arm

compared to CEOP group.

Non-Hodgkin's lymphoma. Epirubicin. Doxorubicin. Medicine.

- 0144 A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response. Zagala, Ma. Zita G., Ongsiako, Ramon J. Jr., Santos, Alvin M.. **Makati Medical Center Proceedings**, 1997 , :70-73

This is a randomized double blind clinical trial to compare the antiinflammatory action and effects on intraocular pressure of dexamethasone 0.1% and diclofenac sodium 0.1% ophthalmic solution on postcataract extraction patients. Thirty-six eyes from thirty-six patients who underwent extracapsular cataract extraction and posterior chamber intraocular lens implantation were assigned to two groups. Group A received topical dexamethasone postoperatively for the next four weeks while Group B received topical diclofenac sodium. Measurements of intraocular pressure, anterior chamber cellular reaction, and flare were taken periodically from Day 1 to Week 4 after surgery. No hypersensitivity reaction nor other subjective ill effects were observed. Statistical comparison at $\alpha=0.05$ showed no significant difference between the two groups as far as the three parameters are concerned.

Medicine. Cataract extraction. Dexamethasone. Diclofenac. Intraocular pressure. Lenses, intraocular. Cataract.

- 0145 The complete blood count and hematologic findings as screening criteria for neonatal sepsis. Sales-Santos, Marilou A., Bunye, Miraflor O.. **Makati Medical Center Proceedings**, 1995 , :40-51

The Hematologic Scoring System developed by Rodwell et al. utilizes the complete blood count and hematologic findings to detect neonatal sepsis assigning a score of 1 for each abnormal finding: elevated I: T ratio, abnormal total neutrophil count, I: M ratio ≥ 0.3 , abnormal total leukocyte count, elevated immature PMN count, pronounced degenerative changes in PMN's ($\geq 3+$) and platelet count $\leq 150,000/\text{mm}^3$. This system was used in a local setting to compare with results of Rodwell's study.

Evaluated were 99 cases of clinically suspected sepsis neonatorum admitted at the Makati Medical Center nursery and pediatric ward (81= first 24 hrs. of life; 18=after 24 hrs. to 30th day of life). Eighty percent who had scores ≥ 3 were more likely to be septic. Sixty seven percent were shown to be influenced by gestational age being more common among the preterm group in the first 24 hours of life. A high hematologic score depicts the greater possibility of sepsis. Sepsis was possibly absent in 98% of subjects with scores ≤ 2 . This study had almost similar results with that of Rodwell's which showed that the hematologic scoring system is a useful diagnostic tool and may be used in clinics where microbiological techniques are not readily available to assist practitioners in predicting the presence or absence of neonatal septicemia.

Neonatal sepsis. Hematologic scoring system. Neonatal septicemia. Medicine.

- 0146 Computed tomography patterns of pulmonary tuberculosis in pediatric population. Dimaculangan, Mary Elaine D., Beltran, Gerardo L.. **Makati Medical Center Proceedings**, 2002 , :40-43

Computed tomography (CT) findings of 13 children with confirmed tuberculosis were retrospectively reviewed from January 1999 to September 2001. Medical records and chest radiographs were likewise reviewed to determine if there were any additional information obtained from CT scan which altered the initial diagnosis and the management of the disease. Mediastinal and hilar lymphadenopathy was seen in 10 (77%) patients. Air-space consolidation and atelectasis was evident in seven (54%) patients, ground-glass haziness in four and pulmonary nodules in two patients. Complications of pulmonary tuberculosis (PTB) were seen in six (46%) patients which include bronchiectasis (n=2), pleural effusion (n=2), pleural thickening (n=2) and pericardial effusion (n=1). In 10 (77%) patients, diagnosis of tuberculosis was established based only on CT findings of mediastinal/hilar lymphadenopathy, consolidation, atelectasis and pulmonary nodules which the plain radiograph failed to demonstrate. Hilar/mediastinal lymphadenopathy nodules which the plain radiograph failed to demonstrate. Hilar/mediastinal lymphadenopathy is the most frequent CT pattern of pulmonary tuberculosis in children. CT has a promising role in the diagnosis of children suspected of having PTB.

Retrospective studies. Tomography, x-ray computed. Tuberculosis, pulmonary diagnosis. Child. Medicine.

- 0147 Congenital cystic adenomatoid malformation of the lungs (CCAM). Jose, Jennifer Marie B., Reyles, Ramon T.. **Makati Medical Center Proceedings**, 2000 , :88-92

This is a case of a 29 year old G3P2, 30 weeks pregnant who was diagnosed with fetal Congenital Cystic Adenomatoid Malformation of the Lungs Type I by ultrasonography. There were only 200 cases reported in world literature and none has been antenatally reported in the Philippines. The fetal thoracic cavity was occupied by a septated cystic structure in the right posterior hemithorax measuring 4.2 x 2.5 x 2.2 cms. There were no evidence of hydrops, ascites and polyhydramnios. The antenatal diagnosis provided an advanced opportunity for a perinatal team to plan the management of this fetus with a correctible malformation which otherwise could have been a diagnostic dilemma for the pediatrician at birth.

Cystic adenomatoid malformation of lungs, congenital. Ultrasonography, prenatal. Pregnancy outcome. Medicine.

- 0148 Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children. Legaspi, Ronillo M., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1995 , :68-71

Sedation and analgesia for children in the emergency department is fraught with misconceptions and controversy. It is the purpose of this study to evaluate the effectiveness and safety of rectal midazolam in inducing sedation and anxiolysis to

facilitate suturing on crying and struggling pediatric patients with uncomplicated lacerated wounds.

Eighty-nine (89) children with simple lacerations were randomly assigned to one of three groups. Group W received rectal midazolam, Group P received placebo and Group C became the control. The attending physician will give a score of 1 if the patient falls asleep; 2 if the patient remains awake but drowsy; if the patient is awake and combative. The patient's parents or guardian will answer the question on suturing experience as follows: 1. better than expected; 2. same as expected; 3. worse than expected. Cardiac rate, respiratory rate and blood pressure will be taken before and after the procedure. The results were collected and compared. No significant difference between the placebo and controlled groups was noted. The midazolam group showed a significant reduction in struggling and crying during the procedure using minimal restraint.

Although a slight decrease in cardiac rate, respiratory rate and blood pressure was noted in the midazolam group, no adverse effect was found in the three groups.

In conclusion, rectal midazolam is effective and safe in promoting sedation and anxiolysis on pediatric patients undergoing suturing in the Emergency Department.

Medicine. Rectal midazolam. Sedation. Analgesia. Children. Medicine.

- 0149 Contemporary strategies in the management of advanced prostate cancer. Esquivel, Jr., Enrique L.. **Acta Medica Philippina**, 1994 , 30(2(4)):195-207

Carcinoma of the prostate is the third most common cause of cancer death in Filipino men following lung and liver cancer. More than half of the patients have metastatic disease at the time of first specialty consultation; the basis of rational management in order to improve survival is early tissue diagnosis and disease staging. In the advanced stages of this disease, hormonal therapy is the most efficient mode of treatment; surgery, radiotherapy, chemotherapy and cryotherapy are only used for specific indications. Among the options for hormonal therapy are testicular and adrenal androgen suppression, use of anti-androgens and total androgen ablation. To achieve total androgen ablation, the newer agents, luteinizing hormone releasing hormone (LHRH) analogues and the steroidal and nonsteroidal antiandrogens, play essential roles. The question of whether early treatment is better than delayed treatment in this stage of this disease is discussed. The ancillary treatment of complications arising from therapy are mentioned.

Prostate carcinoma. Androgen ablation. LHRH analogues. Antiandrogens. Hormone therapy. Medicine.

- 0150 Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes. Macalintal, Clavel M., Alimurung, Benjamin N., Campos, Enrique E., Javier, Saturnino P., Martinez, Gregorio S., Santos-Ocampo, Carlo D.. **Makati Medical Center Proceedings**, 2002 , :14-20

Objective: To evaluate in-hospital and long term clinical outcomes in acute coronary syndrome patients who underwent coronary artery stenting. *Design:* A descriptive retrospective analysis. *Background:* The pathogenesis of acute coronary syndromes

involves the presence of intracoronary thrombus and increase platelet activation. These factors are important considerations when percutaneous coronary intervention, particularly coronary stenting is done in the acute coronary syndrome patients. Potential bearing in relation to the acute and sub-acute complications, as well as long term clinical outcomes, has to be analyzed. *Methods:* This study evaluated early (angiographic and procedural results) and late (six months) clinical outcomes (death, recurrent MI, stent thrombosis/restenosis and repeat revascularization rates) in 86 (103 lesions) acute coronary syndrome patients (49 unstable angina and 37 acute myocardial infarction) treated with coronary stents between January 1997 and January 1999. All patients received Aspirin. Ticlopidine was given for an average duration of four weeks. *Results:* Overall angiographic result was 100%. Overall procedural success was obtained in 94% of patients. In hospital data revealed mortality in 3.5% recurrent MI in 2.3%, subacute stent thrombosis in 1.2%, and minor vascular complications in 13%. After six months, (88% available for follow up) mortality, recurrent MI and repeat target vessel revascularization rates were 1.2%, 2.3% and 4.7%, respectively. *Conclusion:* Coronary artery stenting in acute coronary syndrome patients was associated with excellent procedural success and favorable in-hospital and long term clinical outcomes.

Medicine. Angioplasty, transluminal percutaneous-coronary. Retrospective studies. Treatment-outcome. Myocardial infarction-diagnosis.

- 0151 Coronary-cameral fistula: A case report. Lazaro, Maria Eloisa R.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss:110-115

Objectives: This paper aims to present a rare case of a left coronary artery fistula to the right ventricular outflow tract in an otherwise structurally normal heart. To discuss its epidemiology, etiology, clinical features, differential diagnosis, pathophysiology, approach to diagnosis, treatment options and its prognosis.

Medicine. Coronary artery fistula.

- 0152 Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I. Yaplito- Lee, Joy , Chiong, Mary Anne D., Rana, Michelle D., Rama, Kahlil Izza D., Cavan, Barbra Charina, Cordero, Cynthia P., David-Padilla, Carmencita. **Acta Medica Philippina**, 2008 , 42(2):11-13

Introduction. Management of patients with maple syrup urine disease (MSUD) includes a low protein diet, supplemented with special formulas and constant monitoring of branched chain amino acids (BCAA). The gold standard for monitoring BCAA is plasma amino acid analysis using High Performance Liquid Chromatography (HPLC). In a developing country like the Philippines, however, the cost of this test is prohibitive to the majority of the patients. In our center, dried blood spot leucine/isoleucine (leu/ile) levels analysed by thin layer chromatography (TLC) is often used to diagnose and monitor these patients.

Objective. This study was done to determine the correlation of leu/ile levels using the two methods (TLC and HPLC).

Methods. A total of 46 MSUD patients were referred to the Biochemical Genetics Laboratory of the Institute of Human Genetics (IHG) from July 2001 to January 2004. Thirty five samples were obtained from 18 of these patients [some patients were seen at IHG more than once], and paired determinations of plasma amino acid using TLC and HPLC were made. The remaining samples were either hemolyzed or were not analyzed. The correlation coefficient [ρ denoted as "p"] was estimated at a 95% confidence level using the Fisher's Z transformation.

Results and Conclusion. Of the 18 patients, 12 were males. The youngest was 1 day old and the oldest was 5 years old. The majority had the classical type of MSUD and dietary protein was restricted to between 0.6 gram/kg/day to 1 gram/kg/day of natural protein. Using the first pairs of observation for these 18 patients, the correlation coefficient was 0.76 {95% CI:0.462 to 0.907}. This suggests a strong correlation between the two methods. It is recommended that further studies be done to determine the potential of the dried blood spot leu/ile level by TLC as an alternative method that can be used in the diagnosis and monitoring of MSUD patients especially in a developing country.

Maple syrup urine disease. Leucine. Isoleucine. Thin layer chromatography. High performance liquid chromatography . Medicine.

- 0153 CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis. Arkoncel, Mary Ann P., Posadas, Ma. Belen A.. **Makati Medical Center Proceedings**, 1997 , :78-83

A retrospective review was conducted on 205 cases of pediatric head trauma for which cranial computed tomography scans were done at the Makati Medical Center, to determine which clinical features might positively predict an abnormality on CT Scan. The clinical findings of loss of consciousness, GCS<12, vomiting headache, seizures, and focal abnormalities of Neurologic Examination were significantly associated with abnormal findings on CT Scan. However, a significant discrepancy does exist as to how accurately clinical findings do in fact predict normal and abnormal CT Scan findings. Such a discrepancy allows us to conclude that a more liberal use of CT Scanning in cases of pediatric head trauma must be stressed to insure proper diagnosis. This study shows that when a patient presents with the aforementioned positive signs and symptoms, or with a focal neurologic deficit, or in combination, a 60-100 % positive prediction of abnormal CT Scan can be made. However, prediction of a normal CT Scan is only 0-40%.

Medicine. Head injuries. Neurologic examination. X-ray computed. Tomography scanners.

- 0154 Current management of breast cancer. Cabaluna, Nelson D.. **Acta Medica Philippina**, 1993 , 29(1):1-6

Breast cancer is the most common cancer among Filipino women with an age-standardized annual incidence rate of 40.5 per 100,000 females. A review of local data and current management is presented.

Majority of breast cancer cases in the Philippines are still diagnosed at the advanced stages. For early detection of tumors, the Philippine Cancer Control Program is strongly

advocating breast self-examination and health-worker breast examination. Modified radical mastectomy is the mainstay of surgical treatment for operable breast cancer. Adjuvant combination chemotherapy is recommended for pre-menopausal women with involved axillary nodes while adjuvant hormonal therapy seems to benefit post-menopausal node-positive women, particularly those with positive hormone receptor levels. Multimodality treatment is necessary to improve survival rates and decrease local recurrence for locally advanced cancers. In the treatment of disseminated cancer, palliation should be the primary objective.

Breast cancer. Philippines. Medicine.

- 0155 Cyst morphology of Philippine acanthamoeba isolates. Matias, Ronald R., Natividad, Filipina F., Enriquez, Gloria L.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):137-142

Acanthamoeba isolates were obtained from water and soil samples from all over the Philippines. Clonal populations were classified into distinct groups as described by Pussard and Pons (1977) and Page (1988). Periodic acid-thiocarbohydrazide silver reduced (PATAg r) staining technique was used for the morphological study of the cysts. Five isolates were included in Group II and one isolate in Group III as described by Page (1988). Based on Pussard and Pons (1977) classification, thirteen other isolates were included under Group II and three isolates under Group III.

PATAg. Acanthamoeba. Endocysts. Ectocyst. Medicine.

- 0156 Cytogenetic analysis of patients with unknown genetic of suspected disorders. Beloso, Ramon A., Garcia, Amelia A., Pantangco, Elias E.. **Makati Medical Center Proceedings**, 1998 , :54-59

Blood samples of fifteen (15) patients with unknown genetic or suspected disorders were sent for cytogenetic analysis. Each patient was drawn 5.0 ml of peripheral blood by venipuncture and placed in a green top vacutainer tube (sodium heparin). From the 5.0 ml blood samples, 0.5 ml was inoculated into 5.0 ml of commercially prepared karyotyping liquid medium and incubated for 72 hours.

The cultures were harvested after 72 hours following routine procedures.¹The results of the cytogenetic analysis and karyotypes are discussed in this paper.

Medicine. Cytogenetics. Heterozygote-Detection. Chromosomes.

- 0157 The demographic background and toxidrome of methamphetamine intoxication in 47 patients seen at the Philippine General Hospital from May 1989 to June 1992. Mayor, Geraldine Frances R. **Acta Medica Philippina**, 1994 , 30(2(3)):141-151

A retrospective study was done on 47 patients diagnosed to suffer from methamphetamine hydrochloride intoxication in the Philippine General Hospital from

May 1989 to June 1992. It was gathered that the profile of the Filipino "shabu" abuser is presented as most likely single, 25 1/2 year old male, high school educated and unemployed. He is likewise a smoker, drinker and a polydrug abuser. The toxidrome of "shabu" intoxication included anxiety reactions, psychotic features, hallucinations, signs and symptoms of nervous and cardiovascular stimulation, anorexia, nausea, vomiting and dyspnea. Prominent symptoms of the withdrawal state included depression, weakness, drowsiness and fatigue.

Methamphetamine hydrochloride intoxication. Shabu. Medicine.

- 0158 Detection of circulating schistosome antigens in *S. Japonicum* Infection. Acosta, Luz P. **Acta Medica Philippina**, 1995 , 31(2(3-4)):177-181

A total of 368 human serum samples collected from *S. japonicum* endemic villages in the Philippines were tested for the detection of circulating anodic and cathodic antigens (CAA & CCA). The test revealed a positivity rate of 83% for CAA and 84% CCA, showing an increasing trend in median and 90th percentile of CAA and CCA titer values as egg output increases. Significant correlation was found using the Spearman rank correlation of coefficient test between CAA/CCA titer and epg egg. (CAA : $r=0.4746$ /CAA: $r=4554$). CAA was also detected in 42% and CCA in 58% of egg negative samples.

Seventy six (76) urine samples were tested using immunoblot technique in a rapid reagent strip "dipstick" procedure to detect CCA. In contrast with the ELISA test for CAA and CCA, these urine samples have parallel Kato-katz results of a five-stool sample collection and was used as the gold standard. Sensitivity is computed at 61% and specificity at 96%. If we are to translate the result of the reagent strip to the sensitivity of the Kato-katz using 1 stool sample collection, sensitivity of the dipstick approximates about 81%. The dipstick is 100% sensitive in samples with >20 epg in the 5 sample Kato-katz.

Medicine. Schistosome antigens. *S. Japonicum* infection.

- 0159 The determination of the in-vitro activity of naturally-prepared *Morinda citrifolia* fruit extract against *Staphylococcus aureus*. Magno, Ma. Cristina Ana C. , Millonado, Mary Joan L., Nuguid, Arnel S.. **Makati Medical Center Proceedings**, 2001 , :85-88

A natural and, possibly, more economical product which may have a potential in treating superficial pyoderma is presented in this study. *Morinda citrifolia* (noni) fruit extract was studied for its possible antibacterial activity against *Staphylococcus aureus*. Serial dilution method was used to determine minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC). The naturally prepared *Morinda citrifolia* fruit extract demonstrated definite antibacterial activity against *Staphylococcus aureus* with its MBC determined at 1,000 mg/ml. The MIC was determined at 31.25 milligrams.

Morinda citrifolia. Plants, medicinal. Pyoderma-drug therapy. *Staphylococcus aureus*. Medicine. Plant

extracts - therapeutic use.

- 0160 Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome. Singson, Hector C., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2001 , :15-20

Objectives: To estimate the appropriateness of decision making of emergency physicians and cardiologists regarding the use of thrombolytic drugs among patients diagnosed with acute ischemic coronary syndrome using American Heart Association guidelines. *Methods:* We conducted a prospective observational study of cases seen and admitted from the Emergency Department of a tertiary care center due to chest pain and believed to be acute coronary syndrome over a 13 months period. Both thrombolysed and non-thrombolysed patients were included in the study. The decision of emergency physicians and cardiologists to use and not to use thrombolytics were compared with the American Heart Association guidelines, based on the blinded assessments of four reviewers. Appropriateness was estimated with the use of adjusted kappa statistics, and a hierarchical statistical model was adapted to estimate the distribution of appropriate decision-making rates for individual emergency physicians and cardiologists. *Result:* The overall adjusted kappa for appropriateness for EP's was 0.97 (95% CI, 0.92–1.02) and for cardiologists was 0.87 (95% CI, 0.75–0.98). The appropriateness rate for thrombolysis among EP's and cardiologists were 100% (95% CI, 89.11%–100%) and 100% (95% CI, 87.66%-100%), respectively. For non-thrombolysis patients, appropriateness rates were 97.83% (95% CI, 88.47-99.94%) for EP's and 90.0% (95% CI, 78.19%-96.67%) for cardiologist. The distribution of individual EP's appropriateness rates had an estimated mean of 88.7% (95% CI, 77.75%-99.67%) while that of individual cardiologists had an estimated mean 73.3% (95% CI, 66.93%-79.58%). *Conclusion:* Another estimation of appropriateness of decision of emergency physician with regards to thrombolytic therapy has been made and this confers with a previously reported rate. Although, cardiologists were reported to have the greater tendency to underuse thrombolytic therapy, it should be noted that the panel was blinded on the economic status of the patients and that the decision of the panel is strictly based on theory without the clinical subtleties appreciated on bedside, a factor that stress the fact that not all AMI's are alike.

Medicine. Coronary disease-drug-therapy. Emergency service, hospital. Prospective studies. Socio-economic factors. Thrombolytic therapy.

- 0161 Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting. Bengzon, Alfonso U., Almeda, Teresa I., Padilla, Dominga B.. **Makati Medical Center Proceedings**, 1999 , :57-61

The purpose of this study was to determine the maximum allowable death to preservation time for procurement of "good" quality donor corneas in the Philippine setting. A retrospective review of the eye charts of 1,829 corneas evaluated by the Sta. Lucia Eye Bank of the Philippines between October 31, 1995 to August 31, 1998 was performed. During that time 1,253 corneas were used for Penetrating Keratoplasty, 110 corneas were used as tectonic grafts. Three hundred and twenty one corneas were disposed of for safety reasons. One hundred and thirty five corneas were excluded due to poor tissue quality. The most common reason for exclusion of tissue from distribution was a positive serology test. Chi-square test and One-way ANOVA test were used to analyze data. Data analysis revealed that cornea rating was significantly influenced by "Death to

Preservation" time. The critical "Death to Preservation" time for procurement of corneas with "Good" rating was determined to be 9 hours in Philippine setting.

Medicine. Corneal transplantation-contraindications. Corneal transplantation standards. Quality control. Practice-guidelines.

- 0162 Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes. Ignacio-Almeda, Ma. Teresa, Padilla, Ma. Dominga B., Ongsiako-Isabela, Carmela, Alcantara, Ramir M.. **Makati Medical Center Proceedings**, 2002 , :34-39

Active manuka honey is the only proven to have antibacterial activity. This study was undertaken to determine the effects of diluted topical manuka honey on the anterior segment of rabbit eyes. Prospective single blind study was conducted. Twenty-six eyes of thirteen adult rabbits were used. Diluted manuka honey, sterile water, and balanced salt solution were placed every four hours for seven days. Superficial puncture keratitis (SPK), aqueous cells and flare were noted. The cornea and conjunctiva were harvested and sent for histopathological examination. Results were analyzed using chi-square test and two-tail test. Significant difference in the results of the sterile water group was noted as compared to the other groups. Diluted manuka honey has no adverse effects on the anterior segment of normal rabbit eyes. The authors recommend follow up studies to compare the efficacy of manuka honey with conventional topical antibiotics used for sight threatening infections.

Disease models-animal. Corneal diseases-drug therapy. Rabbit. Keratitis complications. Medicine.

- 0163 Determining time to culture conversion in patients enrolled in MMC DOTS Clinic. dela Cruz, Ma. Belinda S., Quelapio, Ma. Imelda D., Tupasi, Thelma E.. **Makati Medical Center Proceedings**, 2003 , :66-70

Objectives: The study aims to determine the time to AFB sputum culture conversion in Pulmonary TB patients enrolled at MMC DOTS Clinic. *Methodology:* Chart reviews of patients who finished the anti-TB regimens administered by the DOTS clinic and those presently receiving treatment were done. All ≥ 18 years old with sputum positive culture at or near the onset of therapy were included. Eligible subjects totaled to 198. Subjects belonged to either of the three categories: SIRE-susceptible, Multi-resistant TB, and Multi-drug resistant. The time to conversion in each of the categories was correlated with age, gender, and CXR findings. *Statistical Analysis:* Descriptive statistics, Linear Regression Model, and Analysis of Variance were used to interpret the data. *Results:* Of the 198 subjects, 48% were SIRE-susceptible, 12% were MRTB, and 40% were MDRTB. Mean time to conversion in SIRE-susceptible patients was 57 ± 22 days, 56 ± 31 days in MRTB cases, and 95 ± 164 days in MDRTB patients. Retreatment patients (52%) converted at a median time of 90 days while new cases (48%) took 52 days to convert. Age, gender, and CXR results were not correlated with time to conversion. *Conclusion:* The median time to culture conversion in 56 days. Longer conversion time is noted in MDRTB patients compared to those who are SIRE-susceptible. New cases convert faster compared to retreatment group. Neither age, gender, nor CXR findings are associated with differences in culture conversion time.

Tuberculosis-pulmonary-diagnosis. Tuberculosis-pulmonary-drug-therapy. Time factors. Medicine.

- 0164 Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections. Tolabing, Ma. Carmen C. , Saniel, Ofelia P. . **Acta Medica Philippina**, 2007 , 41(2):5-24

Objective: To develop and validate a screening tool for Chlamydia trachomatis and Neisseria gonorrhoea that can be used as a screen-to-treat tool among female commercial sex workers

Methods: The cross-sectional study design was employed. The records of female sex workers who participated in the prevalence survey on *C. trachomatis* and *N. gonorrhoea* infections were reviewed. The data included information that was obtained from interview and cervical examination of female sex workers, Interview data included personal and medical history (risk factors and symptoms of infection). The clinical data included the results of the polymerase chain reaction test (PCR), gram stain of cervical specimen, and cervical examination. Two screening algorithms were developed using a personal risk score and validated on a separate sample: 1) screening test based on personal- medical history factors, and 2) screening test incorporating personal-medical history and clinical examination factors. Validation of infection status was carried out using the result of the polymerase chain reaction test as the gold standard of diagnosis.

Results: *C. trachomatis* and/or *N. gonorrhoea* were present in 35.5% of the test sample and in 38% of the validation sample. The screening algorithm based on personal-medical history factors and the screening algorithm that combined personal-medical history and clinical examination factors had a sensitivity of 79.9% and 76.3%, respectively, while their specificity and positive predictive value were 28.1 % and 34.1 % and 38% and 41.6%, respectively.

Conclusion: The screening algorithms derived from this study cannot be used as a screen-to-treat tool because of their poor validity and predictive values. However, they may be useful for screening female commercial sex workers for further diagnostic testing.

Screening. Sexually transmitted diseases . Validation. Genital chlamydia trachomatis. Neisseria gonorrhoea infections. Medicine.

- 0165 Development of an alamar blue-based test as an alternate method in human lymphocyte proliferation assays. Cavinta, Lolita L., Ramos, Sorietta R. , Gloriani-Barzaga, Nina . **Acta Medica Philippina**, 2007 , 41(2):25-29

Mitogen-induced lymphocyte proliferation assays are useful in assessing the functionality of the T and B cells, and are used in both research and clinical settings.

Immunomodulation studies, specifically mitogenic studies, on various natural substances like medicinal herbs also employ the use of lymphocyte proliferation assays.

The two most widely used methods for quantifying lymphocyte proliferation is by [³H]-thymidine incorporation and BrDU incorporation into proliferating cells. A low cost non-radioactive assay to determine human lymphocyte proliferation is described in this study. This was originally developed by S. Ansar Ahmed in 1994 using mouse splenocytes⁽¹⁾.

The results of the study revealed that there was a significant correlation between Alamar blue assay and BrDU incorporation assay when using 1×10^5 lymphocytes per well ($r=0.95$, $P=0.001$) than when a much higher density of lymphocytes (i.e., 3×10^5 lymphocytes/well) was used. In addition, the exposure of Alamar blue to lymphocytes for 48 hours had no apparent toxic effects on the lymphocytes based on the exclusion of a vital dye, trypan blue.

The Alamar method can thus be used reliably as a less expensive and less cumbersome alternative for measuring researchers with limited resources. human lymphocyte proliferation. This would certainly be a welcome alternative to researchers with limited resources.

Mitogen-induced lymphocyte proliferation assays. Alamar blue-based test. Medicine.

- 0166 Diagnostic yield in 33 computerized tomography-guided stereotactic biopsy. Sebastian, Ian Arthur G., Sabalza, Michael N., Aldanese, Bienvenido B.. **Makati Medical Center Proceedings**, 2004 , :57-60

A series of 33 computerized tomography-guided stereotactic biopsies for intraaxial brain lesions performed at the Makati Medical Center from May 1997 to June 2003 was reviewed particularly on the histopathology results and diagnostic yield. Of the 33 CT-guided stereotactic biopsies, 29 (88%) were diagnostic. Of these 29 stereotactic biopsies, the pathology of the lesion was neoplastic in 27 (93.1%), infarct in 1 (3.4%) and parasitic infection in 1 (3.4%). Of the tumors, 15 (55.5%) were gliomas, 4 (14.8%) were metastasis, 4 (14.8%) were primary lymphomas, 2 (7.4%) were germinomas, 1 (3.7%) was ganglioglioma, and 1 (3.7%) was PNET (medulloblastoma). There were 3 (9%) inconclusive biopsies, where representative tissues were obtained but a definitive pathology could not be made. One biopsy (3%) showed a negative finding. Overall nondiagnostic biopsy was 12%. In our study, CT-guided stereotactic biopsy had a diagnostic yield of 88%.

Stereotactic biopsy . Diagnostic yield. Intraaxial brain lesion. Medicine.

- 0167 DNA tests for maternity determination. Calacal, Gayvelline C., Salvador, Jazelyn M., Tabbada, Kristina A., Franco, Shiela Ann Edith L., Maiquilla, Sheena Marie B., Sagum, Minerva S., De Ungria, Maria Corazon A.. **Acta Medica Philippina**, 2008 , 42(2):39-42

This report describes the use of DNA analysis in resolving two cases of maternity disputes involving inheritance claims of an alleged child. In the first case, genetic comparisons of the 15 autosomal Short Tandem Repeat DNA (aSTR-DNA) profiles of a deceased woman, brother and the alleged child of the deceased confirmed that the woman is the sibling of her brother but disproved a maternal relationship with the alleged child. In the other case, mtDNA analysis was used to refute the matrilineal relationship between the person claiming to be the child of the deceased and a sister of the deceased.

Forensic Genetics. DNA Typing. Microsatellite Repeats. DNA. Mitochondria. Maternity . Medicine.

- 0168 Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma. Abello, Ma. Veronica Roman, Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 2001 , :2-8

Background: Melasma is an acquired facial hyperpigmentation seen in all, but more commonly in brown skin color types exposed to the sun. This is one of the most troublesome skin problems encountered, with particular prominence among the Asians, Africans and Latinos. *Objective:* The objective of this study is to compare efficacy and safety of the older bleaching product hydroquinone 4% vs melfade 4%, both with glycolic acid 10% and an SPF (Sun Protection Factor) 45 sunblock in the treatment of melasma. *Methodology:* A double-blind randomized controlled trial on 60 patients diagnosed with melasma was done. Mexameter readings for each cheek and a comparative evaluation of treatment effect based on a rank scale were done at the end of 6 months. *Results:* Clinical evaluation of the depigmenting effect of both creams using Wilcoxon Matched Pairs Signed Ranks Test showed comparable results as perceived by the observer and the patient. However, mexameter readings statistically showed that hydroquinone 4% was more effective than melfade 4% in depigmenting melasma after 6 months. Side effects of hydroquinone includes erythema and stinging. Side effects of melfade include erythema and scaling. *Conclusion:* Melfade is a safe alternative treatment for melasma. Hydroquinone 4% objectively showed a greater depigmenting effect but clinically, it was comparable in efficacy to Melfade 4%.

Hydroquinone-pharmacology. Melanosis-drug treatment. Pigmentation disorders-therapy. Sunscreening agents-therapeutic use. Glycolates-therapeutic use. Medicine.

- 0169 The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room. Cruz, Rhoda S., Reyes, Baltazar B.. **Makati Medical Center Proceedings**, 1997 , :74-76

This study seeks to clarify concepts regarding Neurocirculatory Ashtenia (NCA) and determine the applicability of DSM IV criteria as its classification. Forty two (42) patients diagnosed as NCA by the ER residents were evaluated by the psychiatry resident. Interviews conducted and the DSM IV criteria applied to arrive at a diagnosis. Random interviews of ER residents were done to ascertain their concepts of NCA. Of the 42, 18 were diagnosed to have an adjustment disorder, 15 had anxiety disorders, 3 had depression, 1 had somatization disorder while 5 patients cannot be categorized. The ER residents diagnose NCA in the presence of anxiety or panic-like symptoms in patients with stressors and normal PE findings. Hyperventilation syndrome and NCA are oftentimes deemed equivalent. The results indicate that same psychiatric disorders are being misdiagnosed as NCA at the ER and there is a need for proper psychiatric intervention so they can be managed accordingly.

Adjustment disorders. Anxiety disorders. Depression. Hyperventilation syndrome. Somatoform disorders. Neurocirculatory asthenia. Medicine.

- 0170 The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes. Valero, Sherman O., Javellana, Juan Antonio G., Padilla, Ma. Dominga B.. **Makati Medical**

We tested the effect of commercially prepared Clotrimazole 1% solution on the rate of closure of a standard 7 mm diameter corneal epithelial defect over a period of seven days and compared this to Natamycin 5% Suspension, 1% Amphotericin B Solution and placebo. The rate of closure in the Clotrimazole treated eyes was slightly slower than that of Natamycin and saline treated groups but did not significantly differ by the end of the study. Rate of wound closure was significantly slower in the Amphotericin treated eyes as compared to the Clotrimazole and the other treatment groups throughout the entire duration of the study. These findings, along with its known effectiveness and wide availability should push to explore the potential of commercially prepared Clotrimazole 1% Solution as a viable alternative in the management of fungal keratitis.

Cornea injuries. Clotrimazole. Administration and dosage. Antifungal agents-therapeutic use . Rabbits. Wound healing. Medicine.

- 0171 The effect of different carbohydrates and protein solutions on the survival of *Entamoeba histolytica* in pure culture: diagnostic implications for increasing likelihood of recovery from stools. Cojuangco-Bautista, Luisita R., Lecciones, Julius A.. **Makati Medical Center Proceedings**, 1996 , :24-29

Prompt examination of stool specimens is required to increase likelihood of recovery of *Entamoeba histolytica*. Problems of transport are commonly encountered by patients; likewise, laboratories may not always be able to examine stools immediately. In order to determine the best nutritional supplement that can best serve as a transport medium that will prolong survival of *Entamoeba histolytica* in stool clinical specimens, we tested four solutions (Dextrose, Sucrose, Rice water and Whole egg) of different concentrations over a 4-hour observation period, and compared these to both positive and negative controls. Dextrose 5%, Sucrose 5% and Whole egg 50% were found to be the most effective supplements. It is recommended that these solutions be further explored as transport media for stool specimens suspected of harboring *Entamoeba histolytica*.

Amebiasis. Dysentery, amebic. *Entamoeba histolytica*. Glucose. Sucrose. Egg proteins. Medicine.

- 0172 The effect of lidocaine and ropivacaine on the corneal endothelium in vitro. Ramos, Don Martin S., Lopez, Victor B., Sibayan, Santiago A.. **Makati Medical Center Proceedings**, 2004 , :53-56

Objective: The intracameral anesthesia is being used increasingly. The agents however may have toxic effects on the corneal endothelium. The purpose of the study is to determine whether the addition of preservative-free ropivacaine 0.2%, preservative-free ropivacaine 0.75% or preservative-free lidocaine 1% eyebank cornea preservative, Optisol, affects the endothelial cell count, hexagonality and pachymetry of human corneas. *Materials/Methodology:* Human eyebank corneas were immersed in one of four solutions (5 corneas per group) namely control group (pure Optisol) or one of the three test group [1:1 mixture of Optisol plus preservative-free anesthetic (lidocaine 1%, ropivacaine 0.2% or ropivacaine 0.75%0)]. Endothelial cell count, hexagonality and pachymetry were determined at baseline, 15, 30, 45 and 60 minutes following exposure to these solutions. These values were then compared within and between groups using

student's t test and one way ANOVA respectively. A p value of ≤ 0.05 was considered statistically significant. *Results:* Lidocaine 1% and ropivacaine 0.2% showed comparable toxic effects on the corneal endothelium. Ropivacaine 0.75% showed significantly more toxic effects than the other agents. *Conclusion:* Compared to Lidocaine 1%, Ropivacaine 0.2% is equal to its toxicity profile on its effect on the corneal endothelial cell count, hexagonality and pachymetry.

Endothelium, corneal pathology. Lidocaine-therapeutic use. Anesthetics, local adverse effects. Medicine.

- 0173 The effect of locally available viscoelastics on eyebanked corneal endothelium. Javellana, Juan Antonio G., Padilla, Ma. Dominga B.. **Makati Medical Center Proceedings**, 2002 , :30-33

Purpose of Study: To determine the effect of Chondroitin sulfate - Sulfate hyaluronate (Viscoat), Sodium hyaluronate (Healon Regular), and Hydroxypropylmethylcellulose (Celoftal, Viscomet) on endothelial cell counts of eyebanked corneas. *Type of study:* Single blind randomized in-vitro study. *Methods:* Nineteen eyebanked corneas were studied. Endothelial cell counts were taken initially, at 20 minutes after treatment with 0.1ml of viscoelastic and after a standardized surgical manipulation. *Results:* Twenty minutes after treatment, there was no significant difference in cell counts between the different treatment groups. After surgical manipulation, there was a significant decrease in cell counts between the four treatment groups. Chondroitin sulfate (Viscoat) had a mean reduction in endothelial cell count of about 9%, followed by one brand of Hydroxypropylmethylcellulose (Celoftal) with 9.7%. *Conclusion:* There were significant differences between viscoelastics in mean reduction of endothelial cells after manipulation. Hydroxypropylmethylcellulose (Celoftal) warrants further study for use in corneal transplant procedures.

Corneal transplantation. Viscosity. Endothelium, corneal. Medicine.

- 0174 The effect of probiotic (lactobacilli) in experimentally-induced intestinal ischemia in mice. Cortez, Pamela D., Trapaga-Avancena, Ma. Isabel F.. **Makati Medical Center Proceedings**, 1999 , :78-83

Background. Probiotics are defined as live microbial feed supplements, which beneficially affects the host by improving intestinal microbial balance. Their use for acute, rotavirus diarrhea, antibiotic induced diarrhea and enterocolitis have been well elucidated. However, there is a paucity of studies regarding its role in the treatment of other intestinal disorders of graver magnitude such as those resulting from intestinal ischemia. **Objectives:** to determine the effects of probiotics on experimentally induced ischemia in mice specifically on histology of the areas of ischemia and to correlate clinical behavior after administration of treatment. **Setting and Subjects.** A controlled laboratory study using ICR mice, weighing 27-33g, housed under standardized conditions in a research laboratory. **Methods.** Intestinal ischemia was produced in ether anesthetized mice by forming a loop in the terminal 2 cm of the jejunum then ligating the area using silk suture. At the end of the ischemic period of thirty minutes, the suture was removed allowing reperfusion and the abdomen was closed. The mice were randomly divided into four groups, each group to receive either of the following: antibiotic alone, antibiotic plus lactobacilli, placebo (control), or lactobacilli alone. Clinical parameters were observed

during the 4 day treatment period. The mice were then sacrificed. The area of ischemia was examined by a blinded pathologist and was graded according to severity of the findings. Results were then subjected to statistical analysis using the kruskal-wallis method. **Results.** The treatment groups showed better outcome compared to the control according to clinical and histopathologic parameters. Those animals who received both antibiotic and lactobacilli showed the least desquamation and mucosal injury, least edema, less blunted villi, with the most number of inflammatory cells. **Conclusion.** Probiotic lactobacilli may be beneficial as an adjunct in the treatment of diseases caused by intestinal ischemia. Clinically and histopathologically those who received both the antibiotic and lactobacilli showed better outcome and better mucosal morphology respectively. Lactobacilli as a sole treatment for intestinal ischemia showed minimal therapeutic advantage.

Medicine. Lactobacillus-drug effects. Mice-diseases-pathology. Ischemia-pathology.

- 0175 The effectiveness of cimetidine in the treatment of recurrent viral warts. Liwanag-Reyes, Cristina , Cabral-Villar, Imelda, Montinola, Filomena L.. **Makati Medical Center Proceedings**, 1995 , :55-61

Dermatologists are often faced with the problem of recurrent viral warts. With the advent of immunological findings in patients with warts, immunomodulatory modalities have since then become attractive alternatives. Cimetidine has been shown to improve both cell-mediated and humoral immunity. It is the objective of this study to test its effectiveness in the treatment of recurrent viral warts by measuring changes in wart diameter and height in patients given 1.2 grams of Cimetidine orally plus topical salicylic acid daily for 6 weeks as compared to a control group wherein only salicylic acid was applied. The effect of patient age, sex, number of lesions, type, duration, location and size of wart, on the response to Cimetidine was also evaluated, as were accompanying signs of inflammation. Although results showed better responses in patients taking Cimetidine, these were not found to be statistically significant.

Warts treatment. Cimetidine. Immunomodulatory modalities. Medicine.

- 0176 Effects of commonly used topical preparations on the cutaneous normal flora. Bustamante-Gonzales, Joanne B., Montinola, Filomena L.. **Makati Medical Center Proceedings**, 1996 , :46-49

The effects of topical Betamethasone dipropionate, 2% Erythromycin, and Isoconazole nitrate were studied on the microbial flora of human skin. Qualitative and quantitative bacteriologic studies showed all three topical altering the balance of the normal cutaneous flora in 2 weeks. Coagulase-negative Staphylococcus was decreased allowing growth of other potential pathogens. Such alterations in the normal flora did not produce clinical signs of infection. These observations and their relation to the maintenance of the integrity of cutaneous barriers against infection are discussed.

Betamethasone. Dermatomyces-drug-therapy. Erythromycin. Staphylococcus. Isoconazole. Medicine.

- 0177 Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients. Cantillep-GaÃ±a, Arlene O., Black, Dwight C., Litonjua, Augusto D.. **Makati Medical Center Proceedings**, 1997 , :44-52

To assess the role of metformin on the insulin resistance, 20 obese NIDMM and other obese non-diabetic subjects were given metformin 425 mg BID for one week then 850 mg BID for eight weeks. Half from each group were placed on weight-reducing diet and weight-maintaining diet. A frequently sampled intravenous glucose tolerance test was done at 0, 5 and 9 weeks of the study period to examine their lipid profile, glycemic control, insulin and C-peptide levels. Total cholesterol concentration decreased in both diabetic and non-diabetic groups regardless of whether they reduced or maintained their weight ($p=.007$). Triglyceride, low density lipoprotein, high density lipoprotein, very low density lipoprotein, C-peptide and glucose disappearance rate changed though not significantly. Blood sugar levels decreased in the diabetic weight-reducing and weight-maintaining groups. Among non-diabetic, those who reduced their weight also reduced their blood sugar responses but those who maintained their weight increased their sugar response to glucose load. Obese NIDDM patients placed on weight-reducing diet decreased their insulin levels unlike the weight-maintaining group who increased their insulin levels.

Blood glucose. Glucose. Insulin. Obesity in diabetes. Metformin. Medicine.

- 0178 Effects of revascularization on the ejection fraction of patients with severe systolic dysfunction. Sansano, Oliver M., Lopez, Gary A., Garcia, Jorge M., Barril, Joseph, Manapat, Adrian E., Diaz, Ramon I.. **Makati Medical Center Proceedings**, 2002 , :11-13

Revascularization through bypass grafting remains a surgical challenge to a group of patients having severe systolic dysfunction (Ejection Fraction, $EF < 30\%$). This study tries to determine the effect of CABG on the ejection fraction of patients with severe systolic dysfunction in Makati Medical Center. *Methods and Results*: Thirty-two patients with a pre-operative ejection fraction of $\leq 30\%$ from a total of 1,512 patients who underwent CABG at MMC were included in the study. Patients were followed up with post-operative ejection fraction reviewed. Indications for surgery includes unstable angina in 17 patients (53%), stable angina in 7 (22%), CHF in 6 (19%), and critical anatomy in 2 (6%). Hospital mortality was three patients (9%). During follow up, there were two deaths. There is a significant increase in the post-op ejection fraction with an alpha significance < 0.001 . *Conclusion*: These data support CABG in patients with severe systolic dysfunction. Such improvement could be secondary to reperfusion of hibernating myocardium.

Coronary artery bypass. Myocardial revascularization. Ventricular dysfunction. Systole. Medicine.

- 0179 Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk. Tambunting, Milan P., Ramos, Claver P.. **Makati Medical Center Proceedings**, 1995 , :8-10

Low molecular weight heparin is a heparin fraction with molecular weights ranging from 4000 to 5000 daltons in contrast with conventional unfractionated heparin which has a mean molecular weight of 12000 to 16000 daltons. While maintaining its anti-thrombotic activity in therapeutic doses because of its strong anti-factor X_a activity, it has only a slight effect on aPPT and thrombin time in contrast with conventional heparin. Because increased bleeding with heparin is due to its effect in prolonging aPTT, it has been shown that bleeding complication is less with low molecular heparin compared with unfractionated heparin.

For hemodialysis, Fraxiparine at a dose of 175 anti-X_a IC units per kg body weight was administered as a single predialysis intravenous injection into the arterial blood tubing at the start of the dialysis; 7500 anti-X_a IC units (equivalent to 3000 units of conventional heparin) was incorporated into the last liter of isotonic saline flushing or priming fluid. For prophylaxis of thromboembolic events, Fraxiparine was administered subcutaneously at a dose of 7500 anti-X_a IC units subcutaneously every 12 hours except in two patients who received 10000 anti-X_a units every 12 hours for hip surgery in one and post abruptio placenta in another.

Eight adults underwent a total of 42 hemodialysis treatment with Fraxiparine for acute renal failure due to gastrointestinal bleeding in one (8 courses), hepatorenal syndrome in one (1 course), gastrointestinal bleeding and severe hepatic failure in one (10 courses), sepsis in two (11 courses), leptospirosis in two (6 courses), and vehicular accident with hemoperitoneum and subarachnoid hemorrhage in one (6 courses). Eleven adult patients underwent a total of 236 chronic hemodialysis treatment for indications of high risk for bleeding due to gastrointestinal bleeding in three (70 courses), severe hepatic failure in two (72 courses), gastrointestinal bleeding and severe hepatic failure in two (12 courses), retinal bleeding in one (36 courses), and abdominal surgery in three (46 courses). Seven adult patients received Fraxiparine for the prevention of deep vein thrombosis for hip prosthetic surgery in five, knee prosthesis in one, and abruptio placenta post-cesarian section in one.

In none of these though small number of patients was bleeding induced or aggravated with the use of Fraxiparine while maintaining an adequate anti-thrombotic action.

Medicine. Heparin. Hemodialysis. Low molecular weight heparin. Bleeding complication. Fraxiparine.

- 0180 The efficacy of different concentrations of *Morinda citrifolia* (noni) cream preparations in the treatment of staphylococcal full-thickness burn wound infection in mice. Junsay, Raymund G., Millonado, Joan A., Nuguid, Arnel S.. **Makati Medical Center Proceedings**, 2004 , :79-86

Design: Prospective Descriptive Analytical Animal Experiment. *Objective:* To compare the efficacy of the 2%, 4% and 10% *Morinda citrifolia* (Noni) extract cream against commercially-prepared antibacterials in the treatment of *Staphylococcus aureus* infection in full-thickness burn wounds among mice. *Methodology:* Fifty-four pathogen free mice were divided randomly into six groups. A full-thickness burn wound was created over the backs of each mice and swabbed with *Staphylococcus aureus*. One group served as control, and the rest were treated with 2%, 4% and 10% Noni cream preparations, mupirocin and silver sulfadiazine for seven days. Every day one mouse from each group was sacrificed and their skins were sent for histopathologic studies. *Results:* Full thickness burn wounds of mice infected with *Staphylococcus aureus* treated with 10% noni cream preparation retained their full thickness character, were cleared of *S. aureus*

infection and showed histologic absence of wound infection as early as the 3rd day of treatment. These were comparable with those obtained from the infected burn wounds of mice treated mupirocin cream and silver sulfadiazine cream. However, mice that were treated with 2% and 4% Noni cream preparation, although proven to be effective as an antibacterial agent as evidenced by retention of the full thickness wound disappearance of *S. aureus* growth on the 7th day of treatment and control of inflammatory response histopathologically, has a slower onset of action as compared to their 10% counterparts. In contrast, the control group had evidences of uncontrolled *S. aureus* infection and histological specimens showed extension of necrosis to the muscular layer with persistence of infiltrating cells up to day seven of the experiment. *Conclusion:* This study had demonstrated the efficacy of the 10% *Morinda citrifolia* (Noni) cream preparation in the treatment of *Staphylococcus aureus* infection in full thickness burn wounds in mice.

Staphylococcus aureus drug effects. Wound healing. Mice. Medicine.

- 0181 Electrical impedance scanning (T-Scan 2000) in evaluation of breast cancer: comparison with mammography and histopathology Results. Magsanoc-Remorca, Melodie Grace, Umali-Crisostomo, Angela. **Makati Medical Center Proceedings**, 2000 , :84-87

Electrical impedance scanning (EIS) of the breast was performed using the T-Scan 2000 imager in 80 biopsy cases at Makati Medical Center, from August 2000 until January 2001. Correlation was studied between the directed T-Scan findings, mammography findings, ultrasound findings and histologic results. The principle results of EIS are that T-Scan identifies cancer with sensitivity in the range from 95%-100% and specific range of 12% to 46%, for three different subpopulations, with somewhat higher sensitivity for young patients. The substantially higher specificity of EIS in these findings, together with high NPV's, indicate that the new modality may have a significant potential roles as an adjunct to mammography, particularly for the management of younger patients, or those whose mammographic findings are indeterminate between recommending biopsy or short-term follow-up.

Electric Impedance, Scanning. Mammography. Breast Neoplasms. Medicine.

- 0182 Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache. Almeda, Esteban V., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1996 , :7-9

The ideal treatment for acute attacks of migraine headache has eluded researchers for quite some time and nowhere is this more true than in the Emergency Department. It is the place where most of these patients run to for help. It is the purpose of this study to investigate through a descriptive review of charts, if the symptoms of migraine were relieved by metoclopramide HCl, administered intravenously as a single agent.

The chart of 110 patients with a diagnosis of migraine, that were seen from January 1994 to October 1994 at the Emergency Department and given 10 mg of metoclopramide HCl IV were reviewed. Noted were the degree of symptom relief, the duration of stay, the age and sex of the patients, the need for additional medications, the dose given, and the presence of adverse reactions. The results were collected and analyzed.

In conclusion, metoclopramide HCl was effective in relieving the symptoms of migraine at the administered dose, whether alone or in combination with a mild, non-narcotic analgesic.

Medicine. Emergency service, hospital. Metoclopramide HCL . Migraine. Headache.

- 0183 Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program. Estrada, Sylvia C., Chiong, Mary Anne D., Padilla, Carmencita D.. **Acta Medica Philippina**, 2007 , 41(1):8-12

Objectives: To determine the etiology of congenital hypothyroidism (CH) among infants screened by the Philippine Newborn Screening Program. This study also aims to compare the levels of TSH, T4 and developmental status of the infants among the different etiologies.

Methodology: From July 1996 to September 2004, 121 patients out of 371,072 babies screened were confirmed to have CH. Medical records were requested for review. Patients' demographics, maternal history, developmental status, and results of thyroid scan, TSH, T4 levels and bone age were collected. Thyroid status of the pregnant mother and developmental status of the offspring were examined. TSH, T4, and developmental status of the patients were compared among the different etiologies.

Results: Of the 121 patients confirmed to have CH, only 42 (35%) clinical records were available for review. Among the 42 reviewed cases, the female to male ratio is 2:1. Athyreosis was seen in eleven infants (26%); seven infants (7%) had hypoplastic glands; four (9%) had ectopic thyroid glands; two (5%) had enlarged glands; nine (21%) had normal gland dimensions and functional uptake; and nine (21%) had no data on thyroid imaging. Twenty-one percent (9/42) were offsprings of mothers with thyroid dysfunction during pregnancy. Seventy-nine percent (33/42) were born to mothers with no known thyroid disorders. The mean confirmatory TSH was 140.4 mIU/L. Standard deviation was 24.5 mIU/L. The mean blood T4 was 18.5 pmol/L (SO=5.3 pmol/L). Kruskal-Wallis test (p-value=0.0345) suggests a statistically significant difference in TSH levels among the different etiologies. On further analysis, estimates of the mean TSH of the athyreotic group (178.78; 95% CI 120.17-237.39) is significantly elevated compared with the normal group (64.38; 95% CI 47.07-81.69); but not significantly different from the dysgenetic group (143.68; 95% CI 71.75-215.61). The differences in the mean T4 levels among the different CH etiology groups were not statistically significant (p-value=0.11). Further, the differences in the distribution of the infants according to developmental status among the different CH etiologies are also not statistically significant (p-value=0.528). There were also no statistically significant differences in the distribution of developmental status of infants according to maternal thyroid status during pregnancy (p-value=1.000).

Conclusion: The lack of statistically significant findings in the study is due to the small sample size. A prospective long-term study involving a greater number of infants and mothers is therefore recommended to better define the relationships between thyroid gland anatomy and function, maternal thyroid status and developmental outcome of newborns with congenital hypothyroidism.

Medicine. Congenital hypothyroidism. Newborn screening. Thyroid dysgenesis. Dysmorphogenesis.

Developmental outcome .

- 0184 Evaluation of ras mutations in Filipino colorectal patients. Carrillo, Maria Constancia O., Chao, Fang-I C., Silao, Catherine Lynn T., Cutiongco-dela Paz, Eva Maria C., David-Padilla, Carmencita. **Acta Medica Philippina**, 2008 , 42(2):17-21

Activating mutations in the ras proto-oncogene lead to increased, unregulated cellular proliferation. Point mutations in ras codons 12 and 13 are early events in 40-50% of colorectal cancer cases, and are associated with shortened patient survival. Procedures for mutation detection, which are used in patient diagnostic evaluation, have been developed for various populations, but not for Filipinos. This study aims to determine the incidence of ras mutations among Filipino colorectal cancer and non-cancer patients and to evaluate the usefulness of ras mutation detection in colorectal cancer diagnostics. Two rapid, cost-effective mutation detection methods are also evaluated. Restriction fragment length polymorphism (RFLP) detects mutations in codons 12 and 13 while single strand conformational polymorphism (SSCP) detects any mutation in the amplicons screened. PCR-amplified ras exon 1 from 21 colorectal cancer and 17 non-cancerous tissue samples were analyzed. DNA sequencing confirmed the presence of six substitution mutations: five (23.8%) in cancer samples and one (5.9%) in a non-cancer sample. RFLP detected all mutations, while SSCP failed to detect one, suggesting that RFLP is the better method for mutation screening. The incidence of ras mutations among Filipino colorectal cancer patients is lower than in other populations, suggesting that ras mutation detection is a highly sensitive but not specific diagnostic tool for colorectal cancer in Filipinos.

Ras. Colorectal cancer. Mutations. Medicine.

- 0185 Evaluation of the effectiveness of the introduction to patient care program of the UP College of Medicine. Bascara-dela Fuente, Evangeline. **Acta Medica Philippina**, 1994 , 30(2):109-117

Since 1982, the UP College of Medicine has been conducting the IPC Program for the Intarmed students. This program was envisioned to sensitize medical students to the more humane dimensions of medicine. To date, 386 medical students have participated in the course. Although the program has generated favorable reactions from its participants, there has yet been no formal, systematic assessment of the course. This need was identified in 1992 by the IPC Steering Committee as an indispensable exercise prior to any plan to improve and expand the program.

The objective of this study is to determine the effectiveness of the IPC Program in achieving the objectives set for each of the three IPC courses. Parameters noted to be relevant to the objectives of each course was extracted from three psychological tests and arbitrarily assigned to each course. The tests used were the Personal Orientation Inventory, the Test of Social Insight and the Gordon Personal Profile.

A stratified proportionate sampling design was used and study subjects were composed of 2 experimental groups and 4 control groups. The study design used was a quasi-experimental post-test only control group design. Data gathered was subjected to quantitative methods of analysis using the T-test a one-tailed confidence interval of 95%. The program will be deemed effective if IPC participants obtain statistically significant

higher scores in the attributes being tested.

In general, the IPC participants obtained favorable scores in more parameters than non-IPC participants and there is a trend toward increase in the number of favorable scores as more IPC courses are taken. Likewise, there is a similar trend for statistically significant difference among scores. It can be said that the study provides evidence that is suggestive of the effectiveness of IPC in achieving its goals. The evidence is not conclusive however due to the inability to control for other variables such as intelligence and the fact that there was no statistically significant difference among scores in some parameters. Based on a review of the course objectives and activities, some recommendations were given.

Patient care. Medical education. Medicine.

- 0186 Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria. Lim, Carmela Ana V., Leelin, Thelma V.. **Makati Medical Center Proceedings**, 2000 , :79-83

Miliaria is a disorder involving retention of eccrine sweat caused by blockage of ductal openings. Some studies have indicated that cutaneous bacteria, particularly the coagulase-negative staphylococcus, *Staph. epidermidis* produces an extracellular polysacchire substance (EPS) which leads to the formation of a keratotic plug that obstructs eccrine ducts. The aim of this study, therefore, is to compare the proportion of EPS-producing *Staph. epidermidis* between skin areas with miliaria and skin areas without miliaria and to identify other organisms present in miliaria lesions. Twenty-two patients at our Dermatology Out-Patient Department, were included in the study. Cultures were done on miliaria lesions on the back and on lesion-free skin of the arm. A greater proportion of EPS-producing *Staphylococcus epidermidis* was found in skin areas with miliaria than in lesion-free skin. Other organisms found in miliaria lesions were *Staphylococcus haemolyticus* and *Staphylococcus aureus*.

Miliaria. Eccrine gland. *Staphylococcus epidermidis*. *Staphylococcus aureus*. Coagulase. Medicine.

- 0187 Facial reanimation with the use of sural nerve in total parotidectomy with facial nerve Sacrifice. Guzman Jr., Patricio B., Fernandez, Ricardo O.. **Makati Medical Center Proceedings**, 1995 , :94-96

A 12 year old male with mucoepidermoid carcinoma; intermediate grade of the left parotid gland underwent total parotidectomy with facial nerve sacrifice. Primary repair using sural nerve interposition cable graft was performed by Epineural Suture technique using Prolene 9-0.150 days post-operative, voluntary control on the left perioral group of muscles were noted.

Medicine. Parotidectomy.

- 0188 Facing up to the challenges of the diabetes epidemic. Paz-Pacheco, Elizabeth. **Acta Medica Philippina**, 2005 , 39(2):43-47

Type 2 Diabetes Mellitus is a chronic disease characterized by hyperglycemia. It is due to defects in insulin secretion (b-cell dysfunction) and insulin action (insulin resistance). It affects 4.6% of Filipinos aged 20 years and older, according to the National Health and Nutrition Survey (2003-2004). Diabetes is the leading cause of major complications such as cardiovascular events, peripheral vascular disease, end-stage renal disease, blindness, and lower extremity amputation. It is a disease in adults with a peak prevalence of 10.4% among Filipinos in the age group 50-59.

The challenges presented to us in the new century relate with the epidemic of diabetes worldwide, with the Asia-Pacific region expected to be affected the most, and particularly in the Philippines which is not spared. Greater increase in diabetes prevalence will occur due to increased Westernization of diets and decrease in physical activity, leading to obesity. In the Philippines, while undernutrition as a form of malnutrition has been a major health problem, obesity as another outcome of malnutrition is now a major health concern. Using the World Health Organization (WHO) criterion of obesity defined as a Body Mass Index (BMI) of 30, 4.9% of our population are obese and 19.6% are overweight. Trends in our region are estimated to increase, and knowing the clear link between diabetes and obesity, this dual epidemic presents an alarming national health problem, unless urgent preventive measures are carried out.

The Philippines faces a number of important challenges. First, there is a need for a national program for screening and for prevention of diabetes and obesity. Obesity prevention should begin with children since obesity is the precursor to diabetes in a susceptible population. National guidelines on the management of this condition should be put in place. Second, there is a need for collaboration by different national organizations with the Department of Health to develop a national program that will create strategic plans, avoid duplication, and pool resources. Third, there is an urgent need to assist patients in the control of cost of medications, as these patients are burdened with daily financial costs for a variety of medications. Fourth, there is a need to increase the number of endocrinologists and related specialists to achieve a good specialist to patient ratio. This can be done by increasing the number of training institutions and expanding to various centers in Visayas and Mindanao. Fifth, there is a need for enhanced research on diabetes and obesity focusing on the Filipino population for us to better understand this condition. Finally, there is a need for laboratory standardization for various tests particularly Hemoglobin A1c (glycosylated hemoglobin) and lipid profiles.

Despite these challenges, it continues to be an exciting time for diabetes care in the Philippines, as research and development activities on new therapeutic agents and delivery systems have reached an all-time high. As such, innovative treatments are not lacking. We as a country should be able to respond to those challenges. The epidemic is already upon us; this is not a time to procrastinate, lest the cost of diabetes care in the coming years become insurmountable.

Medicine. Diabetes mellitus. Pharmacotherapy. Diabetes Education. Prevalence.

- 0189 Factors predictive of adverse outcome in dengue hemorrhagic fever. Cortez, Pamela D., Garcia, Robert Dennis J.. **Makati Medical Center Proceedings**, 2000 , :3-10

The purpose of this retrospective study is to identify risk factors, which may predict adverse outcomes in dengue hemorrhagic fever (DHF). The charts of 229 patients admitted to Makati Medical Center from January 01, 1995-December 31, 1996, aged 6 months to 18 years old with a diagnosis of Dengue Hemorrhagic Fever by the World Health Organization (WHO) definition or who had a positive dengue blot IgM or dengue blot IgG were analyzed. Those who had other systemic diseases, which may influence platelet count, were excluded. Patients were classified according to the dengue hemorrhagic fever stage that they belonged to. There were 33 patients in DHF 1, 152 in DHF 2 and 44 patients under DHF 3, 11 of whom died. Adverse outcome was defined as progression to DHF stages 3 or 4 or Dengue shock syndrome or death. Factors such as age, sex, weight, socioeconomic status, presence of fever and duration, presence or absence of constitutional symptom like vomiting, anorexia, abdominal pain, non-constitutional symptom like encephalopathy and their association with adverse outcome and correlation with dengue staging were analyzed. Age correlated with the occurrence of severe DHF, with the more severe cases occurring in the age group 7.1 ± 3.8 without any sex predominance. The constitutional symptoms of vomiting and abdominal pain tend to occur more frequently in severe cases of DHF. Presence of hepatomegaly directly correlated with the tendency to bleed. Encephalopathy, longer duration of fever, a hematocrit rise to 44.9 ± 6.7 , platelet count between 51.7 ± 43.9 at any time of the illness correlated with a higher dengue grading and greater tendency to bleed.

Medicine. Dengue complications. Shock, septic-epidemiology. Retrospective studies. Adolescence. Child, preschool.

- 0190 Factors predictive of pneumonia in measles. Mortel, Noemi D.V., Alcañeses, Ma. Rosario S.. **Makati Medical Center Proceedings**, 2000 , :16-20

To determine the factors which are significantly associated with the development of pneumonia in measles, 336 cases of measles admitted at MMC were reviewed. The clinical profile was described and statistical analysis was done on significant variables using Cochran-Mantel-Haenzel statistics in 29 patients with pneumonia and in 98 patients without pneumonia randomly selected to make a ratio of 1:4 which will make statistical analysis of association possible. The following factors were found to be significantly associated with development of pneumonia in measles: day of rash ($p < 0.009$), state of nutrition specifically those < 25 th percentile ($p < 0.001$), day of the illness PTA, > 10 days ($p < 0.022$), immunization status, non-immunized group ($p < 0.021$) odds ratio 0.311, confidence interval 0.115) and finally hemoglobin level or presence of anemia ($p < 0.001$, odds ratio 0.032, confidence interval 0.011) Factors not significantly associated with development of pneumonia in measles were age, sex, day of fever on admission, presence of cough and cold. More than 1/2 or 61% of the study population did not receive any immunization, 38% of them had pneumonia and 10% of these patients who develop pneumonia had a complicated course. These findings emphasize the importance of measles immunization and nutritional rehabilitation in our population. Early antibiotic therapy may be recommended for those who are unimmunized, those who belong to less than 25th centile, and those with anemia.

Medicine. Anemia. Measles. Nutritional Status. Pneumonia. Immunization.

- 0191 Fine needle aspiration biopsy in the diagnosis of thyroid cancer: How accurate is it?. Gomez, John Anthony A., Arguelles, Vincente Q.. **Makati Medical Center Proceedings**, 1996 , :35-38

A total of 30 patients, 28 females and 2 males with clinically palpable solitary thyroid nodule were included in the study. Initial cytologic studies were done via Fine Needle Aspiration Biopsy (FNAB) prior to thyroidectomy. All were evaluated and classified according to whether the cytological diagnosis was benign, suspicious or malignant. FNAB cytology results were compared with the histopathological findings of the lesion. FNAB sensitivity was 94.4%, specificity was 92.3% with a diagnostic accuracy of 93.5%. FNAB has become a useful procedure in the study and diagnosis of thyroid neoplasm. It is simple and rapid diagnostic procedure that may be used to expedite the management of malignant lesions.

Thyroid cancer. Thyroid diseases. Fine needle. Medicine.

- 0192 Fine needle aspiration of the thyroid gland a five year experience at Philippine General Hospital. Abelardo, Agustina D.. **Acta Medica Philippina**, 1993 , 29(1):43-50

The study reports on a five year experience on thyroid aspirates at the Philippine General Hospital. Of the total 6895 aspirations of the thyroid gland, 514 underwent either subtotal or total thyroidectomy; 444 cases were correlated cytomorphologically. Results of the aspirates were compared with the tissue sections of the definitive specimens. The cytopathologic features of the aspirates were described and the pitfalls in the diagnosis were analyzed. There were 32 (7%) false diagnoses and 11 (2%) false positive diagnoses. Sensitivity was 92% and specificity was 96%. There were no significant complications encountered.

Thyroid gland. Cytopathology. Fine needle aspiration. Medicine.

- 0193 A five year retrospective study on the incidence of genodermatoses. Timbol, Diana Marie T., Leelin, Thelma V.. **Makati Medical Center Proceedings**, 1997 , :89-98

Genodermatoses is defined as a genetically determined disorder of the skin, usually generalized.

The aim of this paper is to determine the incidence of the genodermatoses seen in the Dermatology clinic in Makati Medical Center.

Records of patients with a diagnosis of genodermatoses were retrieved and reviewed. The following data were noted from each patient: name, age, sex, clinical manifestations with emphasis on the skin, associated anomalies, family history and diagnostic procedures, and were correlated with the features of each genetic disease.

A total of 14 patients with a diagnosis of genodermatoses were seen at the Dermatology out and in-patient: anhidrotic ectodermal dysplasia, 1; incontinentia pigmenti, 3; tuberous sclerosis, 3; neurofibromatoses, 4; aplasia cutis congenita, 1; pachydermoperiostosis, 1; and ichthyosis vulgaris, 1.

Tremendous strides have been made in our understanding of genetic disorders. The

dermatologist has the opportunity to facilitate precise diagnosis and optimal care for these patients by recognition of the cutaneous markers for these diseases. Genetic counseling is a mainstay of the education given to patients and their families.

Ectodermal dysplasia-genetics. Hereditary diseases. Ichthyosis vulgaris. Neurofibromatosis-genetics. Osteoarthropathy, primary hypertrophic. Tuberous sclerosis. Incontinentia pigmenti-diagnosis. Medicine.

- 0194 A five-year review of patch testing in a private clinical setting in Metro Manila. Leveriza-Oh, May , Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 2001 , :9-14

Background: Allergic contact dermatitis is a significant cause of skin disease. The only scientific method of diagnosing it is by Patch testing. Patch test results have been documented in the Americas, Europe, and Asia; however, only a few epidemiologic studies have been done in the Philippines. *Objective:* To determine the allergens with highest frequencies of positive reactions, sex-related and age-related differences, and temporal trends in patch test results in a private dermatology clinic in the Philippines; and to compare these with results from other countries. *Methods:* Two hundred fifty four patients (113 males and 141 females) were patch tested at a private dermatology clinic between January 1, 1994 and December 31, 1998 using the SSLI (Skin Sciences Laboratory, Inc.) standard patch test series. *Results:* The five most allergenic chemicals were fragrance mix (46.4%), potassium dichromate (42.5%), p-phenylenediamine (38.7%), nickel sulfate (37%), and thiuram mix (30.4%). This concurred well with results from the NACDG (North American Contact Dermatitis Group), Singapore, Nigeria, Saudi Arabia and another local Philippine study. No significant differences in reaction were noted between males and females except for p-tert-butylphenol formaldehyde resin, epoxy resin and propylene glycol. The most allergenic chemical for males was fragrance mix (42.7%) and for females it was potassium dichromate (47.52%). Half of the 24 allergens had their highest rates of positivity in the 5th decade of life. For ages 30 and below, potassium dichromate was most allergenic chemical; for 31-50, fragrance mix; 51-60, cinnamic aldehyde and triclosan; and 60 and above, balsam of peru. Some temporal trends were noted through 1994-1997. *Conclusion:* The patch test profile of this study is fairly consistent with the ones done in other countries. Isolated differences in occurrences and rankings could either be due to genetic factors and/or environmental exposure to allergens peculiar to a certain region. Sex-related differences were generally insignificant, while age-related differences may be attributed to the state of development of the immune system as well as the prevalence of exposure in a particular age group.

Patch tests. Dermatitis, allergic contact-diagnosis. Medicine.

- 0195 Follicular thyroid carcinoma with metastasis to the mandible. Reynes, Ma. Corazon M., Bautista, Ariston G.. **Makati Medical Center Proceedings**, 1997 , :100-102

Follicular Carcinoma of the thyroid preferentially metastasizes by the hematogenous route to involve the bones and lungs. At the Makati Medical Center, patients diagnosed with follicular thyroid carcinoma have been reported with metastatic disease to the lungs, brain, scalp, and lumbar area. This report illustrates that clinically significant distant

metastasis may also invade local osseous tissues including the mandible. The literature, clinical features and treatment of metastatic follicular carcinoma are discussed.

Adenocarcinoma, follicular-diagnosis. Iodine-radioisotopes-therapeutic use. Lymphoma, follicular-therapy. Thyroid neoplasms-pathology. Lymphoma, follicular. Medicine.

- 0196 The frequency of glove contamination during cesarian delivery. Ifurung-Gonzales, Elizabeth C., Gonzalez-Borromeo, Romana . **Makati Medical Center Proceedings**, 1995 , :76-79

A study was made to determine the frequency of contamination of the surgeon's gloves during the extraction of the fetal head in 74 cesarean deliveries categorized into Group I, 45 patients who were not in labor, Group II, 19 patients who were in labor and had intact membranes, and Group III, 10 patients who were in labor and had ruptured membranes before surgery. This was done by taking culture specimen for aerobic and anaerobic organisms from the surgeon's gloves immediately before and after the fetal extractions. Findings revealed that the frequency of glove contamination before and after extraction of the fetal head was not statistically significant within each group ($p > 0.05$). Significant differences in glove contamination were observed between patients who were in labor and patients who were not. Increased frequency of contamination was noted to be more significant when there was rupture of the membranes. Based on the findings, it was concluded therefore, that labor per se increases the frequency of glove contamination during Cesarean section.

Medicine. Glove contamination. Cesarean delivery.

- 0197 Frequency of resistance to trimethoprim-sulfamethoxazole in salmonella-positive blood cultures. Chavez, Vernon B., Romulo, Rodrigo Luis C.. **Makati Medical Center Proceedings**, 1996 , :64-65

Trimethoprim-sulfamethoxazole has been used in the empirical treatment of enteric fever. With published reports showing emergence of resistance to the drug, the frequency of such resistance was studied by reviewing blood cultures positive for Salmonella. Resistance to cotrimoxazole was demonstrated in 9.56% of the *S. typhi* group, and 22% in the non-typhi group. With the occurrence of such resistance, it may be prudent to withhold giving the drug empirically for the moment. Further studies are also needed to establish alternative drugs for use as initial empirical treatment of enteric fever.

Medicine. Salmonella. Typhoid. Trimethoprim-Sulfamethoxazole.

- 0198 Gabapentin in neuropathic pain. Azores, Corina Maria Socorro M., Macalintal-Canlas, Regina A., Lu, Henry U.. **Makati Medical Center Proceedings**, 2001 , :52-57

Background: Neuropathic pain remains a challenge to most physicians in spite of several drugs that have been tried for its treatment. Gabapentin is a relatively new drug which has also been tried but there is not enough controlled trials to prove its effectiveness.

Objective: This aimed to determine the effectiveness and safety of gabapentin in the treatment of neuropathic pain. *Method:* A randomized control trial was used on patients diagnosed to have neuropathic pain at the Out-Patient Department of Makati Medical Center. *Main Outcome Measure:* Scored improvement using the Neuropathic Pain Scale. Analysis was done by computation of rates, by Friedman's Anova and Cochran's test. *Results:* Analysis of the data on 30 patients included in the study showed no statistically significant difference between the gabapentin group and the placebo group after 4 week trial except for the significant change in the time quality of the pain in the gabapentin group. However, there was a consistent trend demonstrating greater pain relief with gabapentin than the placebo. Moreover, follow-up of other patients after 4 weeks showed a high 53% pain free patients in the average of 5 weeks treatment with gabapentin (none in the placebo group). The only side effect noted was mild and transient dizziness. *Conclusion:* Gabapentin may be used as treatment in neuropathic pain with minimum side effects.

Medicine. Acetic acids - therapeutic use. Peripheral nervous system disease - complications.

- 0199 Gaucher disease in six Filipino children: a case series. Chiong, Mary Anne D, Estrada, Sylvia C., Cutiongco-dela Paz, Eva Maria C., Yaplito-Lee, Joy . **Acta Medica Philippina**, 2008 , 42(2):43-47

Six Filipino children with Gaucher disease are presented. All patients manifested marked hepatosplenomegaly, hematologic and skeletal abnormalities. The diagnosis was confirmed through bone marrow aspiration by demonstration of the characteristic 'Gaucher cells' and by leukocyte enzyme assay indicating deficient acid beta-glucosidase. Mutation analysis of the GBA gene was done in one patient. Two patients are receiving enzyme replacement therapy.

Gaucher Disease. Acid beta-glucosidase. Glucocerebrosidase. Hepatosplenomegaly. Erlenmeyer flask deformity. Enzyme replacement therapy. Medicine.

- 0200 Genetic diversity of plasmodium Sp in a low endemic area in the Philippines. Pasay, Cielo J.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):169

Immunity to malarial parasite is slow to develop even among residents of endemic areas. One possible hypothesis to this slow acquisition of natural immunity is the ability of the parasite to evade the host's immune response by exhibiting antigenic polymorphism. Thus, in natural populations, enormous antigenic diversity of malaria parasites has been observed. Knowledge of the nature and extent of diversity within the species of *Plasmodium* becomes increasingly relevant as control measures become more selectively targeted towards the molecular components of the parasite.

In this study, parasite typing techniques such as PCR, RFLP, and DNA sequencing using two prime vaccine candidates (MSA-1 and AMA-1) as marker genes were employed to investigate the role of genetic diversity of *Plasmodium* on the dynamics of malaria transmission in the area. Specific research questions such as description of the degree of diversity which may provide an estimate of the number of people infected at any one time in the area, association between parasite strains and disease, and rates at which new strains are introduced in an area shall be addressed.

Medicine. Antigenic polymorphism. Malaria.

- 0201 Genetic polymorphisms of glutathione-S- transferase PI, TI and MI in pediatric patients with acute lymphocytic leukemia in a Philippine tertiary hospital. Alcausin, Maria Melanie Liberty B., Fajardo, Pamela D., Silao, Catherine Lynn T., Goleta-Dy, Amy, Melendres, Eufrosina A., Cutiongco-dela Paz, Eva Maria C., David-Padilla, Carmencita. **Acta Medica Philippina**, 2008 , 42(2):22-26

Introduction. Glutathione S-transferases (GSTs) are major detoxifying enzymes that modify susceptibility in cancers including acute lymphocytic leukemia (ALL). This paper determines the frequency of GST polymorphisms (M 1, T1, P1) in Filipino ALL patients and control subjects and compares the frequencies between the two groups.

Methods. Pediatric ALL patients at the UP-PGH Medical Center seen from January to June 2007 were enrolled. Age and sex matched subjects without ALL from the UP-PGH Outpatient Department were included as controls. Genomic DNA was extracted from peripheral blood of each subject. GSTM1 and T1 polymorphisms were determined using polymerase chain reaction (PCR) while restriction fragment length polymorphism (RFLP) analysis was employed for the determination of GSTP1 polymorphisms. Matched Odds Ratio was used to compare the genomic frequencies of control and ALL patients.

Results. The presence of GSTI1 and GSTM1 polymorphisms showed a trend towards protection from having ALL, with OR 0.59 (95% CI: 0.24-1.36) and OR 0.86 (95% CI: 0.36-2.00). respectively. Having the GSTP1 polymorphism was shown to be a risk factor [OR 1.7 (95% CI: 0.74-4.15)].

Conclusion. Differences in GST polymorphism frequencies were noted between the control group and ALL patients. GSTI1 and GSTM1 polymorphisms appear protective while having the GSTP1 polymorphism confers increased risk for ALL.

Glutathione-S-transferase. Acute lymphocytic leukemia. Polymorphic enzymes . Medicine.

- 0202 Gram-positive coccal bacteremia. Rivera, Carmela A., Tupasi, Thelma E., Baello, Benilda Q., Mangubat, Nellie V.. **Makati Medical Center Proceedings**, 2001 , :33-37

A retrospective study on the prevalence of gram positive bacteremia was done at MMC for patients admitted from January 1999 to March 2000. Types of infection caused by gram positive cocci, antibiotic susceptibility pattern, antibiotics used for these patients and their outcomes were also determined. Of the 549 patients who had blood stream isolates during the 15-month period, only 87(15.8%) were secondary to gram positive cocci. Of these, 22 (4%) were caused by CoNS, 21 (3.8%) by *S. aureus*, 14 (2.6%) by *S. viridans*, 12 (2.2%) by *S. pneumoniae*, and 8 (1.4%) by enterococci. Oxacillin resistance *S. aureus* was 33.3% while oxacillin resistant CoNS was 70.5%. There was no vancomycin resistance noted in the isolates of *S. aureus*. Of the 87 patients, only 76 were available for review. There were 49 (64.5%) patients with community acquired infections and 27 (35.5%) had hospital acquired infections. The most common infections were pneumonia (20), skin and soft tissue infections (17) and line-related sepsis (11).

Antibiotic treatment used were vancomycin (15), betalactam-betalactamase inhibitor (11), penicillin (8), cephalosporins (7) and oxacillin (3). The initial antibiotic therapy was continued in 32 patients and was modified in 33 patients after the report of the culture was known. Twenty-seven patients died with an overall case-fatality rate of 35.5% ranging from 10-83.3% for the various pathogens. This study shows that the majority of patients with bacteremia at Makati Medical Center are still due to gram negative bacteria and only 15.8% were due to gram positive cocci. Majority of the cases of gram positive coccal bacteremia evaluated were community acquired (64.5%). Resistance to oxacillin was high for both *S. aureus* (33.3%) and CoNS (70.5%) and no resistance to vancomycin was noted.

Bacteremia-microbiology. Staphylococcal infections-therapy. Streptococcus pneumoniae. Medicine.

- 0203 Green tea extract in the management of *Molluscum Contagiosum*: a randomized study of the green tea extract (*Epigallocatechin Gallate*) in patients with *Molluscum Contagiosum*. Cabillos, Marivic R., Leelin-Sarroso, Donna Marie, Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 2003, :3-8

Background: Molluscum contagiosum is a benign cutaneous infection of children and young adults which occurs throughout the world. It responds to a variety of therapeutic modalities but patient cooperation often limits the dermatologist's choice. In an effort to provide minimally traumatic treatment, a search for an alternative treatment is warranted. *Study Objective:* This study aims to determine the effectiveness of topical green tea extract versus its vehicle (propylene glycol) in the treatment of patients with molluscum contagiosum. *Methodology:* This is a randomized, double-blind vehicle-controlled study involving 69 preselected patients with clinical diagnosis of molluscum contagiosum. Patients were randomized to two parallel groups and each patient received a precoded container and instructions on how to apply the assigned medication at home. Outcome parameters included treatment efficacy, patient acceptability, and over-all evaluation of the patient. Decrease in the number of lesions and decrease in size of remaining ones were documented for the two groups. Patients were evaluated on a weekly basis for four weeks, and were followed up after treatment for another four weeks. *Results:* A total of 69 patients were enrolled. Eighteen (53%) out of 34 patients who received 5% green tea extract cream and eight (23%) out of the 35 patients who received the vehicle cream experienced complete clearing of the lesions after four weeks of treatment. The difference between the effectiveness of 5% green tea extract cream and vehicle cream was statistically significant ($P < .05$). The most frequently reported application site reaction was erythema, and most application site reactions were mild in intensity and generally well-tolerated by patients. *Conclusion:* Five percent green tea extract cream is safe and significantly more effective than the vehicle, thereby promising to be a new alternative in the treatment of molluscum contagiosum.

Molluscum-contagiosum-therapy. Patient-acceptance, health care. Skin diseases-therapy. Molluscum-contagiosum-epidemiology. Medicine.

- 0204 The greenfield vena caval filter in the management of pulmonary embolism. Mendoza, Policarpio Paulo M., Baloloy, Leo Carlo V., Arguelles, Vincente Q., Gisbert, Victor L.. **Makati Medical Center Proceedings**, 1997, :54-57

Pulmonary embolism is a fatal disease. It is potentially the most lethal complication of deep venous thrombosis. Clinical manifestations are inconsistent and non-specific. Diagnosis is conclusively established by pulmonary angiography. Medical therapy with anticoagulation is considered to be the "gold standard" treatment.

Our preliminary series of nineteen patients treated at the Makati Medical Center from January 1993 to July 1996 seeks to document our experience starting with a description of the study population, indication for inferior vena cava (IVC) filter use, a brief look how we do our insertions and the problems or complications we have encountered. More important is to determine the benefit or burden of this treatment option by demonstrating prevention of further embolic episodes, documenting symptom-free intervals, monitoring patient response to the indwelling filter, as well as its efficiency and patency.

A total of eighty-nine patients were diagnosed to have pulmonary embolism and confirmed deep venous thrombosis. Salient features of the patients' history, physical examination and diagnostic work-up have been tabulated. All patients underwent heparinization and, of these, nineteen were non-responsive or had contraindications to anticoagulations, hence, were inserted with the Titanium Greenfield Vena Cava Filter. The procedure of vena caval filter insertion is safe and the benefits/advantages of the Greenfield vena cava filter are, so far, satisfactory.

Anticoagulants-therapeutic use. Pulmonary embolism. Vena cava filter. Medicine. Heparin.

- 0205 Head-upright tilt table testing in the evaluation of patients with unexplained syncope. Mercader, Mary Joseph A., Wenceslao, Edwin G., King, Anthony B.. **Makati Medical Center Proceedings**, 2003 , :60-65

Despite extensive efforts to investigate and define its cause, the proportion of patients with unexplained syncope remains large. Thus methods like the tilt table test that provide promising insights into its pathophysiology and management deserve significant attention and further investigation. *Objective:* To determine the response of patients with unexplained syncope to the tilt table test. *Study Design:* Retrospective, cross-sectional, analytic study. *Study Population:* The study population consisted of 27 patients (13 males and 14 females; mean age of 43.15±21.79) diagnosed as having unexplained syncope, who underwent tilt table testing at Makati Medical Center from May 1999 to October 2002. *Results:* Fifteen patients (55.6%) had positive test response, 10 (37%) patients had negative test response and 2 (7.4%) had equivocal test response. There was a positive correlation noted between the number of syncopal attacks and the probability of getting a positive test response, however, this relationship was not statistically significant ($p=0.4317$). There was also no significant relationship noted between age and gender and the tilt table test outcome. *Conclusions:* Tilt table test responses can be used as clues to the possible etiology of a significant portion of patients with unexplained syncope. Variables such as age, gender and number of syncopal attacks cannot be used as predictors of the test outcome.

Syncope-etiology. Tilt table test. Medicine.

- 0206 Health-related quality of life as treatment endpoint among elderly hypertensives. Espallardo, Noel L., Ruiz, Roberto L.. **Acta Medica Philippina**, 1994 , 30(2):92-102

Large clinical trials in the treatment of mild to moderate hypertension in the elderly have shown concrete benefits, however a large percentage of the initial entrants dropped out because of significant side effects. Since adherence to the regimen is the main factor to improved survival, the effect of anti-hypertensive treatment on quality of life should be given consideration to insure continued compliance. Measuring health-related quality of life (HQOL) is often difficult and requires a valid and reliable but simple instrument for it to be useful in usual clinic practice. This study was conducted to determine the usefulness of a short-form questionnaire on HQOL as treatment parameter among the elderly hypertensives. This was a randomized, double-blind, two period cross-over design with single blind placebo run-in and wash-out periods. After a two-week-run-in period patients were randomly divided into two groups; group A (n=15) initially received Nifedipine followed by Nicardipine and group B (n=18) received Nicardipine followed by Nifedipine. HQOL was measured before and after the active treatment periods. Both groups showed significant change in scores between treatment periods ($p < 0.001$ ANOVA for repeated measures).

The instrument was also able to detect differences in HQOL scores between nifedipine and nicardipine, i.e. nicardipine has a favorable effect on HQOL as compared from nifedipine ($p < 0.01$ Hills and Armitage). There was no difference in terms of physical function ($p > 0.05$ Hills and Armitage) but this can be attributed to the limited physical activity that an elderly can do rather than to a low sensitivity of the instrument. Nicardipine showed better effect on mental and health perception as well as role and social function ($p < 0.05$ Hills and Armitage) and symptoms score ($p < 0.01$ Hills and Armitage) as compared to Nifedipine. This study was able to prove the sensitivity of a short-form questionnaire in detecting changes in score over a period of time while undergoing treatment and detecting differences in score between two treatment modalities. It showed the usefulness of HQOL as treatment endpoint among elderly hypertensives.

Health related quality of life. HQOL. Hypertension in elderly. Medicine. Nifedipine. Nicardipine.

0207 Height and coronary vascular disease. Uy, Mary Milagros D., Herrera, Oswald T. **Makati Medical Center Proceedings**, 1995 , :16-20

Height has been shown to be inversely related to the development of myocardial infarction in some studies. We reviewed the records of 343 patients with coronary artery disease who have undergone surgical revascularization procedures. Results showed that (a) 70% of our patients have heights between 160 to 173 cms; (b) the left anterior descending artery was involved in 79% of our patients; (c) taller patients tended to have disease in the distal arteries while among the shorter patients the proximal arterial branches were more commonly involved. Using correlation analysis, a significant direct correlation was noted between: (a) height and distal coronary artery branch; (b) hypercholesterolemia and proximal coronary artery branch; (c) diabetes mellitus and distal coronary artery branch; and (d) smoking and main and proximal coronary artery branches. Significant risk factors affecting the coronary artery predisposed to disease are: (a) Left main branch by smoking and family history; (b) proximal branches by smoking and hypercholesterolemia; (c) distal branches by age, weight, hypertension and smoking. Based on this study, we conclude that: tall patients are more predisposed to have disease in the distal coronary arteries probably because they tend to have larger coronary arteries while short patients, although not significantly, are more predisposed to have disease in

the proximal coronary arteries; and that smoking and hypercholesterolemia are important risk factors for disease in the proximal coronary arteries.

Height. Coronary vascular disease. CVD. Hypercholesterolemia. Medicine.

- 0208 The histopathologic effects of 24-hour and 144-hour exposure to Mt. Pinatubo ash on the respiratory system of rats. Alabado, K.L.P., Alviedo, N.J.B., Amosco, M.L., Campos, R.A.O., Clemente, E.M.E.L., Cruz, G., Cruz, L.M.P., de Luna, J.C., Dequina, M.T.B., Geronimo, O.O., Guanzon, M.D.A., Limgenco, T.E.P., Navarro, A., Magno, M.A.A., Punzalan, , Samonte, M.V.A., Santiago, C.F.A., Taruc, C.P.G. **Acta Medica Philippina**, 1993 , 29(2):65-70

The effects of exposure to volcanic ash from Mt. Pinatubo were studied using histological sections prepared from different parts of the respiratory system of SPF rats exposed for 24 and 144 hours. Both the control and treatment groups were found to have developed pulmonary inflammations. Using an arbitrary scale, the degree of pneumonitis and hemorrhage in the interstitium, alveoli, and tract lumen were graded. The Kruskal-Wallis one-way test for variance ($p=0.05$) showed that the pathology observed in the tissue samples of both the unexposed and exposed rats, as well as the duration of exposure to ash, were not significant. Possible explanations include: (1) ash is inert, (2) failure of ash to enter the respiratory tract, (3) the duration of exposure may have been too short, (4) the ash concentration may have been too low, and (5) other external factors may have caused the pathology.

Volcanic ash. Medicine. Rats. Mt. Pinatubo.

- 0209 Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center. Dy, Mary Joyce L., Racho, Allan Robert B.. **Makati Medical Center Proceedings**, 2004 , :61-67

Objective: To determine the association between G-6-PD deficiency and hyperbilirubinemia among neonates born in the Makati Medical Center from August 1998 to December 2001 and confirmed to be deficient of the enzyme by quantitative assay. *Design:* A retrospective cross-sectional study. *Setting:* The Makati Medical Center, a tertiary hospital in Manila. *Patients:* All term neonates born in the Makati Medical Center from August 1998 to December 2001 who underwent Newborn screening, and who were confirmed to be G-6-PD-deficient by enzyme assay. Exclusion criteria included sepsis, significant cephalhematoma or traumatic delivery, and/or Rh incompatibility. Other potential confounders such as ABO incompatibility setup and exclusive breastfeeding were not excluded but stratified statistical analysis were done. Fifty three G-6-PD deficient neonates were included, and 49 of them were analyzed. Sixty-nine G-6-PD-normal neonates served as subjects for comparison. *Methods:* Inpatient charts of these neonates were reviewed. Onset of jaundice and level of bilirubin obtained from them were noted and analyzed. These values were compared between the enzyme-deficient and the non-deficient groups. Furthermore, among the G-6-PD-deficient group, the enzyme level of each neonate was obtained from the National Institutes of Health (NIH) and this was correlated with the level of bilirubin they reached during their stay at the nursery. Some specific DNA mutations seen were also obtained from NIH and were described. *Results:* The prevalence of G-6-PD deficiency in the Makati Medical Center is one in 110. It occurred in 80% of males and 20% of females.

The incidence of hyperbilirubinemia among G-6-PD-deficient neonates was found to be 37%, compared to the incidence of 10% among G-6-PD-normal neonates (Chi-square, 12.13; P-value, 0.0005). There was a strong association found between G-6-PD deficiency and neonatal hyperbilirubinemia. The mean bilirubin level reached by the G-6-PD-deficient neonates during their stay at the nursery was 13.8 ± 3.7 mg/dL while that of G-6-PD-normal neonates 12.7 ± 2.5 mg/dL. (T-value, 1.06; P-value, 0.29). Hence, the bilirubin level of G-6-PD-deficient neonates was not significantly quantitatively higher than that of G-6-PD-normal neonates. Among G-6-PD-deficient group, the neonates with lower enzyme levels did not necessarily have higher bilirubin levels, thus there was no correlation established between enzyme and bilirubin levels. ABO incompatibility and exclusive breastfeeding were not found to have an effect on the relationship that was established between G-6-PD deficiency and hyperbilirubinemia. *Conclusion:* In conclusion, G-6-PD deficient neonates go into hyperbilirubinemia more often than do G-6-PD-normal neonates, but the bilirubin level is not necessarily higher among the former than the latter group.

Hyperbilirubinemia. Glucosephosphate dehydrogenase-metabolism. Newborn. Infant. Medicine.

- 0210 Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old. Javier, Saturnino P., Lopez, Gary A., Alemany, Ramon Carlos Miguel L., Perez, Martesio C., Garcia, Jorge M.. **Makati Medical Center Proceedings**, 2002 , :103-107

We present the case of a 17 year old male who developed an acute coronary syndrome in the absence of conventional risk factors for coronary arteriosclerosis. However, he had elevated homocysteine, low HDL and elevated apolipoprotein B levels which could be the underlying substrate for his coronary arteriosclerosis. His clinical course and outcome are discussed.

Cardiovascular diseases-blood. Coronary disease-blood. Homocysteine-blood. Medicine. Arteriosclerosis-blood.

- 0211 Hypertension screening in Filipino grade-school children: A pilot study. Ayo, Joseph Johan A., Teodoro-Rabago, Hilda, Miguel-Aguirre, Angelita, Abella-Reloza, Asuncion M.. **Makati Medical Center Proceedings**, 2003 , :9-15

Adult studies have shown that a single elevated blood pressure is an important predictor of future coronary heart disease. Tracking studies of blood pressure from childhood to adult life have suggested that if a child's blood pressure is high, systolic blood pressure as an adult is at least twice that expected in the general population. The detection of blood pressure rises, however, has been difficult because its measurement in this age is not routine.

The objective of this study is to determine the incidence of hypertension among grade school children ages 6-13 in four different schools in Makati City, and compare such findings to previous data in Filipino children. Blood pressure determinations were made in 801 students. On the initial blood screening, 8.5% of the population had elevated blood pressures (systolic or diastolic or both). On the third blood pressure determination, 0.5% remained to have systolic hypertension while 0.2% remains to have elevated

diastolic blood pressure reading. This survey showed that although 8.5% can be detected as having elevated blood pressure readings, subsequent follow-ups showed less than 1% as persistent hypertensives thus, the importance of follow-up blood pressure monitoring in hypertensive suspects is underscored. In this study, systolic blood pressures correlated well with height in the younger age group. Weight and body mass index correlate with blood pressure in all age groups.

Although mass blood pressure (BP) screening is not considered cost-effective in detecting hypertension in children, BP determination is of value identifying early hypertension in childhood particularly in at risk population. Routine blood pressure measurement therefore during clinic visits is recommended. Considering that not all children are under continuous medical supervision, mass screening may still be a useful tool in detecting early blood pressure elevation in children.

Medicine. Body mass index. Blood pressure. Child. Hypertension. Age factors.

- 0212 Hypertrophic cardiomyopathy among Filipinos. Tamayo, Ma. Belen E., King, Anthony B., Nambayan-Abad, Adoration M.. **Makati Medical Center Proceedings**, 1995 , :20-24

Thirty cases of hypertrophic cardiomyopathy (HCM) were reviewed to estimate the relative frequencies of the subtypes of HCM and to assess the clinical features of Filipino patients who have HCM. The diagnosis was made by echocardiography and/or cardiac catheterization and left ventriculography. The number of cases by the type of HCM are 21(70%) with asymmetrical septal hypertrophy (ASH), 5(17%) with apical hypertrophy (APH) and 4 (13%) with midventricular hypertrophy (MVH). The mean ages of the patients with ASH, APH and MVh are 50, 54 and 59 years, respectively. The mean interventricular septum thickness in diastole is 1.9 cms, while the mean ejection fraction is 80%. The mean ratio of interventricular septum to left ventricular posterior wall thickness is 1.7 in ASH, 1.6 in APH and 1.2 in MVH. Majority of the electrocardiograms show left ventricular hypertrophy and negative T waves. Sixty percent of the patients are asymptomatic. Common symptoms are shortness of breath and easy fatigability. There is only one mortality recorded in the study, that is, a 70 year old male with ASH, who came in because of sudden cardiac arrest.

Hypertrophic cardiomyopathy. HCM. Asymmetrical septal hypertrophy. Medicine.

- 0213 Immunogenicity of inactivated hepatitis A vaccine in health workers. Fores, Edgardo D., Ledesma, John Ignatius G.. **Makati Medical Center Proceedings**, 1997 , :32-34

The immunogenicity and safety of an inactivated hepatitis A vaccine were evaluated in 20 seronegative health workers (age range 22-53; mean 29). A 720-ELISA unit dose was administered at 0,1, and 6 months. Seroconversion rate was 95%. There was no correlation between sex, age and antibody titers. The vaccine was well tolerated ; the most frequent side effect was transient soreness at the site of inoculation. No serious adverse reactions were observed. Thus, inactivated hepatitis A vaccine is highly immunogenic and safe.

Blood glucose. Glucose. Insulin. Metformin. Obesity in diabetes. Medicine.

- 0214 Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens. Ramos, John Donnie A.. **Acta Manilana**, 2007 , :1-8

The full length Blo t 11 allergen was expressed as a GST-fusion protein in *E. coli* by IPTG introduction and purified by affinity chromatography using an Agarose-Glutathione column. Fractions containing recombinant Blo t 11, resolved as 128 kD protein, were pooled and quantified using the BioRad Protein Assay. Native Blo t 11 was purified from a *Blomia tropicalis* (Bt) aqueous extract using Blo t 11 monoclonal antibody affinity column. Two milliliters of the Bt extract yielded 467 ng of native Blo t 11 which was resolved as ~60kD in an SDS-PAGE. The immunoglobulin E binding activity of the purified allergens was determined by enzyme-linked immunosorbent assay using a panel of 110 atopic Filipino patients' sera and 85 non-atopic sera. The native Blo t 11 allergen registered an IgE reactivity of 63% (69/100) while the recombinant Blo t 11 registered 57% (63/110). The Blo t 11 allergen can inhibit up to 63% IgE binding activity of Bt aqueous extract. Results presented herein demonstrate the clinical importance of Blo t 11 allergen as a triggering factor for allergies among Filipino atopic patients thus a potential reagent for diagnosis and immunotherapy of the house dust mite allergy in the local setting.

Blo t 11. House dust mite. *Blomia tropicalis*. Allergen. Medicine.

- 0215 Improving human fetal development – The super baby. Agbayani, Benigno F.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss.:57-66

Given the genetic background of both parents (mediocre or outstanding), and the environmental influence (inside and outside) the mother's womb, these factors have a great deal of shaping the embryonic and fetal development. It has been demonstrated that purposeful modification enrichment of the brain using sound stimulation (baby plus), and other favorable means (Classical music) can modify the outcome resulting in a healthier baby.

The idea of modifying the development of the fetus while in the womb of the mother has raised some eyebrows, because many believed that it is development in the womb should allow nature to play its normal course, and not to interfere with it. There must be some wisdom in this belief except that whether we like it or not, there are many environmental or external forces as well as maternal influences that shape the baby's well being even before birth. They are mostly unpredictable and some can be harmful for the developing fetus.

Though no fault of the child or the mother, air and noise pollution is a real threat to the fetal environment. Even the lowly 2-stroke tricycle that commutes in subdivisions and also rural nooks and corner, they are inevitable noxious environmental concerns affecting the fetus in its development inside the womb. Inside their homes, it is quite possible that the mother and the father also smokes, contributing passively nicotine and other cigarette pollutants affecting fetal development inside the womb. Furthermore, the mother can create an unfavorable environment not suitable for the optimum fetal development when embroiled with family quarrels or emotional outbursts and violence releasing hormones

that affect the fetal development. Many harmful maternal factors provide a nidus for fetal underdevelopment such as mother's under nutrition or malnutrition. Not to mention the mother's resentment towards an unwanted pregnancy – like worrying about the outcome of an abnormal baby. Add further the consequences of harmful drug intake arising from much needed medications during the crucial formative months causing possible congenital defects or malformation? Can we therefore, modify the environment to avoid these harmful events in the environment of the fetus to happen by creating instead more pleasant experiences and stimulation for both mother and the baby?

The discovery of stimulating the fetus is part and parcel of the continuing development of the child, which has been recently observed favorably by a number pediatricians and by their mothers. There are many advantages of starting the infants' preparation to the outside world early, as soon as full organs were morphologically developed in the womb. There are indeed many evidences and favorable testimonies that the baby can develop full potential ahead, to a pleasantly happier and healthier baby. A fetus nurtured with gentle stimulation and provide with pleasant physical and emotional environment including simulated heart beat (Baby plus) placed on the mother's abdomen, and/or classical music of Vivaldi, Bach and Mozart played periodically show a much superior child that an unplanned pregnancy in terms of physical and emotional development. And not a monster as most feared but a super baby instead, so to speak.

Medicine. Fetal development.

- 0216 Incontinentia pigmenti. Aragon, Ma. Lourdes A., Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 1995 , :104-105

Incontinentia pigmenti is a rare genodermatosis in females that may affect the skin, central nervous system, eyes, and bones. We report a case of incontinentia pigmenti in both mother and child.

Medicine. Incontinentia pigmenti. Genodermatosis.

- 0217 Infectious mononucleosis in the Philippines: A report of 3 cases. Gloria-Cruz, Teresa Luisa I. , Nievera, Carmen B. , Hernandez, Josefino L. . **Acta Medica Philippina**, 2007 , 41(1):62-65

Infectious mononucleosis has consistently been reported as being most common in the white race. In the Philippines, it is perceived as uncommon. Thus many physicians in the local setting are not familiar with the details of management of this disease. But this article reports that it may not be as uncommon in Asians, particularly Filipinos, as believed. It describes three patients diagnosed with infectious mononucleosis, and describes their course and management. Lessons learned and recommendations for this "unfamiliar" disease are discussed.

Infectious mononucleosis. Viral etiologies. Medicine.

- 0218 Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte^R methods. Andrade, Jeannie I., dela Fuente, Emmanuel

Although the Papanicolaou smear is one of the most effective screening tools in medicine, false negative results still occur, which may be attributed to sampling errors as well as screening and interpretation errors. Liquid-based cytology systems have the most potential for reducing the false-negative rate. The Bethesda System provided criteria for pap smear diagnosis, however, each pathologist develops his/her own criteria for diagnosis based on training, experience and on personal updates, so it is possible to have varying opinions. This is a case control study, which determined if there is significance in the interobserver variability in the diagnosis of Benign Reactive and Reparative Changes, Atypical Squamous Cells of Undetermined Significance, Atypical Glandular Cells of Undetermined Significance, Low and High Grade Squamous Intraepithelial Lesions, using the criteria of the Bethesda System. Sensitivity and specificity in making the diagnosis were determined and the significance of the interobserver variation using the average sensitivity and specificity for each processing method were compared. Statistics revealed that in the diagnosis of pre-malignant lesions, the sensitivity and specificity of each pathologist are higher and they tend to give more accurate diagnoses with liquid-based preparation compared to the conventional smears. The t-test also disclosed that there was no significance in the interobserver variation between the diagnoses of four pathologists of the Makati Medical Center using the two procedures.

Pap smear-conventional. Pap smear-autocyte, interobserver variability. Squamous intraepithelial lesion. Medicine. Cervical cancer.

- 0219 Intestinal obstruction in children: A five-year clinical review. de Torres, Carina I., de Torres, Ramon I.. **Makati Medical Center Proceedings**, 2000 , :36-37

To determine the rates, clinical profile, diagnostic and therapeutic modalities and clinical outcome of mechanical intestinal obstruction in pediatric patients, a retrospective study was done on 41 cases at Makati Medical Center between 1991-1995. Results show that among all causes of intestinal obstruction, intussusceptions and Hirschsprung's Disease occur most frequent, most commonly in males between ages 2-12 months. Plain film of the abdomen was the most widely used diagnostic procedure but does not offer conclusive results. Treatment most often used is combined medical and surgical management. Prognosis is good if diagnosis is prompt and intervention is immediate.

Medicine. Hirschsprung's disease. Intussusception, radiography. Vomiting. Intestinal obstruction.

- 0220 Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department. Mateo, Yuri C., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2000 , :63-69

Objective: The study seeks to determine the efficacy and safety of intramuscular Ketamine and Midazolam when administered by Emergency Department physicians for sedation in pediatric patients about to undergo painful procedures in the Emergency Department. **Study Design:** This is a prospective, non-randomized, non-comparative quasi-experimental study. **Setting:** Emergency Department of Makati Medical Center.

Methods: Pediatric patients found to require brief (less than 10 minutes) painful procedures were considered candidates for Ketamine and Midazolam sedation. Each subject received a 3 mg/kg Ketamine plus 0.05 mg/kg Midazolam IM as cocktail, after which necessary procedures were performed. **Results:** Nineteen patients, age ranging from 14 months to 6 years were enrolled in the study. All subjects given intramuscular Ketamine and Midazolam exhibited sedation adequate for planned painful procedure. No deleterious cardiopulmonary effects were noted. Vomiting was noted in three (16.7%) of the patients while mild agitation was observed on 8 patients (44.4%). There was one patient (5.5%) noted to have hypersecretion. **Conclusion:** Intramuscular Ketamine and Midazolam is shown to be a consistently effective method of producing brief periods of sedation and analgesia in children in the Emergency Department. Although no serious complication was noted in this study a larger sample sized study is needed to establish this safety profile. Vomiting, agitation and hypersecretion were some of the adverse effects noted in a few cases.

Ketamine. Medozolam. Wound, penetrating. Wound infection. Medicine.

- 0221 Intravenous nizatidine in upper gastrointestinal bleeding. Fores, Edgardo D., Ledesma, John Ignatius G., Yu-Tecson, Gina . **Makati Medical Center Proceedings**, 1998 , :26-28

Intravenous nizatidine at a dose of 100 mg every 8 hours was used in 30 patients with endoscopically proven upper gastrointestinal bleeding. A 3-day endoscopy schedule was used to assess treatment success/failure. Overall, only 2 patients did not respond to intraveous nizatidine or a success rate of 93.33%. Transfusion requirement >5 units and ASA/NSAID use were found to be statistically factors related to adverse outcome.

Intravenous nizatidine. Upper gastrointestinal bleeding. Endoscopy. Medicine.

- 0222 Intravitreal injection of ganciclovir in CMV retinitis. Rodriguez, Rafael E., Abela, Benjamin M., Tupasi, Thelma E.. **Makati Medical Center Proceedings**, 1995 , :97-100

The rising incidence of CMV Retinitis attributable to the increased number of AIDS cases as well as to prolonged morbidity of HIV-infected patients calls for aggressive management of this devastating ophthalmologic disease. Cytomegalovirus causes a potentially blinding, unrelentness form of retinitis in immunocompromised patients and consequently a deterioration of their quality of life. With the advent of Ganciclovir, CMV retinitis can be controlled.

This is a case report on a local experience in this institution with INTRAVITREAL INJECTION OF GANCICLOVIR on a 44 year-old male HIV-positive patient with CMV Retinitis. This patient underwent a series of intravitreal injection of Ganciclovir (Cymevene) and a significant improvement of vision was observed.

CMV retinitis. Cytomegalovirus. Ganciclovir. Intravitreal injection. Medicine.

- 0223 Intussusception in infancy and childhood: A ten year review. Santos, Mary Anne B., King-Joaquino, Sally . **Makati Medical Center Proceedings**, 1995 , :55-61

A retrospective study was performed in Makati Medical Center of 32 cases of intussusception in infancy and childhood that occurred during a 10-year period.

Intussusception is predominantly a male problem with a male to female ratio of 4:1. The classic triad of vomiting, bloody mucoid stools, and abdominal pain was present in 90% of children in this series. The ileocolic area was the most commonly involved site (59.3%). Complete hydrostatic reduction of the intussusception was accomplished by barium enema in seven patients (21.8%). Twenty two patients (68.7%) required surgical correction of intussusception when barium enema reduction was unsuccessful. Hydrostatic reduction by barium enema was not attempted in the other three (9.3%) patients because of the evidence of peritonitis and perforation of the small intestines.

There was no mortality and recurrence in this series treated either by operation or with barium enema reductions. The length of hospital stay also differed significantly, being 2-4 days in the group treated with barium enema reduction and 5-10 days in the group treated by surgical correction.

We conclude that intussusception during infancy and childhood should be initially treated by barium enema. Surgical correction should be reserved for barium enema failures and for infants and children who present in extremely ill condition.

Intussusception. Infancy. Intestinal obstruction. Medicine.

- 0224 An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas. Canoy-Valencia, Harriet , King-Joaquino, Sally Victoria B.. **Makati Medical Center Proceedings**, 1996 , :21-23

Carica papaya L. extract was studied for its possible antibacterial effect against clinical isolates of *Streptococcus pyogenes* and *Staphylococcus aureus*. The Broth Dilution Sensitivity Testing Method was used to determine the Minimum Inhibitory Concentration (MIC) and Minimum Bacterial Concentration(MBC). The MIC of the papaya extract against *Streptococcus pyogenes* was 1.04 mg/ml, while the MBC was determined at 8.3 mg/ml. The extract showed no activity against *Staphylococcus aureus*. Recommendations include doing the study with control drugs, and testing the papaya extract against other Gram-positive organisms.

Herbal medicine. Pharmacognosy. Plants, medicinal. Staphylococcus aureus. Streptococcus pyogenes. Carica. Papaya. Medicine.

- 0225 Ischiopagus tetrapus twins: successful separation at the center. Sales-Santos, Marilou A.. **Makati Medical Center Proceedings**, 1995 , :82-88

On the morning of May 21, 1995, at exactly 5:30 a.m., Peter and Paul otherwise known as the Clemenia twins were wheeled in the operating room. After 2 years and 3 months of intense preparation, a major operation, the very first of its kind in the Philippines was about to begin. It was to become a landmark in the history of Makati Medical Center and a major breakthrough in the field of medicine and surgery. Everyone was eagerly awaiting for this moment....

Medicine. Ischiopagus tetrapus twins. Conjoined twins.

- 0226 Late-onset neonatal septicemia due to coagulase-negative staphylococcus. Estevez-Genio, Marie Arlene A., Garcia, Robert Dennis J.. **Makati Medical Center Proceedings**, 1999 , :109-112

This retrospective study of 37 episodes of Coagulase-negative Staphylococcus (CONS) sepsis in 34 neonates in a level-3 nursery over a period of nineteen months from January, 1996 to July, 1997 showed CONS to be a late-onset pathogen, being cultured from blood at a mean of 11.3 days. Prolonged intravenous cannulation (mean=36 days) and prolonged hospital stay (mean=43.3 days) were common. Decreased activity, jaundice, and apnea were the most common clinical manifestations, but CONS sepsis was not accompanied by specific nor prominent symptoms, so that a high index of suspicion is necessary. Hyperbilirubinemia, thrombocytopenia, hypoglycemia, and positive CRP were the common laboratory findings seen, but only in a minority of neonates. Mortality was low.

Sepsis. Neonate. Coagulase-negative staphylococcus. Medicine.

- 0227 Limited utility of a polymerase chain reaction assay in the detection of *Mycobacterium tuberculosis* in liver biopsy specimens of children. Causing, Josie Grace V., Cornista, Alicia, Avila, Jose Maria, Narciso, Francisco. **Acta Medica Philippina**, 2005 , 39(2):22-27

Rationale: Childhood hepatic tuberculosis remains a diagnostic dilemma as conventional bacteriologic methods have low sensitivities for detection of *Mycobacterium tuberculosis*.

Objective: To determine the validity of a PCR assay utilizing primers from the IS6110 insertion sequence and the 38kDa protein to detect *M. tuberculosis* in liver biopsy specimens of children.

Methods: 80 consecutive children admitted for percutaneous liver biopsy for various indications were included in the biopsy specimens obtained underwent acid-fast stain and culture, histopathology and PCR assay using primers from IS6110 and 38kDa protein.

Results: The sensitivities of the primers from IS6110 and 38kDa protein in detecting *M. tuberculosis* in liver biopsy were 50% and 8%, respectively; and specificities were 47% and 81%, respectively.

Conclusion: Our study shows that the PCR assay using primers from the IS6110 and 38kDa protein has a low sensitivity specificity for the detection of *M. tuberculosis* in liver biopsy specimens of children. Thus, it has a limited ability diagnosis of childhood hepatic tuberculosis.

Acid-fast bacilli. Granuloma. Hepatic TB. Polymerase chain reaction. Caseation necrosis. Medicine.

- 0228 Malignancies associated with endometriosis. Manalo, Augusto M.. **Acta Medica Philippina**, 2005 , 39(2):66-72

The frequency of malignant transformation of endometriosis is presently unknown. Studies have mainly been retrospective, mostly on ovarian epithelial malignancies that have been found to be associated with endometriosis, either as preexisting or as a coexisting lesion. Prospective studies on endometriosis itself, observing for malignant transformation, are wanting. Because of the strictness of the criteria for considering malignancy as having arisen from endometriosis, there is reason to believe that the transformation occurs much more frequently than reported.

Four illustrative cases are presented. Two of the cases showed transition lesions with the demonstration of endometrioid carcinoma. One showed epithelial atypia in the original endometriosis. One, a primary mixed mesodermal tumor of the ovary, showed extensive endometriosis in the opposite ovary.

The following were discussed: 1) Clinical and histopathologic characteristics of the tumors; 2) Clinical indicators of possible malignant change in previously diagnosed endometriosis and 3) Clinical and histopathologic predictors of this malignant change.

Endometriosis. Medicine. Malignancies.

- 0229 Malignant infantile osteopetrosis in a Filipino child. Chiong, Mary Anne D, David-Padilla, Carmencita, Racho, Allan Robert , Hiquiana, Ma. Assunta. **Acta Medica Philippina**, 2008 , 42(2):51-54

We present a female infant who presented with hematologic abnormalities, hepatosplenomegaly and eye problems and was initially considered to have a hematologic malignancy. Review of radiologic findings however, revealed a generalized increase in bone density, sclerosis of the skull and vertebra, and 'bone-in-bone' appearance. On the basis of the clinical history and the characteristic radiographic findings, she was diagnosed with malignant infantile osteopetrosis.

Autosomal recessive malignant osteopetrosis. "Bone-in-bone" appearance. Hepatosplenomegaly. Bone marrow transplantation . Medicine.

- 0230 Management of a benign parotid tumor causing oropharyngeal obstruction. Lagos, Maria Theresa M.B., Malabanan, Angel S. , Ongsiako, Ramon Juan H., Fernandez, Ricardo O.. **Makati Medical Center Proceedings**, 2001 , :94-97

This is a case of a 32-year old female with a benign parotid tumor that caused oropharyngeal obstruction and managed by total parotidectomy with preservation of the facial nerve. Histopathology results revealed a fibroma. The patient was discharged improved. A short review of the incidence, diagnostic studies, and management of parotid tumors are discussed.

Parotid neoplasm-surgery. Parotid neoplasm-pathology. Medicine.

- 0231 Management of chemical incidents: on-site medical and supporting facilities prior to hospitalization (a review). Hartigan-Go, Kenneth. **Acta Medica Philippina**, 1994 , 30(2(3)):135-140

The key to management of chemical incident is prevention. If this fails, chemical emergencies require prompt response to contain the problem, rescue the victims through appropriate provision of first aid and transportation, decontamination procedures, protection of rescuers, establishment of safety perimeters, crowd control and access to vital information on chemicals. Cooperation among the different personalities during the rescue is emphasized.

Decontamination. Disaster management. Hazardous chemicals. Medicine.

- 0232 The mantrel scoring system in the diagnosis of acute appendicitis. Pagdanganan, Ernest Jerome A., Arguelles, Vincente Q., Ang, Jennifer C.. **Makati Medical Center Proceedings**, 1996 , :39-42

We report an evaluation of the Mantrels score in a prospective study of 122 patients hospitalized in Makati Medical Center for abdominal pain suggestive of acute appendicitis. Eight predictive factors were included: migration of pain, anorexia, nausea, tenderness, rebound pain, elevation of temperature, leukocytosis and shift to the left. These were analyzed for specificity, sensitivity, predictive value and accuracy. Of 122 patients, seventy-eight patients underwent laparotomy. Seventy patients had acute appendicitis, three had a normal appendix and five had a ruptured ovarian cyst. All the eight non-appendix patients were women. Scores were assigned to each predictive factors as in Mantrels and result was compared to previous reported studies. The best cut-off point was a score of seven or eight in our study. The Mantrels score is a practical score that may help us interpret the confusing picture of acute appendicitis.

Appendicitis. Laparotomy. Scoring system. Medicine.

- 0233 Marine oil treatment for psoriatic patients. Aragon-de Veyra, Ma. Lourdes, Leelin, Thelma V.. **Makati Medical Center Proceedings**, 1997 , :58-62

Fish oil has been widely accepted as a therapeutic agent for various disease entities especially in cardiac patients. It also acts as antiinflammatory agent by competitively inhibiting the arachidonic acid for cyclooxygenase and lipoxygenase transformation resulting in metabolites which are less biologically active.

This study was conducted to determine the efficacy of fish oil as a mode of treatment in psoriasis. Seven out of 9 patients were entered into the study conducted in Makati Medical Center. A daily dosage of 1.08 grams of eicosapentaenoic acid was given. All patients showed marked clinical improvement especially in the reduction of desquamation, erythema, and induration with desquamation being the earliest to respond to the treatment.

Erythema. Desquamation. Psoriasis. Fish oils, therapeutic use. Medicine.

- 0234 Markers of early biological effects after exposure to chemotherapy agents. Ngelangel, Corazon A. , Villanueva, Karen , Santos, Dennis G. , Marquez, Cherry , Fuerte, Fatima , Valcarcel, Ma Regina C. , Enriquez, Ma. Luisa , Baylon, Melba Andrea **Acta Medica Philippina**, 2007 , 41(2):45-54

Introduction: Several types of biomarkers have now been developed that make it possible to monitor the progression of events from initial exposure (to a causative agent) to the development of a fully malignant tumor in a sequential fashion. This study assesses early biologic markers after exposure to chemotherapeutic agents used in cancer clinics, specifically chromosomal aberrations in peripheral lymphocytes taken from health workers with varying degrees of exposure to cytotoxic chemotherapeutic agents in a tertiary hospital.

Methods: This is a cross-sectional exploratory study among consenting health workers at the oncology wards and out-patient clinics in Metro Manila, with varied degrees of exposure to chemotherapeutic agents. Blood samples were taken for chromosomal aberration assay, together with data related to chemotherapy exposure. Simple logistic regression was done with mutagenic sensitivity as dependent variable.

Results: Chromosomal aberrations were seen among all 44 subjects with 6 having a relatively high mutagenic sensitivity, as measured by the biomarker, particularly by high frequency of chromatid-type breaks and sister chromatid exchanges. Although only 14% of the health workers in the oncology study site were found to have significant mutagenic sensitivity, there were another 7% at borderline sensitivity. Time, age, administration of chemotherapy drugs, family history of cancer may play a role.

Conclusion: The finding of 20% borderline to hypersensitive mutagenic sensitivity among oncology workers in the Philippine General Hospital is relatively significant connoting a potential to develop a rather high mortality profile disease, despite the small study sample size. Such a screen may be done to ascertain such risk. But screen or not screen, preventive promotive practice of cytotoxic/ cytostatic chemotherapy administration in the wards and out-patient clinics must always be practiced, even with inconclusive evidence of effectiveness of such protective measures.

Medicine. Chemotherapy agents. Mutagenic sensitivity.

- 0235 Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature. Labio, Nathaniel J., Dofitas, Rodney B. **Acta Medica Philippina**, 2008 , 42(1):73-77

The operative mortality of pancreaticoduodenectomy (PO) has decreased considerably in recent years even in low-volume centers such as the Philippine General Hospital. However, morbidity rates remain high worldwide. Massive gastrointestinal hemorrhage is an uncommon but potentially fatal complication after pancreaticoduodenectomy with significant mortality and morbidity. This paper illustrates the clinical course of a patient presenting with late-onset gastrointestinal hemorrhage occurring one month after PO and provides an update on the diagnostic and therapeutic approach to this rare but fatal

condition.

Gastrointestinal hemorrhage. Pancreaticoduodenectomy. Angiography. Coil embolization . Medicine.

- 0236 Massive ovarian edema. Cabildo, Giovani B., Guibani-Bousfield, Elizabeth, Pantangco, Elias E.. **Makati Medical Center Proceedings**, 1999 , :114-116

A rare case of massive ovarian edema in a young Filipina, clinically suspected to be a neoplasm, is presented. Microscopic examination showed diffuse interstitial edema with foci of luteinized stromal cells. Since the patient is young, conservative management with sparing of reproductive capacity is advocated, although this is not what happened in this case because of lack of awareness of this condition.

Edema-pathology. Ovarian-diseases-diagnosis. Ovarian-diseases-pathology. Edema-incidence. Medicine.

- 0237 A master of science in genetic counseling program in the Philippines. Laurino, Mercy Ygonal/David-Padilla,Carmencita/Alcausin,Maria Melanie B./Silao,Catherine Lynn T./Cutiongco-de la Paz,Eve Maria, Laurino,Mercy Ygonal, David-Padilla,Carmencita/Alcausin,Maria Melanie B./Silao,Catherine Lynn T./Cutiongco-de la Paz,Eve Maria. **Acta Medica Philippina**, 2011 , 45(4):7-11

In the Philippines, there is an urgent need to expand the clinical services for diagnosis, management and emotional support for patients with genetic conditions and their family member. Despite the lack of trained health care providers with specialization in genetics, public health-related genetics programs are continuously being implemented. To address these current demands, strategic planning began in in 2009 between local medical geneticists and international genetic professionals to develop the curriculum for an advanced degree in genetic counseling program.

Philippines. Genetic counseling. Medicine.

- 0238 Measles immunity among rural compared to urban infants. Chan, V. F., Geraldino, N.T., Madraso, E. D., Florese, R. H., Roxas, J. R.. **Acta Medica Philippina**, 1994 , 30(2):103-108

Infants from the rural areas of Guimbal and Tigbauan, Iloilo and from Aguineldo and Alfonso, Cavite were tested for measles antibodies on December 1991 and on August 1992, respectively. The incidence of measles antibodies at 1:5 serum dilution was 2.78% among infants, zero to nine months of age, from rural Guimbal and Tigbauan, Iloilo, while those from rural Aguineldo and Alfonso, Cavite was 2.22%. Thus, Filipino infants from these rural areas are virtually "virgin" populations against measles infection. Majority of them or about 98% were without maternal measles antibodies. The significance of these observations affirms that the optimal age for measles vaccination among Filipino infants be it in the rural or urban areas of the Philippines is six (6) months old. In addition, it also indicates that these infants are already susceptible to

measles infection even at a very young age.

Measles. Immunity. Urban/rural setting. Medicine.

- 0239 Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation. Bustos, Ma. Dorina G., Gay, Frederick. **Acta Medica Philippina**, 1995 , 31(2(3-4)):182-187

The classical triad in the study of malaria disease is the interaction between host, vector and parasite. However, with the emergence and spread of resistance, it is now a recognized fact that these are the result of interactions between parasite, humans, vector and drugs, enhanced by particular ecological or even socio-political features. Drug use has immensely evolved through the years, playing an increasingly important and critical role in what used to be a classic triad.

In this paper, we shall look into the mechanisms and factors involved in the dynamics of drug resistance, focusing on parasite and host factors, and the influence of drugs which has greatly affected the variability of malaria sensitivity in vitro and in vivo. Though we recognize the important role of vector biology as an extrinsic factor, it is not within the scope of the paper presented.

Resistance is the ability of a parasite strain to multiply or to survive in concentrations of a drug that normally destroy parasites of the same species or prevent their multiplication. Such resistance may be relative (yielding to increased doses of the drug tolerated by the host) or complete (withstanding maximum dose tolerated by the host).

Such resistance can be defined as:

primary - occurring without previous drug pressure, or
secondary - occurring after drug pressure. Resurgence is the renewed manifestation of infection, believed to be due to the survival of erythrocytic forms. It may result from the survival of fully sensitive parasites if the antimalarial drug did not penetrate into a particular niche or cover all stages of a full developmental cycle, or from survival and expansion of less sensitive or even resistant parasite caused by clonal selection following drug pressure (WHO, 1986).

Medicine. Malaria. Host. Vector. Parasite. Resurgence.

- 0240 Medical problems in down syndrome patients among Filipinos. Millonado, Mary Joan L, Celdran, Miguel F.. **Makati Medical Center Proceedings**, 1995 , :30-34

The medical records of 94 Down syndrome patients seen at Makati Medical Center between 1982 and 1994 were reviewed. Among 61 patients with 2-D echocardiography. 52.5% had congenital heart disease. mostly acyanotic type (9)(%) with atrioventricular septal defect as the predominant lesion (41%) Duodenal atresia and rectal stenosis was noted in one patient. Hypothyroidism was detected in 15% of Down syndrome patients through thyroid function studies. Leukemia was found on 2. 1 % of patients and was of two types: acute lymphoblastic leukemia and acute megakaryoblastic leukemia. Infantile spasms and tonic-clonic seizures with myoclonus were diagnosed in 3 (3.2%) patients before the age of 1 year. Awareness to the possibility of these conditions occurring in a

patient with Down syndrome will help physicians manage such patients more appropriately, thereby improving their quality of life.

Medicine. Abnormalities. Down's syndrome. Echocardiography. Gastrointestinal diseases. Leukemia. Seizures. Thyroid function tests.

- 0241 Methylmalonic acidemia in two Filipino children. Chiong, Mary Anne D., Dela Cruz-Rama, Kahlil Izza, Demata, Michelle A., Rosales, Veronica G., Cua-Lobo, Elena, Lao, Nancy T., Palpal-Latoc, Angelica A., Lee, Joy Y. . **Acta Medica Philippina**, 2008 , 42(2):66-70

We describe two Filipino infants with methyl malonic acidemia, an autosomal recessive organic acid disorder with severe metabolic acidosis as a prominent clinical feature. Clinical course, diagnosis and management of these patients are discussed.

Methylmalonic acidemia. Metabolic acidosis. Autosomal recessive. Medicine.

- 0242 The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage. Ong, Shirley P., Lazaro-Jurilla, Geraldine. **Makati Medical Center Proceedings**, 1999 , :67-70

Fluid replacement by the Intravenous route have become an integral part of patient care but outbreaks of septicemia caused by contaminated infusion products, have dramatically focused our attention on the risks brought about by IV fluids. Studies have shown that most infusion related septicemia are caused by the cannula used for IV access but the fluid administered can be the culprit. This study aims to find out if there will be bacterial growth in 50 bottles 250cc Dextrose 5% water after puncture and storage in the NICU setting. Results revealed bacterial growth in 10% (5bottles) at immediate puncture, 16% (8bottles) after 12 hours of storage and 24% (12bottles) after 24 hours of storage. The isolates were predominantly Coagulase Negative Staphylococci, then Pseudomonas sp. and Acinetobacter sp. These microorganisms are the same ones that cause clinical infection in the NICU. This may point to a deviation from the aseptic techniques by the NICU staff including the storing in IV solutions up to 24 hrs. Recommendations include strict reinforcement on the employment of aseptic techniques on the handling and preparation of Intravenous infusions.

Infection control methods. Drug contamination-prevention and control. Bacteremia-prevention and control. Septicemia-prevention and control. Infections, intravenous. Intensive care units. Neonatal. Medicine.

- 0243 Minimum level of measles antibodies for prevention of infection. Madraso, Eloisa D., Chan, Veronica F., Gose, Remedios B.. **Acta Medica Philippina**, 1994 , 30(2):71-75

An opportunity to determine the minimum effective protection level of measles antibody against natural measles virus infection took place in 1988 when an outbreak of measles occurred in a Filipino household with an extended type of family at Sandejas, Pasay City.

Serologic profile of the subjects that were exposed to the initial and secondary measles cases but did not succumb to measles infection show that as low as 1:4 measles antibody titer measured by microhemagglutination-inhibition test is adequate to provide effective protection against measles virus infection. This is believed to be the first report that defines the minimum effective level of measles antibodies against natural measles virus infection among Filipino children.

The rapid transmission of measles virus among susceptibles and the importance of vaccination to prevent measles was further stressed. However, measles antibody levels of pregnant mothers from different socio-economic levels should be studied. The degree of congestion in these different settings would surely affect measles virus transmission and therefore, also the measles antibody levels of the residents.

Measles antibodies. Measles virus. Medicine.

- 0244 Mitochondrial DNA restriction fragment polymorphism (RFLP) of Philippine acanthamoeba isolates. Natividad, F. F., Matias, R. R., Argayosa, A. M., Enriquez, G. L., Endo, T.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):143-152

The mitochondrial genome of *Acanthamoeba* sp. is a circular DNA molecule that can be readily isolated in pure form. This study shows that mtDNA analysis by restriction fragment length polymorphism is especially suitable for the characterization of various isolates of *Acanthamoeba*.

Isolates from UP Diliman campus, Ateneo and Novaliches were maintained in agar culture, cloned and then axenized in PYGC medium, Mitochondrial DNA of the isolates measured 45-55 kilobase pairs. Restriction enzyme digestion was done by Bgl-II and EcorR1. Analysis of the restriction fragments shows 5 different patterns out of the 7 isolates studied.

mtDNA restriction patterns of Philippine isolates were different from those of the Japanese isolates. These data are consistent with difference in isoenzyme patterns\ reported earlier.

Medicine. *Acanthamoeba* isolates.

- 0245 Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus. Padilla, Carmencita , Corvera, Kristine Denise , Saloma, Cynthia , Ick-Ioson, Jacqueline , Halili-Manabat, Cynthia , Lim-Abrahan, Mary Ann , Paz-Pacheco, Elizabeth, Cutiongco-Dela Paz, Eva Maria **Acta Medica Philippina**, 2008 , 42(1):17-21

Mitochondrial DNA polymorphisms have been implicated in the development of type 2 diabetes mellitus. Data on these polymorphisms are scarce among Asia-Pacific populations.

DNA extracted from peripheral blood of 30 Filipino adults with type 2 diabetes mellitus and 28 normal controls were analyzed using polymerase chain reaction, restriction enzyme digestion, and gel electrophoresis techniques.

The wild type allele was present in 46.7% (14/30) of diabetics compared to 28.6% (8/28) of controls. Four of the 30 diabetics (13.3%) and 2 of the 28 controls (7.1 %) had the (T/C) 16189 polymorphism. Different restriction enzyme digestion patterns with regions of heteroplasmy were found in 51.7% (30/58). Diabetics with the 16189 polymorphism had lower body weights, body mass indices, and abdominal circumferences, but had higher mean arterial pressures than diabetics with the wild type allele.

Further molecular studies need to be performed among the latter group of subjects to elucidate on these observed variations.

Mitochondrial DNA. (T/C) 16189 polymorphism. Heteroplasmy . Diabetes mellitus. Medicine.

- 0246 Molecular characterization of hepatitis G virus (HGV) isolates from healthy adults and risk groups in the Philippines. Dalmacio, Leslie Michelle M. , Libranda-Ramirez, Bernadette dL., Ricafort-Campos, Jane D., Domingo, Ernesto O.. **Acta Medica Philippina**, 2005 , 39(1):13-21

Hepatitis G virus (HGV) infection has been detected in Filipinos through a prospective study of 1,088 blood samples. HGV RNA was found in sera of 6/516 (1.2%) healthy adults (volunteer blood donors), 11/138 (8.0%) chronic liver disease patients, 7/207 (3.4%) hemodialysis patients, and 14/227 (6.2%) multiply transfused patients using reverse-transcription polymerase chain reaction (RT-PCR) with random hexamer primers and a set of PCR primers from the 5' untranslated region (5'UTR) of the HGV genome. A total of 38/1,088 subjects were HGV RNA-positive.

The PCR products derived from the 5'UTR of HGV RNA+ samples were sequenced to determine the genotypic variant of HGV in the Philippines. Pairwise alignment of sequences and phylogenetic tree construction revealed that among the five known HGV genotypic variants, the Philippine isolates are most closely related to the Asian type (III). Considering that HGV is a highly mutable organism, surveillance for new genotypes may be the only way to assess accurate asymptomatic infection rates. How much this virus evolves in the future may have an impact on its virulence, transmissibility and invasiveness. It is therefore important, from an evolutionary perspective, to continue and monitor evolution of HGV specifically with studies at the molecular level.

Medicine. Hepatitis G virus. HGV. Chronic liver disease.

- 0247 Molluscicidal activities of four botanical extracts against *Oncomelania hupensis quadrasi*, snail intermediate host of *Schistosoma japonicum*. Leonardo, Lydia , de Lara, Ayolani , Regadio, Antonio , Estores, Mara , Vicente, Ivan Michael , Victoria, Ma. Victoria , Yanguas, Marjorie Joy , Yap, Siegfried James , Ingente, Ma. Cecilia , Lerit, Sweet Jorienne , Manluyang, Ellyn , Palmos, Mervin , Garcia, Lizbeth Ann **Acta Medica Philippina**, 2007 , 41(2):37-44

Control and prevention programs for schistosomiasis include control of the local snail intermediate host *Oncomelania hupensis quadrasi* by destruction of the snail habitats using environmental modification or directly killing the snails through chemical molluscicides. The search for better and cheaper alternatives to the expensive, toxic and

non-biodegradable chemical molluscicides has been going on for some time.

In the present study, species of plants which have been reported to have molluscicidal activities were subjected to the same standard procedures for extraction and bioassay to compare the intensity of their molluscicidal properties. These plants include *Croton tiglium*, *Jatropha curcas*, *Entada phaseoloides* and *Nerium oleander* whose potential was discovered in 1999. The histopathological effects of the extracts on the foot and the pancreas of the snail were also examined to determine the possible mode of action of the plant extracts.

Results of the bioassays and histopathological evaluation showed that *C. tiglium* possesses the highest molluscicidal efficacy followed by *J. curcas* then *E. phaseoloides* and lastly *N. oleander*. Organic extracts were more effective in killing snails than aqueous extracts. The effect of the extracts were both time dependent and dose-dependent, meaning higher mortalities result from exposure to stronger doses and longer exposures. The toxins found in the extracts demonstrated both contact and systemic actions.

Further purification of the active ingredients of these highly molluscicidal plant species can be the next step in their development as cheaper, better and readily available alternatives to chemical molluscicides. With the growing interest and commercialization of *J. curcas* for its biodiesel content, its high molluscicidal property may be added to its list of desirable properties.

Oncomelania hupensis quadrasi. *Schistosoma japonicum*. Schistosomiasis. Medicine.

- 0248 How much functional recovery is there in post-stroke patients?. Mojica, Jose Alvin P., Nario, Agapito Raul L., Cipriano, Victor Allan J., De La Cruz, Beth. **Acta Medica Philippina**, 1994 , 30(2):76-81

To compare the functional status of patients seen at the stroke rehabilitation clinic in terms of performance of activities of daily life at initial evaluation and at least six months thereafter using the Barthel Index, determine outcome of living arrangements, vocational and financial status and to find out common reasons for dropping out of the stroke rehabilitation program, 26 consecutive stroke patients who consulted at the Out-Patient Rehabilitation Clinic were included in this study. Results showed that 1) all stroke patients followed up at home at least six months after initial evaluation showed improvements in functional performance; 2) all patients were living with their immediate family/relatives, majority were unemployed and dependent on other family members/relatives or social institutions for financial support; and 3) both the presence and absence of complete recovery were the main reasons for failure to continue regular rehabilitation sessions among patients lost to follow-up.

Stroke. Stroke rehabilitation. Functional status. Barthel Index. Medicine.

- 0249 Multiple congenital anomalies in a Filipino infant with trisomy X syndrome. Chiong, Mary Anne D., Mercado, Alma Rosa S. , Cutiongco-dela Paz, Eva Maria C.. **Acta Medica Philippina**, 2008 , 42(2):60-62

We present a Filipino infant with 47,XXX karyotype with multiple congenital anomalies consisting of cranial abnormalities, hypotonia, dysmorphic facies and hypoplastic right heart syndrome. This case provides additional data to the syndrome's limited phenotypic spectrum of defects described in previously reported cases.

Trisomy X syndrome. Developmental delay. Facial dysmorphism. Congenital heart disease
. Medicine.

- 0250 Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP). Teleg, Rosalia A., Dantes, Marita B., Peralta, Olivia D., Borres-Icasiano, Ruth, Lee, Lilian V.. **Acta Medica Philippina**, 2005 , 39(2):28-35

Objective: To determine the clinical efficacy and safety of muscle afferent block (MAB) in patients with X-linked Dystonia Parkinsonism (XDP).

Methodology: An open-label study was conducted on thirty XDP patients (29 male and one female). Subject received electromyographic-guided MAB regimen (0.5% lidocaine and 95% ethanol). Treatment response was based on pre- and post-EMG changes (number of discharges/100 milliseconds), clinical parameters (onset and duration of effect), and Subjective Improvement Scale (SIS) with scores ranging from 0 (no improvement) to 4 (marked improvement). Adverse drug reactions were reported.

Results: Post-MAB mean percent decrease in number of discharges at $55.12 \pm 22.43\%$ was significant (p value=0.000). Post-MAB mean subjective improvement was moderate at 3.13 ± 0.82 . No statistically significant differences were noted between treated patients in generalized dystonia and those not treated, with one or several treated muscles, and between those on and those not on concomitant oral medications during the study period. Mean onset of action was 27.33 ± 5.68 minutes. Mean total duration of effect was 7.93 ± 9.66 days. Nonserious events were transient.

Conclusion: Single MAB treatment using lidocaine and ethanol is relatively safe and possible alternative for early and temporary treatment for XDP patients.

Dystonia. Parkinsonism. Sex-linked recessive dystonia parkinsonism. Movement disorder.
Lubag. Medicine.

- 0251 Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography. Lagunzad, Josefina M. , Lapitan, Raul L., Tan-Gatue, Robert D.. **Makati Medical Center Proceedings**, 1999 , :35-39

Results of resting and exercise tetrofosmin myocardial perfusion imaging of 54 patients (48 men and 6 women; mean age of 59) were reviewed and analyzed and compared with their respective coronary angiographic findings. Forty one patients with coronary artery disease (CAD) (>50% luminal stenosis) had an abnormal myocardial scintigram. Four patients with significant CAD showed normal myocardial imaging. In one patient, the result of myocardial perfusion was equivocal. Six patients without significant CAD had

normal imaging. Overall sensitivity, specificity and accuracy of tetrofosmin in myocardial perfusion in the detection of significant CAD were 91%, 75% and 88% respectively. Positive predictive value was 95% while the negative predictive value was 60%. The localization of defects by tetrofosmin myocardial while the negative predictive value was 60%. The localization of defects by tetrofosmin myocardial perfusion imaging in relation to the perfusion territories of stenosed vessels of > 50% was achieved with 92% sensitivity, 50% specificity and 62% accuracy for the LAD, 87%, 59% and 67% respectively for the Left Circumflex Artery and 89%, 58%, and 69% respectively for the RCA. Positive predictive values were 92%, 87%, and 89% for LAD, LCx and RCA respectively, while negative predictive values were 30%, 59%, and 58%, respectively for LAD, LCx and RCA.

Exercise test. Exercise test-statistical and numerical data. Coronary disease-physiopathology. Coronary diseases-radionuclide imaging. Thallium radioisotopes diagnostic use. Medicine.

- 0252 Neonatal morbidity among infants of diabetic mothers. Trapaga, Ma. Isabel F., Espiritu-Dolendo, Rita. **Makati Medical Center Proceedings**, 1995 , :29-33

This study was done to correlate neonatal morbidity of infants of diabetic mothers (IDMs) to Maternal White Classification and determine whether morbidity correlates with increasing birth weight of the infant. Forty infants of gestational diabetics controlled by diet or insulin and 6 infants of pregestational diabetics were included. The following symptoms used as parameters of morbidity revealed: macrosomia (45.7%), hypoglycemia (21.7%), polycythemia (6.5%), hyperbilirubinemia (13%) hypocalcemia (10.9%), prematurity (32.6%) respiratory distress (13%) and the presence of congenital anomalies (15.2%). Statistical significance was noted among the different White classifications. Infants of insulin-treated mothers developed more complications compared to those treated by diet alone. There was no correlation noted between morbidity and increasing birth weight percentiles. Macrosomic infants were not significantly more symptomatic than those infants that were appropriate for gestational age.

Neonatal morbidity. Infant of diabetic mothers. IDMs. Infants. Perinatal mortality. Maternal white classification. Medicine.

- 0253 Normal pituitary gland: The Asian standard. Apolinar, Noel D., Adapon, Henry P.. **Makati Medical Center Proceedings**, 1999 , :40-46

Conventionally, a pituitary mass was presumed to exist should the sella appear expanded on conventional x-ray. Today, MRI affords the diagnostician, through actual visualization of the pituitary gland, the ability to characterize its size, configuration, and enhancing characteristics. Our purpose is to demonstrate how MR assesses precise ranges in size, configuration, and volume of the pituitary gland as well as the hypophyseal stalk, and the optic chiasm in the different age groups.

One hundred six subjects of Asian descent at the Makati Medical Center with normal MR examination of the pituitary gland were studied from December 1995 to February 1997. Results showed that the volume of the pituitary gland increases with age, in males

peaking at 21-35 years; in females, continuously increasing until late childhood. The shape of the gland varies from concave downward to convex upwards at its superior border, correlated to the age group. Female pituitary stalks are consistently longer than their male counterparts. The stalk thickness is the same among males and females. The stalk inserts into the middle surface of the gland in more than 50% sagittally and more than 90% coronally. The configuration of the optic chiasm is dependent on the anterior to posterior coronal section of the scan showing varying appearances, but normal.

Pituitary gland-growth and development. Pituitary gland-pathology. Magnetic resonance imaging. Medicine.

- 0254 Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load. Javier, Saturnino P., Anastacio, Roberto V.. **Makati Medical Center Proceedings**, 1998 , :8-13

To determine the ambulatory blood pressure profiles of normotensive patients whose 12-lead electrocardiograms (EGC) demonstrate left ventricular hypertrophy (LVH) by voltage criteria, we evaluated the 24-hour ambulatory blood pressure monitor (ABPM) recordings obtained in 118 patients (61% males, mean age 52 ± 12 years) with the Kenz BPM AM-200 portable monitor (Suzuken Co. Ltd, Japan). All patients had office blood pressure (BP) $< 140/90$, no history of hypertension and no previous antihypertensive drug intake. The LVH group consisted of 15 patients (12.7%) who satisfied one of the two sets of voltage criteria for LVH ($R_{in V_5 \text{ or } V_6} + \sin V_1 \text{ or } V_2 > 35\text{mm}$ or maximum R or deepest S in precordial leads $> 45\text{mm}$). The non-LVH group consisted of 103 patients (87.3%). The two subgroups were well matched for age, sex, height and weight. The mean total systolic blood pressure (SBP), diastolic blood pressure (DBP) and cardiac rate (CR) were compared using Wilcoxon scores of rank sums. Overall, the mean 24-hour SBP was higher in the LVH group although this was not statistically significant. The mean 24-hour DBP was significantly higher in those with LVH ($78 \pm 10\text{mm Hg}$ vs $72 \pm 8\text{mm Hg}$, $p = 0.0462$). There was no significant difference in 24-hour CR. Daytime and nighttime values for both systolic and diastolic pressure tended to be higher in the LVH group. In conclusion, this study has demonstrated a significantly greater 24-hour ambulatory BP load in this small sample of normotensive patients whose 12-lead ECG's demonstrate LVH. Whether this finding of LVH associated with a greater BP load will determine a worse long-term prognosis will have to be determined in follow-up studies.

Electrocardiography, ambulatory. Hypertrophy, left ventricular. Blood Pressure Monitoring, ambulatory-standards. Hypertension. Medicine.

- 0255 Nourishing a vital role in total patient care. Peralta, Emelda C., Lacson, Ma. Cristina L.. **Makati Medical Center Proceedings**, 1995 , :79-82

In any long-term care facility like a hospital, the dietary department is a vital partner in promoting the well-being of its patients. The dietary department of the Makati Medical Center, therefore, makes an effort to provide foods that are both nutritious and appetizing. Apart from serving the appropriate foods, the department also has the responsibility to ensure that these patients, especially those on therapeutic diets, eat. After all, "serving nutritious foods to a patient who cannot or will not eat benefits no one". As such, the department complements whatever medical intervention these patients

require. The department caters to other clients as well, such as doctors, employees, nursing students and visitors. In short, the dietary department is responsible for the proper nourishment of the patients and all the others who are directly involved or indirectly involved in total patient care.

Total patient care. Nutrition care. Medicine.

- 0256 Nucleated erythrocytes in meconium-stained infants. Caruncho, Maria Michiko P., Espiritu-Dolendo, Rita. **Makati Medical Center Proceedings**, 1997 , :22-25

Elevated nucleated erythrocytes in neonates are increasingly considered as markers of chronic intrauterine hypoxia. To determine whether nucleated erythrocytes are elevated in acute state of perinatal hypoxia as seen in meconium-stained infants, a retrospective analysis was conducted and data from 71 term, appropriate for gestational age, non-asphyxiated infants born of uncomplicated pregnancies were collected. The babies were divided into a meconium-stained group and a non meconium-stained group according to the character of amniotic fluid observed upon delivery. The reported NRBC per 100 leukocytes between the two groups as well as their absolute values were compared and statistically analyzed. Circulating NRBCs in meconium stained infants were found to be elevated compared to the non-meconium stained controls ($p < 0.05$).

Amniotic fluid. Fetal anoxia-metabolism. Leukocytes. Meconium aspiration. Respiratory distress syndrome. Erythrocytes. Medicine.

- 0257 Occurrence of pulmonary aspergillosis after heart transplantation. Lopez, Gary A., Barril, Joseph B., Yamamoto, Jose S., Talavera, Diomedes A., Bangayan, Teofilo T., Garcia, Jorge M. **Makati Medical Center Proceedings**, 1995 , :90-93

Fungal infection is a known complication of immunosuppressant therapy among patients who undergo heart transplantation. A report on the occurrence of pulmonary aspergillosis in a Filipino patient after heart transplantation is presented. The patient was a 38 year-old male with idiopathic dilated cardiomyopathy and coronary artery disease who received a heart from a 28 year-old male donor. Immediate post-operative hospital course was unremarkable and a triple combination immunosuppressant therapy was maintained consisting of cyclosporine-A, prednisone and azathioprine.

A month later, the patient developed persistent low grade fever and dry cough. Chest x-ray showed large fungus - ball lesions on the left lower lobe. Culture from a computerized tomography guided lung aspiration yielded *aspergillus fumigatus* spp. Despite intravenous amphotericin-B and oral fluocytosine combination therapy, the patient's condition deteriorated. The patient expired on the 84th post-operative day due to massive intracerebral hemorrhage.

Medicine. Immunosuppressant therapy. Fungal infection. Heart transplantation.

- 0258 Open study of cilostazol among non-insulin dependent diabetes mellitus patients with arteriosclerosis obliterans. Black, Dwight C., Crisostomo, Thelma D., Litonjua, Augusto D., Raboca, Josephine C., Sison, May O.. **Makati Medical Center Proceedings**, 1998 , :14-20

Cilostazol is a new antiplatelet agent and also acts as a direct arterial vasodilator. The purpose of this prospective study is to determine the clinical effectiveness, safety and usefulness of Cilostazol in Non Insulin Dependent Diabetes Mellitus (NIDDM) patients with chronic arterial occlusion.

NIDDM patients diagnosed as having arteriosclerosis obliterans with a most frequent manifestation of Intermittent Claudication and doppler Ankle-Brachial Index of less than 0.9 were included. Patients were given Cilostazol 100 mg PO BID for 12 weeks. Primary outcome measures included Initial Claudication Distance (ICD) and the Absolute Claudication Distance (ACD).

This interim report of 19 patients showed significant improvement if ICD and ACD. The presentign symptoms of pain, numbness and cold sensation were ameliorated. Cilostazol was considered safe in 18 patients (one patient had elevated liver function test). In spite of the adverse experience, Cilostazol was still evaluated as useful for this kind of disease.

Arteriosclerosis Obliterans. Diabetes Mellitus, Non Insulin Dependent. Medicine.

- 0259 An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy. Villalon, Antonio H., Muyco, Rex Melchor M.. **Acta Medica Philippina**, 1993 , 29(2):87-104

An open, non-comparative drug trial designed to evaluate the safety and efficacy of Ondansetron in controlling chemotherapy induced nausea and vomiting was done. Ondansetron, a new 5HT₃ Antagonist was given to patients who received chemotherapy with cisplatin and non-cisplatin containing regimens. Thirty four (34) were evaluated, 23 females, 11 males, aged 22-73 years. Eight (8) received cisplatin containing regimen while twenty six (26) received non cisplatin containing regimen. In the cisplatin containing group, 87% had no episodes of vomiting (complete response), 12.5% had 1-2 episodes of vomiting (major response). No episodes of nausea was noted in the 1st 24 hours. Total control of nausea and vomiting was noted on the 6th day. For the non-cisplatin group 23% had no episode of vomiting (complete response) 65% has 1-2 episodes of vomiting (major response) 11.3% had 3-5 episodes of vomiting (minor response) in the 1st 24 hours. Similarly 90% of the patients had mild nausea (did not interfere with daily activity) 10% had moderate nausea (interfered with daily activity) in the first 24 hours. Total control of nausea and vomiting was noted on the 4th day.

It was observed that Ondansetron in an effective and safe drug for the control of chemotherapy (cisplatin and non-cisplatin regimens) induced nausea and vomiting.

Ondansetron. Nausea. Vomiting. Cisplatin. Non Cis-Platinum. Chemotherapy. Medicine.

- 0260 Oto-palatodigital syndrome in a Filipino child. Chiong, Mary Anne D, Cutiongco-dela Paz, Eva Maria C.. **Acta Medica Philippina**, 2008 , 42(2):48-50

We present a Filipino male with Otopalatodigital syndrome (OPD) Type I, an X-linked disorder, with characteristic facial and limb anomalies supported by compatible radiographic findings and absence of visceral and severe bone abnormalities.

Otopalatodigital syndrome type 1. Bone abnormalities. X-linked recessive inheritance . Medicine.

- 0261 Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study. Sison, Mark Cornelius A., Orendain, Ignacio G. II, Santos, Leonel C., Caedo, Jose P.. **Makati Medical Center Proceedings**, 2003 , :97-102

Herniorrhaphies done at the Makati Medical Center usually involves admitting a patient and doing the procedure under spinal anesthesia. In view of the current economic situation we wish to explore the possibility of doing this procedure on an outpatient basis under local anesthesia specially for our charity cases. This would not only save the patient from additional expenses but the hospital as well. We therefore decided to compare the two procedures in terms of pain control (using the visual analog scale and the peak flow meter), morbidities or complications encountered and cost effectivity. A total of 41 patients were included in the study, 27 patients had outpatient herniorrhaphy done and 14 were admitted for their herniorrhaphy. The visual pain analog scale showed a decreasing trend for both in-patients and out-patients. But no statistical difference was noted. Peak flow meter also showed a similar trend between the two groups but again not statistically significant. One complication arose in the out-patient group and four immediate post operative complications were noted in the in-patient group. The cost of out-patient herniorrhaphy was fixed at one thousand pesos while the in-patient herniorrhaphy costs between five to eight thousand pesos. We therefore concluded that out-patient herniorrhaphy compared favorably to in-patient herniorrhaphies in terms of pain control as demonstrated by an increasing forced expiratory volume on peak flow meter and a decreasing trend on the visual pain analog scale. The procedure also had the potential to save the hospital between seven to eight thousand pesos.

Anesthesia, local. Health care cost trend. Hernia, inguinal-surgery. Prospective studies. Cost benefit analysis. Medicine.

- 0262 Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report. De Ungria, Maria Corazon A. , Calacal, Gayvelline C., Delfin, Frederick C., Tabbada, Kristina A., Salvador, Jazelyn M., Sagum, Minerva S. , Dalet, Miriam Ruth M., Franco, Shiela Ann Edith L., Maiquilla, Sheena Marie B., Perdigon, Henry B., Villamor, Lilian P., Halos, Saturnina C.. **Acta Medica Philippina**, 2008, 42(2):34-38

This paper reports the use of DNA analysis in 342 cases that were handled by the DNA Analysis Laboratory of the Natural Sciences Research Institute, University of the Philippines, Diliman during the period from January 2005 to August 2008. Different DNA markers namely Short Tandem Repeats on autosomal and V-chromosome as well as mitochondrial DNA sequences were used depending on the type and availability of samples that were submitted. The utility of the technology for human identification for diverse purposes was shown. The work presented here puts forward the importance of developing DNA laboratories to make this type of service available in the Philippines.

Forensic Genetics. DNA Typing. Microsatellite Repeats. DNA. Mitochondria. Identification Medicine.

0263 Overview of genetic services at UP Manila. David-Padilla, Carmencita *Acta Medica Philippina*, 2008 , 42(2):7-10

The Medical Genetics Unit (MGU) was set up in 1990 as a special project under the Office of the Dean of the University of the Philippines (UP) College of Medicine, in recognition of the need to provide comprehensive genetic services in the country. The MGU was housed at the Department of Pediatrics. In 1991, the Dysmorphology clinic was opened at the Philippine General Hospital (PGH) Out-Patient Department and the Cytogenetics laboratory services were opened at the Pediatric Research Laboratory. In 1996, the Philippine Newborn Screening Project was initiated in collaboration with 24 private and government hospitals.

The following year, the Newborn Screening laboratory was established in September to serve as the central laboratory for the project. At the end of 1998, the MGU had clinical services at the PGH and 2 laboratories (cytogenetics and newborn screening) at the National Institutes of Health building.

In 1999, the UP Board of Regents approved the creation of the Institute of Human Genetics (IHG) as one of the component institutes of the National Institutes of Health (NIH). All services of the Medical Genetics Unit were transferred to the IHG. The vision of IHG is to develop a center committed towards the control of genetically-related deaths and disabilities with its mission of (1) promotion of health by understanding the genetic basis of common diseases in the Filipino population through basic and clinical research, (2) provision of services that will allow definitive diagnosis and early detection of potentially treatable genetic conditions, and (3) implementation of educational programs to increase awareness of physicians and the general public with regard to common genetic conditions and their prevention.

Subsequently, the Dysmorphology Clinic at PGH was renamed the Clinical Genetics Clinic. The Molecular Genetics Laboratory and the Biochemical Genetics Laboratory were opened in 1999 and 2001, respectively as part of the expansion of the Institute. All laboratory services were housed at the NIH. The IHG is the largest provider of genetic services in the Philippines today. It is a central resource committed to making genetic testing available and accessible to Filipinos all over the country. Presently, the IHG has the following units: clinical genetics, cytogenetics, newborn screening, molecular genetics and biochemical genetics. Tightly integrated with these services are research and advocacy. From a single-member staff in 1990, the IHG now has a staff complement of 68 - 3 clinical geneticists, 1 biochemical geneticist, 1 endocrinology / metabolic physician, 2 molecular geneticists, 1 chemist, 2 biochemists, 3 molecular biologists, 14 technical support staff, 2 nurses, 1 genetics fellow, 11 university researchers and 27 administrative support staff shared by all units. The UP Manila organizational structure and the functional chart of IHG.

At present, the faculty of IHG come from the College of Medicine (CM) and the College of Arts and Sciences. The CM faculty are all from the Department of Pediatrics with 3 concurrently research faculty of the NIH.

Genetic services. Cytogenetics. Clinical genetics. Newborn screening. Molecular genetics. Advocacy programs. Medicine.

- 0264 P300 evoked response potential latencies in Filipino adults. Perez-Gosiengfiao, Katerina Tanya B., Preysler, Marivic G., Dasig, Darwin A., Perez, Martesio C.. **Makati Medical Center Proceedings**, 2001 , :58-60

The 300 evoked response potential is a test which has been of uncertain value in the past. Previous researches in dementias, schizophrenia and ADHD have, however, elicited a renewed interest in this examination. This study was done with the aim of determining the peak latencies of the P300 evoked response potentials of normal Filipino adults. An auditory oddball paradigm stimulus was used, with the target stimulus being given 20% of the time, at 40 decibels. Twenty-four Filipino adults aged 20-39 years with no history of ear or hearing problems, neurologic disease, or drug use were tested. Mean peak P300 latencies were 350.74 ± 34.28 , 341.11 ± 35.65 , and 346.89 ± 34.76 for the 20-29, 30-39 and 20-39 year old age groups respectively.

Medicine. Evoked potentials, auditory. Audiometry, evoked response.

- 0265 Pap smear findings in endometrial carcinoma: A retrospective study of cases with histopathologic correlation. Andrade, Jeannie I., De La Fuente, Emmanuel R., Andal, Frances N.. **Makati Medical Center Proceedings**, 2004 , :92-97

In making a retrospective study of pap smears of women diagnosed with endometrial carcinoma, we aim to assess the correlation between the endometrial cells on routine pap smear processed via AutoCyte Prep System, and endometrial carcinoma on tissue sections; to see if the degree of differentiation of the tumor contributes to the harvest of neoplastic cells in the pap smears. Based on the results, we have determined that the degree of differentiation of the tumor is directly related to the presence of endometrial cells in the pap smear, as well as to the severity of the atypia. Using the two way classification for analysis of enumeration of data with chi square, we confirmed that the presence of endometrial cells in the cervico-vaginal smears depends on the degree of differentiation of the tumor. Similarly, the null hypothesis that the abnormality demonstrated by the endometrial cells in the pap smears also depends on the degree of differentiation of the tumor cells, is also accepted.

Endometrial neoplasms-pathology. Vaginal smears. Retrospective studies. Medicine.

- 0266 Paramyosin is a vaccine candidate against schistosoma japonicum infection. Ramirez, Bernadette L., Kurtis, Jonathan D., Arias, Percival, Johnson, Joan H., Olds, Richard G.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):103-104

Paramyosin, a 97 kDa myofibrillar protein, is a candidate vaccine antigen for the prevention of infection with the human parasite *Schistosoma mansoni*. To determine if paramyosin would also induce protection against *Schistosoma japonicum*, paramyosin

was biochemically purified from *S. japonicum* adult worms. SDS-PAGE demonstrated a single protein with a Mr of 97 kDa. Immunoblot analysis showed that a monoclonal antibody against *S. mansoni* paramyosin also recognized this *S. japonicum* protein. In three separate experiments, vaccination of mice with *S. japonicum* paramyosin without adjuvant induced significant resistance (62%-86%, $p \leq 0.001$) against cercarial challenge as compared to controls. These data suggest that *S. japonicum* paramyosin may represent a candidate vaccine for immunization against schistosomiasis japonica.

Medicine. Paramyosin. *Schistosoma japonicum*. *Schistosoma mansoni*. Human parasite.

- 0267 Parapneumonic effusion in children: A ten-year retrospective study. Victorio, Ma. Cristina C., Alcaneses, Maria Rosario S., Rivera, Luis M.. **Makati Medical Center Proceedings**, 2003 , :27-33

Parapneumonic effusions in children were studied retrospectively in 30 patients with attention to clinical presentation, bacteriologic results, diagnostic modalities, therapeutic intervention and outcome of the disease. The most common presenting symptoms were fever and cough (83% and 80% respectively). *Staphylococcus aureus*, *Pseudomonas aeruginosa* and Coagulase Negative *Staphylococcus* were the most common organisms isolated from the pleural fluid of these patients (20% each). Fifty-seven percent were treated with surgical procedure (thoracentesis, chest tube drainage and decortication). Decortication was resorted in two patients. There were two deaths and the overall survival rate was 93%.

Pleural effusion, classification-diagnosis . Pneumonia, staphylococcal-pathology. Lung surgery. Retrospective studies. Medicine.

- 0268 Parasites of medical importance in the Philippines. Cruz, Amante C.. **Acta Medica Philippina**, 1995 , 31(3-4):20

In a tropical country like the Philippines, parasitic organisms play a significant role in disease causation. Various species of helminths and protozoa are not only medical concern but also serve as major public health hazards. Included are soil-transmitted, food and water-borne, directly-transmitted and vector-borne parasitic agents which are important causes of morbidity and mortality in the country. As an overview of the problem, this paper tries to present the endemic parasites, their current status and recommended/and available modes of treatment. The present status includes the geographic distribution and extent of the particular parasitic infections. The different drugs of choice together with the alternative and available chemotherapeutic agents are also discussed in general.

Medicine. Parasites. Helminths. Protozoa.

- 0269 Pathogenic or nonpathogenic entamoeba Sp.. Matias, Ronald R., Natividad, Filipinas F., Enriques, Gloria L.. **Acta Medica Philippina**, 1995 , 31(2(3-4)):169

Distinguishing pathogenic *Entamoeba histolytica* from the non-pathogenic *Entamoeba dispar* is of paramount clinical importance since the two organisms are morphologically indistinguishable. Differentiation has been achieved by using a simple and rapid DNA extraction protocol which can be used directly on formalin-fixed stool specimens. The polymerase chain reaction (PCR) and restriction enzyme analysis of the PCR products were used to differentiate between pathogenic *E. histolytica* from the non-pathogenic *E. dispar*. The oligonucleotide primers used were specific for a gene region encoding a 30 kD antigen of *E. histolytica*. Of the 72 randomly collected fecal samples, 30 were microscopically examined to be infected with *Entamoeba*. DNA was extracted from these samples and used as template for subsequent PCR reactions. Migration pattern of a 531 bp PCR product digested with Hinf I showed 19 samples were *E. dispar*. Moreover, a 101 bp product was detected from the same samples using the *E. dispar* specimen primers. This suggests that PCR amplification coupled with restriction enzyme digestion of PCR products is a useful strategy in obtaining a sensitive, accurate and rapid way of detecting the parasite. This can be applied even in large epidemiologic studies.

Medicine. *Entamoeba histolytica*. *Entamoeba dispar* .

- 0270 Patient education and compliance among patients with dyspepsia seen at the UP-PGH ambulatory emergency room from September to November 1993. Bes, Maria Ana M., Angeles, Ma. Theresa. **Acta Medica Philippina**, 1994 , 30(2):118-134

This study of compliance and its relation to health education among dyspeptic patients seen at the ambulatory-ER UP-PGH for a three month period shows a very low follow-up rate of 16%. However, there is a greater trend of compliance among subjects who received health education versus those that did not. Due to the low follow-up rate one cannot make valid conclusion with regards to the association of health education and compliance. Recommendations to improve compliance studies in the future are given.

Patient education/compliance. Dyspepsia. Ambulatory Health Care. Medicine.

- 0271 Persistence of placenta previa according to gestational age at ultrasound detection. Antonio, Estern V., Quevedo, Ma. Linda E.. **Makati Medical Center Proceedings**, 2004 , :45-48

A retrospective cohort study of pregnancies with placenta previa detected during ultrasound was done. This is to evaluate gestational age at ultrasound detection of placenta previa as a predictor of previa persistence until delivery and to estimate the effects of previa type, parity, and prior cesarean delivery on previa persistence. The outcome of the study was persistent placenta previa resulting in cesarean delivery. Statistical analysis were performed using X^2 for categoric outcomes. A total of 82 women were found to have placenta previa on antepartum ultrasound examination based on the MMC ultrasound database from January 1, 2000 to December 31, 2001. Data were grouped according to trimesters. Of women diagnosed with previa in the 1st semester 7% had previa at delivery, while 29% and 22% of women with previa in the second and third trimesters respectively have previa at delivery. Regardless of gestational age at detection, complete previas were more than twice as likely to persist until delivery than incomplete

previas. Women with prior cesarean delivery were at an increased risk for persistence of previa, if previa was detected in the 2nd and 3rd trimester. Parity was no longer a risk factor for previa persistence.

Medicine. Placenta previa-ultrasonography. Pregnancy-trimester, second. Retrospective studies. Cesarean section.

- 0272 Phase II evaluation of mitoxantrone in patients with advanced nasopharyngeal carcinoma. Villalon, Antonio H., Tudtud, Dennis M., Machica, Mario Enrico Go. **Acta Medica Philippina**, 1993, 29(2):105-110

Twenty four evaluable patients (pts) with advanced nasopharyngeal carcinoma received Mitoxantrone, 12 mg/m² for "poor risk" patients and 14 mg/m² for "good risk" patients every three weeks. Five patients were untreated previously while 19 patients had prior radiotherapy. None received prior chemotherapy. Histological type was squamous in 15 and undifferentiated in nine. There were 14 males and 10 females with a mean age of 48 years (range=31-67) and mean ECOG performance status of 1 (range=0-2) who received a mean of three courses of therapy (range 2-7). Extent of disease was local in two, regional in 15 and distant in seven patients. There were nine partial responders (37.5% response rate) of 24 evaluable patients with six deaths at a maximum follow-up period of 69 weeks. The mean duration of response was 19 weeks and a mean survival of 23 weeks (6 patients). The major toxicities were alopecia (Grade I) in 54% and nausea (Grade I) in 42% of patients. Only two patients developed Grade 3 leucopenia, while one patient had Grade 2 thrombocytopenia. Mitoxantrone shows activity in advanced nasopharyngeal carcinoma and is well tolerated. Further evaluation of this drug in advanced nasopharyngeal carcinoma involving Asian patients is underway.

Mitoxantrone. Nasopharyngeal Carcinoma. Anthraquinones. Medicine.

- 0273 A pilot study on the ototoxic effect of aminoglycoside use among tuberculous patients. Lagos, Maria Theresa M.B., Ibay, Emmanuel L., Bautista, Ariston G.. **Makati Medical Center Proceedings**, 2002, :21-26

This study aimed to detect if there was ototoxicity among tuberculous patients of the DOTS program as defined by pure tone audiometry after three months on aminoglycoside use. This study involved 29 subjects diagnosed to have tuberculosis (TB). The subjects were divided into two groups, the treatment group who received an aminoglycoside in their anti-TB regimen as determined by sputum culture and sensitivity, and the control group who did not receive any aminoglycoside in their anti-TB regimen of either isoniazid, rifampicin, ethambutol, and pyrazinamide. Hearing thresholds for each ear were determined using pure tone audiometry (PTA) for both groups at the start of their treatment as baseline. Another pure tone audiometry was obtained three months after. Results showed that majority of subjects in the treatment group had mild to moderate hearing loss for both ears with no statistically significant difference in hearing threshold reading from baseline to final measurements. The control group also revealed normal to mild hearing loss for both ears with no statistically significant difference in hearing threshold reading from baseline to final measurements. This study therefore showed that there was no clinically detectable change in hearing threshold among

patients being given aminoglycoside after three months of use.

Medicine. Antibiotics, aminoglycoside-therapeutic use. Tuberculosis, pulmonary. Hearing loss, drug effect.

- 0274 Post operative constriction or dilation in cataract surgery: Is it really necessary?. Ongsiako-Isabela, Carmela, Ongsiako, Jr., Ramon J., Cruz, Dennis G., Padilla, Ma. Dominga B.. **Makati Medical Center Proceedings**, 1995 , :3-7

This is a prospective randomized double blind study to determine the effects of post operative mydriatics and miotics in uncomplicated extracapsular cataract extraction with posterior chamber intraocular lens implantation (ECCE with PCIOL implantation).

38 patients who underwent uncomplicated ECCE with PCIOL implantation were randomly assigned to 3 groups (A,B,C). Patients in Group A,B,C received balanced salt solution (BSS), tropicamide and pilocarpine respectively. These patients were observed on the first post operative day, week and month to determine the effects of these ocular drugs on visual acuity, anterior chamber inflammation, pupil shape and reaction and formation of posterior synechiae and intraocular pressure.

Statistical analysis showed that there were no significant differences among the 3 groups in as far as the parameters concerned.

Cataract surgery. Post operative constriction. Dilation. Medicine.

- 0275 Prediction of intestinal viability by intra-arterial dye injection: A simple test. Tuazon, Rodolfo G. Jr., Gloria, Rommel C., Baltazar, Wilma A., Pastores, John Vincent G.. **Makati Medical Center Proceedings**, 1998 , :45-48

Intra-arterial dye injection is a method that is simple, easy, safe, and inexpensive way to accurately predict the viability of ischemic rat intestine. This paper attempts to evaluate the effectiveness of Methylene Blue dye in diagnosing the intestinal viability using adult rats. This study shows that intra-arterial methylene blue dye injection is of great value in clinical application.

Intestinal obstruction-veterinary. Injection, intra-arterial. Intestine, small. Methylene blue. Medicine.

- 0276 The predictive value of the breast imaging reporting and data system (BIRADS). Cinco, Roland F., Billones, Mejie M., Galimpin, Dennis M., Caedo, Florencio Gerardo O., Acosta, Aser S., Caedo, Jose P.. **Makati Medical Center Proceedings**, 2002 , :5-10

The American College of Radiology (ACR) has established guidelines for breast imaging reports known as the BIRADS (Breast Imaging Reporting and Data System). Part of this guidelines is an audit of every breast imaging facility which includes the computation of

the positive predictive value (PPV) of malignancy. The Makati Medical Center had adopted the said system since December of 2000. This study aims to determine the PPV of the BIRADS as applied by the MMC Breast Clinic. One hundred sixty two patients were included in the study: 10 underwent mammography alone, 38 underwent sonomammography alone, and 124 underwent both mammography and sonomammography. Each subject received a final BIRADS category assignment based on the breast imaging findings. All patients eventually underwent a form of biopsy for the abnormalities seen on breast imaging. The mammographic features with the highest PPV for malignancy was a mass with spiculations of microcalcifications (PPV=66.67%). The sonomammographic finding with the highest PPV for malignancy was a mass with more than one suspicious sonographic feature such as ill-defined margins, heterogeneous echotexture, increased vascularity, microlobulations, and/or retrotumoral attenuation (PPV=48.94%). Out of 162 patients, 34 (20.98%) were diagnosed with malignant disease, while 128 (79.01%) were diagnosed to have benign disease. Majority of the patients who had benign disease had fibrocystic changes. For those with malignant disease, invasive ductal CA predominated. The individual PPV's for each BIRADS level are as follows: BIRADS 2=0%; BIRADS 3=12.5%; BIRADS 4=16.13%; BIRADS 5=76.92%. The overall PPV was 26.39%, which falls within the acceptable range as set by the ACR. This study shows a relative accuracy in labeling highly suspicious breast imaging features under category 5 as shown by a high PPV for BIRADS 5. However, there is poor delineation between lesions in BIRADS 3 and 4.

Medicine. Breast imaging reporting and data system. BIRADS. Positive predictive value. Breast-imaging.

- 0277 Predictors of appendiceal perforation in children: A 7-year review. Lateo, Florante L., Celdran, Miguel F.. **Makati Medical Center Proceedings**, 2002 , :52-60

Objective: To identify independent predictors of appendiceal perforation in children. *Design:* A retrospective case review of children who underwent primary appendectomy from January 1994 to December 2000 at Makati Medical Center. *Setting:* Tertiary level hospital. *Patients/Participants:* 678 children aged 1-18 yrs old who underwent primary appendectomy during the study period. *Main Outcome Measures:* Perforation rates, in-hospital death rates, patient and physician delay and length of hospital stay. *Results:* 169 cases of perforated appendicitis were identified. Diagnostic accuracy of admitting physicians was 91.7%, predominantly diagnosed by pediatricians 76.3%; perforation rate was 25%; in-hospital death rate was 0.0%; and majority were males [n=105 (62%)]. Male:Female ratio was 1.6:1. Mean age was 8.8 years (range=1-18 yrs). By univariate analysis the following variables are significantly more common in the perforated group: RLQ guarding, and abdominal tenderness (both p<0.001); age≤4; diarrhea, and abdominal rigidity (all p=0.001). *Conclusion:* Appendiceal perforation can be reliably distinguished from non-perforated appendicitis based on admission factors.

Medicine. Appendectomy. Intestinal perforation. Retrospective studies. Child.

- 0278 Predictors of family medicine residents' academic performance: A five-year study of variables in screening residents, 1989-1993. Soriano, Apolinio N. Jr., Ruiz, Roberto L.. **Acta Medica Philippina**, 1994 , 30(2):82-91

A retrospective cohort study involving 53 Family Medicine residents of the Department of Family and Community Medicine of the University of the Philippines-Philippine General Hospital from 1989 to 1993 was conducted to pinpoint the independent variables in screening prospective residents that will eventually determine their performance while in training in a university hospital setting. The data analyzed using SAS\ Multiple Regression Analysis (Backward-Groupwise Strategy) identified the entrance examination grade as the only significant predictor of performance.

Family Medicine. Residency training. Academic Performance. Medicine.

- 0279 Preliminary experiences with IV gammaglobulins in multiple sclerosis. Perez, Katerina Tanya B., Perez, Martesio C., Dioquino, Carisssa Paz C.. **Makati Medical Center Proceedings**, 2000 , :54-59

An autoimmune pathophysiology for Multiple Sclerosis has always been suggested but not clearly established by various studies. Intravenous immunoglobulins which act against the immune system have become acceptable modes of treatment of autoimmune diseases. This study compares the rates and severities of relapses, and the extent and speed of recovery after relapses, before and after pulsed IVIgG therapy.

Six females, 16-50 years old, with relapsing-remitting MS, were given 400mg IVIgG/kg/day for 5 days initially and during acute exacerbations, then 400 mg/kg pulsed doses every 4-8 weeks. After receiving IVIgG, relapse frequency was decreased in 2/5 and increased in 1/5 patients, whereas severity was decreased in 3/5 and increased in 1/5 using the Kurtzke Expanded Disability Status Scale. Faster (4/5) and greater extents (3/5) of recoveries were noted after administration of IVIgG during relapses.

Although no definite conclusions can be made, IVIgG seems to have a beneficial effect in terms of decreased relapse frequency and severity, and increased speed and extent of recovery after each relapse.

Medicine. Gamma-globulins-therapeutic use. Multiple sclerosis-physiopathology.

- 0280 A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro. Cua, Irwin Y., Dimaano, Jose Rodolfo V. Jr., Fontanilla, Maria Lourdes A., Jorge, Cecilia Carmela M., Meguizo, Donald Jude U., Pasco, Arsenio C. Jr., Salangang, Jo-anne Marie R., Sta. Maria, Ma. Belen P., Yang, Marjorie Frances U. **Acta Medica Philippina**, 1993 , 29(2):57-64

Schistosoma japonicum cercariae from naturally infected Oncomelania hupensis quadrasi snails were mechanically transformed into schistosomulae and were treated with Cucurbita maxima variety alyaga or squash seed decoction in the concentrations 0.75,1.15,1.75,2.65, and 4.00 mg/100 ul. The percentage of the population of somulae killed after exposure to the decoction was assessed using the methylene blue dye exclusion test. The results show a significant difference in the mean percentage somula death between all the concentrations of decoction and the negative control, using the one-way test for analysis of variance (ANOVA) with alpha = 0.05. There is a positive correlation between the different concentrations and mean percentage somula death,

except for the concentration 1.75 mg/100 ul. The Duncan's multiple range test shows a significant difference between the mean percentage somula death from any two of the concentrations, except for that between concentrations 0.75 and 1.15, 0.75 and 1.75, and 1.15 and 2.65 mg/100 ul. The test for linearity of regression shows that the relationship between concentration of seed decoction and mean percentage somula death is significant. The conclusions of this study are that (a) decoction prepared from *C. maxima* var. *alyaga* or squash seeds has a killing effect on *S. japonicum* somulae in vitro, and (b) a dose-effect relationship exists between the seed decoction and mean percentage somula death.

Cucurbita maxima. Squash. *Schistosomulae*. *Schistosoma japonicum*. Medicine.

- 0281 A preliminary study on the transfer of maternal measles antibody levels among urban Filipino mothers to their newborns. Madraso, Eloisa D., Chan, Veronica F., Gose, Remedios B.. **Acta Medica Philippina**, 1994 , 30(2):65-70

A preliminary study was conducted to determine the levels of measles antibody in 28 paired maternal and newborn cord blood by the hemagglutination-inhibition microtiter assay. The specimens were obtained from 18-38 year old mothers, all of them from Metro Manila's low socio-economic level, and who consented to have their blood extracted before giving childbirth at the East Avenue Medical Center in Quezon City, as well as from the newly excised umbilical cords of their newborns.

Results showed that approximately 18% of mothers and 21% of newborns tested had less than 1:2 measles antibody titer or were seronegatives while 82% and 79%, respectively, of said subjects had antibody titers ranging from 1:2 to 1:16 measles antibody titers or were seropositives. The 3% seropositivity or seronegativity difference between mothers and newborns is accounted for by 1/28 mothers (3.57%) who had a 1:2 measles antibody titer but her newborn had a <1:2 measles antibody titer. The geometric mean titer \pm standard deviation of measles antibody among the seropositive mothers and newborns were $1:4.65 \pm 1.73$ and $1:4.26 \pm 1.75$, respectively. These values were not statistically significant ($p=0.05$). It appears therefore, that the mothers passed an equivalent amount of measles antibody as their own to their newborns.

Considering that a 1:4 antibody titer as the minimum protective level against natural measles infection, only 71% of the mothers and 62% of the newborns have this level of measles antibody. As passively acquired maternal antibody, this level is estimated to decline with time making the infants susceptible to measles virus infection perhaps as early as four months after birth. The absence of and the low titer of maternal measles antibodies passed on to the newborns as well as their being noneligible for measles vaccination not until after 8 months of age are reasons cited for the inclusion of infants less than 9 months of age as a major constituent of the highest risk group for measles in the Philippines.

Most of the mothers tested gave a natural history of natural measles infection. By deduction from their ages and the inclusion of measles vaccination in the EPI in 1982 only, none was vaccinated. The age of the mothers had no influence on the level of their measles antibody. Implications of the findings projected to urban but economically-depressed population level and the EPI of the Department of Health were also considered.

Measles. Measles antibody. Medicine.

- 0282 Premature rupture of membranes and its neonatal effects. Pascual, Marie Claire C., Espiritu-Dolendo, Rita. **Makati Medical Center Proceedings**, 1997 , :26-30

Spontaneous rupture of the fetal membranes is a normal component of the course labor and delivery. Premature rupture of membranes is considered if it occurs before onset of labor. The incidence ranges from 2-18%. Approximately 60-80% of cases of PROM occur in term infants.

A period of 3 years from January, 1993 to December, 1996 was covered in this study. Three hundred and sixty six of a total of 8330 deliveries at Makati Medical Center were complicated with premature rupture of membranes.

The complications studied were asphyxia with Apgar score of 5 and below at 1 and 5 min., of meconium-staining, sepsis as indicated by a (+) blood culture and mortality. Maternal history of infection as a risk factor was included.

Results showed an increasing incidence of asphyxia, meconium-staining and sepsis with increasing duration of PROM. The latency period of more than 12 hrs. in a significant time period for the occurrence of these complications.

A logical management approach for term infants complicated with PROM and a prospective, multi-center study should be undertaken.

Asphyxia neonatorum-complications. Chorioamnionitis-etiology. Meconium aspiration-Prevention and control. Sepsis. Fetal membranes. Premature rupture. Medicine.

- 0283 Preoperative tenoxicam for post-operative analgesia: a double-blind, randomized study. Salomon-Kwong, Luzviminda A., Tumaneng-Villanueva, Meribel, Garcia-Capiral, Mina, Flores, Agnes, Fellizar, Loreto, Cruz, Cenon R.. **Acta Medica Philippina**, 1994 , 30(2(4)):179-185

This study determined the efficacy of preoperative tenoxicam for immediate postoperative analgesia. In a double-blind study, 81 subjects, 17 males and 64 females, 18 to 55 years old (mean age of 32 years), who underwent elective head, neck, breast and upper extremity surgery from 25 May 1993 to 25 September 1993, were randomized into 2 groups and received placebo or tenoxicam 20 mg IM one hour prior to operation. Postoperative analgesia was assessed by using Visual Analogue Scale (VAS) score hourly for the first 6 hours postoperatively and was terminated once VAS score of 5 and above was reached. The absence of pain was significantly higher in the tenoxicam group ($p < 0.001$). The mean time to reach VAS of 1 and above was longer for the tenoxicam group ($p < 0.001$). Subjects with VAS score of < 5 were greater in the tenoxicam group (< 0.001). Thus, preoperative tenoxicam is effective for immediate postoperative analgesia.

Tenoxicam. Postoperative analgesia. Preoperative. Medicine.

- 0284 Preoperative ultrasound determination of depth of myometrial invasion and cervical involvement in endometrial adenocarcinoma—A preliminary report. San Juan, F. , Manabat, M., Limson, G., Manalo, A.. **Acta Medica Philippina**, 1993 , 29(1):7-11

Thirty four cases of endometrial carcinoma diagnosed by fractional curettage were subjected to pelvic ultrasound using transabdominal and pelvic ultrasound using transabdominal and transvaginal probe to determine depth of myometrial invasion and cervical involvement. The sonographic findings were correlated with the histologic extent of the disease. Sensitivity and specificity were at 76.47% and 82.35% respectively, in determining tumor invasion of the myometrium. Positive predictive value was 91.25% while negative predictive value was 77.77%. Cervical involvement was likewise correlated and showed sensitivity and a positive predictive value of 85.71%. Specificity and negative value on the other hand was 96.29%.

The depth of myometrial invasion and cervical involvement determination is now a task left to the Pathologist after the patient has been explored and operated on. The final staging is then determined after histologic studies are completed.

With the advent of good imaging techniques, the use of ultrasound in the diagnostic paraphernalia of the Gynecologist has gained wide acceptance and opened the door to improvements in the clinical preoperative evaluation of the disease in gynecologic malignancies. With this in mind, we focused the objective of this paper to correlate the findings of preoperative pelvic sonographic studies, in determining tumor myometrial invasion and cervical involvement with the histologic findings in patients with endometrial carcinoma who subsequently underwent hysterectomy.

Myometrial carcinoma. Fractional curettage. Endometrial adenocarcinoma - Report. Medicine.

- 0285 The prevalence of acute renal failure among post-coronary artery bypass surgery patients. Yeban, Christine C., Lopez, Gary A.. **Makati Medical Center Proceedings**, 2003 , :56-59

Despite advances in cardiac surgery, acute renal failure (ARF) remains a cause of major morbidity and mortality post-operatively. This is probably due to the tubular ischemia cause by the low effective blood volume induced by cardiac surgery. This study aims to determine the prevalence of ARF among post-coronary artery bypass (CABG) surgery patients and to describe the profile of such patients and to determine which factors may predispose to its development so that early intervention can be done.

A retrospective descriptive study was done using twenty-five patients who underwent CABG surgery in Makati Medical Center (MMC) from May 2001 to April 2002 and whose chart were available were reviewed as the target population. Occurrence of ARF was noted by a sudden rise of the serum creatinine of more than 0.5 mg/dl, as well as other parameters like age, sex, presence of co-morbid factors, and type of surgery (on-pump or off-pump).

Two out of the twenty-five patients developed acute renal failure yielding an 8% prevalence rate. Based on the chi-square analysis, the occurrence of ARF was noted to be associated with the presence of co-morbid factors (i.e. diabetes mellitus, hypertension) and on-pump type of surgery. Age however showed no correlation with the occurrence of

ARF.

Coronary-artery-bypass. Kidney-diseases-complications. Kidney-failure. Postoperative-complications. Medicine.

- 0286 Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing *Pseudomonas aeruginosa* isolates from the Philippine General Hospital. Balhon, Zulwin R., Cabrera, Esperanza C., Rodriguez, Roslyn D.M.. **Acta Manilana**, 2006 , :1-6

Pseudomonas aeruginosa isolates from case of Burn Unit and Neonatal Intensive Care Unit of the Philippine General Hospital collected from July to September 2003 were studied for their antimicrobial susceptibility profile. All the 24 isolates were found to be resistant to multiple antibiotics belonging to different classes, with 50% of these showing resistances to all of the 11 antimicrobials tested. Resistance to aztreonam was found in 58% of the isolates, while 72% were resistant to ceftazidime; 80% to cefepime; 80% to amikacin; 84% to cefotaxime; 88% to ciprofloxacin; 88% to ceftriaxone; 88% to netilmicin; 92% to gentamicin; 92% to imipenem; and 100% to trimethoprim. Using the double-disc synergy test with clavulanate, aztreonam, ceftazidime, cefepime, and cefotaxime, the isolates were found to be negative for extended-spectrum β -lactamase (ESBL) production. However, 14 of the 24 isolates or 58% were positive for metallo- β -lactamase (MBL) production using the double-disc test with imipenem and 0.5M EDTA-containing filter paper disc.

Pseudomonas aeruginosa. Extended-spectrum-beta-lactamase (ESBL). Metallo-beta-lactamase (MBL). Antimicrobial resistance. Beta-lactamase. Medicine.

- 0287 Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines. Cauyan, Gil A., Andaman, Dominga Erika, Cotaco, Maricar, Mari, Sheryll Anne, Sabado, Angelica, Sahagun, Claire. **Acta Manilana**, 2008 , :43-49

Fresh stool samples were collected from 259 pupils enrolled in Santa Mercedes and Pinagsanhan Elementary Schools in Maragondon, Cavite with ratio of 2:1. The samples were processed using Formol-ether and Kato-Katz Concentration Techniques and then microscopically examined for the presence of intestinal parasites.

Of the 259 pupils examined from a population of 557 pupils, 217 (83.8%) had one or more parasites. The prevalence of parasites are as follows in decreasing order: *Ascaris lumbricoides* was the highest (66.4%) followed by hookworms (21.2%), *Trichuris trichiura* (14.7%), *Taenia spp* (13.9%), *Entamoeba histolytica/dispar* (12.7%), *Giardia lamblia* (6.2%) and *Strongyloides stercoralis* (5.8%), and *E. vermicularis* (2.7%), in that order. The occurrence of various intestinal parasites and high prevalence of *Ascaris lumbricoides* infection among school children of the two coastal rural areas in Maragondon, Cavite, Southern Luzon, Philippines, necessitates the immediate action of the proper health authorities in the area, coupled with public health education on the prevention of infection with *Ascaris lumbricoides*. Organization of education seminars including the topics such as prevention of infectious diseases, improving general hygienic conditions and application of supportive programs for the parents must be done not only to reduce intestinal parasitic infections but also to elevate the socio-cultural

levels.

Intestinal parasites. Schoolchildren. Maragondon. Cavite. Soil-transmitted helminths . Formol-ether & Kato-katz concentration techniques. Medicine.

- 0288 The prevalence of septal perfusion defects in patients with bundle branch blocks. de la Rosa. Joel A., Santos-Ocampo, Carlo D., Tan-Gatue, Robert D., Ledesma, Rhodora M., Villacorta, Edmundo V.. **Makati Medical Center Proceedings**, 1999 , :25-27

To determine the prevalence of septal perfusion defects in patients with left and right bundle branch blocks, 18 patients with LBBB and 49 patients with RBBB who underwent myocardial perfusion imaging (MPI) were studied. There were 4 (22.22%) LBBB patients with septal perfusion defects. Two of the 4 had coronary angiography, one was normal while the other showed 40-50% stenosis in the left anterior descending (LAD). Five (10.20%) of the RBBB patients showed septal perfusion defects. None of whom had coronary angiography. Whereas previous studies suggested a high percentage of false positive results in patients with LBBB and some similar reports in RBBB, this study demonstrates a low prevalence of septal perfusion defects (22.22% in LBBB and 10.20% in RBBB) in a unselected population presenting for (MPI). Therefore MPI remains a dependable tool for evaluating patients with bundle branch blocks.

Bundle branch block-complications. Coronary angiography. Medicine.

- 0289 Prevalence of serologically positive amebic liver abscess cases in the Philippines. Rivera, Pilarita T. , Rivera, Windell L., Escueta, Aleyla S., Villacorte, Elena A. , Limlingan, Ery T. , Lazaro, Catherine M. , Kanbara, Hiroji **Acta Medica Philippina**, 2007 , 41(2):31-36

Amebiasis, the human disease caused by *Entamoeba histolytica*, may present intestinal or extra-intestinal symptoms. Intestinal amebiasis is reliably diagnosed by microscopic examination of stool samples, rectal scrapes and biopsy. To increase the reliability of microscopy, culture can be done using Robinson's or Inoki's medium. However, diagnosis of invasive extra-intestinal amebiasis (e.g., amebic liver abscess) is more difficult. Collection of samples needs invasive procedures. Diagnosis of amebic liver abscess (ALA) relies on serology. Immunologic studies have demonstrated serum antigenemia and involvement of a humoral anti-amebic antibody response. In this study, we showed that indirect fluorescent antibody test (IFAT) is comparable to the indirect hemagglutination test (IHAT) in the serologic diagnosis of ALA. Descriptive analysis of 101 patients suspected to have ALA by ultrasound confirmed serologically using either IHAT or IFAT showed that the common clinical and laboratory findings of ALA include fever, abdominal pain, malaise, anorexia, weight loss and right upper quadrant abdominal tenderness. Ultrasound results showed hepatic abscess in the majority of the patients. Abscess usually presented as a complex mass and occurred mostly in the right lobe of the liver. Furthermore, white blood cell count, liver enzyme levels, alkaline phosphatase and transaminase levels (SGOT and SGPT) were elevated. Among the age groups, adult males 41-50 years of age were commonly affected with ALA.

Amebic liver abscess. Indirect fluorescent antibody test. Indirect hemagglutination test . Medicine.

- 0290 Prevention of infectious diseases in natural disasters. Caballes, Alvin B. **Acta Medica Philippina**, 2008 , 42(1):38-44

Natural disasters extract a huge toll in terms of human life and economic cost. And as the actual calamitous events may cause immediate and extensive devastation, these may also generate circumstances that promote the spread of infectious diseases, which further aggravates the resulting distress. It is important, therefore, to limit the occurrence and spread of infectious diseases in times of disasters. To effectively do so requires an understanding of the interplay of the nature and magnitude of the catastrophe, the prevailing conditions at different periods of time after the disaster, and the primary characteristics of the affected population, among other factors.

The paper qualifies the circumstances that would most likely prevail following various disaster scenarios (i.e., floods, earthquake, and drought). From the described situations, specific disease-predisposing conditions are identified. Based on these, appropriate sets of interventions to better reduce the risks of infectious diseases are drawn. An application of the prescribed approach in designing an infectious disease mitigation agenda for natural disasters is presented for the Philippines. The key country recommendations are; the enhancement of community-level preparedness, the incorporation of disaster and phase-specific contingency and other vital features into the operations of the main health response unit, and the improvement of coordination with related agencies.

Medicine. Natural disasters. Infectious diseases. Philippines.

- 0291 Primary sites of brain metastasis in Filipino patients: A retrospective study. Hizon, Vicente Francisco R. . **Acta Medica Philippina**, 2007 , 41(1):41-46

Background: Brain metastasis is a dreaded sequel of systemic malignancies. It warrants prompt diagnostic and therapeutic intervention. Definitive treatment of brain metastasis includes surgery, chemotherapy and radiotherapy, the last of which provides better local control of the intracranial lesions. Western studies, tell us that most of the brain metastasis come from blood borne metastasis usually arising from melanoma, lung cancer, breast cancer, and choriocarcinoma. (I) This study is the first local study to determine the incidence of brain metastasis from different primary cancer sites in Filipinos.

Objective: The aim of this study is to determine the distribution of brain metastasis among Filipino cancer patients according to the sites of primary malignancies.

Methodology: The radiation treatment records of 5,503 cancer patients who consulted the Radiation Oncology Section of three hospitals in Metro Manila from January 1, 1998 to December 31, 2003 were reviewed: (1) University of the Philippines-Philippine General Hospital, (2) The Medical City, and (3) University of Perpetual Help, Rizal Medical Center. The age, sex, marital status, and sites of primary malignancies of patients diagnosed with brain metastasis by Computed Tomography Scan (CT Scan) and Magnetic Resonance Imaging (MRI) were tabulated and analyzed.

Results: A total of 5,503 radiation therapy charts in these three radiotherapy centers were

reviewed. The top six primary cancer sites recorded in these three radiotherapy centers were: (1) uterine cervix, 24%; (2) breast, 22.8%; (3) lung and bronchus, 10.9%; (4) nasopharynx, 7.4%; (5) uterine corpus, 6.6%; and (4) colon and rectum, 6.6%. A total of 323 patients (5.87 %) were noted to have brain metastasis as diagnosed by CT Scan and/or MRI. The two most common primary cancer sites in patients with brain metastasis were (1) lung cancer (37.5%) and (2) breast cancer (34%). The other common primary cancer sites were: unknown primary, 4.3%; colorectal cancer, 3.7%; and nasopharyngeal cancer, 3.4%. There was a preponderance in females, with females accounting for 60% of patients with brain metastasis. Brain metastasis was most common in the 46 to 50 year old age group (17.6%), followed by the 51 to 55 year old age group (14.9%), the 56 to 60 year old age group (14.6%), and the 56 to 60 year old age group (14.2 %). The rest of the age groups had less than 6% incidence rates.

Conclusion: In spite of the limitations of a retrospective study and the use of the radiation therapy charts in these three radiotherapy centers as the patients' source of information, the above results confirm the findings of foreign research on brain metastasis: that the two most common primary cancer sites of brain metastasis are lung cancer and breast cancer. Lung and breast cancer accounted for 71.5% of all cases diagnosed with brain metastasis. The incidence of brain metastasis in the other primary cancer sites were less than 5% each. The data also showed a predominance of female (60%) over male (40%) cases, and the age grouping of these patients clustered in the 46 to 60 year old age groups.

Brain metastasis. Primary cancer sites. Medicine.

- 0292 Profile of cancer patient referrals to the Department of Rehabilitation Medicine, Philippine General Hospital. Mojica, Jose Alvin P., Feliciano, Karen Belina S.. **Acta Medica Philippina**, 1993 , 29(1):51-55

To determine the profile of cancer patients referred to the department and to find out the common presenting disabilities of these patients, a review of 100 medical records between January 1, 1990 to June 30, 1992 was done. Results showed that majority (60%) of the referrals belong to the 21 to 60 year old bracket and that 67% of cancer patient referrals come from two sources, the Department of Surgery and Department of Orthopaedics. The most common presenting disabilities are difficulty of breathing, difficulty of walking, deconditioning and joint limitation of motion. The findings of the present study show that 1) most of the cancer patients referred for rehabilitation are in their productive years of life; 2) the reasons for the referrals were directed mainly towards preventing potential pulmonary problems and towards ambulation; and that 3) rehabilitation goals for restorative, supportive and even palliative care can be set to improve the patient's quality of life.

Rehabilitation. Quality of life. Cancer profile. Medicine.

- 0293 Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program. Estrada, Sylvia C., Chiang, Mary Anne D. , Padilla, Carmencita D. **Acta Medica Philippina**, 2007 , 41(2):55-58

Objective: To describe the profile of Filipino infants with congenital adrenal hyperplasia (CAH) detected by newborn screening.

Methodology: Retrospective review of medical records of babies with CAH from July 1996 to September 2004. Patients' demographics, signs and symptoms, diagnostic evaluation, management and compliance data were collected.

Results: Thirty-six (36) records of 65 confirmed CAH patients were reviewed. There were 26 females and 10 males. All females had ambiguous genitalia and 73% (19/26) were salt wasters. Among the males, 80% (8/10) were salt wasters. The mean age at diagnosis was 36 days (SD = 28.9) (range 7-120 days). The mean interval between newborn screening and date of CAH confirmation was 23 days (SD=25.4). The mean plasma 17-hydroxyprogesterone (17-OHP) was 302.4 nmol/l (SD=330) (Normal Value: up to 1.8). Treatment was started at a mean of 38 days (SD=24). Sixty seven percent (67%, 24/36) of patients remained asymptomatic since birth. Fifty percent (50%, 18/36) were compliant with medications and follow-up.

Conclusion: The profile of our patients is similar to reported clinical and biochemical manifestations of CAH worldwide. However, the time of diagnosis and treatment are far from ideal. It is hoped that with BS in place, health workers will optimize their efforts for the early identification of affected babies.

Newborn screening. Congenital adrenal hyperplasia. Simple virilizing . Salt wasting. Medicine.

- 0294 Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review. Nable, Ma. Veronica A., Reloza, Asuncion A.. **Makati Medical Center Proceedings**, 2002 , :85-94

Objective: To describe the clinical, laboratory and therapeutic profile of children diagnosed to have Kawasaki Disease; and to determine whether associations exist between these factors and disease outcome including coronary artery abnormalities (CAA). **Design:** A retrospective study. **Setting:** A tertiary hospital in Makati City. **Patients:** Data from 80 children admitted between 1994-2001 with a diagnosis of KD were reviewed. Seventy two children who met the criteria set for typical or atypical KD were included in this study. **Main Outcome Measures:** Clinical charts of these patients were reviewed and data were collected as to age, sex, race, preceding symptoms, severity and duration of fever, number of criteria satisfied, non-specific/atypical/and cardiac symptoms. Baseline hemoglobin, baseline and repeat white blood cell count, baseline platelet count, erythrocyte sedimentation rate, C-reactive protein, electrocardiogram, 2D-Echocardiography, and therapeutic regimens were included. **Results:** Majority (90%) of children with KD were below 5 years old, while only 2% were above 8 years, occurring with a M:F ratio of 1.6:1. Coronary artery abnormalities (CAA) occurred in 26%, 4.2% with aneurysms. Demographic factors were not associated with CAA. Instead, the following were correlated with positive outcome: Preceding cough/colds (p-value 0.037), peripheral changes (p-value 0.043), fever \geq 14 days (p-value 0.000), fever persistent/or recurrent post-intravenous immunoglobulin (IVIG) (p-value 0.007), persistently increased white blood cell count post-IVIG (p-value 0.007), increased segmenters $>75\%$ (p-value 0.001), and decreased serum sodium. **Conclusion:** KD more often affects male children and the younger age group. CAA occurred in 26% and this was associated with preceding cough/colds, peripheral changes, prolonged or recrudescing fever, increased baseline segmenters, persistently increased white blood cell count after IVIG and decreased serum sodium.

Kawasaki disease. Mucocutaneous lymph node syndrome-complications. Retrospective studies. Medicine. Adolescence. Child.

- 0295 Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006. David-Padilla, Carmencita, Cutiongco-dela Paz, Eva Maria C., Lucero, Florencio, Villafuerte, Cesar, Cardenas, Jose , Villanueva, Edith . **Acta Medica Philippina**, 2008 , 42(2):27-33

The Philippine Oral Cleft Registry (POCR), an initiative of the Philippine Oral Cleft Registry Study Group (POCRSG). was launched in May 2003. The study group is composed of the Institute of Human Genetics (IHG) . National Institutes of Health, University of the Philippines Manila; the Philippine Association of Plastic, Reconstructive and Aesthetic Surgeons Inc. (PAPRAS); the Philippine Society of Otolaryngology - Head and Neck Surgery (PSO-HNS); Operation Smile Philippines Foundation Inc. (OSPF); and the Philippine Band of Mercy (PBM). The general objective of the POCRSG is to implement the POCR for patients with oral clefts (cleft lip and/or palate). The specific objectives are: 1) to establish the incidence of oral clefts in the Philippines; 2) to describe the different variants of oral clefts; 3) to identify the possible risk factors for oral clefts; and 4) to identify the regional distribution of patients with oral clefts. From May 2003 to December 2006, the POCR recorded a total of 2,324 cases representing a prevalence of 0.42 per 1000 livebirths [or 1:2367 livebirths] using an estimated birth rate of 1.5 million babies a year assuming full ascertainment. This observed rate is probably an underestimate of the true prevalence of oral clefts in the country.

The POCRSG actively coordinates with both government and non-government organizations sponsoring oral cleft surgical missions to actively participate in the registry. By doing so, a more accurate prevalence can be established in the Philippines.

Cleft lip. Cleft palate. The Philippine Oral Cleft Registry. Philippine Oral Cleft Registry Study Group. Medicine.

- 0296 Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study. Ambas, Cristina D. , Montalban, Cecilia S. , Bravo, Lulu C. **Acta Medica Philippina**, 2007 , 41(2):72-77

Rabies is a zoonotic disease transmitted to humans and other animals by infected animals. Globally, most human deaths are caused by dog bites and approximately 90% occur in Asia. In 2006, the Department of Health (DOH) reported that the National Capital Region (NCR) had the highest number of animal bite cases with low human rabies cases compared to other provinces and regions, with relatively low animal bite cases but with high human rabies cases. This study was conducted to describe the socio-demographic profile of animal bite patients and the biting animal, bite exposure, wound management, vaccine treatment and their follow-up status. The research design used was a retrospective descriptive study at the Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) of all patients seen, examined and treated during the year 2006. Data was gathered at the Rabies Registry and encoded in questionnaire form with the use of Epi-Info 6 software. The study showed a need for more comprehensive information, education and communication campaign programs because of a high proportion of

patients still using traditional and herbal medicines to treat their bite wounds. There is a need for more in-depth collaboration with all the concerned agencies to attain the National Rabies Prevention and Control Program (RPCP) objective to eliminate rabies and declare Philippines rabies-free by the year 2020.

Bite exposure. Socio-demography. Rabies. Vaccine. Wound management . Biting animal. Medicine.

- 0297 Prognostic factors in the recurrence of cervical cancer after radical hysterectomy with bilateral lymph node dissection. Pagkatipunan, Ma. Gina N., Limson, Genara M., Manalo, Augusto M.. **Acta Medica Philippina**, 1993 , 29(1):18-27

A total of 136 cervical cancer patients who underwent radical hysterectomy with bilateral lymph node dissection from January 1986 to December 1991 are included in the study. The factors considered are tumor diameter, lymph node metastasis, histologic type, stage of disease, and post-operative radiotherapy. Results are analyzed using survival studies. The end-point considered is recurrence so that survival time is the length of time wherein the patients had no evidence of disease. When analyzed singly, only tumor size and lymph node metastasis showed to be significantly related to recurrent disease. The mean survival time for patients with tumor diameters of < 2 cm., 2-2.9 cm., 3-3.9 cm., 4-4.9 cm., and > 5 cm. is 68.0, 54.6, 51.2, 29.0 and 25.1 months respectively. Patients without lymph node metastasis have a mean survival time of 53.1 months compared to 23.7 months in those with metastasis. Joint analysis of the selected variables with tumor size grouped in 5 categories showed that tumor size more than or equal to 4 cm. and lymph node involvement are significantly related to recurrence. Patients with tumor sizes of 4-4.9 cm. have a risk of developing recurrence of 4.8 and patients with tumor size of 5 cm and above have a risk of 3.8. The risk of recurrence in patients with lymph node metastasis is 2.7 times higher than those without lymph node involvement, controlling for the other variables. Therefore, from this data, tumor diameter and the presence of lymph node metastasis are useful prognostic factors in the recurrence of cervical cancer.

Cervical cancer. Hysterectomy. Bilateral lymph node dissection. Medicine.

- 0298 Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF). Custodio, Deogracias B., Esmaquel, Pelagio L. Jr., Sarmiento, Josierina Y. **Makati Medical Center Proceedings**, 1999 , :11-19

Although multi-agent chemotherapy regimens have increased the cure rate of most malignancies, this success has frequently been accompanied by an increased risk of potentially life-threatening hematologic toxicities and infectious complications. The use of hematologic growth factors such as the Colony Stimulating Factors (G-CSF/GM-CSF) reduces the incidence of myelosuppression following intravenous chemotherapy. The purpose of this study is to assess whether G-CSF/GM-CSF administered concurrently with chemotherapeutic agents reduce the incidence of myelotoxicity. This would decrease the incidence of infectious complications and the use of antibiotics, length of hospital stay, the over all cost, and delay in the administration of succeeding chemotherapy. This is a one year prospective clinical trial and cost-effectivity study designed to include cancer patients admitted at the Makati Medical Center for intravenous chemotherapy. There were 180 patients eligible for the study as described by the criteria. The results showed that 100% of the control group had a decrease in the level

of myelocytes, 75% of the G-CSF group had an increase in the level of myelocytes and 85% GM-CSF group had an increase in the level of myelocytes and platelet count after intravenous chemotherapy. The conclusion of the study is that the prophylactic use of Colony Stimulating Factors is needed in subsequent cycles of chemotherapy in patients with history of myelosuppression during their previous chemotherapy; thereby reducing the over-all cost and length of hospital stay.

Colony stimulating factors-therapeutic use. Antineoplastic agents-therapeutic use. Prospective studies. Hospitalization economics. Medicine.

- 0299 Proposed criteria for the diagnosis of atypical endometrial hyperplasia and well differentiated endometrial adenocarcinoma. Borromeo, Joey D., Gonzaga, Normando C., Pantangco, Elias E.. **Makati Medical Center Proceedings**, 1996 , :10-16

In an attempt to establish a criteria which differentiates Atypical Endometrial Hyperplasia from Well Differentiated Endometrial Adenocarcinoma, we reviewed endometrial curettage samples with subsequent hysterectomy diagnosed as atypical hyperplasia from twelve patients admitted in Makati Medical Center from January,1990 to December 1994. The areas showing severe atypia in both endometrial scrapings and hysterectomy specimens were evaluated with a scoring system by grading the following features: architecture, size of nucleoli, nuclear pleomorphism, nuclear polarity, nuclear stratification, necrosis, mitosis, stromal features and gland to stroma ratio. Each of these criteria were compared to twelve hysterectomy specimens diagnosed as well differentiated endometrial adenocarcinoma with definite myometrial invasion. Eleven (91.67%) of 12 cases of atypical hyperplasia have a total score of 18 and below while one (8.33%) has a total score of 19. On the other hand, all 12 (100%) cases of well-differentiated adenocarcinoma have total scores of more than 18. These findings suggest that the proposed scoring system, would be helpful in differentiating atypical hyperplasia (total scores of 18 and below) from well differentiated adenocarcinoma (total scores of more than 18).

Adenocarcinoma. Endometrial hyperplasia. Medicine.

- 0300 Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma. Sabalza, Michael N., Oropilla, Jean Quint L., Alvarez, Victor M.. **Makati Medical Center Proceedings**, 1999 , :103-107

A grading system for predicting outcome in spontaneous supratentorial intracerebral hemorrhage is proposed. The factors used include age, location of hematoma. GCS score, presence or absence of brain shift and hydrocephalus. Outcome was assessed using the Glasgow outcome score.

Overall, patients in grades 2-3 had 33% good and 67% acceptable outcome, with no mortalities. Grades 4-5 had 30% good outcome, 33% acceptable and 37% poor. Grades 6-7 had 18% acceptable and 82% poor outcome.

There was strong correlation of grade with outcome. The most important factor was GCS score, followed by midline shift and hydrocephalus.

Prospective studies. Forecasting. Survival analysis. Treatment outcome. Cerebral hemorrhage. Medicine.

- 0301 A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis. Nunez, Eugenio R. Jr., Abello, Emilio G. Jr.. **Makati Medical Center Proceedings**, 2001 , :38-44

Rising costs of chemotherapeutic agents create a great impact on the patient. Adding the financial burden of expensive newer antiemetics may affect the patient's future plans for treatment. There is little or no information about the efficacy and tolerability of these newer agents in ethnic groups in other countries. Furthermore, many patients in the developing countries like the Philippines cannot afford serotonin antagonists. The purpose of this study to do a cost effective analysis between standard antiemetic regimen – Metoclopramide plus Dexamethasone, and a 5HT3 antagonist – Tropisetron, in the control of chemotherapy induced nausea. This is a cohort prospective, non-randomized, non-blinded, cost effective study. A total of 221 cancer patients, both in patient and out patient at Makati Medical Center receiving scheduled systemic chemotherapy were enrolled in the study. Patients with underlying medical problem, like hypertension and diabetes, hypersensitivity to drugs used, and taking drugs interacting with the antiemetics, were all excluded from the study. The medical oncologist determined who would receive Metoclopramide plus Dexamethasone and Tropisetron. The patients were asked to record episodes of emesis from day 1 to day 5. Data were summarized and analyzed using the Anova multivariate test and Chi-square test. A total of 94 patients comprised the Metoclopramide group and 117 for the Tropisetron group. For vomiting, 82 were observed out of 94 patients in the Metoclopramide group, 72 out of 115 patients in the Tropisetron group ($p=0.0068$). About 57(60.6%) had control of nausea in the Metoclopramide group, and about 97(82.9%) in the Tropisetron group. A p value showed 0.0030. Various effects of Metoclopramide like body weakness ($p=0.00007$), dryness of mouth (0.00017) and dizziness (0.0021) were noted. Mean cost of Metoclopramide is P146.99 and P2,890 with that of Tropisetron. The patient spends about P147 to prevent a single episode of nausea and vomiting in the Metoclopramide group. With Tropisetron group it is about P10,714. We concluded that the Metoclopramide-based combination is cost effective in controlling chemotherapy induced emesis. It is a cheaper alternative to Serotonin antagonists. This shows the physician that Metoclopramide should still be included in the armamentarium as an adjunct in cancer chemotherapy.

Medicine. Antiemetics-economics. Cost benefit analysis. Metoclopramide-therapeutic use. Serotonin-antagonists. Dexamethasone-pharmacology.

- 0302 Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis. Lateo, Florante L. , Rivera, Luis M.. **Makati Medical Center Proceedings**, 2003 , :16-26

Objective: To determine the prevalence of pulmonary tuberculosis in children and to evaluate the diagnostic value of the IUATLD score model for screening childhood pulmonary tuberculosis (ICD-10 code; K16.7). *Study Design:* Non-randomized, Prospective Clinical study *Setting:* Pediatric outpatient departments, Tertiary care hospital. *Participants:* Children ages six months to 14 years old. *Interventions:* 5-TU

PPD skin test, chest radiograph and bacteriologic study. *Main Outcome Measures:* Prevalence Rate; Tests of Validity. *Results:* Four hundred ninety four eligible subjects were analyzed. Male: Female ratio was 1:5:1 (60% boys: 40% girls). Mean age=9.1±2.2 (range:8 months-14 years). Based on bacteriologic studies, prevalence rate is 8.9%. Twenty three percent had reactive tuberculin skin test and 32% had abnormal chest radiograph findings. The different characteristics of the IUATLD score model versus the gold standard (bacteriologic study) were computed with sensitivity of 86.4% specificity of 69.6%; (LR+) of 2.837; and (LR-) of 0.196. *Conclusion:* The prevalence of childhood pulmonary tuberculosis was found to be 8.9%. The IUATLD Score model proved to be simple, comprehensive and economical. *Abbreviations:* The IUATLD*, International Union Against Tuberculosis and Lung Diseases; PPV, Positive predictive value; NPV, Negative predictive value; (LR+) Likelihood ratio positive; (LR-) Likelihood ratio negative.

Adolescence. Child. Lung diseases-prevention and control. Tuberculosis, pulmonary-diagnosis. Tuberculin test methods. Medicine.

- 0303 Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report. Ang-Santos, Lafayette R., Serrano, Dennis P., Gatchalian, Eduardo R.. **Acta Medica Philippina**, 1994 , 30(2(4)):190-194

A retrospective study of 30 patients who underwent transurethral resection of the prostate (TUR-P) at our institution and with the final histopathologic results of benign prostatic hypertrophy (BPH) was reviewed. The serum prostate specific antigen (PSA) in ng/ml and the volume of prostatic adenoma resected by TUR-P in grams were gathered. The PSA values in ng/ml ranged from 1.4 to 102 ng/ml with a mean PSA value of 15.622 ng/ml. The volume of prostatic tissue resected ranged from 3.0 to 91.1 grams with a mean prostatic tissue volume of 23.903 grams. The prostate specific antigen density (PSAD) values ranged from 0.134 to 2.582 with a mean PSAD value of 0.6320. Our PSAD value is slightly higher than that calculated by Stamey and is probably due to the concomitant chronic prostatitis in eleven of the thirty specimens (36.67%) obtained.

Prostate specific antigen (PSA). Prostate specific antigen density (PSAD). Benign prostatic hyperplasia (BPH). Transurethral resection of the prostate (TUR-P). Medicine.

- 0304 Prostate specific antigen, digital rectal examination, transrectal ultrasound: How accurate are they in determining prostate carcinoma?. Gomez, John Anthony M., Pagdanganan, Ernest Jerome A., Caedo, Florencio Gerardo O., Magsino, Benjamin C., Rivera, Eduardo Ll., Songco, Jaime S.D.. **Makati Medical Center Proceedings**, 1998 , :49-52

Prostatic Cancer is an increasing problem. It is the most frequent malignancy in men past the age of 65 years. In the Philippines, 10-20% of males operated for prostatic obstruction had prostate cancer. The potential for cure is optimized by early detection and treatment of organ confined disease. Digital Rectal Examination, serum Prostatic Specific Antigen and Transrectal Ultrasound of the prostate have been advocated individually and collectively to determine prostatic cancer. Our study involved forty-nine males who underwent all three screening modalities. Results of the study showed a statistically significant association between the presence of a nodule and the occurrence

of prostate cancer; a statistically significant association between hardness in consistency and cancer; a statistically significant difference in mean weight between those Ca and BPH; a statistically significant difference in mean PSA levels between those with Ca and BPH; a statistically significant association between abnormal PSA levels and Ca; and a statistically significant association between a composite positive result and cancer. On the other hand, there was no statistically significant difference in mean age between those with cancer and those with BPH; there is no statistically significant association between the presence of prostatism and whether the patient has Ca or BPH; and there is no statistically significant difference in the mean duration between those with cancer and those with BPH. The study advocates the use of DRE, serum PSA in determining prostatic Ca as well as TRUS for determining occult carcinoma.

Prostatic Neoplasm-Diagnosis. Prostatic Neoplasm-Surgery. Prostate-Ultrasonography. Medicine.

- 0305 QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study. Pasaporte, Bernadette B., King, Anthony B.. **Makati Medical Center Proceedings**, 2003 , :71-77

This is a prospective study done in MMC on MI patients admitted from April 1, 1998 to April 1, 1999. The main objective of this study is to determine the correlation of corrected QT dispersion during the acute phase of MI in relation to future cardiac events and to determine whether the corrected QT during acute MI is an independent predictor of future cardiac mortality.

A total of 154 patients were included in the study and results showed a significant difference in QTc dispersion taken on day one of MI between survivors and non-survivors. A prolong QTcd was noted in day one compared to Days 3-5 post MI. There was no significant correlation between QTc dispersion and LV ejection fraction, but the values showed a tendency for LV ejection fraction of 37% and below to have a prolong Qtcd of 0.12 and above.

This study concludes the corrected QT dispersion on day one of myocardial infarction can be an independent predictor of cardiac mortality. QTc dispersion of more than .08 predicts a high risk of mortality.

Myocardial-infraction-mortality. Myocardial-infarction-physiopathology. Death-Sudden. Cardiac-prevention-and-control. Medicine.

- 0306 Radiosurgery. Cruz, Ronald D. , Alvarez, Victor M., Isabela, Leovigildo Q. Jr., Sy Ortin, Teresa T.. **Makati Medical Center Proceedings**, 1999 , :47-56

The outcome of radiosurgery performed on tumors and arteriovenous malformations are presented. A retrospective review was conducted on 92 cases treated at Makati Medical Center. Seventy patients were treated for neoplasms while 22 patients were treated for arteriovenous malformations. Of the 37 tumor cases with radiographic follow-up, 2 disappeared, 16 decreased in size, 9 increased in size and 10 showed no change. Seventeen cases had central necrosis. Clinical outcome was favorable in 60% of patients. Three AVM cases met the minimum angiographic follow-up of 1 year. Of these,

two decreased in size, one had incomplete obliteration. In other case of an AoVM, the lesion was no longer visualized on subsequent MRI. Clinical outcome was favorable in all cases. Results of this study are encouraging: **75.6% tumor growth control** was achieved for tumors while **75% decrease** in nidus size and **25% disappearance** of the nidus was achieved for AVMs.

Medicine. Radiosurgery. Cerebral arteriovenous malformations-pathology. Magnetic resonance Imaging. Retrospective studies.

- 0307 A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice. Victorio, Ma. Cristina C., Lecciones, Julius A., Borromeo, Joey D.. **Makati Medical Center Proceedings**, 1999 , :89-96

Chemotherapy, a mode of treatment for cancer patients renders depression of hematopoietic cells thus patients become more immunocompromised. When hematopoietic depression is severe, the use of colony-stimulating factors are advocated. However, due to their high cost, only few patients in our county benefit from its effect. Recent studies are centered in enhancing the patient's own immune system to generate a response using immunomodulators/immunostimulators. A lyophilized bacterial extract (Broncho-Vaxom;BV) is an immunomodulating agent that is used in the treatment and prevention of recurrent respiratory tract infections. Its other uses had been explored using animal subjects. Recent studies on this drug is its radioprotective effect on irradiated mice. This randomized, blinded, placebo, controlled study was conducted to evaluate the role of Broncho-Vaxom in the hematopoietic recovery of immunosuppressed mice. Immunosuppression was done by administering cyclophosphamide. Complete blood count and bone marrow aspirate were obtained to compare of BV from placebo treated mice. Results showed that BV does not have a statistically significant effect on the acceleration of hematopoietic recovery in immunosuppressed mice.

Immunoglobulins-administration and dosage. Hematopoiesis. Chemotherapy. Immunosuppression. Mice. Medicine.

- 0308 A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of *giardia intestinalis* infection in children. Cruz, Amante C., Madrid, Bernadette J.. **Acta Medica Philippina**, 1994 , 30(2(3)):153-158

In a randomized clinical trial to compare the safety and efficacy of albendazole and metronidazole in the treatment of giardiasis in children, 50 patients between 2 and 10 years old with *Giardia intestinalis* infection were allocated into 2 study groups. Twenty two (22) patients received 5-day treatment with 400 mg (10 ml suspension) of albendazole as a single daily dose while 28 patients were given metronidazole (7.5 ml/kg suspension) in 3 divided doses for 5 days. Analysis of primary efficacy (clearance of infection by Day 7) showed cure rates of 90.91% (20 out of 22) for albendazole and 96.43% (27 out of 28) for metronidazole. Recurrence of cysts in the albendazole group was 36.36% (8 out of 22) on Day 21 as compared to 3.57% (1 out of 28) for the metronidazole group. Two out of 22 patients from the albendazole group had adverse experiences: 1 had elevated SGOT/SGPT and 1 vomited ascaris worms. In the metronidazole group, 1 patient experienced nausea and vomiting. This study is part of a

multicenter trial. With the present data, definite conclusions cannot yet be made.

Giardiasis. Efficacy. Safety. Treatment. Medicine.

- 0309 Rapid sequence intubation using succinylcholine. Legaspi, Ronillo M., Sinon, Johnny B. ,Barros, Francisco B.. **Makati Medical Center Proceedings**, 1996 , :3-6

Airway support significantly affects the outcome of critically ill patients. The context of airway management is to secure it via endotracheal intubation as quickly as possible to permit oxygenation and prevent aspiration, and adverse systemic or intracranial responses brought about by intubation itself that may worsen the patient's condition. An open labeled, comparative study on the efficacy and safety of succinylcholine (anesthetic agent) as compared to diazepam (sedative agent) as adjunct prior to intubation was conducted. A total of forty four patients considered to be critically ill and whose airway should be immediately secured were included in the study. Ease of intubation, number of attempts, and number of drug readministration were compared by the Emergency physician on patients receiving either of the two drugs. Objective dependent variables such as changes in cardiac rate and blood pressure before and after drug administration, were measured and compared. Initial attempts to intubate the patient without test drugs were done. Failure to secure the airway on the second and third attempts and with the patient's condition deteriorating, succinylcholine and diazepam was administered. Attempts to intubate one group of patients with a single administration of the drug succinylcholine were successful except in one case. Compared to the diazepam group, more attempts were made and several drug readministrations were done to secure the airway. There was a significant reduction in cardiac rate and blood pressure with the succinylcholine or diazepam groups before and after treatment. There was no significant difference in cardiac rate and blood pressure changes between the two test drugs. Although this study was limited by its small size, we can conclude that Rapid Sequence Intubation (RSI) with succinylcholine is safe and effective.

Emergency service, hospital. Succinylcholine. Rapid sequence. Diazepam. Intubation, intratracheal. Medicine.

- 0310 Rapid urease testing in an upper gastrointestinal endoscopy population with peptic ulcer disease. Fores, Edgardo D., Ledesma, John Ignatius G.. **Makati Medical Center Proceedings**, 1995 , :80-81

The rapid urease or CLOtest was done in 157 patients with endoscopically proven peptic ulcer disease to determine the prevalence of Helicobacter pylori. Results showed higher positive CLOtest rates in expatriates, charity patients, and those without recent Omeprazole treatment. Recommendations are given based on these findings.

Medicine. Peptic ulcer. Upper gastrointestinal endoscopy.

- 0311 Relationship between donor age and endothelial cell count among eye donor (1996-1999). Gonzales, Clarissa S.A., Padilla, Dominga B.. **Makati Medical Center Proceedings**, 2001 , :75-79

Objective: To evaluate the endothelial cell count (ECC) among corneal donor at the Santa Lucia International Eye Bank of Manila (SLIEBM) from October 1996 to December 1999. *Design:* Retrospective analysis. *Methods:* Records of the SLIEB over a four year period were reviewed and tabulated to include corneal donor characteristics. Analysis of the relationship between donor age and ECC using Pearson Correlation Coefficient was done. Values were given as mean \pm SD and linear regression was used. *Results:* Age was inversely related to ECC. Despite a decrease in ECC as donor age increases, the ECCs remained within the acceptable number suitable for transplantation. In general, overall rating for corneal donors in the 60 and older age group was 'very good'. *Conclusion:* Even older donor corneas are suitable for transplantation and should not be excluded solely on the basis of age. Individual assessment of donor corneas should be based on evidenced based studies.

Cell count. Corneal transplantation. Eye transplantation. Retrospective studies. Medicine.

- 0312 Reliability of paranasal sinus (PNS)X-ray for diagnosing acute frontal sinusitis in patients with frontal headache. Malabanan, Angel S., Ongsiako, Ramon Juan H., Fernandez, Ricardo O.. **Makati Medical Center Proceedings**, 2002 , :27-29

A prospective, selective sampling method was done on 40 patients complaining of frontal headache. Patients were seen at the Outpatient Department of Makati Medical Center-Department of Otolaryngology. These patients who satisfied the inclusion criteria were all requested for a plain Paranasal Sinus radiograph. *Objective:* To determine the reliability of PNS X-ray in diagnosing acute frontal sinusitis in patients with frontal headache. *Results:* Among the forty (n=40) patients with frontal headache and nasal symptoms, only 2.5%, (1/40) revealed a (+) frontal sinusitis. 7.5% (3/40) with polysinusitis. 42.5% (17/40) showed maxillary sinusitis. 47% (19/40) showed NORMAL results. *Conclusion:* In cases of acute frontal headache with clinical evidence of sinusitis, requesting for a Paranasal Sinus X-ray may not be necessary. Further studies on a large scale are necessary to measure its statistical significance.

Medicine. Paranasal sinus diseases-radiography. Frontal sinus.

- 0313 Responding to the ethical challenges in the conduct of clinical trials in the Philippines. Valencia, CI, Frias, MVG IV, Querijero, MB, Aligui, EG, Cordero, CP. **Acta Medica Philippina**, 2005 , 39(2):48-54

Introduction. The Philippines just like its neighbors, has increasingly become a setting for the conduct of clinical trials (CTs). This development has opened opportunities for the discovery of more affordable and accessible diagnostic, therapeutic and prophylactic alternatives. It also provides opportunities for Filipinos to be a part of these efforts as researchers, sponsors or CT participants. However, this development also poses potential threats to the Philippines and its people. Clinical trials are experiments and as such carries with it possible harms. This paper presents some examples of how the basic ethical principles can be violated in a CT given the peculiarities of the Filipino culture and current infrastructure and the efforts of various stakeholders to ensure that these principles are not violated.

Main Messages

There are a number of ways that the basic ethical principles could be violated in the conduct of CTs in the Philippines and countries similar in culture and economic situation such as the failure of the informed consent process due to poverty, under-education, inaccessibility of information and the tendency of study participants to rely on their doctors for decisions.

Different stakeholders in the conduct of CTs have implemented measures to ensure the ethical conduct of CTs such as the establishment of the Philippine National Health Research System spearheaded by the Philippine Council for Health Research and Development (PCHRD) and the Department of Health (DOH).

To further protect trial participants, the stakeholders are encouraged to begin or continue to:

- Devise methodologies to ensure the integrity of the informed consent process given the peculiarities of the Filipino culture,
- Carefully consider the choice of comparators in the design of CTs,
- Consider post-trial obligations to study participants and their communities,
- Promote and monitor the practice of financial disclosure,
- Enable the Institutional Review Boards (IRBs) to effectively perform their responsibilities by allocating funds for its operations,
- Conduct studies to determine the characteristics of CT participants, trial teams and trial centers, and the activities of the stakeholders. Aside from surveys, methodologies like key informant interview, participant-observation method, use of surrogate patients and focused group discussion are suggested.

Recommendations The various stakeholders have made valuable contributions but in order to continuously respond to the ethical challenges in the conduct of clinical trials, collaborative endeavors such as the Philippine National Health Research System and collaborative researches and training programs should be pursued. Such collaborations may expand to the regional level to facilitate exchanges of best practices.

Clinical trials. Ethical challenges. Medicine.

- 0314 Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting. Belizario, Vicente Y. Jr., Amarillo, Maria Lourdes E., Martinez, Ruth M., Mallari, Alexander O., Tai, Cyndi Mae C. . **Acta Medica Philippina**, 2007 , 41(2):9-14

Objectives: The aim of this study was to describe baseline prevalence rates and intensity of schistosome infection in public school children in Bunawan and Trento.

Methodology: The municipalities of Bunawan and Trento, which are located in the province of Agusan del Sur in Mindanao Island, Philippines, were chosen as study sites. The study targeted individuals belonging to the 10 to 19 year old age group. The Kato Katz technique was used for quantitative assessment of infection. The data gathered was used to derive the cumulative prevalence and intensity of infection. The results of the study were encoded using EpiInfo Version 6.0 and Stata 8.0 software. Ten percent of all Kato-Katz slides were reread by a reference microscopist.

Results: The overall prevalence of schistosomiasis was 31.8%. Among the 351 pupils examined in Bunawan, 23.1 % were positive for Schistosoma infection. Moderate to heavy intensity infections were observed in 46.9% of the pupils. In Trento, 33.9% of the 1,497 pupils examined had Schistosoma infection. A little more than half (54.4%) had moderate to heavy intensities of infection.

Conclusions: The overall prevalence of schistosomiasis in school children remains high, with a strong possibility of the existence of significant morbidity. School-based strategies are recommended to address the high prevalence of schistosomiasis in the community. Integration of the control of schistosomiasis, lymphatic filariasis and soil-transmitted helminth infections may be the most promising approach for more cost-effective control of these parasitic diseases in developing countries.

Schistosome infection. Children. Public school. Schistosomiasis japonicum. Medicine.

- 0315 Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes. Ronquillo, Yasmyne C., Babia, Ma. Corazon , Espiritu, Romeo, Dalmacio-Cruz, Adelaida. **Acta Medica Philippina**, 1994 , 30(2(4)):186-189

The clinical and pathology record of 84 patients (93 eyes) with retinoblastoma managed by the Department of Ophthalmology of the UP-PGH Medical Center were reviewed. Ages ranged from 7 months to 6 years. Sixty-five percent were males and 35 percent were females. Nine patients had bilateral retinoblastoma. Sixty-one eyes were enucleated and 26 were exenterated. Histopathology showed 29 eyes with intraocular retinoblastoma while 58 eyes were at an extraocular stage. The extension of the tumor occurred at the posterior aspect of the globe with rare involvement of the eyelids. After operation, 13 patients were diagnosed clinically to have recurrent tumors. Of these recurrent cases, only 3 had chemotherapy and irradiation. Despite measures from the recurrent cases, mortality was 100 percent. No survival figures are available for the unilateral, intraocular retinoblastoma patients.

Retinoblastoma. Recurrence rate. Enucleation. Exenteration. Medicine.

- 0316 A retrospective study of etiologic factors causing ventriculoperitoneal shunt infections in children. Te-Jardiolin, Mary Ann, Jardiolin, Chester H.. **Makati Medical Center Proceedings**, 2000 , :21-27

This study was undertaken to find factors causing post ventriculoperitoneal shunt infection from a series of 236 operations performed on 219 hydrocephalic children. Culture of the cerebrospinal fluid samples during the operation were positive in 4 cases. These cases were excluded from the series. Infections observed were 27 in the remaining 232 operations with an overall rate of 11.6%. Most of these infections were meningitis (17 cases). Coagulase Negative Staphylococcus (Staphylococcal epidermidis) was the bacterium most frequently identified (48.1%).

Statistically significant relationships were found between shunt infection and following factors 1. Age infected patient was 4.6 times as frequent before 6 months than after 6 months old ($P=0.030881$), 2. Poor condition of the skin (0.005828): 3. Presence of intercurrent focus of infection at the time of surgery (0.000462): 4. Types of operation: the rate of infection was 8.8% in primary shunt insertions and shunt revisions and 39.1%

in reinsertions following shunt removal for infection ($p=0.000338$): 5. Postoperative wound dehiscence or scalp necrosis ($P=0.011899$). The surgical team involved was poorly correlated with the rate of infection ($P=0.199561$) likewise with the end of the shunt requiring revision: an infection rate of 11.1% followed revision of the ventricular catheter and 2.1% followed revision of the peritoneal end. ($p=0.103721$) No statistically significant relationships have been found between infection and 1. etiology of hydrocephalus 2. Sex 3. Recent neurosurgical operation before the shunt procedure: 4. Preoperative presence of an external drainage tube or CSF fistula: 5. Lumbar or ventricular taps: 6. Number of previous operations performed on the shunt: and 7. Sugar level of CSF.

Medicine. Ventriculoperitoneal shunt. Surgical wound infection. Etiologic factors.

- 0317 A retrospective study on the bleeding complications of low molecular weight heparins in the treatment of acute ischemic strokes. Perez-Santiago, Ma. Cymbeline B., Tuason, Josephine T., Perez, Martesio C.. **Makati Medical Center Proceedings**, 2001 , :64-68

Low molecular weight heparin is presently being used in the treatment of acute ischemic stroke in some centers in Europe. Few studies have been made to document the safety of low molecular weight heparins in the treatment of acute ischemic stroke. This study aims to evaluate the safety of low molecular heparins (intracranial and extracranial bleeding complications) administered as subcutaneous injections in patients with acute ischemic cerebrovascular disease. A review of records of patients treated with low molecular weight heparin was conducted at the Makati Medical Center from August 1997 to August 1998. A total of 44 patients were included in the study (ages 36-87, mean age of 66). Percentage of bleeding complications were as follows: intracranial hemorrhage 6.8%, gastrointestinal bleeding 9.1%, subcutaneous hematoma 2.3%, hematuria 6.8%, and epistaxis 2.3%.

Cerebrovascular disorders - Blood. Heparin, low molecular weight - therapeutic use. Medicine.

- 0318 The RIFASAF project: A case-control study on risk factors for stroke among Filipinos. The PNA-DOH RIFASAF COLLABORATORS **The Journal of the Philippine Medical Association**, 2004, Cent. iss.:116-122

OBJECTIVE: To determine the modifiable risk factors for stroke among Filipinos.
DESIGN: Multicenter, multiregional hospital-based 1:1 matched case-control study
SETTING: 55 tertiary hospitals located in 13 of the 16 administrative regions of the Philippines consisting of 961 first-ever stroke cases with 961 hospital based controls were enrolled. Cases were patients with clinical diagnosis of stroke affirmed by a neurologist of the Philippine Neurological Association while controls were patients admitted to the same hospital with no history of stroke.
MEASUREMENT: A structured questionnaire, patterned partly after the validated INTERHEART questionnaire was used to determine well established and emerging risk factors for stroke, Thirty (30) trained research assistants conducted the interview.
RESULTS: By univariate matched analysis, the following risk factors were shown to be significant, namely: hypertension, diabetes, transient ischemic attack (TIA), myocardial infarction (MI), atrial fibrillation (AF), rheumatic heart disease (RHD), migraine,

habitual snoring, stress, frequent alcohol use, and body mass index (BMI) ≥ 26 . On conditional multiple logistic regression, the following were found to be independent significant risk factors: hypertension (OR 6.01, 95% CI 4.49 - 8.05), diabetes (OR 1.60, 95% CI 1.01 - 2.32), AF (OR 1.91, 0.51 - 7.19), MI (OR 4.67, 95% CI 1.18 - 18.52), current smoking (OR 1.36, 95% CI 1.00 - 1.86), habitual snoring (OR 3.37, 2.49 - 4.58), stress (OR 1.69, 95% CI 1.25 - 2.29) and frequent alcohol use (OR 1.75, 95% CI 1.14 - 2.70).

CONCLUSIONS: The RIF ASAF project validates most of the well-established risk factors for stroke cited in foreign studies e.g. hypertension, diabetes, MI, AF, RHD and smoking. In addition, habitual snoring, stress and frequent alcohol intake are important emerging risk factors that were found to be locally significant. Classifying stroke into infarct and hemorrhagic type, the following were found to be significant for both types, namely, hypertension, frequent alcohol use, habitual snoring and stress. Ischemic type of stroke but not hemorrhagic stroke was significantly associated with diabetes, TIA, MI, AF, RHD, smoking and infection while BMI ≥ 26 was associated to the hemorrhagic type of stroke alone.

Medicine. Stroke. RIFASAF project.

- 0319 Ring chromosome 13 in a Filipino child--A new category with new features?. Chiong, Mary Anne D., Cutiongco-dela Paz, Eva Maria C.. **Acta Medica Philippina**, 2008, 42(2):63-65

We report on a child with ring chromosome 13 syndrome whose main clinical manifestations coincide with those of previously described cases. However, additional features such as marked hypotonia and joint laxity were noted in this child, anomalies which have not been previously reported in individuals with ring 13.

Developmental delay. Facial dysmorphism. Genital abnormality. Vertebral abnormalities. Hypotonia and joint laxity. Medicine.

- 0320 The role of frozen section in the diagnosis of thyroid carcinoma. Orocio, Mervyn Anthony R., Ropa, Carlos B., Sta. Maria, Arlene C., Alcantara, Ramir M., Vitug, Ramoncito S.. **Makati Medical Center Proceedings**, 2003, :91-96

Thyroid carcinoma is a condition that is usually diagnosed by preoperative and intraoperative evaluation using several diagnostic modalities. Although the practicality and relative ease of performing Fine-Needle Aspiration Biopsy makes it a common procedure diagnosing suspicious thyroid masses, intraoperative frozen section remains the most reliable examination in determining the histologic type of carcinoma. However, controversy lies in the relative accuracy of frozen section in labeling the specimen as malignant or not. This is especially true in cases of follicular neoplasms.

A retrospective study of 620 patients who underwent thyroidectomy with frozen section during a five-year period in Makati Medical center was done. The subjects were grouped and tabulated according to histologic type, age and sex. The sensitivity, specificity and positive predictive value of frozen section in determining the histologic type of thyroid carcinoma was computed. Likewise, the mean age and sex predilection of subjects predisposed to developing thyroid malignancy was measured.

Thyroid carcinoma was noted to occur in the female population with 12:1 ratio compared to males. The mean age of occurrence is ± 36 years old. In this study, Frozen Section is specific in labeling patients without cancer as not having the disease, with a 100% predictive value. This also holds true with regards to Follicular neoplasms, despite its relatively lower predictive value. Frozen section diagnosis is therefore a valid examination in diagnosing patients with malignancy in the Makati Medical Center setting.

Carcinoma-medullary-diagnosis. Frozen-section. Thyroid-neoplasms-diagnosis. Diagnosis-differential. Medicine.

- 0321 The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department. Abala, Donel C., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2000 , :60-62

The medical records of 104 patients who presented to the Emergency Department from January 1992 to December 1993 with acute bronchospasm were studied to determine whether routine chest radiographs play a role in the management of adult asthmatics. Twenty admission chest radiographs in 27 complicated asthmatics had an impact on management, whereas two of the 77 radiographs in the uncomplicated group showed a statistical significance ($P < .001$). Our study suggest that routine chest radiography in patients requiring hospitalization for uncomplicated asthma may not be necessary.

Medicine. Asthma. Asthma-radiography. Chest radiograph. Emergency service, hospital.

- 0322 Rotavirus acute gastroenteritis among Filipino children. Santos, Maria Ines Bettina L. , Daag, Jedas , Bravo, Lulu C. . **Acta Medica Philippina**, 2005 , 39(1):36-42

This is a prospective study aimed to determine the clinical profile of pediatric patients less than 5 years old with rotavirus diarrhea seen at the Philippine General Hospital from August 1 - September 15, 2001. Ninety-one patients with acute diarrhea were included in the study. Of these 39 patients (42.9%) had rotavirus antigen in the stool as detected by the ELISA method. The mean age of the patients was 11.5 months with 61.5% of the patients belonging to the 7-12 months of age, mostly well-nourished. The stools were described as watery (74.4%), yellow in color (84.7%), with no pus, red blood cells or parasite. Average duration of diarrhea prior to consultation was 2.5 ± 1.8 days with 7 episodes per day. Vomiting, fever and concomitant upper respiratory tract infection were noted in 76.9%, 64% and 23.7% of the patients respectively. A comparison of the rotavirus versus bacterial etiology of diarrhea showed fever and vomiting to be more predominant in rotavirus while dehydration was noted in bacterial isolates. Antibiotic was noted to be given to 38.5 % rotavirus cases. Increased awareness of rotavirus diarrhea, regarding its high incidence and clinical profile, will help guide physicians in their rational use of antibiotics for patients with acute diarrhea.

Rotavirus acute gastroenteritis. Children. Diarrhea. Medicine.

- 0323 Saline jet lavage: A simple technique to combat wound infection. Cua, Diana O., Esquivel, Jr., Apolinario C.. **Makati Medical Center Proceedings**, 1995 , :25-28

Because wound infection are still associated with a high patient morbidity and mortality, they remain a great surgical challenge. Debridement by irrigation has been a standard form of management in surgical infected wounds. In this light, this paper aims to prove that saline jet lavage is more effective in reducing the bacterial inoculum as compared to the commonly practiced low-pressure irrigation. Fifteen cats were divided into three groups equally. The wound in Group A was irrigated with saline via a 50 cc bulb syringe, Group B was debrided with povidone-iodine solution through a 50 cc bulb syringe and Group C was flushed with saline using an 18 gauge needle attached to a 50 cc syringe (saline jet lavage). Serial quantitative cultures were taken which proved that wounds treated by saline jet lavage eradicated greater number of bacteria earlier and more effectively.

Medicine. Debridement. Wound infection. Saline jet lavage. Low-pressure irrigation.

- 0324 Sclerosing hemangioma of the lung. Rebosa, Francisco D. Jr., Pantangco, Elias E.. **Makati Medical Center Proceedings**, 1997 , :103-107

Sclerosing hemangioma of the lung is an exceedingly rare, benign pulmonary tumor. We encountered the case of a 35 year old female with a left upper lobe mass documented on chest, radiographs 13 years before thoracotomy. Grossly, the lobectomy specimen contained a solitary, unencapsulated 5.5 cm mass with varied central cystic spaces and areas of hemorrhage. Microscopically this pulmonary tumor showed a multiphasic pattern of papillary, solid, hemorrhagic and sclerotic appearance. Although it was suspected to be a benign lesion, the gross features were considered important when making the diagnosis. Microscopically this lesion presented misleading features similar to a well differentiated papillary adenocarcinoma because of its cellular arrangement and nuclear atypia. The patient did not develop post-operative complications and remained free of recurrence. Consequently, a proposal has been made to designate this type of lesion as papillary or sclerosing pneumocytoma. This entity is generally benign and is curable by limited excision.

Papillary-Pathology. Lung Neoplasm-Complications. Thoracotomy Methods. Adenocarcinoma. Medicine.

- 0325 Screening for gestational diabetes in multiparas with previous normal carbohydrate metabolism. Sahagun, Rhionell O., Borromeo, Romana G.. **Makati Medical Center Proceedings**, 2003 , :83-86

The objective of this study is to evaluate women with normal carbohydrate metabolism in an index pregnancy for the likelihood of developing gestational diabetes in subsequent pregnancies. It is a retrospective study of patients who have had two deliveries within four years, in Makati Medical Center between 1995 and September 2001. OGCT and OGTT were the standard tests used to screen for gestational diabetes. Significant

statistical correlation was noted only between the pre-pregnancy weights of the two pregnancies. Other variables, including OGCT results, were not noted to be statistically significant. Thus, this paper concludes that repeat screening for GDM, in multiparas with previous normal carbohydrate metabolism may not be performed, if the next pregnancy is within four years of the index pregnancy.

Diabetes-gestational-metabolism. Pregnancy. Pregnancy-complications. Medicine.

- 0326 Semont's maneuver in benign paroxysmal positional vertigo. Perez, Katerina Tanya B., Azores, Corina Maria Socorro M., Adapon, Ofelia C., Perez, Martesio C.. **Makati Medical Center Proceedings**, 2000 , :43-46

Anti-vertigo drugs commonly used for BPPV afford only partial, temporary relief. This study aims to evaluate the effectivity of Semont's Maneuver in BPPV in terms of: (1) percent of immediate subjective relief, (2) time to attain 100% relief, and (3) length of time betahistine is taken after the maneuver. In-and out-patients diagnosed to have BPPV were screened. Semont's maneuver was done. Prn betahistine was prescribed. Patients were asked about immediate relief 5-10 minutes after the maneuver, and subsequently followed up. Nineteen patients, 7 males and 12 females aged 31-80 years, had a total of 21 separate attacks. 100% immediate relief was seen in 38% (8) of the episodes, and 50-99% immediate relief was seen in 57% (12) of the episodes. 100% subjective relief was achieved immediately in 9(43%) and within 24 hours in 5(24%). Betahistine was not used in 15(71%) episodes. Thus, Semont's maneuver seems to have a beneficial effect in BPPV in terms of subjective relief, and decreases the need for Betahistine.

Medicine. Vertigo-physiopathology. Betahistine-administration and dosage.

- 0327 Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002. Baricuatro-Criste, Ma. Claravel, King-Joaquino, Sally B.. **Makati Medical Center Proceedings**, 2004 , :87-92

Objective: To determine the sensitivity, specificity and predictive values of KUB ultrasound in diagnosing vesicourethral reflux children with recurrent UTI admitted at the Makati Medical Center from January 1996 to December 2002. *Methods:* A retrospective, cross-sectional study, of KUB Ultrasound findings, in 57 children, with recurrent, culture-positive UTI, 1 month to 18 years old, admitted at Makati Medical Center over a seven year period. *Results:* A total of 57 children (median age was 36 months; 39 (68.4%) female) were included in the study. Thirty two were found to have VUR on VCUG, giving a prevalence of 56.1%. Twenty had bilateral reflux disease (62.5%), 12 had unilateral reflux disease (37.5%). The sensitivity of ultrasound for detection for VUR was 40.6%; specificity was 56.0%. The positive predictive value of KUB US for VUR was 54.2% and the negative predictive value was 42.4%. *Conclusion:* KUB Ultrasound findings are neither sensitive nor specific in diagnosing VUR in children with recurrent UTI.

Medicine. Child. Infant, Newborn. Adolescence. Vesico ureteral reflux complications. Urinary tract

infection epidemiology.

- 0328 Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia. Francisco-Alejandro, Ruth Margareth, Cruz-Martinez, Lourdes. **Makati Medical Center Proceedings**, 2002 , :77-84

Objectives: The sensitivity of the Makati Medical Center Neonatal Sepsis Protocol in the identification of infants with proven sepsis was determined. The cost of sepsis work-ups and treatment prior to and after implementation of the protocol were compared. The most common risk factors for neonatal sepsis at the MMC nursery were identified. Design: Retrospective cross-sectional. Setting: Makati Medical Center. Participants: MHP patients born during the period March 1998-March 2001 with gestational age ≥ 35 weeks who were evaluated or treated for sepsis during the birth hospitalization. Results: Fourteen infants (6%) had growth on blood culture. IT ratio > 0.2 and positive CRP were the most sensitive findings in the diagnosis of sepsis. The presence of two or more significant hematological findings identified 93% of infants with sepsis. The overall sensitivity of the Algorithm was 99.91% Common risk factors for work-up and treatment were PROM > 24 hours, maternal UTI, PROM $> 12-23.5$ hours and chorioamnionitis. Conclusion: The Neonatal Sepsis Protocol is a useful and cost-effective guideline that can augment clinical evaluation of term and borderline term infants suspected to have neonatal sepsis.

Algorithms. Outcome assessment health care economics. Sepsis-congenital. Septicemia-blood. Retrospective studies. Infant, newborn. Medicine.

- 0329 Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water. De Guia, Blanca C., Antonio, Susan N.. **The Journal of the Philippine Medical Association**, 2004 , 2004(Cent. iss.):106-109

Objectives: To determine the changes in serum glucose and sodium levels in patients undergoing hysteroscopy using D5W as distention media and correlate these changes with operative time and distention volume

Materials and Methods: 20 patients undergoing hysteroscopy using D5W, 11 diagnostic and 9 operative (resection of submucous myoma/polyp), were monitored for changes in their serum glucose and sodium levels. After a normal fasting blood glucose screening test, 3 ml of blood sample were taken at the start of D5W infusion, at 15-30 minute intervals, at the end of infusion, and at 1-2 hours post-D5W infusion.

Results: All patients except one exhibited hyperglycemia during the procedure as follows: 5 patients had hyperglycemia of $< 100\%$ rise above normal serum levels, 12 patients had between 100-300% glucose rise, and 2 had 300-500% glucose rise. Serum glucose values return to normal 2 hours after termination of D5W infusion. There was a trend of increasing levels of hyperglycemia with increasing operative time and D5W volume used, although these were not statistically significant. Hyponatremia was seen in only one patient who had the longest procedure (95 minutes) for multiple polyps.

Conclusion: 5% D5W infusion resulted in transient and supraphysiologic rises in glucose levels during diagnostic and operative hysteroscopy,

Medicine. Serum glucose. Sodium. Hysteroscopy. Hyponatremia.

- 0330 Shiftwork tolerance and preference of emergency medicine residents. Subion, Florentino K., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2003 , :51-55

Objectives: To determine the shift length preference of emergency medicine (EM) residents, and to identify factors associated with EM residents' subjective tolerance of shiftwork. *Methods:* A six-month study, 24-hour shift for three months and a 12-hour shift for another three months. A survey was given to all EM residents at the end of each shift lengths. This questionnaire assessed the residents' shift length preferences, night shift schedules, state of physical health, time spent at home and self-reported ability to overcome drowsiness, flexibility of sleeping patterns, and morningness-eveningness tendencies. *Results:* All of the respondents prefers 12-hour shift than 24-hour, 95% responded that their tolerance for night shifts was very well. The ability to overcome drowsiness was significantly correlated with shift tolerance in that more proportion of residents responded very well. The EM residents while on a 12-hour duty never consumed their personal time at home, never degrade their co-residents when they have done mistakes, and has an excellent physical health. *Conclusions:* All Twenty emergency medicine residents of Makati Medical Center prefer 12-hour shift compared with 24-hour shift and all the factors that may affect shiftwork tolerance were significantly improved while on a 12-hour shift.

Emergency medicine education. Internship and residency standards. Curriculum. Survey. Medicine.

- 0331 Shoe-lace technique: A preliminary assessment and viability study for delayed primary closure of contaminated, open wounds. Gomez, John Anthony M., Ang, Jennifer C., Arguelles, Vincente Q.. **Makati Medical Center Proceedings**, 1996 , :43-45

The closure of the contaminated or infected wounds necessitate delayed primary closure. Because of skin edge retraction, the open wound must heal by secondary intention or be closed with a split thickness skin graft. The shoe-lace technique as described below was studied in rat models. It involved running a silk 2-0 through loops of nylon 4-0 sutures placed at the skin edge of open wounds. Daily tightening of the running suture post-operatively allowed gradual closure of the wound without the need for further surgery. Closing using simple interrupted sutures of steri-strip is then possible after 5-10 days. In our study, the results were as follows: in the experiment group, the wound edges were approximated and simple suture was done in 3 rats on the 7th POD. The other 2 on the 10th POD. For the control group, wound closure was achieved on the 14th POD. The shoe-lace technique allows closure of open wounds limiting morbidity and cost associated with skin grafting or secondary closure.

Shoe-lace technique. Wound and injuries. Wound infection. Medicine.

- 0332 Significance of tuberculin testing using Mantoux test and Monovacc test among grade I students in a Makati

primary public school. Cuisia-Cruz, Erlinda Susana S., Alcaneses, Maria Rosario S.. **Makati Medical Center Proceedings**, 1998 , :66-71

A school-based screening for tuberculosis infection was done in a Makati Primary Public School using the standard Mantoux test and the multi-puncture Monovacc test (OT). One hundred twenty students were included in the study which showed 22% students (26/120) with tuberculosis infection, that is, with or without signs and symptoms of tuberculosis, with or without tuberculosis exposure plus a positive Mantoux test (if later found out to be chest x-ray negative). Among these children tested, 10 had tuberculosis exposure, with only 4 of them having a positive tuberculin test (Mantoux and Monovacc test). The most common clinical manifestations noted by parents that were suggestive of tuberculosis were poor weight gain, decreased or poor appetite and prolonged cough and colds. Reactions to tuberculin skin test of those with BCG vaccination and those without BCG vaccination showed no statistically significant difference. Mean age of those with positive tuberculin skin test were noted to be higher than those with negative tuberculin skin test. The Monovacc test, with 69.2% sensitivity, 93.6% specificity, 75% ppv and 91.7% negative predictive value, when compared with the Mantoux test, is a good screening test for tuberculosis infection but a positive reaction should be validated with the gold standard Mantoux test. As a conclusion, tuberculin skin testing is a necessary screening test for the diagnosis of tuberculosis and its use as a routine school-based screening procedure is recommended.

Tuberculosis, pulmonary-diagnosis. Tuberculin test. Medicine.

0333 SLE, kaposi sarcoma, syphilis, scabies:. Legarda-Montinola, Filomena, Borja, Maria Chung. **Makati Medical Center Proceedings**, 1998 , :94-100

A challenging case of a 25 year old promiscuous male with multiple skin lesions and rapid terminal clinical course with minimal work up was presented to the dermatologist twenty four hours prior to demise. The history, physical examination and course in the ward were previously reviewed, analyzed and presented at a Clinico-Pathological. This discussion is centered mainly through cutaneous manifestations to arrive at the diagnosis.

Medicine. Scabies. Sarcoma. Systemic lupus erythematosus. Syphilis.

0334 Specificity and sensitivity of needling technique in cytologic diagnosis of breast cancer. Navarro, Alejandro S., Orocio, Mervyn Anthony R., Ejercito, Carlos Jr., Hernandez, Sierra Roma S., Macapagal, Antonio R.. **Makati Medical Center Proceedings**, 2001 , :89-93

Objective: To determine the sensitivity and specificity of the needling technique with paraffin section as the gold standard. *Summary Background Data:* Breast cancer is becoming an increasingly important disease in all parts of the world. Many of these are detected late. Women who have breast masses or are suspected to have one resort to unconventional means such as going to " HERBOLARIOS", taking medical herbs or just deny themselves of a more scientific management. Hence, fine needle aspiration biopsy is a newer method because it is simple, rapid, relatively atraumatic and painless. It is cost effective, psychologically beneficial, it reduces uncertainty and anxiety, and it can be

done on an outpatient basis. *Method:* A total of 65 patients underwent needling and excision biopsy at the surgery OPD of Makati Medical Center from January to July 1999. All excised specimens were sent for paraffin section and all needling specimens were sent to cystopathology. Patients with the stage IV breast CA, Breast Masses with cutaneous extensions, an infection or inflammatory etiology, and those clinically preventing with fibrocystic disease of the breast were excluded. *Results:* Out of the 65 patients 26 were diagnosed by excision biopsy/paraffin section with Breast CA. Twenty four of these patients had Invasive Ductal Ca, one had Lobular Ca, and one had intraductal Ca. Thirty nine patients were diagnosed with Benign Lesions. Twenty one diagnosed with Fibrocystic Changes (FCC), 14 diagnosed with Fibroadenoma (FA), three diagnosed with Phylloiden tumor low grade and one patient with TB of the Breast. By the needling technique 23 patients were diagnosed as having Breast Ca confirmed by paraffin sections/excision biopsy. Through data analysis, the study yielded a sensitivity of 88.4, specificity as 100%, a positive productive value of 100% and a negative predictive value of 92.8%. *Conclusion:* The needling technique can correctly diagnose 88.4% cases of Breast Cancer, and a reading of Breast Cancer is 100% reliable. Moreover, not all benign cystologic yields acquired by needling technique can be deemed as truly benign. We also recommend that a comparative study of the sensitivity of FNA and needling of the same mass in the same individual, a study to determine the feasibility of this technique to other masses i.e. thyroid. Lastly, use of this technique in the triple diagnosis instead of FNA.

Medicine. Breast-neoplasms-pathology. Breast-neoplasms-surgery. Biopsy, needle.

0335 Spontaneous intracerebral hemorrhage. Jardiolin, Chester H, Sibayan, Renato Q.. , 2001 , :55-57

This is a retrospective analysis of thirty-one patients operated at the Makati Medical Center from January, 1991 to December, 1993. with the diagnosis of spontaneous hemorrhage (ICH). The factors affecting prognostication were identified and statistically tested using correlation and stepwise regression methods. The following factors were noted to be associated with a better Glasgow Outcome Scale (GOS): A higher Glasgow Coma Scale (GCS). lower age. absent hydrocephalus or intraventricular extension and surgery done twenty four hours or more after the onset of the hemorrhage. Although size is not statistically significant, a combined location (subcortical, basal ganglia and thalamic) showed a poor prognosis. The GOS is 45.77% dependent on the GCS. a combined location gives 12.18%, predictability and the effects of the GCS together with the combined location gives 57.95% probability.

Hemorrhage. Hypertension. Intracerebral. Medicine.

0336 Staphylococcal scalded skin syndrome. Reyes, Cristina L., Verallo-Rowell, Vermen M.. **Makati Medical Center Proceedings**, 1995 , :106-108

The Staphylococcal Scalded Skin Syndrome (SSSS) is a rare complication of an apparently innocuous Staphylococcus aureus infection. It manifests as a generalized diffuse tender erythema of the skin later followed by a flaky desquamation. Illustrated below is one such case.

Medicine. Staphylococcal scalded skin syndrome. SSSS.

- 0337 Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma. Debuque, Eusebio L., Perez, Martesio C., Santiago, Carlos Francis A.. **Makati Medical Center Proceedings**, 1999 , :2-10

From December 1998 to September 1999, eight patients with hypertensive deep ganglionic intracerebral hematoma (ICH) underwent stereotactic aspiration of ICH with installation of thrombolytic agent and drainage of the remaining clot. The patients were 32 to 72 years old with GCS score of 5 to 10. The ICH was stereotactically aspirated at its center followed by intra-hematoma instillation of thrombolytic agent every 12 hours for 6 to 8 doses. The patients improved post-surgery, initially the sensorium and later, motor strength. Post operative CT scans showed progressive decrease in hematoma size. Long-term outcome was good with two patients already fit to work. This technique is performed for the first time in the Philippines and initial results are encouraging compared to conventional treatment of ICH. It is safe, minimally invasive, and uses local anesthesia, making more people amenable to the procedure. It promises to improve the outcome of deep ganglionic ICH patients.

Anesthesia, local. Cerebral hemorrhage-surgery. Hematoma-surgery. Stereotaxic techniques. Tomography. X-ray computed stroke. Medicine.

- 0338 A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras. Sorra, Lemuel L., Garcia, Robert Dennis J.. **Makati Medical Center Proceedings**, 2004 , :68-78

Objective: To describe and compare the profiles of nosocomial infections (NI) at the Makati Medical Center-Pediatric Intensive Care Unit between the Pre-ISO 9002/EN 46002 Era (January 2000 – December 2000) and the ISO 9002/EN 46002 Era (April 2001-March 2002). *Design:* Retrospective cohort study. *Setting:* Makati Medical Center – Pediatric Intensive Care Unit (MMC PICU) from January 2000 to December 2000 and April 2001 to March 2002. *Patients/Participants:* A total of 192 patients (94 from January 2000 to December 2000 and 98 from April 2001 to March 2002) admitted into the MMC PICU. *Interventions:* An extensive chart review was done on all admissions. Patient demographics, the number of PICU days, development of NI, microbiologic data and site of infection were all noted. Common isolates were also noted. *Main Outcome Measures:* Cumulative incidence and incidence densities of over-all NI, major specific site NI (i.e. primary bloodstream, pneumonia, UTI), and device-associated NI. *Results:* There is a slight insignificant decrease in the incidence rates of all NI from the Pre-ISO 9002/EN 46002 era to the ISO 9002/EN 46002 era with the exception of urinary tract infection which had an insignificant increase in rate. Device-associated NI also followed the same trend. Possible reasons and implications of such results are discussed. Common organisms isolated were listed, most common isolate being *Pseudomonas spp.* for the Pre-ISO 9002/EN 46002 era and *Pseudomonas aeruginosa* for the ISO 9002/EN 46002 era. *Conclusion:* The profiles of NI in the Pre-ISO 9002/EN 46002 and in the ISO 9002/EN 46002 are comparable and exhibit minimal statistical differences. Both eras follow the same trend for major specific site NI as well as device-associated NI. With the

exception of UTI, the slight insignificant decrease in incidence of NI in the two eras may indicate the beginning impact of the ISO certification. An increase in the length of transition period between the two eras is recommended for future evaluation studies. The increase in incidence of UTI between the two eras needs further investigation so that corrective actions may be undertaken.

Medicine. Cross infection epidemiology. Intensive care units, pediatric. Urinary tract infections-complications. Infant, newborn.

- 0339 A study of chloroquine resistance of *Plasmodium falciparum* using the in-vitro sensitivity test and polymerase chain reaction (PCR). Tongol-Rivera, Pilarita, Villacorte, Elena A., Escueta, Aleyla S., Hatabu, Toshimitsu, Iwagami, Moritoshi. **Acta Medica Philippina**, 2005 , 39(2):7-10

The widespread and increasing resistance of *Plasmodium falciparum* to antimalarial drugs is one of several factors that contributed to the persistence and even worsening of the malaria problem. Resistance to Chloroquine is of utmost concern, considering that it had been the most reliable antimalarial until the emergence and spread of Chloroquine-resistant *P. falciparum*. Until recently, Chloroquine and Sulfadoxine-Pyrimethamine were the first and second line antimalarials in use in the Philippines. However, this has been changed to a combination of Chloroquine and Sulfadoxine-Pyrimethamine, because of the high percentage of treatment failures in therapeutic efficacy studies done in northern and southern Philippines. The objective of the study is to apply PCR in determining the occurrence of Chloroquine resistance in southeastern Mindanao using in-vitro test and polymerase chain reaction (PCR).

In the first study, the in-vitro susceptibility of *P. falciparum* to Chloroquine was tested in 33 isolates using the World Health Organization (WHO) Semi-Microtest Method. These isolates were collected from patients who consulted or were admitted at the regional hospital of Davao del Norte. The results showed that 10 (30.3%) were susceptible with $IC_{50} < 80$ nM, 12(36.4%) isolates had decreased sensitivity with $80 \text{ nM} \leq IC_{50} < 144$ nM, and 11(33.3%) were resistant with $IC > 144$ nM. Ten of these 11(91%) were from Davao del Norte. A closer look at the municipalities of the province showed that the geometric mean (SD) of IC_{50} of Asuncion was 133 (41) nM and was significantly higher ($p=0.025$) than nearby Kapalong at 82 (25) nM.

The PCR, Apo1 restriction revealed that 30 (90.9%) of the isolates manifested the PfcRT (K76T) mutation. These findings are indicative of the presence of Chloroquine resistance among the isolates. Comparison with the results of the in-vitro test (33.3% resistance) showed that the frequency of the PfcRT gene (90.9%) was very high. This finding suggests that the mere presence of the PfcRT gene does not mean the expression of Chloroquine resistance. It is possible that other genes such as the PfmDr and cg2 are also involved in the expression of Chloroquine resistance. The study also shows that PCR and Apo1 restriction may be limited in generating results that can be used to correlate with those of the in-vitro or even in-vivo tests.

Medicine. Plasmodium falciparum. Chloroquine--resistance. Antimalarial drugs.

- 0340 A study of factors predicting progressive neurological deficit in patients with acute ischemic stroke. Sage-Nolido, Anna Marie B., Perez, Martesio C.. **Makati Medical Center Proceedings**, 2001 , :61-63

Progression of acute ischemic stroke after arrival at the hospital is frequent and the prognosis severe. This study aims to identify predictors of early neurological deterioration in patients with acute ischemic stroke.

The group of patients who had progressive stroke had a lower mean systolic and diastolic blood pressure on admission (147.5 ± 20.3 and 89.4 ± 9.6) compared to the group of patients who had no stroke progression (159 ± 20 and 94 ± 11.2). Decreased sensorium was the only significant clinical factor and may be a successful predictor of neurological worsening. More studies should be geared towards determining causes of sensorium changes. In addition other possible factors other than the commonly known risk factors for stroke should be investigated so that more effective treatment can be started on admission.

Cerebrovascular disorders. Risk factors. Medicine.

- 0341 A study of some factors influencing appointment-breaking among patients at the University of the Philippines-Philippine General Hospital Family Medicine Clinic. Alayon, Josephine F.. **Acta Medica Philippina**, 1993 , 29(2):92-104

At a 25% prevalence rate of appointment breaking, adverse effects on health care operations as well as continuity of care would be significant (39). At the UP-PGH Family Medicine Clinic Service Follow-up Program, whose unique features are shortened waiting time and continuity of care, the prevalence rate of appointment breaking. 103 out of 300 patients seen in this clinic filled up self-administered questionnaires. Of these, 59 broke their appointment breaking seems to be more prevalent among males, the younger age group, the more educated, Non-Catholic, employed patients, patients living near PGH, as well as in those who take medicines for less than a year. The differences, however are not statistically significant.

On the other hand, appointment breaking is significantly greater among unmarried patients, those with lower income, and patients assigned to male physicians. It is probably because in the Philippines, where poverty remains a major problem, there are still more basic needs than health needs. Also, the family plays a vital role in motivating patients to follow-up in the clinics. Lastly, in this maternalistic Filipino culture where females appear to be more influential, a good-physician relationship might be an important factor in ensuring appointment keeping as well as compliance.

Family Medicine Clinic. Medical appointment-breaking. Medicine.

- 0342 A study on a possible alternative local pressure garment for burn scars. Zamuco-Mercado, Melissa A. L., Recto-Legaspi, Anna J. A.. **Acta Medica Philippina**, 1994 , 30(2(3)):159-166

A locally available material (88% nylon, 12% polyurethane) commonly used to fabricate women's undergarments was studied as a possible alternative to the existing imported pressure alternative to the existing imported pressure garments used in burn scar management. The first part of this two-part study estimated a factor coefficient for

measuring the material that will deliver adequate interface-pressure needed for scar control. Using thirteen tubular garments made of the test material fitted on a Plaster of Paris model and an actual limb, factor coefficients for both were computed within the 95% confidence interval. A greater coefficient was obtained on the actual limb ($p=0.05$). The second part of this study determined the effects of lubrication and repeated washing-drying cycles on the pressure-exerting capacity of the test material. Six tubular garments were divided into two treatment groups—group I, subjected to 20 washing-drying cycles and group II, saturated with a moisturizer prior to each of the 20 washing-drying cycles. Interface-pressures were obtained initially and after every fifth cycle. The non-lubricated garments delivered significantly increasing pressures until the 5th cycle, whereas the lubricated garments delivered significantly decreasing pressures until the 20th cycle ($p=0.05$). Despite the changes in the pressure exerting capacity of the test material by the lubrication and washing-drying cycles, such as effects were still within range of pressures necessary for scar-control. Through these preliminary results, the test material appears to have a potential value in the development of a locally available and economical pressure garment in burn patients.

Pressure garment. Interface-pressure. Hypertrophic scar. Medicine.

- 0343 Subsequent pregnancy outcomes of one versus two-layer closure of a low transverse cesarean section. Tuazon-Sto. Domingo, Marinette, Borromeo, Romana G.. **Makati Medical Center Proceedings**, 2001 , :72-74

The objective of this study is to determine whether a previous low transverse cesarean section method in one-layer closure results in lower incidence of uterine scar dehiscence, uterine rupture, placental accreta and post-operative adhesions than a two-layer closure on subsequent pregnancy. Three hundred forty-one patients who previously underwent low transverse cesarean section in one (158) or two layer closure (183) and then had a subsequent pregnancy were included in this study. The incidence of asymptomatic scar separation, uterine rupture, placental accreta and post-operative adhesions were noted. Results showed that two patients (0.58%) in the one-layer group had uterine scar dehiscence and three (0.87%) in the two-layer group. No symptomatic uterine rupture occurred. Two patients in the two-layer group had placental accreta. Ten (2.9%) had post-operative adhesions in the one-layer and 24 (7.0%) in the two-layer group. One-layer closure resulted in lower incidence of post-operative adhesions than a two-layer closure. The incidence of uterine scar dehiscence and placental accreta were similar for each group.

Cesarean section method. Post-operative procedures. Medicine.

- 0344 Test characteristics of core needle biopsy of palpable breast masses: A review of Philippine General Hospital out-patient cases from 1999 to 2001. Carnate, Jose M. Jr., Alviar, Earlyn Ma. S. . **Acta Medica Philippina**, 2005 , 39(1):7-12

Core needle biopsy (CNB) has been used increasingly as a diagnostic tool in evaluating mammary lesions. To determine the test characteristics of CNB, histopathologic review of palpable breast masses in 81 female patients (mean age: 48 years, range 17-71 years) obtained by non-imaging-guided CNB at the Philippine General Hospital Out-Patient

Department from January 1999 to March 2001 was compared with the reviewed results of the subsequent excision (excision biopsy, simple mastectomy and modified radical mastectomy) as the reference standard. Of the 81 cases, 62 (77%) were histologically confirmed as malignant and 19 (23%) were benign. Of the 81 CNBs, 22 (27%) were unsatisfactory biopsies. Evaluation of CNB test characteristics was based on the rest of the 59 "satisfactory" CNBs. Test characteristics were: Sensitivity= 82.2%, Specificity= 92.2%, Accuracy= 84.7%, Positive Predictive Value= 97.4%, Negative Predictive Value=61.9%. The test characteristics were lower compared to previously reported values which were however largely based on image-guided CNBs. Specimen adequacy, operator differences in skills and expertise, and histopathologic interpretation error may account for the difference.

Medicine. Core needle biopsy. Breast mass diagnosis. Test characteristics .

- 0345 Is there a role for antibiotic prophylaxis in clean elective surgical procedures? A randomized, controlled, double-blind study. Padlan, Michael C., Tubera, Leoderick V., Marte, Jake J., Pastores, John Vincent G.. **Makati Medical Center Proceedings**, 2004 , :39-44

Objective: To determine whether antibiotic prophylaxis was necessary in preventing post-operative infectious complications in selected clean elective surgical procedures. *Methodology:* Subjects were recruited from charity patients who underwent elective clean surgical procedures (thyroidectomy, herniorrhaphy, with or without mesh insertion and vein stripping) at Makati Medical Center from 1 March 2003 to 1 November 2003. Excluded from the study were patients who were below 18 or above 75 years of age, malnourished, with known co-morbid conditions and on chronic steroid and cytotoxic therapy. Study participants randomly assigned to receive antibiotic prophylaxis were given intravenous preparation of first generation cephalosporin an hour prior to the surgical procedure. All subjects were then evaluated for clinical evidences of surgical site infection, such as fever, pain, swelling, warmth, erythema, loss of function, dehiscence, discharge and abscess formation, during the operation and on the 2nd, 3rd and 7th post-operative day. Data analysis used a 0.05 level of significance. *Results:* Fifty-five patients were included in the study. Antibiotic prophylaxis was given to 49.1% (27 subjects) of the study participants. On the other hand, prophylaxis was not administered to 50.1% (28 subjects). Patients with or without antibiotic prophylaxis remained afebrile and had gradual relief of pain during subsequent follow-up visits. There were also no accompanying signs of surgical wound infection observed for both study groups. Hence, no incidence of surgical site infection was seen within seven days after the clean elective surgical procedure. *Conclusion:* Provided that proper asepsis and surgical techniques are strictly observed, absence of antibiotic prophylaxis for clean elective surgical procedures can be employed.

Medicine. Antibiotic prophylaxis. Surgery, operative. Asepsis.

- 0346 Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift. Santiago, Carlos Francis A., Oropilla, Jean Quint L., Alvarez, Victor M.. **Makati Medical Center Proceedings**, 2000 , :38-42

The cerebral midline shift is measured using the displacement from midline of the third

ventricle. It is an easily determined criterion from which CT scans of patients with spontaneous intracerebral hematoma may be investigated. Midline shift is a significant criteria in which to gauge the neurological status of patients. In a retrospective study of 32 patients with spontaneous unilateral intracerebral hemorrhage, a midline third ventricle shift correlated well with septum pellucidum shift. A greater than 7 mm midline third ventricle shift was associated with a significantly lower Glasgow Coma Scale score compared to a shift less than 7 mm. For the septum pellucidum, a greater than 10 mm shift was similarly associated with a significantly lower Glasgow Coma Scale score.

Medicine. Tomography, X-ray computed. Brain radiography. Cerebral hemorrhage-radiography. Brain shifts. Glasgow-coma scale.

- 0347 Thyroid cancer in the Philippines: an update. De La Peña, Arturo S.. **Acta Medica Philippina**, 1993 , 29(1):38-42

Thyroid cancer was the seventh leading site among females (ASR-6.6) and was the most common malignancy in women at ages 15-24. The incidence rates were higher compared with that reported by other Asian and Western countries, with the exception of Filipino migrants to the US who also showed high rates. Papillary thyroid carcinoma is the most common histologic type (<60%) and together with follicular carcinoma comprise more than 95% of the cases. The diagnosis can be established with high accuracy by employing clinical parameters like hard consistency and presence of compression symptoms. Fine needle aspiration biopsy however, remains the most reliable method of establishing the diagnosis preoperatively. Surgery is the main modality of treatment. The major controversy lay in whether to do a total thyroidectomy for these slow growing, relatively slow metastasizing tumors. Most investigators recommend conservative surgery and emphasize the similar survival following total and non-total thyroidectomy, as well as the higher morbidity associated with total thyroidectomy. Recent report also gave evidence that age and sex were important prognostic factor.

Thyroid cancer - Philippines. Females. Medicine.

- 0348 Transdermal estrogen replacement postmenopause and effects on lipid profiles. Chua-Agcaoili, Ma. Theresa M., Dizon, Erwin, Borromeo, Romana G., Ortiz-Sison, May H., Rivera, Emelyn A.. **Makati Medical Center Proceedings**, 1997 , :36-43

Cardiovascular disease is the leading cause of death in women in their climacterium. One predisposing factor for this are the alterations in the lipid profile which make it more atherogenic.

This study evaluated the effect of hormonal replacement therapy on 16 postmenopausal women seen at the Makati Medical Center from the period of June to December 1995. These patients were instructed and given Transdermal Estradiol 50mcg patches for estrogen replacement. Eight of these women had intact uteri and so cyclical treatment with estrogen and a progestin was done to prevent endometrial hyperplasia.

In both treatment groups, vasomotor and urogenital symptoms were noted to resolve after a few weeks of treatment. Patients noted an increase in their well-being and stamina.

Lipid profiles repeated after 4 to 6 weeks of therapy showed a significant decrease in levels of total cholesterol.

In this study, transdermal estradiol relieved climacteric symptoms and significantly decreased total cholesterol. These changes diminish the risk of mortality from cardiovascular disease and improves the quality of life postmenopause.

Cardiovascular diseases. Cholesterol. Obesity in diabetes. Metformin. Medicine.

- 0349 Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model. Atupan-Calderon, Czarina, Dizon-Co, Lourdes Ann. **Makati Medical Center Proceedings**, 1997 , :7-13

Preliminary evidence shows that antibacterial effect of specific anti-E.coli IgG administered orally. This study determined if a commercially available pool of human IgG given orally can provide passive immunity enteropathogenic E.coli.

A prospective, placebo-controlled study was performed. Twenty Swiss Webster mice were randomly allocated to treatment group and placebo group. Enteropathogenic E.coli diarrhea was induced. Twenty-four (24) hours after bacterial induction, mice in treatment group received a single oral dose of 300 mg/kg body weight of human serum IgG, while mice in placebo group received equivalent amounts of 0.9% NaCL solution. Mice in the placebo group had a significantly higher bacterial yield in the stools taken on the 48th hour post-treatment as compared to those in the treatment group. On histopath, the untreated mice showed a greater degree of damage in their gut lining as compared to those of the treated group. Oral administration of immunoglobulins as treatment offers protection against EPEC-induced diarrhea in mice.

Diarrhea. Escherichia coli infections - microbiology. Immunoglobulins administration and dosage. Mice. Medicine.

- 0350 Trisomy 8 mosaicism in two Filipino children. Chiong, Mary Anne D., Salonga, Edsel Allan G., Cutiongco-dela Paz, Eva Maria C.. **Acta Medica Philippina**, 2008 , 42(2):55-59

We describe two Filipino patients with Trisomy 8 mosaicism syndrome. Both had global developmental delay, mental deficiency, facial dysmorphism, skeletal deformities and the characteristic deep plantar and palmar creases. Their phenotype and radiologic features were consistent with the previously reported cases. Hematologic malignancies have recently been found to be associated with this chromosomal abnormality, emphasizing the importance of monitoring for cancer risks.

Trisomy 8 mosaicism. Deep palmar and plantar creases. Skeletal abnormalities. Hematologic malignancy . Medicine.

- 0351 Troponin-T rapid assay in the emergency department setting. de Leon, Edwin Rommel S., Sinon, Johnny

B.. **Makati Medical Center Proceedings**, 1998 , :40-44

Forty-nine patients were seen at the Emergency Department at varying time intervals with complaints of chest pain and symptoms consistent with those of unstable angina. The onset of pain, the precipitating factors along with the past medical history of cardiovascular problems were noted. The patients also underwent 12-Lead EKG and cardiac enzyme studies, specifically CPK-MB and Troponin-T Rapid Assay (qualitative test). The number of patients that had in fact developed acute myocardial infarction was compared with those that had only experienced an anginal episode. The patient's enzyme results were also statistically assessed. It was determined that there was parallelism between the CPK-MB and Troponin-T. In addition, although Troponin-T had false negative results, they were very specific for acute myocardial infarction, when the results were positive.

Angina, unstable. Chest-pain. Troponin I. Medicine.

- 0352 Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix. Jardiolin, Aida S., Palma, Christine F., Limson, Genara A.M., Sotto, Luciano S.J., Limbaga, Josefa R.. **Acta Medica Philippina**, 1993 , 29(1):28-37

The surgical specimens of ninety-eight patients with cervical carcinoma Stage IB to IIA who underwent radical hysterectomy with pelvic lymphadenectomy at the Philippine General Hospital from February, 1990 to August, 1992 were examined to determine tumor diameter, tumor volume, and cervical stromal invasion for the purpose of determining 1) the interrelationship of tumor diameter, tumor volume and cervical stromal invasion; 2) the use of the above factors to predict lymph node metastasis and tumor recurrence; 3) the use of these three prognostic variables plus lymph node metastasis to predict recurrence rate; 4) to determine the relationship between lymph node involvement and recurrence rate.

Using multivariate discriminant analysis, the following were noted: 1) There is a very significant positive relationship among the three prognostic factors. 2) Among the three variables, only tumor diameter and stromal invasion were significant in predicting lymph node metastasis. 3) All these three variables - tumor diameter, tumor volume and cervical stromal invasion have significant relationship with tumor recurrence. 4) The presence of lymph node involvement, when added to the three variables mentioned, contributed significantly in predicting recurrence rate. Using chi-square test, 5) the presence of lymph node metastasis significantly correlates with tumor recurrence.

Cervical carcinoma. Cervical cancer. Lymph node metastasis. Tumor size. Tumor volume. Tumor diameter. Medicine.

- 0353 The twelve hour shift. Catalan, Carlo Emmanuel L., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1998 , :29-33

The traditional 24-hour duty is no longer in use on the United States because it is unphysiologic and may extract more from resident physicians than they can give. To

assess the feasibility of using the 12-hour shift in the Emergency Department of the Makati Medical Center, a two-month study was conducted by restructuring the duty periods of the Emergency Department residents into 12-hour shifts. To assess the effects in terms of residents attitudes, efficiency, and quality of home life; and patient perception of physician attitude, efficiency, questionnaires were handed out to both residents and patients before and during the study period. Results showed that the residents attitude improved, their efficiency enhanced and the quality of their home life became better during the 12-hour shift: while patient perception of physician's attitude also became better, waiting time to be seen significantly decreased and over-all assessment of resident's performance improved.

Efficiency. Emergency medical services. Internship and residency. Stress. Work schedule tolerance-
psychology. Medicine.

- 0354 Twenty-five years of the pap smear: Have we gone beyond it?. Abelardo, Agustina D.. **Acta Medica Philippina**, 2005, 39(1):43-45

This article is about the evolution of the papanicolaou system, a diagnostic cytology of the female genital tract that is being use with the primary goal of promoting effective communication of relevant cytologic findings between the pathologists and clinicians for optimum patient care. Pap smear though, considered an effective public health tool responsible for the significant decline of cervical cancer deaths, has limitations too.

Pap smear combined with visual screening test, a method which offers the advantages of being non-invasive, easy to perform and can be done by almost anyone in almost any setting, inexpensive with rapid results, and having acceptable rates of false positive and false negative reports, leads to early detection of cervical cancer.

Aside from the pap test and visualization, other cervical cancer screening tests such as cervicography and colposcopy was also discussed.

Medicine. Papanicolaou system. Pap smear.

- 0355 A university-based forensic pathology practice: The UPM-PGH experience (1996-2000). del Rosario-Fortun, Raquel B. . **Acta Medica Philippina**, 2005 , 39(1):28-35

Forensic Pathology is not a widely recognized field of medicine in the Philippines. Doctors involved in death investigation are often unskilled due to lack of formal training and their work is further hampered by insufficient support and material resources. Upon the author's return in 1995 from post-residency training in forensic pathology at a medical examiner's office in the United States, she sought to establish a practice as a specialist based at the University of the Philippines Manila-Philippine General Hospital. This case review is the author's initial experience over the period 1996-2000. The procedures done and problems encountered are described, and recommendations on how the specialty can be professionalized are offered. Included are templates of actual worksheets for the guidance of local doctors doing forensic autopsies.

Death investigation. Forensic pathology . Forensic autopsy. Medicine.

- 0356 Use of 4% intranasal lidocaine in the treatment of migraine. Mendoza, Roelito E., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 2000 , :70-73

In a clinical trial, 15 migraine patients with a chief complaint of headache were treated with 0.5ml of 4% intranasal lidocaine solution at the Emergency Department (ED) of Makati Medical Center. The study was done from September to December 1999. Evaluation of pre-treatment and post-treatment changes in levels of headache, nausea, photophobia, disability score, and side effects were done and they showed significant reduction, as determined by the Wilcoxon Signed Ranks test (P=0.001, P=0.005, P=0.001, and P=0.001, respectively). Eleven (73.3%) patients had greater than 50% relief of headache at the end of the 15-minute trial with a mean reduction of 67.5% in the level of headache. None of the patients required rescue medication at the ED. Among those who had greater than 50% headache relief, relapse of headache occurred in seven (63.6%) and three (42.8%) of the seven patients required medication at home. Side effects were transient and mostly consisted of unpleasant bitter taste, numbness in the treated nostril or throat with sense of gagging. In conclusion, 4% intranasal lidocaine may provide effective relief of migraine attacks and its rapid effect may be due to its conduction-blocking action on the sphenopalatine ganglion.

Medicine. Classic migraine. Ganglia, parasympathetic. Headache migraine. Lidocaine.

- 0357 The use of complementary and alternative medicine (CAM) in a conventionally western-oriented medical practice in the Philippines. Agbayani, Benigno F.. **The Journal of the Philippine Medical Association**, 2004 , Cent. iss:38-56

Background: There is now an ongoing romance between the West and the East as regards medicine and healthcare. It can be said that it is now possible in medicine to offer a more holistic approach with as many options as acceptable when both forms of treatment are combined. There is a great promise when one looks back in the early beginnings of western medicine, reliance on the use of medicinal herbs were the forbears from which the active form of drugs has been isolated and formulated. **Objective:** to familiarize medical practitioners on the more common and useful complementary and alternative medicines. **Methodology:** to review available literature (local) on the subject of complementary and alternative medicine and its indications, Particular attention is given to local herbal medicines. **Results:** the spectrum of comprehensive preventive, promotive, even curative process becomes expansive and put to a greater advantage by using both forms of medicine (Western and Eastern) than just implementing one treatment modality. **Conclusion:** Combining and uniting both Eastern and Western medicine has a greater impact on the healthcare of patients worldwide than using either one. It is hoped that the best of each can be identified and harnessed for the benefit of mankind.

Medicine. Complementary and alternative medicine. CAM. Medicinal herbs.

- 0358 The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department. Reyes, Luis Raymond A., Sinon, Johnny B.. **Makati Medical Center Proceedings**, 1998 , :34-39

The combination of meperidine, promethazine, and chlorpromazine given intramuscularly for conscious sedation of pediatric patients has been used extensively in the Emergency Department setting. Although ED physicians in our institution have had considerable experience with its use, no specific protocol is being followed. We conducted a study to determine the adequacy of sedation of the MPC regimen for laceration repair in 28 pediatric patients. Patients given Intramuscular MPC prior to the repair procedure were continuously monitored and were discharge according to set criteria. Post-discharge instructions were given to the patient\'s caregivers. Based on an activity scale, 92.86% of the patients were adequately sedated. The most common adverse effects seen were inadvertently deep sedation (15.38%) and prolonged drowsiness (10.71%). Recommendations for a specific protocol for the use of MPC for conscious sedation of children prior to laceration repair are given.

Conscious sedation. Chlorpromazine. Emergency medicine services . Meperidine. Promethazine. Child. Medicine.

- 0359 Use of serologic examination as a non-invasive method for diagnosis of helicobacter pylori infection. Buena, Carlo C., Olympia, Ernesto G.. **Makati Medical Center Proceedings**, 2001 , :29-32

Introduction: The close association of Helicobacter pylori infection with gastroduodenal disease has led to the development of non-invasive tests for diagnosis. And of these, serology via ELISA is the simplest and the most widely available. *Objectives:* This study aims to correlate the results of serologic examination in relation to gastric biopsy results that presently is the recognized gold standard for diagnosis of Helicobacter pylori infection. We then intend to determine the sensitivity, specificity, positive predictive value and negative predictive values of this examination and give valid recommendations based on these results. *Methods:* The records of patients who had undergone gastroscopy with biopsy and H. pylori Immunoglobulin G testing at the Makati Medical Center endoscopy unit from March 1998 until March 1999 were reviewed. The sensitivity, specificity, positive predictive values and negative predictive values were then computed, tabulated and analyzed. *Results:* There were 203 patients included in the study, 105 females and 98 males comprising 51.7% and 48.3% of population. H. pylori Immunoglobulin G determination via ELISA has a 41.1% sensitivity and 78.1% specificity for the detection of H. pylori infection compared to biopsy. In addition, it has a 67.7% positive predictive value and 54.3% negative predictive value for diagnosis of H. pylori infection in the absence of biopsy. *Conclusions:* Serology is a reliable non-invasive test for detection of Helicobacter pylori infection. Treatment may be started on the basis of a positive serologic examination even in the absence of biopsy that is the present gold standard for diagnosis. Lastly, a positive serologic examination is also more helpful than a negative result.

Medicine. Helicobacter infection-diagnosis. Helicobacter pylori. Gastroscopy.

- 0360 Use of the polymerase chain reaction in the diagnosis of tuberculous meningitis. Pasco, Paul Matthew D. ,

Background & Objective: The laboratory diagnosis of tuberculous meningitis (TBM) remains difficult. In our setting of a tertiary-center university hospital, we decided to determine the positivity rate of AFB smear and TB culture, and of a polymerase chain reaction (PCR)-based assay among patients with a clinical diagnosis of TBM.

Methods: Since commercial PCR-based kits have not been designed for use with cerebrospinal fluid (CSF), we constructed our own in-house protocol. CSF specimens from adult patients with a clinical diagnosis of definite or probable TBM were examined by AFB smear, Bactec broth culture, and an in-house PCR assay using IS986 primers from *Mycobacterium tuberculosis*.

Results: Sixty-three CSF samples were obtained from 63 patients with an initial diagnosis of probable TBM. Of these, only three (4.8%) were positive by AFB smear or culture, and 14 (22.2%) by PCR.

Conclusion: Although the yield for PCR was much lower than in other reports, these results suggest that PCR is a promising diagnostic method for TBM in the local setting, and also that much still needs to be done to improve the yield of conventional diagnostic methods.

Meningeal tuberculosis. PCR. IS986 . Medicine.

- 0361 Usefulness of rapid streptococcal antigen test in determining which patients with acute tonsillopharyngitis require throat culture and treatment. Alesna, Evelyn T., Co, Vilma M., Baello, Benilda, Cardano, Rowena , Tupasi, Thelma E.. **Makati Medical Center Proceedings**, 1998 , :22-25

Setting: Antibiotic treatment in acute tonsillopharyngitis caused by Group A beta-hemolytic *streptococcus* (GABHS) is imperative in the prevention of complications such as rheumatic fever and post-streptococcal glomerulonephritis. A rapid test to identify which of the patients with tonsillopharyngitis is due to GABHS would rationalize antibiotic therapy in this clinical setting.

Objective: (1) To determine the prevalence of acute tonsillopharyngitis due to Group A beta-hemolytic *streptococcus* (GABHS). (2) To determine the usefulness of two commercially available antibiotic treatment.

Design: Throat specimens from patients, aged 3 years and above, presenting with acute tonsillopharyngitis at the Makati Medical Center over a sixteen-month period, were included in this prospective study. The results of Abott TestPack Plus™ Strep A (Abott Laboratories, U.S.) and Sure Cell Strep A test (Kodak, U.S.), using throat swab specimens, in detecting streptococcal tonsillopharyngitis, were analyzed using throat cultures for GABHS in sheep blood agar plate as the gold standard.

Results: Thirty-four (14.6%) of the two hundred thirty three (233) evaluable throat specimens were positive for GABHS. The positive predictive and negative predictive values of the individual kits, were as follows: 73.7% and 98.9% for the Abbott TestPack Plus™ Strep A kit, and 52.9% and 98.9% for the Kodak Sure Cell Strep A Test kit, respectively. There were more false positives with the Kodak kit¹⁶ than the Abbott kit⁵.

Conclusion: A positive streptococcal antigen test predicted true infection in only about 60%. Thus, culture is required to confirm GABHS infection to determine whether empiric treatment should be completed. On the other hand, with a negative predictive value of 99%, no further culture or treatment for GABHS is indicated in those with a negative streptococcal antigen test. This study was supported by a grant in aid by Upjohn Phils. Inc.

Streptococcal Infections-Diagnosis. Pharyngitis-Drug Therapy. Tonsilitis-Drug Therapy. Medicine.

- 0362 Validating the efficacy of the guidelines on antimicrobial therapy. Vallejera, Ma. Theresa P., Rosas, Noel L., Tupasi, Thelma E.. **Makati Medical Center Proceedings**, 1995 , :11-16

In developing countries where bacterial diseases remain lethal, use of effective antimicrobial agent is crucial. The Guidelines on Antimicrobial Therapy was designed as a ready reference to provide the physician with a guide to rational choice of antimicrobial. The aim of this study is to determine the efficacy of the handbook in the management of various infections. A preliminary report is presented to establish a trend as to the clinical outcome and cost-effectiveness. The study was divided into: Phase I-Retrospective study; Phase II-Prospective study using the handbook as interventional tool; and Phase III-Analytical study. Patients were classified according to infectious diseases and clinical outcome was analyzed using T-test and Fischer Test. The study showed a trend of lower antibiotic cost, early defervescence and shorter hospital stay in favor of the prospective study. However, there is no statistical significance between parameters because of small sample size.

Antimicrobial agents. Infection management. Handbook. Antimicrobial therapy. Medicine.

- 0363 Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis. Alviar, Maria Jenelyn M.. **Acta Medica Philippina**, 2007 , 41(1):29-40

Objectives: To develop a cross-cultural adaptation of the Arthritis Impact Measurement Scales 2-Short Form (AIMS2-SF) for Filipino patients with osteoarthritis and to determine the reliability and validity of this Filipino version.

Design: Two-phase cross-sectional.

Methods: I. Development of the AIMS2-SF Filipino version: forward/backward translation, committee review, and pre-testing. II. Reliability and validity testing.

Results: The cross-cultural adaptation of the AIMS2-SF, "Pagsukat sa Kalagayan ng Pasyente na may Arthritis," has a 5-domain structure (physical/function, pain / symptom, affect, social, role / work) with 26 items. Cronbach alpha is good in all scales (0.65-0.77) except the social scale (0.40). The tool covers relevant domains and the items adequately cover each domain. Pearson's correlation coefficients are significant for 8 out of the 10 a priori hypotheses indicating convergent validity. Factor analysis identifies the five major factors corresponding to the scales of the tool reflecting construct validity. The items on the physical scale load on two separate factors suggesting that upper body activities should be distinguished from lower body activities.

Conclusions: The tool, "Pagsukat sa Kalagayan ng Pasyente na may Arthritis," is a cross-cultural adaptation of the AIMS2-SF that has a 5-component structure (physical/function, pain / symptom, affect, social, role / work) with 26 items. It is a reliable and valid tool for assessing health status in Filipino patients with osteoarthritis.

Medicine. Arthritis. Rehabilitation. Validation studies . Quality of life.

- 0364 Value of the initial troponin T level in the diagnosis of acute myocardial infarction-A probability model. Javier, Saturnino P., Anastacio, Roberto V.. **Makati Medical Center Proceedings**, 1999 , :28-34

Troponin T is increasingly being recognized as a reliable marker of myocardial necrosis in myocardial infarction (MI). To assess the value of a single initial troponin T level in the diagnosis of acute MI, we prospectively analyzed the initial values obtained in 71 patients (47 males and 26 females, mean age 58 years) admitted for possible acute MI. Fourteen patients (19%) satisfied the WHO criteria for acute MI. In those with a final diagnosis of acute MI, 10(71%) patients had initial elevation (1.7 ± 2.2 ug/ml) while 4(29%) had levels below the normal cut-off value of 0-0.1 ug/ml. By analysis of maximum likelihood estimates based on these initial values, we constructed a probability mode to predict the likelihood of the diagnosis of acute MI. Using this model, an initial level of 0.4 ug/ml has a <25% chance of diagnosing acute MI.

However, an initial value of 0.8 ug/ml (twice) has a >50% probability. Furthermore, a value of 1.0 ug/ml has close to 75% likelihood of correctly diagnosing acute MI. **In conclusion**, the magnitude of the initial rise in the level of troponin T correlates strongly with the likelihood of diagnosing acute MI.

Medicine. Myocardial infarction. Troponin.

- 0365 One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures. Caedo-Lim, Maria Socorro, Borromeo, Romana G.. **Makati Medical Center Proceedings**, 1996 , :17-20

The objective of this study is to show the one layer closure of a transverse uterine incision results in shorter operating time, better hemostasis and less infectious morbidity than a two layer closure and that the use of vicryl sutures show no advantage over chromic sutures.

311 women were included in the study and were assigned to one of the following study groups: group 1-one layer chromic uterine closure, group 2-two layer chromic uterine closure, group 3-one layer vicryl uterine closure and group 4-two layer vicryl uterine closure.

The operating time, the number of hemostatic sutures required. The presence of postoperative febrile morbidity, the percentage change in hematocrit from preoperative to postoperative day 1 and the day 3, as well as any other complications were noted.

The results showed that two layer closure, both chromic and vicryl required more hemostatic sutures than the one layer chromic closure. Furthermore, the two layer vicryl

closure had a longer operating time than one layer chromic closure. The rest of the prospective outcomes were similar among the four groups.

We recommend a one layer closure of a transverse uterine incision using chromic sutures whenever possible.

Cesarian section. Chromic. Sutures. Uterine. Vicryl. Hemostatic. Medicine.

- 0366 Virgin coconut oil for psoriasis. Tepeng, S. A. T., Rivera, F. C.. **The Philippine Journal of Coconut Studies**, 2007 , 32(1&2):1-12

Virgin coconut oil has anti-inflammatory properties that could be an alternative treatment for psoriasis although there has no published study yet to support it.

This study aims to determine the efficacy and safety of topical virgin coconut oil in the treatment of psoriasis.

Thirty-one patients were enrolled, and all completed the study. The scores progressively improved throughout the study period. A significant time effect for evaluation parameters ($p < 0.001$) was shown. Virgin coconut oil revealed its most desired effect on erythema and plaque elevation, having the highest total score during the 6-8 wk period. However, the scaling was most improved and the change of lesion appearance was most favorable on an earlier period of 4-6 wk. Five patients (16%) had complete clearance at the end of the study period. No adverse effects were noted throughout the study.

Findings implied that topical virgin coconut oil may be an effective and safe alternative treatment for psoriasis.

Medicine. Coconut oil--virgin. Therapeutic use. Psoriasis--alternative treatment.

- 0367 Visual outcome of cataract surgery in three regions of the Philippines. Olivar-Santos, Evangeline O., Marin, Jose David Jr., Lim, Matabai, Cadiz, Marhil, Tan, Rosalita V., Villaflores, Oliver. **Acta Medica Philippina**, 2005 , 39(1):22-27

Cataract remains the number one cause of blindness in third world countries. In the Philippines, it accounted for 77% of blindness in 1995 with a prevalence rate of 0.70%, and 62% in 2002 with a prevalence of 0.58%. Surgery is still the only treatment for cataract blindness. The two main kinds of cataract extraction are intracapsular and extracapsular. A third procedure, phakoemulsification, is being performed by highly trained ophthalmologists. Laser surgery as a primary procedure for cataract is still considered experimental and is not being performed on cataract patients in the Philippines. The main objective of this study was to determine the percentage of visual rehabilitation and prevention of blindness; and the percentage of complications after cataract surgery. Results were compared versus the different surgical procedures, and the health facility where the procedure was performed. Comparative studies on the different surgical procedures for cataract abound in the literature. However, this is the first report in the Philippines of a community-based study on the visual outcome after each kind of cataract surgery on Filipino patients. The results may also provide important information

for the training of cataract surgeons as well as measures for the evaluation of facilities for cataract surgery in the country. This report is a retrospective study of the data gathered in 1999. After randomly sampling municipalities in each province in the 3 selected regions, all cases who had undergone cataract surgery were tracked down, interviewed, and examined especially for visual outcome. A total of 995 post-operative cases were included in this study: 95 in the National Capital Region, 330 in Western Visayas and 530 in Southern Mindanao. The study showed the following findings:
Visual rehabilitation (pre-operative low vision that improved to 20/70 or better after surgery) = 90.67 % Blindness prevention (pre-op blindness that improved to Counting Fingers more than 3 meters or better) = 92.82 % Over-all complication rate = 2.20%.
Some complications after surgery may be surgeon-related or technique-related.

Cataract. Intracapsular. Extracapsular. Visual rehabilitation. Visual outcome . Phakoemulsification. Medicine.

- 0368 In vitro activity of carica papaya powdered extract alone and in combination with penicillin against clinical isolates of streptococcus pyogenes. Ablang, Alberto Mariano J., Nuguid, Arnel S.. **Makati Medical Center Proceedings**, 2000 , :11-15

Carica papaya L. extract alone or in combination with Penicillin were studied for their possible effect against clinical isolates of *Streptococcus pyogenes*, Possible synergistic effect against *Streptococcus pyogenes* isolates were determined at 0.5, 1x, 2x 10x MIC of *Carica papaya* in combination with 0.5 & 1x MIC Penicillin. Results were compared with effect on clinical isolates of *Streptococcus pyogenes* when tested with Penicillin alone at 1x MIC. *C. papaya* extract in combination with Penicillin showed better antibacterial activity at different concentrations tested in this study. Neither synergism nor antagonism were observed in this study.

Medicine. Antifungal-agents-pharmacology. Latex-pharmacology. Penicillins-therapeutic use.

- 0369 In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting. Declaro, Donnie E., Dizon-Co, Lourdes Ann. **Makati Medical Center Proceedings**, 1997 , :14-20

Immediate intravenous access is one of the perennial problems in dealing with critically ill premature infants. These infants often require parenteral fluid nutrition and packed red cells transfusion simultaneously. To determine whether infusion of parenteral fluids with packed red blood cells will affect the donor cells, an in vitro set-up of simultaneous infusion was done at the neonatal intensive care unit with the different fluids usually used. Degree of the rbc destruction was determined by using hematocrit and peripheral smears. Based on hematocrit, results showed compatibility of packed cells with 5%, 10% dextrose, 10% dextrose with electrolytes and TPN using blood fluid ratio of 1:1 and 2:1. Peripheral smear showed erratic results. In certain situations, it may be acceptable to infuse PRBC with parenteral fluids.

Electrolytes. Hematocrit. Parenteral fluid nutrition. Red blood cells. Transfusion. Hemolysis. Peripheral smear. Medicine.

- 0370 In vivo study on the efficacy of the topical formulations from the crude ethanolic extract of *Bidens pilosa* L. against *Staphylococcus aureus*. Cruz, Maria Gladiosa D.R., Ditalo, Christian Celso D.L., Espinosa, Maria Laudette M., Gonzales, Triccia Marie G., Ilaog, Joe William T., Ochoa, Ma. Tomasa E.. **Acta Manilana**, 2008 , :1-5

The efficacy of topically applied ointment and lotion formulations of *Bidens pilosa* was evaluated against an experimental surgical staphylococcal wound infection in ICR mice. Colonies of *Staphylococcus aureus* from agar plates were inoculated into a superficial wound, and therapy with the topical preparations was started 24 hours after infection. The control (NSS), standard (Mupirocin), and placebo bases were included in the study to compare the results with the medicated preparations.

Histopathological analysis of the *S. aureus* infected wounds has shown inflammation after the 1st day and regressed after the 4th day of therapy. After the 5th day, only the Mupirocin and Burburtak ointment groups manifested healing. In non-treated wounds, there was continuous proliferation of inflammatory cells that lasted up to the 4th day and it only terminated after the 5th day signaling the self-healing process. Therapy with placebo ointment and lotion (polyethylene glycol base) was ineffective, whereas twice daily application of Mupirocin ointment resulted in elimination of the staphylococci. The topical preparations from ethanolic extracts of *Bidens pilosa* were proven effective but *Bidens pilosa* ointment showed greater action than *Bidens pilosa* lotion.

Bidens pilosa. In vivo study. Mupirocin. Medicine.

- 0371 Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I. Gahol, Jose Mari T., Llamanzares, Teodoro P.. **Makati Medical Center Proceedings**, 1998 , :60-64

Treatment for hoarseness or glottal incompetence in patients with unilateral vocal cord paralysis has been limited. For many years, the mainstay of treatment was vocal fold injection (Teflon) for medialization. With the recent introduction of surgical procedures for laryngeal framework surgery, specifically thyroplasty type I, this procedure has become one of the preferred methods for medialization of the vocal cords. This study presents and reviews the advantages as well as the disadvantages of thyroplasty type I.

Speech-acoustics. Thyroid gland-surgery. Paralysis-surgery. Voice-disorders. Vocal cord. Medicine.

- 0372 Voiding cystourethrogram in the evaluation of patients among pediatric age group with symptomatic urinary tract infection. Violante, Marissa A., Capuchino, Luis M.. **Makati Medical Center Proceedings**, 2003 , :87-90

The various outcome of voiding cystourethrogram performed on patients in the pediatric age group with symptomatic urinary tract infection was presented. This study aims to determine the importance of voiding cystourethrogram in the detection of vesicoureteral reflux and in the early detection of abnormalities that may predispose to urinary tract infection. A retrospective study was conducted on 133 patients with age range from 7

days–11 years old at the Makati Medical Center from January 2000–September 2002. Of the 133 patients, 64 were males and 69 were females. Of the 133, 91 (68.5%) had normal findings, 20(15%) had vesicoureteral reflux of various degree; eight of which were males and 12 were females. Other congenital anomalies identified included: one case of prostatic urethral valve, neurogenic bladder, phimosis, cystocele and ectopic ureter (VATER syndrome), two cases each of cystitis and cystolithiases and 13 cases of bladder retention. Based on the above results, we recommend sibling screening, perform nuclear cortical scanning for follow-up patients and application of radiation protection.

Ureter-ultrasonography. Urinary tract infection. Child. Medicine.

- 0373 A western blot study of the IgG response of splenomegalic asymptomatic children in a focus of malaria transmission in Palawan, the Philippines. Tongol-Rivera, Pilarita, Kano, Shigeyuki, Miguel, Editha, Suzuki, Mamoru. **Acta Medica Philippina**, 1995 , 31(2(3-4)):164-168

This is a study which employed Western immunoblotting in the analysis of sera reactivities of splenomegalic, asymptomatic and parasitemic children residing in a focus of malaria transmission in an endemic community. The results showed that sera of these children who are presumed to be resistant to malaria, reacted strongly to a low molecular weight (M.W.) 23 kDa Plasmodium falciparum (P.f.) protein molecule. The other test group in the study which was composed of asymptomatic but non-splenomegalic and non-parasitemic children of the same area, did not show sera reactivities to the 23 kDa molecule. Other P.f. molecules, 47 kDa molecule. Other P.f. molecules, 47 kDa which was reported to be indicative of present and/or recent past malaria infection and high M.V. 120 and 102 kDa which were reported to induce malaria antibodies in the endemic area, were also noted. Definition of the 23 kDa, 47 kDa, and high M.W. 120 and 102 kDa P.f. molecules may be a significant step in the development of an epidemiologic assay method which evaluates the immune status of people in malaria endemic communities.

Medicine. Immunoblotting. Children.

- 0374 Woman & child health care knowledge, beliefs and practices among Filipino women randomly selected from the 1989 telephone directory of Metro Manila. Ngelangel, Corazon A., Cordero, Cynthia P., Lacaya, Lydon. **Acta Medica Philippina**, 1993 , 29(2):71-79

Objective: To describe the predominant knowledge, beliefs and practices on woman and child care of Filipino women in Metro Manila.

Setting: Metro Manila households with telephones.

Participants: Stratified random sampling of 'non-business' addresses from 1989 Metro Manila telephone directory. Excluded business and office addresses. Eldest &/ or most responsible woman of the household interviewed. Only 77% (387/500 households were contacted (due to 40 unlocated addresses and 63 no answer/ close door/ busy phone). Only 90% (350/387) of households were eligible. Only 70% (244/350) agreed to participate.

Main Outcome Measure: Interview using pretested questionnaire and trained interviewers.

Results: Practice of seeking medical check-up inspite of no symptoms has still to be incorporated in the daily health practices. Influence of a family member in medical problem decisions (i.e., anti-smoking implementation) predominates within a Filipino family, frequently encompassing only first degree kin. Health insurance still does not play an important role in the Filipino family\'s health care concerns. Sources of health information is only used up to a high of 32%. Child health care knowledge was good but family size of 5 was consistent with family planning practice of only 46% (non-practice was due to misinformation). A majority of the women were non-smokers. Public health information of pap smear and breast exam, as preventive practices against cancer.

Conclusion: This study described the predominant knowledge, beliefs, and practices on women and child health care among a sample population of presumably middle to high income Filipino women residing on Metro Manila, where sources of health care programs and services are considered to be at their best nationwide. This study would provide a best case scenario (controlling for low economic status & inaccessibility of facilities & information) from which some loopholes could be identified and amended to the better implementation of health care programs.

Women and child health. Health care knowledge/beliefs/practices. Medicine.

NUTRITION

0375 Common errors in feeding infants and young children. Jongco, Artemio P., MaÑ±alac-Morales, Soledad. *Acta Medica Philippina*, 2005 , 39(1):55-60

While underfeeding and nutritional disturbances are fast disappearing in the United States, we still have a high incidence of it in the Philippines. We meet these nutritional problems everyday both in and outside the hospital. It is for this reason that our government has redoubled its efforts to ward off the evil effects of improper feeding. Through the Philippine Association of Nutrition our government hopes to solve many, if not all, of the complicated and vexing problems of nutrition. As a matter of fact, nutrition is one of the richest fields¹ for investigation at present.

In 1940 Stransky and Jongco² reported a high incidence of nutritional anemia among children confined to one of the semi-government orphanage institutions in Manila. Recently, Stransky and Daus³ found out that 80% of children up to three years of age, admitted in the Philippine General Hospital, suffered from nutritional anemia or what they also term "iron deficiency anemia." In addition, actual measurements of children show that the great majority are underweight. Because of these facts, we were prompted to study some factors responsible for undernutrition.

It is not our intention to deal with all the perplexing problems of nutrition. Rather we wish to focus attention on some of the common faults in the feeding of children,⁴ so that we may avoid them and, thus, contribute in some way to the solution of undernutrition.

Infant feeding. Breast feeding. Bottle feeding. Complementary feeding. Nutrition.

- 0376 Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school. Jorge, Alvin M., Katigbak, Luzviminda S., Mallari, Raphael Vincent G., Gepte, Aguedo Troy D. IV, Lupisan, Socorro P.. **Makati Medical Center Proceedings**, 1997 , :1-6

A survey was conducted among Grade I students of a school in Makati City to determine the correlation of knee height with body weight and with height in the assessment of nutritional status. Knee height was measured from the superior border of the patella to the bottom of the right foot which is parallel to the floor, forming a right angle at the knee and done in the sitting position, and was recorded with a tape measure and with an improved knee height caliper in centimeters to the nearest 0.25 cm. The greatest correlation was shown between knee height obtained with the tape measure and body height among both nourished and undernourished children (for both: $r=0.88$, $p<0.05$). Caliper knee height showed only a fair correlation with height ($r=0.74$, $p<0.05$) and fair to good correlation with weight (tape measure knee height: $r=0.76$, $p<0.05$; caliper knee height; $r=0.80$, $p<0.05$). Tape measure and caliper knee height measurements showed excellent correlation ($r=0.90$, $p<0.05$). With these results, the use of knee height may have a place in the rapid assessment of nutritional status.

Anthropometry. Body height. Body weight. Nutritional status. Child-preschool. Nutrition.

- 0377 Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines. Africa-Sacdalán, Leila, Eusebio, Josefa S., Kusin, Jane A., Barba, Corazon VC., Renqvist, Ulla H.. **Philippine Journal of Nutrition**, 2005 , 52(3-4):9-24

This study evaluated if Barangay Integrated Development Approach for Nutrition Improvement (BIDANI) can make a difference in the nutritional status of zero to 24 month old children. Growth patterns (based on Z-scores) and malnutrition prevalence among 348 children (162 in lowland and 186 in coastal) in the baseline survey were compared to 394 children (193 in lowland and 201 in coastal) in the post-survey in BIDANI and non-BIDANI areas. Regression models were developed to examine variables associated with post-survey cases of underweight, stunting and wasting. Results showed no indication of improved growth among siblings. Growth faltered in infancy until about 24 months. Growth and nutritional status in BIDANI and non-BIDANI lowland and coastal villages were generally better in the pre- than post-survey. The final regression analysis of all related factors highlighted the significance of child's age, mother's nutritional status and food security indicators as determinant of growth and nutritional status. Thus, a 24-month exposure to BIDANI did not prevent growth faltering and reduce malnutrition prevalence. It is also possible that 24 months was short to assess the effects of the program on growth and nutritional status.

Nutrition. Growth patterns. Nutritional status. Children. BIDANI.

- 0378 Science in the "eloquence of everyday life". Castillo, Gelia T.. **The Philippine Agricultural Scientist**, 2001, 84(4):425-431

I use seeds to illustrate the role of science because seeds have a variety of stories to tell us as products of science as enduring cultural objects which science has given value to, and as endangered public goods that science is nudging us to do something about. They are a tangible evidence of life's continuity. They have also been of central importance in any culture, even in folklore and myths which tell stories that celebrate women and rice as sources of nourishment and life.

We can view seeds with the eyes of science in these many ways. One, seeds exhibit nature and nurture in many ways because they have a life cycle. and because their structures, growth, maturity, yield and other characteristics differ. Science has developed new seed varieties and domesticated wild plants. Two, seeds have their own identities as found in their genes, which determine, for example, how they will behave under different conditions. Three, seeds embody both our past and our future. Where seed security means food security, if we lose our seeds, we lose both our past and our future. Four, seeds of life are also seeds of hope and seeds of change. Science has developed in such a way that when seeds of life are lost, seeds of hope from genebanks, for example, of the International Rice Research Institute (IRRI) can be mobilized.

Seeds. Eloquence. Beginnings. Role of science. Science and technology.

SOCIAL SCIENCES

- 0379 Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study. Abdulla, Abdel Jeffri A. **Acta Medica Philippina**, 2007 , 41(2):76-79

This is a cross-sectional study of the academic performance of the regional students vis-a-vis the non-regional group of students at the University of the Philippines College of Medicine.

Objective: To compare the academic performance of regional students vis-a-vis non-regional students on the basis of their basic and clinical sciences grades as well as their general weighted average grade and to compare the proportion of regional students versus non-regional students who obtained a level of good academic performance.

Method: All medical students belonging to Classes 1995-2005 were included in this study. The students were grouped into two sets: Regional and Non-Regional Students. Random selection of students per class for the non-regional group was done using Epi-info v6. All of the regional students were included in the study. The students' pre-entry National Medical Admission Test (NMAT), General Weighted Average Grade (GWAG), basic and clinical science grades and the GWA after medical school were compared. More specifically, based on the UP grading system of good academic performance, the two groups were compared.

Results: When the measure of good academic performance based on the grading system of UP is used alone to compare both the regional and non-regional groups of students, the following results were observed: There is a significant difference in the preentry NMAT scores and the GWAG between the two groups. However, when considering only the clinical grades and the general weighted average for both groups, the non-regional group did not outscore their regional counterparts. This was statistically significant.

Conclusion: The regional students are at par academically with their non-regional counterparts when good academic performance based on the clinical grades and general weighted averages was measured.

Psychology. Regional students. Non-Regional students. Good academic performance. Social sciences.

- 0380 Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights. Pimentel Simbulan, Nymia, Medical Action Group, Inc. **Acta Medica Philippina**, 2008 , 42(1):45-55

Urban poor residents have demonstrated a relatively high level of knowledge of their rights as patients as indicated by the mean scores generated from their responses to the various dilemmas presented in this exploratory study. A combination of factors including a relatively high level of education, exposure to the mass media and interaction with non-government organizations (NGOs) may be responsible for the level of awareness. However, knowledge does not necessarily translate into positive action where economically disadvantaged people are able to claim their right to health, particularly patients' rights. Implied in the reasons given by the respondents for the choices they have made is an attitude of subservience and passivity when relating with people vested with authority and power like health professionals. Thus, it is imperative to build on the people's knowledge and understanding of patients' rights by enhancing their skills and capabilities in negotiation, organization and advocacy to empower them in claiming and asserting their right to health, particularly their rights as patients. Moreover, there is a need to raise the health care providers' level of knowledge and understanding of patients' rights so they can help provide an enabling environment that will meet the health needs and concerns of the community.

Psychology. Patient's Rights. Patient-provider relations. Health behavior. Urban poor . Social sciences.

- 0381 Sleepiness and sleep patterns among air traffic controllers and communicators. Salonga, Ricardo M. , Jorge, Manuel Jr., Dominguez, Eleanor , Terencio, Benjamin II **Acta Medica Philippina**, 2007 , 41(2):59-67

Air traffic controllers carry the vital task of ensuring the safe and efficient operations of aircraft. Any factor that decreases their alertness and efficiency would affect their performance and may endanger the lives of many people. One such factor is their level of sleepiness in the workplace. Sleep is a fundamental reversible biologic function. The circadian process organizes the sleep phases with the light and dark cycles. Activities that disrupt these biological processes, such as shift work, influence the development of circadian rhythm sleep disorders, specifically "shift work disorder".

Objectives: 1) To determine the prevalence of excessive daytime sleepiness (EDS) among air traffic controllers (ATCs); 2) To determine the factors that contribute to the occurrence of EDS; 3) To determine the effect of shift work on the sleep patterns of ATC.

Study Design: This was a cross-sectional, cohort study.

Methods: ATCs and communicators from the different Air Traffic Control Offices throughout the Philippines were given a self-administered questionnaire which included the Epworth Sleepiness Scale (ESS) and questions on sleep habits and patterns.

Results: Among 168 ATCs and communicators who participated in the study (45% response rate), the prevalence of Excessive Daytime Sleepiness (EDS) with an ESS Score > 10 was 63%. The degree of difference between ESS scores was not significant across age and between males and females (Fisher's exact=0.19, $p < 0.05$). There was a significant difference between the ESS scores of shift workers compared to those who worked fixed hours (Fisher's exact=0.041, $p > 0.05$). There was no significant difference in the ESS scores of those who went on duty everyday to those who went on duty less frequently (γ coefficient=0.265). There was no significant difference between the ESS scores of those who went on less than eight hours of duty and those who went on eight, 12, 24 or more than 24 hours of duty. Common aids to sleep used by the respondents included watching television, reading and internet surfing. The most common method to keep awake was drinking coffee.

Conclusion: Excessive Daytime Sleepiness (EDS) is common among shift workers. This may be secondary to the disturbance in the sleep-wake cycle. Measures that enhance circadian adaptation (e.g. bright light exposure early in the night shift and wearing dark glasses during early morning commute) can lead to better sleep and may help improve performance. Further studies, however, are needed to evaluate the effects the above measures and a good organization of shifts can have on our air traffic controllers and communicators.

Social sciences. Behavioral science. Sleep patterns. Sleep. Sleepiness. Air traffic controllers. Excessive daytime sleepiness.

VETERINARY MEDICINE

0382 *Escherichia coli* O157:H7 in Philippine cattle and hogs sacrificed in abattoirs. Dela Cruz, Maria Cecilia C., Chan, Veronica F.. **Acta Medica Philippina**, 2007, 41(1):47-53

To investigate if there is a reservoir of *Escherichia coli* O157:H7 in beef cattle and hogs bred and grown in the Philippines, intestinal fecal contents of 200 pigs (6-10 months old) and 100 cattle (2-5 years old) were collected after slaughter in two Metro Manila Abattoirs regardless of animal sex and breed. The hogs came from Batangas (134), Nueva Ecija (15), Laguna (13), Bulacan (8), Iloilo (21) and General Santos (9). The cattle came from Pangasinan (48), Batangas (2), Cebu (17), Cagayan de Oro (10) and General Santos (23). Specimen collection was done over a four month period: April to May to represent the dry season and June to July to represent the wet season. Fecal samples were examined for *E. coli* O157:H7 by direct culture on Sorbitol MacConkey Agar (SMAC), a differential medium. Suspected colorless, non-sorbitol fermenting colonies were biochemically identified as *E. coli* and the serotype was confirmed to be O157:H7 by using specific antiserum. Results showed isolation of *E. coli* O157:H7 from seven of the 200 (3.5%) hog fecal specimen and two of the 100 (2%) bovine samples.

Using two-sided Fisher's Exact Test (Statistical Package for Social Sciences, SPSS Version 10), (p-value=0.723), there is no sufficient evidence to show that there is a difference in the prevalence of *E. coli* O157:H7 between cattle and hogs. The isolation of *E. coli* O157:H7 was observed to be highest in the month of June (5/75 or 6.6%) and lowest in the month of May (1/75 or 1.33%). No *E. coli* O157:H7 was recovered in the month of April. Chi-square analysis (p-value<0.05) showed a significant difference in the isolation rate of the organism between seasons, the wet season having a higher isolation rate (5.3%) compared with the dry season (0.66%).

Escherichia coli. e-coli. Beef cattle. Hogs. Veterinary medicine.

ZOOLOGY

- 0383 Addition of crude methanolic *Allium sativum* (Garlic) extracts to commercial fish feed can potentially prevent or delay ichthyophthiriasis in the black molly *Poecilia sphenops*. Bartolome, Ruthlyn T., Ella, Ronald Louise A., Garcia, Abigail A., Magboo, Maria Lizza E., Papa, Rey Donne S.. **Acta Manilana**, 2007 , :37-42

Ichthyophthirius multifiliis is one of the most pathogenic parasites affecting freshwater fish. The use of malachite green is considered as the most effective treatment of this disease but its use for treatment of disease has been discouraged due to its mutagenic and teratogenic properties. The use of medicinal plant extracts for treatment of parasitic diseases in fish has rarely been reported. In this study, the effect of crude extracts of *Allium sativum* was investigated as a potential preventive treatment of *I. multifiliis*. Black mollies (*Poecilia sphenops*) were fed with fish food soaked in different concentrations of garlic extract (10-100%; in increments of 10) for 28 days while subjecting them in a stressful condition (i.e. lowering the water temperature) to induce *I. multifiliis* growth. There were substantial reductions in the number of infested black mollies at all garlic concentrations as compared to the negative control. Consequently, parasite-induced fish mortality was reduced significantly. This study has demonstrated that garlic extract concentrations (10-100%) have potential for effective control or delay of *I. multifiliis* infection in fish.

Entomology. Ichthyophthirius multifiliis. Allium sativum. Zoology.

- 0384 New mite pests and new host records of phytophagous mites (Acari) from the Philippines. Corpuz-Raros, Leonila A.. **The Philippine Agricultural Scientist**, 2001 , 84(4):341-351

Three species of mite pests are reported for the first time from the Philippines, namely, *Steneotarsonemus pallidus* (Banks) (Tarsonemidae), *Eotetranychus lewisi* (McGregor) (Tetranychidae), and *Tetranychus urticae* Koch (Tetranychidae). All three species infest strawberries in Benguet province; *E. lewisi* also infests poinsettia in Benguet; and *T. urticae* is a more widespread pest of roses and chrysanthemums, with specimens originating from commercial gardens in the provinces of Benguet, Laguna and Cavite. The diagnostic characteristics of these species are presented; specimens are illustrated and notes are given on the damage these mite pests cause as well as their associated

predators.

New plant host records are provided for 14 other species of phytophagous mites and new island records for four species. Notable among these new pest records are *Oligonychus biharensis* (Hirst) on cassava from Isabel province, *O. coffeae* (Nietner) on mango from Guimaras Island, and *Panonychus citri* (McGregor) on citrus from Davao City.

Zoology. Entomology. Acarology. Mite pests. Ornamental mite pests. Phytophagous mites. Rose mites. Spider mites. Strawberry mites. Tarsonemidae. Tenuipalpidae. Tetranychidae.
0Chrysanthemum mites. Acari.

Author Index

Abala, Donel C.	0321	Alcantara, Jr. RP	0064
Abalos, EG	0066	Alcantara, Ramir M.	0162
Abaya, Christian Eric	0117		0320
Abbas, Asad	0138	Alcausin, Maria Melanie B.	0237
Abdulla, Abdel Jeffri A.	0379	Alcausin, Maria Melanie Liberty B.	0201
Abela, Benjamin M.	0222	Aldanese, Bienvenido B.	0166
Abelardo, Agustina D.	0192	Aldea, BY	0064
	0354	Alejandro, Grecebio Jonathan D.	0022
Abella-Reloza, Asuncion M.	0211		0028
Abello, Emilio G. Jr.	0301	Aleman, Ramon Carlos Miguel L.	0210
Abello, Ma. Veronica Roman	0168	Alesna, Evelyn T.	0361
Abes, Generoso T.	0109	Aligui, EG	0313
Ablang, Alberto Mariano J.	0368	Alimurung, Benjamin N.	0128
Abrigo, C. S. Jr.	0038		0150
	0042	Almeda, Esteban V.	0182
Acda, R. I.	0042	Almeda, Teresa I.	0161
Acosta, Aser S.	0276	Almelor, LG	0102
Acosta, Luz P.	0158	Almendras-Bautista, Liza Marie	0100
Adapon, Henry P.	0253	Almonte, Josefina R.	0096
Adapon, Ofelia C.	0326	Alvarez, Victor M.	0121
Adducul, Andre Cedric Y.	0024		0300
Africa-Sacdalan, Leila	0377		0306
Agawa, RA	0068		0346
Agbayani, Benigno F.	0098	Alviar, Earlyn Ma. S.	0344
	0120	Alviar, Maria Jenelyn M.	0363
	0215	Alviedo, N.J.B.	0208
	0357	Amarillo, Maria Lourdes E.	0314
Agomaa, Albert	0071	Ambas, Cristina D.	0053
Agoo, Esperanza Maribel G.	0027	Ambas, Cristina D.	0296
Aguirre, Ivy Loren P.	0032	Amosco, M.L.	0208
Alabado, K.L.P.	0208	Anabesa, M. S.	0010
Alano, Loretta Stephanie D.	0065		0049
Alava, Benedicta	0037	Anastacio, Marilyn Benedith M.	0056
Alava, Icynt K.	0105	Anastacio, Roberto V.	0087
Alayon, Josephine F.	0341		0254
Alcaneses, Ma. Rosario S.	0190		0364
Alcaneses, Maria Rosario S.	0267	Ancheta, Caridad A.	0055
	0332		

Andal, Frances N.	0218	Baello, Benilda Q.	0202
	0265	Baens, Elaine T.	0114
Andaman, Dominga Erika	0287	Bagabaldo, Zenaida G.	0115
Andrade, Jeannie I.	0106	Bajet, N. B.	0025
Andrade, Jeannie I.	0218	Balhon, Zulwin R.	0286
	0265	Ballesteros, Janice M.	0078
Andres, Dorothy	0033		0086
Ang, A	0061	Baloloy, Leo Carlo V.	0204
Ang, Jennifer C.	0232	Baltazar, E. T.	0009
	0331	Baltazar, Wilma A.	0088
Ang-Santos, Lafayette R.	0303		0275
Angeles, Ma. Theresa	0270	Bangayan, Teofilo T.	0257
Antonio, Estern V.	0271	Barba, Corazon VC.	0377
Antonio, Susan N.	0329	Baricuatro-Criste, Ma. Claravel	0327
Apolinar, Noel D.	0253	Barraca, A.	0066
Aquino, A. L.	0020	Barraquio, V. L.	0045
Aragon, Ma. Lourdes A.	0216	Barril, Joseph	0178
Aragon-de Veyra, Ma. Lourdes	0233	Barril, Joseph B.	0257
Argayosa, A. M.	0244	Barros, Francisco B.	0309
Arguelles, Vincente Q.	0191	Barsaga, Neil C.	0105
	0204	Bartolome, Ruthlyn T.	0383
	0232	Bascara-dela Fuente, Evangeline	0185
	0331	Basio, Lolita S.	0106
Arias, Percival	0266	Bautista, Ariston G.	0195
Arkoncel III, Arturo Martin P.	0099		0273
Arkoncel, Mary Ann P.	0153	Baylon, Melba Andrea	0234
Arlegui, D.L.A.	0028	Bayquen, Aristeo V.	0043
Asprer, Joanna Stella T.	0117	Baysa, Justinne Patricia C.	0022
Asuque, JD	0061	Baysa, Marieta C.	0012
Atlas, AP	0068	Belizario, V.	0122
Atupan-Calderon, Czarina	0349	Belizario, Vicente Y.	0110
Avila, Jose Maria	0227	Belizario, Vicente Y. Jr.	0314
Ayo, Joseph Johan A.	0211	Belizario, Vicente Y. Jr.	0056
Azores, Corina Maria Socorro M.	0198	Beloso, Ramon A.	0156
	0326	Beltran, Gerardo L.	0146
Babia, Ma. Corazon	0315	Bengzon, Alfonso U.	0161
Badando, H	0102	Benitez, Benjamin G.	0118
Baello, Benilda	0361	Bes, Maria Ana M.	0270

Billones, Mejie M.	0276	Cabillos, Marivic R.	0203
Binag, Christina A.	0035	Cabral, A	0102
Black, Dwight C.	0177	Cabral-Villar, Imelda	0175
	0258	Cabrera, Esperanza C.	0286
Borines, M. G.	0042	Caccam, Anne Margrette Q.	0078
Borja, Maria Chung	0333		0086
Borja, Maridel P.	0123	Cacpal, Alicia M.	0106
Borres, Mabeth M.	0078	Cadiz, BO	0072
	0086	Cadiz, Marhil	0367
Borres-Icasiano, Ruth	0250	Caedo, Florencio Gerardo O.	0276
Borromeo, Joey D.	0299		0304
	0307	Caedo, Jose P.	0261
Borromeo, R.	0025		0276
Borromeo, Romana G.	0094	Caedo-Lim, Maria Socorro	0365
	0325	Calacal, Gayvelline C.	0167
	0343		0262
	0348	Calumpang, S. M. F.	0005
	0365	Calumpang, S. M. F.	0007
Botardo, Lucelle C.	0078	Campos, Enrique E.	0150
	0086	Campos, R.A.O.	0208
Bousfield, Elizabeth G.	0218	Canja, L. H.	0073
Bravo, Lulu C.	0296	Canlas, K	0102
Bravo, Lulu C.	0322	Canoy-Valencia, Harriet	0224
Braza, H. G.	0031	Cantillep-Gaña, Arlene O.	0177
Brindley, Paul J.	0116	Capal, Teresita V.	0046
Briones, MC	0062	Capirig, T. S.	0010
Bucasas, PA	0061		0049
Buena, Carlo C.	0359	Capuchino, Luis M.	0372
Bunye, Miraflor O.	0145	Cardano, Rowena	0361
Buot, Inocencio E. Jr.	0027	Cardenas, Jose	0295
Bustamante-Gonzales, Joanne B.	0176	Carlos, Dominador P.	0079
Bustos, Ma. Dorina G.	0239	Carnate, Jose M. Jr.	0344
Cabalfin, Rizza Celina B.	0024	Carrillo, Maria Constanca O.	0184
Caballes, Alvin B.	0290	Caruncho, Maria Michiko P.	0256
Cabaluna, Nelson D.	0154	Castillo, A. S. A.	0051
Cabauatan, Jane G.	0023	Castillo, Gelia T.	0378
Cabeza, Ivy	0075	Catalan, Carlo Emmanuel L.	0353
Cabildo, Giovanni B.	0236	Catillo, J.	0066

Causing, Josie Grace V.	0227	Claveria, Florencia G.	0103
Cauyan, Gil A.	0105	Clemente, E.M.E.L.	0208
	0287	Clough, Karen A.	0116
Cavan, Barbra Charina	0152	Co Pua, Joseph	0129
Cavinta, Lolita L.	0165	Co, Vilma M.	0361
Cayco, Antonio B.	0101	Cojuangco-Bautista, Luisita R.	0171
Cayco, Antonio V.	0131	Collado, FM	0102
Celdran, Miguel F.	0240	Comia, Ana Marie T.	0032
	0277	Concepcion, Zelda Sue A.	0089
Cerdenia, JCT	0064	Cordero, CP	0313
Cerdenia, JT	0061	Cordero, Cynthia P.	0085
Chan, Abner C.	0109		0152
Chan, G	0102		0374
Chan, V. F.	0238	Cornista, Alicia	0227
Chan, Veronica F.	0243	Corpuz-Raros, Leonila A.	0008
	0281		0384
	0382	Cortes-Maramba, Nelia P.	0123
Chao, Fang-I C.	0184	Cortez, Pamela D.	0174
Chavez, Vernon B.	0197		0189
Chiang, Mary Anne D.	0293	Corvera, Kristine Denise	0245
Chiong, Mary Anne D	0117	Cotaco, Maricar	0287
	0199	Crisostomo, Thelma D.	0258
	0229	Cruz, Amante C.	0268
	0260		0308
Chiong, Mary Anne D.	0152	Cruz, Cenon R.	0283
	0183	Cruz, Dennis G.	0274
	0241	Cruz, Edwin A.	0099
	0249	Cruz, G.	0208
	0319	Cruz, L.M.P.	0208
	0350	Cruz, Maria Gladosa D.R.	0370
Chua, CDM	0058	Cruz, R. V. O.	0051
	0072	Cruz, Rhoda S.	0169
Chua, Joselita U.	0133	Cruz, Ronald D.	0306
Chua-Agcaoili, Ma. Theresa M.	0348	Cruz-Martinez, Lourdes	0328
Cinco, Roland F.	0276	Cua, Diana O.	0323
Cipriano, B. P.	0025	Cua, Irwin Y.	0280
Cipriaso, Victor Allan J.	0248	Cua-Lobo, Elena	0241
Claveria, Dorothy N.	0105	Cui, Karina Milagros R.	0035

Cuisia-Cruz, Erlinda Susana S.	0332	De Guia, Blanca C.	0329
Cundangan, MC	0062	De La Cruz, Beth	0248
Custodio, Deogracias B.	0298	De La Cruz, Reynaldo E.	0052
Cutiongco-de la Paz, Eve Maria	0237	De La Fuente, Emmanuel R.	0265
Cutiongco-Dela Paz, Eva Maria	0245	De La PeÑ±a, Arturo S.	0347
Cutiongco-dela Paz, Eva Maria C.	0184	De la Pena, Jason O.	0055
	0199	de la Rosa, Joel A.	0288
	0201	de Lara, Ayolani	0247
	0249	de Lara-Valenzona, Maria Rhodora	0131
	0260	de Leon, Edwin Rommel S.	0351
	0295	De Leon, J	0062
	0319	de Leon, Winifreda U.	0110
	0350	de Luna, J.C.	0208
Cuyugan, Carmelita B.	0017	de Padua, Donna G.	0039
Daag, Jedas	0322	De Torres, Carina I.	0048
Dagamac, Nikki Heherson A.	0024	de Torres, Carina I.	0219
Dalet, Miriam Ruth M.	0262	de Torres, Ramon I.	0219
Dalmacio, Leslie Michelle M.	0246	De Ungria, Maria Corazon A.	0167
Dalmacio-Cruz, Adelaida	0315	De Ungria, Maria Corazon A.	0262
Dalton, John P.	0116	Debuque, Eusebio L.	0337
Dantes, Marita B.	0250		
Dasig, Darwin A.	0264	Declaro, Donnie E.	0369
Datinguino L.	0061	Degal, E	0102
Dauzat, J.	0001	del Rosario, O. M.	0047
David, JAZ	0068	del Rosario, R. R.	0047
David-Padilla, Carmencita	0117		0050
	0152	del Rosario, Romualdo M.	0023
	0184	del Rosario-Fortun, Raquel B.	0355
	0201	dela Cruz, Ma. Belinda S.	0163
	0229	Dela Cruz, Maria Cecilia C.	0382
	0237	dela Cruz, Thomas Edison E.	0024
	0263	Dela Cruz-Rama, Kahlil Izza	0241
	0295	dela Fuente, Emmanuel R.	0218
Day, Sharon R.	0116	Delfin, Frederick C.	0262
Dayap, Lourdes A.	0046	Demafelis, R. B.	0034
De Belen, JJ.	0061	Demata, Michelle A.	0241
de Castro-Ontengco, Delia	0046	Deoma, Aileen Joy A.	0082
de Claro, MC	0068	Dequina, M.T.B.	0208

Diamante, Donna Mae O.	0043		0049
Diaz, Ramon I.	0178	Esmaquel, Pelagio L. Jr.	0298
Dimaano, Jose Rodolfo V. Jr.	0280	Espaldon, MJH	0054
Dimaano, Maria Natalia R.	0032	Espallardo, Noel L.	0206
Dimaculangan, Mary Elaine D.	0146	Esparar, Donato G.	0110
Dioquino, Carisssa Paz C.	0279	Espina, Carla Victoria M.	0091
Ditalo, Christian Celso D.L.	0370	Espino, E.A.	0028
Dizon, Erwin	0348	Espinosa, Maria Laudette M.	0370
Dizon, JMR	0062	Espiritu, JE	0058
Dizon-Co, Lourdes Ann	0041	Espiritu, Romeo	0315
	0095	Espiritu-Dolendo, Rita	0111
	0349		0252
	0369		0256
Dofitas, Rodney B.	0235		0282
Domingo, Ernesto O.	0246	Esquivel, Jr., Apolinario C.	0323
Dominguez, Eleanor	0381	Esquivel, Jr., Enrique L.	0149
Dong, Krista L.	0113	Estevez-Genio, Marie Arlene A.	0226
Duante, Charmaine A.	0069	Estores, Mara	0247
Dulla, Katherine A.	0044	Estrada, Sylvia C.	0183
Dumlao, DA	0102		0199
Dy, Mary Joyce L.	0209		0293
Ebora, R. V.	0016	Estrella, R.	0051
Ejercito, Carlos Jr.	0060	Eugenio, EC	0061
	0334	Eusebio, Josefa S.	0377
Ella, Ronald Louise A.	0383	Fabellar, N.	0025
Emata, O. C.	0045	Fajardo, Pamela D.	0201
Emmanuel, E. E.	0019	Famador, Jay Arnold F.	0060
Endo, T.	0244	Feliciano, Karen Belina S.	0292
Enriques, Gloria L.	0269	Felix, Kennard Q.	0060
Enriquez, G. L.	0244	Fellizar, Loreto	0283
Enriquez, Gloria L.	0155	Fernandez, Ricardo O.	0187
Enriquez, Ma. Luisa	0234		0230
Erese, RR	0068		0312
Escay, Tomas Paulino R.	0128	Festin, Georgina	0129
Escueta, Aleyla S.	0289	Firaza, PN	0102
	0339	Flavier, M. E.	0005
Esguerra, E. B.	0010		0007
	0013	Flores, Agnes	0283

Flores, Angela C.	0060	Gatchalian, Eduardo R.	0303
Flores, Pierre Abner T.	0036	Gay, Frederick	0239
Florese, R. H.	0238	Gepte, Aguedo Troy D. IV	0060
Fontanilla, Maria Lourdes A.	0280		0376
Fores, Edgardo D.	0132	Geraldino, N.T.	0238
	0213	Geronimo, MM	0102
	0221	Geronimo, O.O.	0208
	0310	Gervasio, Natividad	0123
Francisco-Alejandro, Ruth Margareth	0328	Gisbert, Victor L.	0204
Franco, Shiela Ann Edith L.	0167	Gloria, Rommel C.	0275
	0262	Gloria-Cruz, Teresa Luisa I.	0217
Frias, MVG IV	0313	Gloriani-Barzaga, Nina	0165
Fuerte, Fatima	0234	Go, JD	0063
Gabuya, E. S.	0050	Goleta-Dy, Amy	0201
Gahol, Jose Mari T.	0371	Gomez, John Anthony A.	0191
Galang, Bienvenido Jr. H.	0078	Gomez, John Anthony M.	0304
	0086		0331
Galban, Angelita B.	0123	Gonzaga, J. O.	0045
Galimpin, Dennis M.	0276	Gonzaga, Normando C.	0299
Garcia, Abigail A.	0383	Gonzales, Clarissa S.A.	0311
Garcia, Amelia A.	0156	Gonzales, Joanna	0075
Garcia, B. S.	0025	Gonzales, Triccia Marie G.	0370
Garcia, Edito G.	0116	Gonzalez, MB	0058
Garcia, Jorge M.	0178	Gonzalez-Borromeo, Romana	0196
	0210	Gose, Remedios B.	0243
	0257		0281
Garcia, Josefita A.	0115	Guanzon, M.D.A.	0208
Garcia, Lizbeth Ann	0247	Guarin, Ellen G.	0125
Garcia, Robert Dennis J.	0107	Guevarra, Jonathan P.	0055
	0189	Guibani-Bousfield, Elizabeth	0236
	0226	Guilas AA	0063
	0338	Guincia, A.A.	0143
Garcia-Capiral, Mina	0283	Gustilo-Villasor, Ma. Teresa	0133
Garciano, S. L.	0042	Gutierrez, Laarni	0129
Garduno-Cruz, Monina A.	0124	Guzman Jr., Patricio B.	0187
	0125	Halili-Manabat, Cynthia	0245
Gascon, J. B.	0038	Halos, Saturnina C.	0262
		Hamel, O.	0002

Handumon, Jona C.	0360	Jongco, Artemio P.	0375
Hartigan-Go, Kenneth	0231	Jorge, Alvin M.	0376
Hatabu, Toshimitsu	0339	Jorge, Cecilia Carmela M.	0280
Henry, M.	0002	Jorge, Manuel Jr.	0381
Hernandez, DP	0102	Jose, Jennifer Marie B.	0094
Hernandez, Josefino L.	0217		0147
Hernandez, Sierra Roma S.	0334	Jourdan, C.	0001
Herrera, Oswald T.	0207	Junsay, Raymund G.	0180
Hilario, Michael John	0071	Jurilla, Eduardo L.	0124
Hiquiana, Ma. Assunta	0229		0125
Hizon, Vicente Francisco R.	0291	Kanbara, Hiroji	0289
Hurtada, Wilma A.	0044	Kano, Shigeyuki	0373
Ibay, Emmanuel L.	0273	Katigbak, Luzviminda S.	0376
Ifurung-Gonzales, Elizabeth C.	0134	Kilayco, Mary Clarisse	0071
	0196	King, Anthony B.	0119
Ick-Ioson, Jacqueline	0245		0205
Ignacio-Almeda, Ma. Teresa	0162		0212
Ilaog, Joe William T.	0370		0305
Imasa, Marcelo Severino B.	0108	King-Joaquino, Sally	0048
Ingente, Ma. Cecilia	0247		0223
Inting, Lovella G.	0107	King-Joaquino, Sally B.	0327
Isabela, Leovigildo Q. Jr.	0306	King-Joaquino, Sally Victoria B.	0224
Iwagami, Moritoshi	0339	Kurtis, Jonathan D.	0113
Jamil, Shakir	0138		0266
Jardiolin, Aida S.	0352	Kusin, Jane A.	0377
Jardiolin, Chester H	0335	Labio, Nathaniel J.	0235
Jardiolin, Chester H.	0316	Labouisse, J.-P.	0002
Jauculan, MC	0102	Lacaya, Lydon	0085
Javellana, Juan Antonio G.	0170		0374
	0173	Lacson, EMC	0064
Javier, MJH	0054	Lacson, Ma. Cristina L.	0255
Javier, Saturnino P.	0087	Lagman, E.	0062
	0150	Lagman, RAZ	0063
	0210	Lagos, Maria Theresa M.B.	0230
	0254		0273
	0364	Lagunzad, Josefina M.	0251
Johnson, Joan H.	0113	Lales, Joven S.	0011
	0266	Lamanda, N.	0001

Landicho, E. F.	0009		0309
Lao, Nancy T.	0241	Lemana, Bismark Oliver C.	0022
Lapada, Catherine M.	0043	Leonardia, W.	0122
Lapitan, Marie Carmela M.	0096	Leonardo, Lydia	0247
Lapitan, Raul L.	0104	Leonardo, Lydia R.	0116
	0128	Lerit, Sweet Jorienne	0247
	0251	Lesiasel, Edwin R.	0092
Lariosa, T.	0122	Leveriza-Oh, May	0194
Lariosa, Theresita R.	0055	Liao, LAS	0063
Lasco, R.D.	0051	Libranda-Ramirez, Bernadette dL.	0246
Lateo, Florante L.	0277	Liguit, Michael	0075
Lateo, Florante L.	0302	Lim, Carmela Ana V.	0186
Laurino, Mercy Ygonal	0237	Lim, Matabai	0367
Laysa, Ma. Peñafrañcia D.	0076	Lim, Trinidad A.	0119
Layson, E.G.	0028	Lim-Abrahan, Mary Ann	0245
Lazaro, Catherine M.	0289	Limbaga, Josefa R.	0352
Lazaro, Giselle Mary S.	0060	Limbaga, Ma. Luz S.	0069
Lazaro, Maria Eloisa R.	0151	Limenco, T.E.P.	0208
Lazaro-Jurilla, Geraldine	0242	Limlingan, Erly T.	0289
Leach, J. E.	0016	Limson, G.	0284
Lecciones, Julius A.	0171	Limson, Genara A.M.	0352
	0307	Limson, Genara M.	0297
Ledesma, John Ignatius G.	0213	Lipardo, DS	0054
	0221	Litonjua, Augusto D.	0177
	0310		0258
Ledesma, Rhodora M.	0288	Liwanag-Reyes, Cristina	0175
Lee, Joy Y.	0241	Lizada, M. C. C.	0049
Lee, Lilian V.	0250	Lizada, M.C.C.	0010
Leelin, Thelma V.	0126	Llamanzares, Teodoro P.	0371
	0186	Llanes, Erasmo Gonzalo DV.	0109
	0193	Llanto, R.	0122
	0233	Lopez, Gary A.	0178
Leelin-Sarroso, Donna Marie	0139		0210
Leelin-Sarroso, Donna Marie	0203		0257
Leelin-Sarroso, Donna Marie V.	0136		0285
Legarda-Montinola, Filomena	0333	Lopez, PNL	0054
Legaspi, Joselito R.	0092	Lopez, SMO	0058
Legaspi, Ronillo M.	0148	Lopez, Victor B.	0114

	0172	Grace	
Lorenzo, Maria Abigail D.	0077		0181
Loreto, LEA	0102	Magsino, Benjamin C.	0304
Lu, Henry U.	0198	Magtoto, LS	0066
Lu, Jinky Leilanie	0059	Maiquilla, Sheena Marie B.	0167
Lucero, Florencio	0295		0262
Lumbrera, I.	0066	Malabanan, Angel S.	0230
Lupisan, Socorro P.	0060	Malabanan, Angel S.	0312
	0376	Mallari, Alexander O.	0314
Maala, C. P.	0009	Mallari, Raphael Vincent G.	0376
Mañalac-Morales, Soledad	0375	Mamaril, GP	0063
Macalintal, Clavel M.	0104	Manabat, M,	0284
	0150	Manalo, A.	0284
Macalintal-Canlas, Regina A.	0198	Manalo, Augusto M.	0228
Macapagal, Antonio R.	0334		0297
Macapagal, Grace A.	0125	Manapat, Adrian E.	0178
Machica, Mario Enrico Go	0272	Mangubat, Nellie V.	0202
Machica, MEG	0143	Manluyang, Ellyn	0247
Madraso, E. D.	0238	Manuel, Mauro F.	0074
Madraso, Eloisa D.	0243	Manuel-Limson, Genara	0130
	0281	Maralit, SM	0061
Madrid, Bernadette J.	0308	Maramba, Incencio Daniel C.	0084
Madulara, Glaiza M.	0022	Marcelo, Alvin B.	0070
Madulid, Domingo A.	0022	Mari, Sheryll Anne	0287
	0027	Marin, Jose David Jr .	0367
Madulid, Rosie S.	0022	Marquez, Cherry	0234
Magat, S. S.	0003	Marte, Jake J.	0345
	0004	Martinez, Gregorio S.	0150
	0073	Martinez, Ma. Lourdes C.	0065
Magboo, Maria Lizza E.	0383	Martinez, Ruth M.	0314
Magdalita, P. M.	0020	Mateo, Carmencita D.	0006
Magday, EA	0064	Mateo, Yuri C.	0220
Maghirang, Eligio Santiago V.	0141	Matias, R. R.	0244
Maglanque, NP II	0072	Matias, Ronald R.	0155
Magno, M.A.A.	0208		0269
Magno, Ma. Cristina Ana C.	0159	Matibag, E. V.	0034
Magsanoc, Carlos M.	0100	Mayor, Geraldine Frances R.	0157
Magsanoc-Remorca, Melodie	0135	Medical Action Group, Inc.	0380

Meguizo, Donald Jude U.	0280		0038
Mejia, Samantha Joan M.	0137		0042
Melendres, Eufrosina A.	0201	Mujer, C. V.	0029
Melendres, G	0102	Muyco, Rex Melchor M.	0259
Melo, Catherine L.	0046	Nable, Ma. Veronica A.	0294
Mendiola, Joann Mari A.	0095	Nambayan-Abad, Adoracion M.	0119
Mendioro, Merlyn S.	0014	Nambayan-Abad, Adoration M.	0212
Mendoza, E. M. T.	0029	Narciso, Francisco	0227
Mendoza, MP	0067	Narciso, Francisco V.	0134
Mendoza, Policarpio Paulo M.	0204	Nario, Agapito Raul L.	0248
Mendoza, Rene C.	0080	Natividad, F. F.	0244
Mendoza, Roelito E.	0356	Natividad, Filipina F.	0155
Menguito, Corazon A.	0026	Natividad, Filipinas F.	0269
	0037	Navarro, A.	0208
Mercader, Mary Joseph A.	0205	Navarro, Alejandro S.	0334
Mercado, Alma Rosa S.	0249	Navarro, M.N.V.	0001
Mialet-Serra, I.	0001	Nevado Jr, Jose B.	0108
Miguel, Editha	0373	Ng Tsai	0054
Miguel-Aguirre, Angelita	0211	Ngelangel, Corazon A.	0085
Militante, S. T.	0045	Ngelangel, Corazon A.	0234
Millonado, Joan A.	0180	Ngelangel, Corazon A.	0374
Millonado, Mary Joan L	0240	Nicolas, K	0102
Millonado, Mary Joan L.	0159	Nieuwenhuis, Pailin	0011
Mojica, Jose Alvin P.	0248	Nievera, Carmen B.	0217
	0292	Nuguid, Arnel S.	0159
Montalban, Cecilia S.	0296		0180
Montalban, Joselito M.	0070		0368
Montano, Elizabeth	0036	Nunez, Eugenio R. Jr.	0301
Montinola, Filomena L.	0175	Ocampo, Philip N.	0142
	0176	Ochoa, Ma. Tomasa E.	0370
Moreno, Miguel Martin N. III	0134	Olds, Richard G.	0113
Morillo, G. G. L.	0005		0266
	0007	Olivar-Santos, Evangeline O.	0367
Mortel, Noemi D.V.	0041	Olympia, Ernesto G.	0359
	0190	Ong, Shirley P.	0242
Mouanda, Gelase Mbadinga	0033	Ongsiako, Jr., Ramon J.	0274
Movillon, J. L.	0031	Ongsiako, Ramon J. Jr.	0144
	0034	Ongsiako, Ramon Juan H.	0230

	0312	Paraz, Miguel A.	0081
Ongsiako-Isabela, Carmela	0162	Pasaporte, Bernadette B.	0305
	0274	Pasay, Cielo J.	0200
Orendain, Ignacio G. II	0261	Pasco, Arsenio C. Jr.	0280
Orocio, Mervyn Anthony R.	0320	Pasco, Paul Matthew D.	0360
	0334	Pascua, M. C.	0031
Oropilla, Jean Quint L.	0300	Pascual, J. Leonard R.	0360
	0346	Pascual, Marie Claire C.	0282
Ortega, Adelwisa R.	0055	Pastores, John Vincent G.	0275
Ortiz-Sison, May H.	0348		0345
Padilla, Carmencita	0245	Paterno, Ramon P.	0071
Padilla, Carmencita D.	0183	Payaoan-Mendoza, Geraldine	0090
Padilla, Carmencita D.	0293	Paz-Pacheco, Elizabeth	0188
Padilla, Dominga B.	0161		0245
	0311	Peralta, CR	0067
Padilla, Ma. Dominga B.	0162	Peralta, E. K.	0013
	0170	Peralta, Emelda C.	0255
	0173	Peralta, Olivia D.	0250
	0274	Perdigon, Henry B.	0262
Padilla, Rolando S. Jr.	0112	Perez, Katerina Tanya B.	0279
Padlan, Michael C.	0060		0326
	0345	Perez, M. T. M.	0016
Pagador, Emily	0075	Perez, Martesio C.	0210
Pagdanganan, Ernest Jerome A.	0232		0264
	0304		0279
Pagkatipunan, Ma. Gina N.	0297		0317
Pagulayan, Roberto C.	0018		0326
Palma, Christine F.	0352		0337
Palmos, Mervin	0247		0340
Palpal-Latoc, Angelica A.	0241	Perez, Michael Ryan F.	0032
Paningbatan, Eduardo P. Jr.	0040	Perez-Gosiengfiao, Katerina Tanya B.	0264
Paningbatan, J.	0102		
Pantangco, Elias E.	0106	Perez-Santiago, Ma. Cymbeline B.	0317
	0156	Pesigan, A.	0122
	0236	Peter, Banzon	0075
	0299	PGH Working Group on Thyroid Cancer	0127
	0324		
Papa, Rey Donne S.	0383	Pimentel Simbulan, Nymia	0380

Pimentel, ICC	0064	Ramos, Sorietta R.	0165
Pineda, Beverly Ann P.	0089	Ramos-Salceda, Pacita	0133
Pollisco, Cynthia C.	0118	Rana, Michelle D.	0152
Pontejos, P	0102	Raymundo, A. D.	0025
Porciuncula F.	0066	Raymundo, A. K.	0016
Posadas, Ma. Belen A.	0153	Reblora, M. A.	0031
Precilla, L.	0062		0038
Preysler, Marivic G.	0264	Rebosa, Francisco D. Jr.	0324
Pua, JH	0062	Recto, Marysia T.	0097
Pucyutan, Billy S.	0078	Recto-Legaspi, Anna J. A.	0342
	0086	Regadio, Antonio	0247
Pulhin, F. B.	0051	Regulacion, A. T.	0010
Puno, Ivan Hugo A.	0036	Regulacion, A. T.	0049
Punzalan,	0208	Reimert, Rainer	0033
Qadeer, Ashhar	0138	Reloza, Asuncion A.	0294
Quelapio, Ma. Imelda D.	0163	Renqvist, Ulla H.	0377
Querijero, MB	0313	Revilleza, Ma. Jamela R.	0044
Quevedo, Ma. Linda E.	0271	Reyes, Baltazar B.	0169
Quijano, Jennifer P.	0043	Reyes, Cristina L.	0336
Quintana, B. B.	0005	Reyes, Jose Paciano VT	0123
	0007	Reyes, Luis Raymond A.	0358
Quinto, Edna C.	0030	Reyes, Marc Lamberto C.	0140
Quinton, Suzette	0075	Reyes, Maria Celia	0129
Quizon, Evangeline	0106	Reyes, S. M.	0019
RaÑ±ola, Rey Alfred G.	0036	Reyles, Ramon T.	0090
Raboca, Josephine C.	0258	Reyles, Ramon T.	0091
Racela, AMR	0062		0147
Racho, Allan Robert	0229	Reynes, Ma. Corazon M.	0195
Racho, Allan Robert B.	0209	Ricaforte-Campos, Jane D.	0246
Rama, Kahlil Izza D.	0152	Rivera, Carmela A.	0202
Ramirez, Bernadette L.	0113	Rivera, Eduardo Ll.	0304
	0266	Rivera, Emelyn A.	0348
Ramos, Claver P.	0179	Rivera, F. C.	0366
Ramos, Don Martin S.	0172	Rivera, Luis F. Jr.	0088
Ramos, Gina Eliza M.	0111	Rivera, Luis M.	0267
Ramos, John Donnie A.	0089		0302
	0105	Rivera, Pilarita T.	0289
	0214	Rivera, R. L.	0019

Rivera, Windell L.	0289	Salangasang, Jo-anne Marie R.	0280
Roa, MB	0102	Sales, R. F.	0051
Rodriguez, Rafael E.	0222	Sales-Santos, Marilou A.	0145
Rodriguez, Roslyn D.M.	0286		0225
Rogacion, Jossie M.	0057	Saloma, Cynthia	0245
Romano, Elizabeth L.	0089	Salomon-Kwong, Luzviminda A.	0283
Romano, Vincente V.	0135	Salonga, Edsel Allan G.	0350
Romulo, Rodrigo Luis C.	0197	Salonga, Ricardo M.	0381
Ronquillo, Yasmyne C.	0315	Salvador, Catherine C.	0126
Ropa, Carlos B.	0320	Salvador, Jazelyn M.	0167
Rosales, R.F.B.	0028		0262
Rosales, Veronica G.	0241	Salvador-Tayag, Felicia Racquel L.	0097
Rosas, Noel L.	0362	Samonte, M.V.A.	0208
Roupsard, O.	0001	San Juan, F.	0284
	0002	Saniel, Ofelia P.	0164
Rouziere, A.	0002	Sansano, Oliver M.	0178
Roxas Jr., Eusebio Jaybee B.	0077	Santiago, C.F.A.	0208
Roxas, J. R.	0238	Santiago, Carlos Francis A.	0337
Rueca, JRQ	0063		0346
Ruiz, Aurora	0106	Santiago, Karen S.	0036
Ruiz, Erwin	0075	Santos, Alvin M.	0144
Ruiz, Roberto L.	0206	Santos, Christopher Gerald	0083
	0278	Santos, Dennis G.	0234
Sabado, Angelica	0287	Santos, G. A.	0015
Sabalza, Michael N.	0166	Santos, J. H.	0005
	0300	Santos, Leonel C.	0261
Saban, TM	0102	Santos, Maria Ines Bettina L.	0322
Sabido IX, Delfin Jay M.	0076	Santos, Mary Anne B.	0223
	0079	Santos-Ocampo, Carlo D.	0150
	0082		0288
Sabularse, Veronica C.	0044	Santos-Ocampo, Perla D.	0057
Saep, Julius Bryan G.	0089	Saplaco, S. R.	0051
Sage-Nolido, Anna Marie B.	0340	Sarile, Angelita S.	0026
Sagum, Minerva S.	0167	Sarmiento, Josierina Y	0298
Sagum, Minerva S.	0262	Sarot, Jesus N.	0123
Sahagun, Claire	0287	Savage, James E.	0006
Sahagun, Rhionell O.	0325	Sebastian, Ian Arthur G.	0166
Salamat, Carlota D.	0077	Sebastian, L. C.	0029

Sembrana, CB	0102	Sorra, Lemuel L.	0338
Serrano, Dennis P.	0303	Sotto, Luciano S.J.	0352
Sevilla , Fortunato B. III	0030	Sta. Maria, Arlene C.	0100
	0036		0320
Sia Su, Ma. Lilibeth L.	0130	Sta. Maria, Ma. Belen P.	0280
Siahaan, D.	0047	Subion, Florentino K.	0330
Sibayan, Renato Q.	0112	Sudario, Juli Ana E.	0076
	0335	Sumalde, A. C.	0025
Sibayan, Santiago A.	0172	Sumpaico, Madeleine W.	0097
Silao, Catherine Lynn T.	0117	Suzuki, Mamoru	0373
	0184	Sy Ortin, Teresa T.	0306
	0201	Sy Su, KM	0102
	0237	Tabangcura, Michelle Marga C.	0082
Sileye, T.	0001	Tabbada, Kristina A.	0167
	0002		0262
Singson, Hector C.	0140	Tagala, AA	0072
	0160	Tagura, Maria Jennelyn Rose M.	0089
Sinon, Johnny B.	0039	Tai, Cyndi Mae C.	0314
	0137	Talavera, Diomedes A.	0257
	0140	Tamayo, Ma. Belen E.	0212
	0141	Tambunting, Milan P.	0179
	0142	Tan, Rosalita V.	0367
	0148	Tan-Gatue, Robert D.	0251
	0160		0288
	0182	Tanchoco, Celeste	0069
	0220	Tapalla, P.	0025
Sinon, Johnny B.	0309	Tapire, KM	0063
Sinon, Johnny B.	0321	Taruc, C.P.G.	0208
	0330	Te-Jardiolin, Mary Ann	0316
	0351	Teleg, Rosalia A.	0250
	0353	Teodoro-Rabago, Hilda	0211
	0356	Tepeng, S. A. T.	0366
	0358	Terencio, Benjamin II	0381
Sison, Mark Cornelius A.	0261	The PNA-DOH RIFASAF	
Sison, May O.	0258	COLLABORATORS	0318
Sogono, Paolo G.	0024	Timbol, Aeden E.	0105
Songco, Jaime S.D.	0304	Timbol, Diana Marie T.	0193
Soriano, Apolinio N. Jr.	0278	Tiu, Wilfred U.	0116

Tiuseco, KA	0102	Ventura, MG	0058
Tolabing, Ma. Carmen C.	0164	Verallo-Rowell, Vermen M.	0139
Tolentino, EA	0067		0168
Tomas, Jaime G.	0092		0194
Tongol-Rivera, Pilarita	0339		0203
	0373		0216
Trapaga, Ma. Isabel F.	0252		0336
Trapaga-Avancena, Ma. Isabel F.	0174	Vicente, Ivan Michael	0247
Tuason, Josephine T.	0317	Victoria, Ma. Victoria	0247
Tuazon, Rodolfo G. Jr.	0275	Victorio, Ma. Cristina C.	0267
Tuazon-Sto. Domingo, Marinette	0343		0307
Tubera, Leoderick V.	0345	Vida, Sheilafel	0075
Tudtud, Dennis M.	0272	Villacorta, Edmundo V.	0288
Tumaneng-Villanueva, Merribel	0283	Villacorte, Elena A.	0289
Tupasi, Thelma E.	0163	Villacorte, Elena A.	0339
	0202	Villadolid, Milagros F.	0069
	0222	Villaflores, Oliver	0367
	0361	Villafria, Maria Fe P.	0135
	0362	Villafuerte, Cesar	0295
Ty, Henry	0093	Villalon, Antonio H.	0143
Ty-Tinio, Patricia L.	0136		0259
Umali-Crisostomo, Angela	0181		0272
Umerez, Angelo R.	0105	Villamael, Luisa N.	0014
Uy, Mary Milagros D.	0207	Villamor, Lilian P.	0262
Valcarcel, Ma Regina C.	0234	Villamor, TL	0067
Valdez, Jocelyn A.	0106	Villanueva, Edith	0295
Valencia, CI	0313	Villanueva, Karen	0234
Valencia, S. A.	0031	Villarama, Ma. Gina D.	0101
	0034	Villarta, Jr, Romeo L.	0109
	0038	Villegas, V. N.	0020
	0042	Violante, Marissa A.	0372
Valerio, R.F.	0013	Vitasa, Benjamin C.	0123
Valero, Sherman O.	0170	Vitug, Maria Imelda D.	0017
Valle, Demetrio L. Jr.	0106	Vitug, Ramoncito S.	0320
Vallejera, Ma. Theresa P.	0362	Vizconde, E	0102
Valmayor, Ramon V.	0021	Wambangco, Michael Angelo L.	0110
Valmonte, CM	0067	Warren, KJC	0072
Valmonte, Gardette R.	0105	Wenceslao, Edwin G.	0205

Wiest, Peter M.	0113
Yamamoto, Jose S.	0257
Yang, Marjorie Frances U.	0280
Yanguas, Marjorie Joy	0247
Yap, Siegfried James	0247
Yaplito- Lee, Joy	0152
Yaplito-Lee, Joy	0199
Yeban, Christine C.	0285
Yee, Grace A.	0069
Yruma, MEM	0054
Yu, William Emmanuel S.	0081
Yu-Tecson, Gina	0221
Yu-Tecson, Gina N.	0132
Zafar, Shadab	0138
Zagala, Ma. Zita G.	0144
Zamuco, Jaime T.	0218
Zamuco-Mercado, Melissa A. L.	0342

Subject Index

"Bone-in-bone" appearance	
Malignant infantile osteopetrosis in a Filipino child	0229
(T/C) 16189 polymorphism	
Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus	0245
4 and 5 step-approach	
Kinematics of bowling	0064
5.8S gene	
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Abaca	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Abnormalities	
Medical problems in down syndrome patients among Filipinos	0240
Academic Performance	
Predictors of family medicine residents' academic performance: A five-year study of variables in screening residents, 1989-1993	0278
Acanthamoeba	
Cyst morphology of Philippine acanthamoeba isolates	0155
Acanthamoeba isolates	
Mitochondrial DNA restriction fragment polymorphism (RFLP) of Philippine acanthamoeba isolates	0244
Acari	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Acarofauna	
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Acarology	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Acceptable daily pesticide intake	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Acetic acids - therapeutic use	
Gabapentin in neuropathic pain	0198

Acetone	
Fractional crystallization of coconut oil in acetone	0047
Achondroplasia	
Characterization of mutations at nucleotide 1138 of the fibroblast growth factor receptor 3 Gene in Filipino patients with achondroplasia	0117
Acid beta-glucosidase	
Gaucher disease in six Filipino children: a case series	0199
Acid-fast bacilli	
Limited utility of a polymerase chain reaction assay in the detection of <i>Mycobacterium tuberculosis</i> in liver biopsy specimens of children	0227
ACL	
Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review	0072
Activated carbon	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Acute asthma-treatment	
The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department	0142
Acute lymphocytic leukemia	
Genetic polymorphisms of glutathione-S- transferase PI, TI and MI in pediatric patients with acute lymphocytic leukemia in a Philippine tertiary hospital	0201
Acute subdural hematoma	
Acute subdural hematoma: A five-year review	0093
Adenocarcinoma	
Proposed criteria for the diagnosis of atypical endometrial hyperplasia and well differentiated endometrial adenocarcinoma	0299
Sclerosing hemangioma of the lung	0324
Adenocarcinoma, follicular-diagnosis	
Follicular thyroid carcinoma with metastasis to the mandible	0195
Adjustment disorders	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Administration and dosage	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
Adnexal-diseases-surgery	
Adnexal mass in pregnancy: A review of cases that underwent surgical management (ten years experience)	0094

Adolescence	
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
Adolescent-behavior	
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Adolescents	
Prevalence of back pain among adolescents in the city of Manila and its association to backpack use	0067
Adsorption	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Adsorption technology	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Adults	
The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department	0142
Performance of community-living Filipino adults aged 21-87 years on the functional reach test	0066
Advanced and beginner bowlers	
Kinematics of bowling	0064
Adverse outcome	
Adverse outcomes among surgical patients in a tertiary teaching hospital	0096
Advocacy programs	
Overview of genetic services at UP Manila	0263
Aeroallergen sensitization	
Aeroallergen sensitization and serum immunoglobulin levels of Filipino children with chronic and recurrent otitis media	0097
Afforestation	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Age factors	
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115
Hypertension screening in Filipino grade-school children: A pilot study	0211

Age-factors	
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Agriculture	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits	0004
Development of rapid methods of detecting pesticide residues in stored grains	0005
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Modified-atmosphere packaging of mangosteen (<i>Garcinia mangostana</i> L.)	0010
Response of maize (<i>Zea mays</i> L.) to various modes and levels of silicon application	0011
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Agroforestry systems	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Agronomy	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Aguinaldo	
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Air traffic controllers	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Alamar blue-based test	
Development of an alamar blue-based test as an alternate method in human lymphocyte proliferation assays	0165
Alcohol	
Stimulation of ethanol production by Maillard reaction products using different	0038

yeast concentrations	
Algorithms	
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Alinsanaya	
Classification and characterization of <i>Musa exotica</i> , <i>M. alinsanaya</i> and <i>M. acuminata</i> ssp. <i>errans</i>	0021
Allergen	
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens	0214
Allergic diseases	
Allergy	0098
Alley cropping	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Allium sativum	
Addition of crude methanolic <i>Allium sativum</i> (Garlic) extracts to commercial fish feed can potentially prevent or delay ichthyophthiriasis in the black molly <i>Poecilia sphenops</i>	0383
Amblyseius	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Ambulatory Health Care	
Patient education and compliance among patients with dyspepsia seen at the UP-PGH ambulatory emergency room from September to November 1993	0270
Amebiasis	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Amebic liver abscess	
Prevalence of serologically positive amebic liver abscess cases in the Philippines	0289
Ammonia sensor	
Development of an ammonia and amine sensor based on Bromthymol blue	0030
Ammonium chloride	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Amniotic fluid	
Nucleated erythrocytes in meconium-stained infants	0256

Ampullariidae	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Analgesia	
Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children	0148
Androgen ablation	
Contemporary strategies in the management of advanced prostate cancer	0149
Anemia	
Factors predictive of pneumonia in measles	0190
Anesthesia, local	
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Anesthetics, local adverse effects	
The effect of lidocaine and ropivacaine on the corneal endothelium in vitro	0172
Angina, unstable	
Troponin-T rapid assay in the emergency department setting	0351
Angiogenesis inhibition	
Angiogenesis inhibition by commercial soybean oil on duck chorioallantoic membrane in ovo	0102
Angiography	
Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature	0235
Angioplasty, transluminal percutaneous-coronary	
Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes	0150
Angioplasty, transluminal percutaneous-coronary adverse effects	
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?	0104
Annona muricata	
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Anodic alumina oxide	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Anorexia nervosa	
Cognitive-behavioral treatment for eating disorders	0133

Antagonistic activities	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Anterior cruciate ligament	
Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review	0072
Anthraquinones	
Phase II evaluation of mitoxantrone in patients with advanced nasopharyngeal carcinoma	0272
Anthropometry	
Anthropometric measurements of public elementary school students in district IV of Manila	0054
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Anti-inflammatory agents	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Antiandrogens	
Contemporary strategies in the management of advanced prostate cancer	0149
Antibiotic prophylaxis	
Is there a role for antibiotic prophylaxis in clean elective surgical procedures? A randomized, controlled, double-blind study	0345
Antibiotics, aminoglycoside-therapeutic use	
A pilot study on the ototoxic effect of aminoglycoside use among tuberculous patients	0273
Anticoagulants-therapeutic use	
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?	0104
The greenfield vena caval filter in the management of pulmonary embolism	0204
Antiemetics-economics	
A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Antifungal agents-therapeutic use	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
Antifungal-agents-pharmacology	

In vitro activity of carica papaya powdered extract alone and in combination with penicillin against clinical isolates of streptococcus pyogenes	0368
Antigenic polymorphism	
Genetic diversity of plasmodium Sp in a low endemic area in the Philippines	0200
Antihypertensive agents- therapeutic use	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
Antimalarial drugs	
A study of chloroquine resistance of <i>Plasmodium falciparum</i> using the in-vitro sensitivity test and polymerase chain reaction (PCR)	0339
Antimicrobial activity	
Food flavors as potential preservative systems	0046
Antimicrobial agents	
Validating the efficacy of the guidelines on antimicrobial therapy	0362
Antimicrobial resistance	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Antimicrobial therapy	
Validating the efficacy of the guidelines on antimicrobial therapy	0362
Antineoplastic agents-therapeutic use	
Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF)	0298
Antioxidant activity	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Antipsychotic agents-therapeutic use	
Clinical experience with risperidone	0125
Antipsychotic drug	
Clinical experience with clozapine	0124
Anxiety disorders	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Appendectomy	
Predictors of appendiceal perforation in children: A 7-year review	0277
Appendicitis	
The mantrel scoring system in the diagnosis of acute appendicitis	0232
Aquatic weed	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012

Arteriosclerosis Obliterans	
Open study of cilostazol among non-insulin dependent diabetes mellitus patients with arteriosclerosis obliterans	0258
Arteriosclerosis-blood	
Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old	0210
Arthritis	
Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis	0363
Ascaris	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Ascaris lumbricoides	
<i>Ascaris lumbricoides</i> antigen-specific IgE profiles of parasite-infected Filipino patients	0105
Asepsis	
Is there a role for antibiotic prophylaxis in clean elective surgical procedures? A randomized, controlled, double-blind study	0345
Aspergillus sp.	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Asphyxia neonatorum-complications	
Premature rupture of membranes and its neonatal effects	0282
Assisted pollination	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Asthma	
The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department	0321
Asthma-radiography	
The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department	0321
Asymmetrical septal hypertrophy	
Hypertrophic cardiomyopathy among Filipinos	0212
Atopy	
Allergy	0098
Attitudes	
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023

Audiometry, evoked response	
P300 evoked response potential latencies in Filipino adults	0264
Autologous ossicular groft	
Autologous ossicular grafts in one-stage surgery for chronic otitis media	0109
Autosomal recessive	
Methylmalonic acidemia in two Filipino children	0241
Autosomal recessive malignant osteopetrosis	
Malignant infantile osteopetrosis in a Filipino child	0229
Babesia	
Anti- <i>babesia rodhaini</i> monoclonal antibodies: Effect against babesia Spp. and Plasmodium Berghei	0103
Back pain	
Prevalence of back pain among adolescents in the city of Manila and its association to backpack use	0067
Backpack	
Prevalence of back pain among adolescents in the city of Manila and its association to backpack use	0067
Bacteremia-microbiology	
Gram-positive coccal bacteremia	0202
Bacteremia-prevention and control	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Bacterial leaf blight	
Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
Bacteriuria	
Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and comparison with the semi-quantitative urine culture	0106
Badminton	
Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP	0063
Balance	
Performance of community-living Filipino adults aged 21-87 years on the functional reach test	0066
Banana	
Classification and characterization of <i>musa exotica</i> , <i>M. alinsanaya</i> and <i>M. acuminata</i> ssp. <i>errans</i>	0021
Banana, wild	
Cytology of <i>musa exotica</i> R. <i>valmayor</i> sp. <i>novo</i>	0014

Bancroftian filariasis	
The clinical epidemiology of bancroftian filariasis in an endemic village in Sorsogon, Philippines	0122
Barthel Index	
How much functional recovery is there in post-stroke patients?	0248
Basic dyes	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Beef cattle	
<i>Escherichia coli</i> O157:H7 in Philippine cattle and hogs sacrificed in abattoirs	0382
Beginnings	
Science in the "eloquence of everyday life"	0378
Behavioral science	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Bench marking	
Comparative study of linux distribution for desktop use	0075
Benign prostatic hyperplasia (BPH)	
Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report	0303
Beta-2-agonist	
The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department	0142
Beta-lactamase	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Betahistine-administration and dosage	
Semont's maneuver in benign paroxysmal positional vertigo	0326
Betamethasone	
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Bias	
Adverse health effects of organic solvent exposure: A critical review	0053
BIDANI	
Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines	0377
Bidens pilosa	
In <i>vivo</i> study on the efficacy of the topical formulations from the crude ethanolic	0370

extract of <i>Bidens pilosa</i> L. against <i>Staphylococcus aureus</i>	
Bilateral lymph node dissection	
Prognostic factors in the recurrence of cervical cancer after radical hysterectomy with bilateral lymph node dissection	0297
Biliary tract radionuclide imaging	
A 3 year descriptive study on hepatobiliary scanning in pediatric patients	0088
Biocontrol agent	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Biodiesel	
Corn oil methyl ester as fuel for diesel engines	0032
Biology	
Cytology of <i>Musa exotica</i> R. valmayor sp. novo	0014
Development of genetically enhanced open pollinated varieties (GENOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
Microbial growths on various types of treated water	0017
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Biomarkers	
Adverse health effects of organic solvent exposure: A critical review	0053
Biopsy	
CLOTesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?	0132
Biopsy, needle	
Specificity and sensitivity of needling technique in cytologic diagnosis of breast cancer	0334
Biotechnology	
Biotechnology research in the Philippines	0052
Bioyield	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
BIRADS	
The predictive value of the breast imaging reporting and data system (BIRADS)	0276
Birth weight	
Accuracy of fetal weight estimation by ultrasound using the Hadlock formulae	0090
Bite exposure	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296

Biting animal	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296
Bleeding complication	
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
Blo t 11	
Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens	0214
Blomia tropicalis	
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens	0214
Blood glucose	
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Blood pressure	
Hypertension screening in Filipino grade-school children: A pilot study	0211
Blood pressure monitoring, ambulatory	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
Blood Pressure Monitoring, ambulatory-standards	
Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load	0254
Blood pressure-monitors	
Blood pressure measurements in the first six hours of life	0111
Bluetooth	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Bluetoothâ„„	
Developing a windows® 2000 serial driver for bluetooth™	0078
Blunt trauma	
Acute subdural hematoma: A five-year review	0093
Body height	
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Body Mass Index	
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115

Body mass index	
Hypertension screening in Filipino grade-school children: A pilot study	0211
Body weight	
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Bone abnormalities	
Oto-palatodigital syndrome in a Filipino child	0260
Bone marrow transplantation	
Malignant infantile osteopetrosis in a Filipino child	0229
Boric acid	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Botany	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Classification and characterization of <i>Musa exotica</i> , <i>M. alinsanaya</i> and <i>M. acuminata</i> ssp. <i>errans</i>	0021
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Molecular differentiation of selected <i>Pandanus</i> spp. by random amplified polymorphic DNA (RAPD) analysis	0026
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027
Synonymy of the three <i>Villaria rolfe</i> species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
Bottle feeding	
Common errors in feeding infants and young children	0375
Bowling	
Kinematics of bowling	0064
Brain lesions-classification and grading	
Classification and grading of intracranial lesions: Design and rationale of a new system	0121

Brain lesions-treatment selection	
Classification and grading of intracranial lesions: Design and rationale of a new system	0121
Brain metastasis	
Primary sites of brain metastasis in Filipino patients: A retrospective study	0291
Brain neoplasms-diagnosis	
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112
Brain neoplasms-pathology	
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112
Brain radiography	
Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Brain shifts	
Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Breast cancer	
Current management of breast cancer	0154
Breast feeding	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Common errors in feeding infants and young children	0375
Breast imaging reporting and data system	
The predictive value of the breast imaging reporting and data system (BIRADS)	0276
Breast mass diagnosis	
Test characteristics of core needle biopsy of palpable breast masses: A review of Philippine General Hospital out-patient cases from 1999 to 2001	0344
Breast Neoplasms	
Electrical impedance scanning (T-Scan 2000) in evaluation of breast cancer: comparison with mammography and histopathology Results	0181
Breast-imaging	
The predictive value of the breast imaging reporting and data system (BIRADS)	0276
Breast-neoplasms-pathology	
Specificity and sensitivity of needling technique in cytologic diagnosis of breast cancer	0334
Breast-neoplasms-surgery	
Specificity and sensitivity of needling technique in cytologic diagnosis of breast cancer	0334
Brix	
Stimulation of ethanol production by Maillard reaction products using different	0038

yeast concentrations	
Bromthymol blue	
Development of an ammonia and amine sensor based on Bromthymol blue	0030
Bubalus bubalis	
Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Bulimia	
Cognitive-behavioral treatment for eating disorders	0133
Bunchy-top	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Bundle branch block	
Chronic bundle branch block: clinical and angiographic correlates and early prognostic impact	0119
Bundle branch block-complications	
The prevalence of septal perfusion defects in patients with bundle branch blocks	0288
Burkholderia cepacia	
Purification and characterization of a poly(β -Hydroxybutyrate) depolymerase from <i>Burkholderia cepacia</i>	0037
C allocation	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
C balance	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Cacao	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Calf circumference	
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Callimusa	
Cytology of <i>musa exotica</i> R. valmayor sp. novo	0014
CAM	
The use of complementary and alternative medicine (CAM) in a conventionally western-oriented medical practice in the Philippines	0357
Cancer	
Clinical profile of patients with ovarian carcinoma at the Philippine General Hospital - a thirteen year review	0130

Cancer profile	
Profile of cancer patient referrals to the Department of Rehabilitation Medicine, Philippine General Hospital	0292
Captopril-therapeutic use	
Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study	0140
Carbamates	
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Carbaryl	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Carbon sink	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Carbon stocks	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Carbon-dioxide	
Carbon dioxide laser-assisted external dacryocystorhinostomy: A modified approach to nasolacrimal duct obstruction	0114
Carbopol	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Carboxymethylation	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Carcinoma-medullary-diagnosis	
The role of frozen section in the diagnosis of thyroid carcinoma	0320
Cardiac-prevention-and-control	
QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study	0305
Cardiomyopathy	
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Cardiopulmonary-resuscitation-mortality	
A comparison of active compression/decompression cardio-pulmonary resuscitation (ACD-CPR) versus standard cardio-pulmonary resuscitation (Std-CPR) at the emergency department	0141

Cardiovascular diseases	
Transdermal estrogen replacement postmenopause and effects on lipid profiles	0348
Cardiovascular diseases-blood	
Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old	0210
Carica	
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Carotid angiography	
Acute subdural hematoma: A five-year review	0093
Carpal tunnel syndrome-diagnosis	
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115
Caseation necrosis	
Limited utility of a polymerase chain reaction assay in the detection of <i>Mycobacterium tuberculosis</i> in liver biopsy specimens of children	0227
Cataract	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Visual outcome of cataract surgery in three regions of the Philippines	0367
Cataract extraction	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Cataract surgery	
Post operative constriction or dilation in cataract surgery: Is it really necessary?	0274
Cathepsins	
Cathepsins from extracts of <i>Schistosoma Japonicum</i> adult worms and eggs	0116
Cavite	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Cell count	
Relationship between donor age and endothelial cell count among eye donor (1996-1999)	0311
Cerebral arteriovenous malformations-pathology	
Radiosurgery	0306
Cerebral hemorrhage	
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
Cerebral hemorrhage-radiography	

Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Cerebral hemorrhage-surgery	
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Cerebrovascular disorders	
A study of factors predicting progressive neurological deficit in patients with acute ischemic stroke	0340
Cerebrovascular disorders - Blood	
A retrospective study on the bleeding complications of low molecular weight heparins in the treatment of acute ischemic strokes	0317
Cervical cancer	
Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte ^R methods	0218
Prognostic factors in the recurrence of cervical cancer after radical hysterectomy with bilateral lymph node dissection	0297
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Cervical carcinoma	
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Cesarean delivery	
The frequency of glove contamination during cesarian delivery	0196
Cesarean section	
Persistence of placenta previa according to gestational age at ultrasound detection	0271
Cesarean section method	
Subsequent pregnancy outcomes of one versus two-layer closure of a low transverse cesarean section	0343
Cesarian section	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Chair Design	
Anthropometric measurements of public elementary school students in district IV of Manila	0054
Chemical activation	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Chemical engineering	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and	0031

reactive procion blue textile dyes by cornstalk	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Chemistry	
A comparative cytochemical study of mature makapuno and normal coconut endosperm	0029
Development of an ammonia and amine sensor based on Bromthymol blue	0030
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Chemotherapy	
An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307
Chemotherapy agents	
Markers of early biological effects after exposure to chemotherapy agents	0234
Chest radiograph	
The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department	0321
Chest-pain	
Troponin-T rapid assay in the emergency department setting	0351
Child	
A 3 year descriptive study on hepatobiliary scanning in pediatric patients	0088
Computed tomography patterns of pulmonary tuberculosis in pediatric population	0146
Hypertension screening in Filipino grade-school children: A pilot study	0211
Predictors of appendiceal perforation in children: A 7-year review	0277
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency	0358

department	
Voiding cystourethrogram in the evaluation of patients among pediatric age group with symptomatic urinary tract infection	0372
Child Health	
Disease control priorities for child health in the tropics	0057
Child, preschool	
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Child-preschool	
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Childhood diseases	
Disease control priorities for child health in the tropics	0057
Children	
Anthropometric measurements of public elementary school students in district IV of Manila	0054
Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children	0148
Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines	0377
Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting	0314
Rotavirus acute gastroenteritis among Filipino children	0322
A western blot study of the IgG response of splenomegalic asymptomatic children in a focus of malaria transmission in Palawan, the Philippines	0373
Chloroquine--resistance	
A study of chloroquine resistance of <i>Plasmodium falciparum</i> using the in-vitro sensitivity test and polymerase chain reaction (PCR)	0339
Chlorpromazine	
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Cholangiocarcinoma-diagnosis	
Cholangiocarcinoma and gallbladder carcinoma: comparison of risk factors	0118
Cholesterol	
Transdermal estrogen replacement postmenopause and effects on lipid profiles	0348
Chorioamnionitis-etiology	
Premature rupture of membranes and its neonatal effects	0282
CHP	

Combined heterotopic pregnancy	0134
Chromic	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Chromosomes	
Cytogenetic analysis of patients with unknown genetic of suspected disorders	0156
Chronic liver disease	
Molecular characterization of hepatitis G virus (HGV) isolates from healthy adults and risk groups in the Philippines	0246
Chronic otitis media	
Autologous ossicular grafts in one-stage surgery for chronic otitis media	0109
Chronic urticaria	
Chronic idiopathic urticaria (CIU), unveiled	0120
Chrysanthemum mites	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Cimetidine	
The effectiveness of cimetidine in the treatment of recurrent viral warts	0175
Cisplatin	
An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
Classic migraine	
Use of 4% intranasal lidocaine in the treatment of migraine	0356
Cleft lip	
Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006	0295
Cleft palate	
Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006	0295
Climate change	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Clinical epidemiology	
The clinical epidemiology of bancroftian filariasis in an endemic village in Sorsogon, Philippines	0122
Clinical genetics	
Overview of genetic services at UP Manila	0263

Clinical practice guidelines	
Clinical practice guidelines of the Philippine General Hospital for the management of thyroid nodules and well-differentiated thyroid carcinoma (2008)	0127
Clinical trials	
Responding to the ethical challenges in the conduct of clinical trials in the Philippines	0313
Clotrimazole	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
Clozapine	
Clinical experience with clozapine	0124
CMV retinitis	
Intravitreal injection of ganciclovir in CMV retinitis	0222
Coagulase	
Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria	0186
Coagulase-negative staphylococcus	
Late-onset neonatal septicemia due to coagulase-negative staphylococcus	0226
Coconut	
Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits	0004
A comparative cytochemical study of mature makapuno and normal coconut endosperm	0029
Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall	0050
Coconut coastal areas	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Coconut endosperm	
A comparative cytochemical study of mature makapuno and normal coconut endosperm	0029
Coconut methyl ester (CME)	
Corn oil methyl ester as fuel for diesel engines	0032
Coconut oil	
Fractional crystallization of coconut oil in acetone	0047
Coconut oil--virgin	
Virgin coconut oil for psoriasis	0366
Coconut palm	

Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Coconut palms	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Coconut plantation	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Coconut production	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Coconut production systems	
Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits	0004
Coconut productivity	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Coconut shell	
Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Coconut synthetic variety	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Coconut-based farming system	
Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits	0004
Cocos nucifera	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Cocos nucifera L.	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Coil embolization	
Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature	0235
Colony stimulating factors-therapeutic use	
Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF)	0298

Color charts	
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Colorectal cancer	
Evaluation of ras mutations in Filipino colorectal patients	0184
Combined heterotopic pregnancy	
Combined heterotopic pregnancy	0134
Communications protocol software	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Comparative studies	
Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study	0140
Complementary and alternative medicine	
The use of complementary and alternative medicine (CAM) in a conventionally western-oriented medical practice in the Philippines	0357
Complementary feeding	
Common errors in feeding infants and young children	0375
Composite variety	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Compression	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Computer simulation model	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Conducting polymer composite	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Conductivity	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Confounder	
Adverse health effects of organic solvent exposure: A critical review	0053
Congenital adrenal hyperplasia	
Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program	0293
Congenital heart disease	

Multiple congenital anomalies in a Filipino infant with trisomy X syndrome	0249
Congenital hypothyroidism	
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Conjoined twins	
Ischiopagus tetrapus twins: successful separation at the center	0225
Conscious sedation	
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Content Metrics	
Measuring performance of IP networks using content metrics	0081
Controlled hand pollination	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Cooperative actions	
Cooperative actions in implementing e-Government	0076
Copra yield	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Tall	0073
Core needle biopsy	
Test characteristics of core needle biopsy of palpable breast masses: A review of Philippine General Hospital out-patient cases from 1999 to 2001	0344
Corn	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Corn oil methyl ester (CoME)	
Corn oil methyl ester as fuel for diesel engines	0032
Cornea injuries	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
Corneal diseases-drug therapy	
Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes	0162
Corneal transplantation	
The effect of locally available viscoelastics on eyebanked corneal endothelium	0173
Relationship between donor age and endothelial cell count among eye donor (1996-1999)	0311

Corneal transplantation standards	
Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting	0161
Corneal transplantation-contraindications	
Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting	0161
Cornstalk	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Coronary angiography	
The prevalence of septal perfusion defects in patients with bundle branch blocks	0288
Coronary artery bypass	
Effects of revascularization on the ejection fraction of patients with severe systolic dysfunction	0178
Coronary artery fistula	
Coronary-cameral fistula: A case report	0151
Coronary artery-bypass	
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?	0104
Coronary disease	
Chronic bundle branch block: clinical and angiographic correlates and early prognostic impact	0119
Coronary disease-blood	
Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old	0210
Coronary disease-drug-therapy	
Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
Coronary disease-physiopathology	
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
Coronary diseases-radionuclide imaging	
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
Coronary vascular disease	
Height and coronary vascular disease	0207
Coronary-artery-bypass	
The prevalence of acute renal failure among post-coronary artery bypass surgery patients	0285

Cost benefit analysis	
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Cost-effectiveness analysis	
Disease control priorities for child health in the tropics	0057
Cottage-type enterprise	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Craniotomy	
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112
Crop Science	
Modified-atmosphere packaging of mangosteen (<i>Garcinia mangostana</i> L.)	0010
Cross infection epidemiology	
A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras	0338
Cross-reactivity	
<i>Ascaris lumbricoides</i> antigen-specific IgE profiles of parasite-infected Filipino patients	0105
Cucurbita maxima	
A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro	0280
Curriculum	
Shiftwork tolerance and preference of emergency medicine residents	0330
CVD	
Height and coronary vascular disease	0207
Cypermethrin	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Cystic adenomatoid malformation of lungs, congenital	
Congenital cystic adenomatoid malformation of the lungs (CCAM)	0147
Cytocentrifugation	
Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and comparison with the semi-quantitative urine culture	0106
Cytochemical study	
A comparative cytochemical study of mature makapuno and normal coconut endosperm	0029

Cytogenetics	
Cytogenetic analysis of patients with unknown genetic of suspected disorders	0156
Overview of genetic services at UP Manila	0263
Cytology	
Classification and characterization of <i>musa exotica</i> , <i>M. alinsanaya</i> and <i>M. acuminata</i> ssp. <i>errans</i>	0021
Cytology of <i>musa exotica</i> R. <i>valmayor</i> sp. <i>novo</i>	0014
Cytomegalovirus	
Intravitreal injection of ganciclovir in CMV retinitis	0222
Cytopathology	
Fine needle aspiration of the thyroid gland a five year experience at Philippine General Hospital	0192
Dacryocystorhinostomy	
Carbon dioxide laser-assisted external dacryocystorhinostomy: A modified approach to nasolacrimal duct obstruction	0114
DALY	
Disease control priorities for child health in the tropics	0057
Data processing	
Protection of electronic health data in the Philippines	0084
Data protection	
Protection of electronic health data in the Philippines	0084
Death investigation	
A university-based forensic pathology practice: The UPM-PGH experience (1996-2000)	0355
Death-Sudden	
QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study	0305
Debridement	
Saline jet lavage: A simple technique to combat wound infection	0323
Decontamination	
Management of chemical incidents: on-site medical and supporting facilities prior to hospitalization (a review)	0231
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Deep palmar and plantar creases	
Trisomy 8 mosaicism in two Filipino children	0350
Delayed chemically induced	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity	0137

reactions in the emergency room setting	
Deltamethrin	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Dendrogram	
Molecular differentiation of selected <i>Pandanus</i> spp. by random amplified polymorphic DNA (RAPD) analysis	0026
Dengue complications	
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Dental technicians	
Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate	0123
Denture fabrication	
Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate	0123
Depression	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Dermatitis, allergic contact-diagnosis	
A five-year review of patch testing in a private clinical setting in Metro Manila	0194
Dermatomycoses-drug-therapy	
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Dermatophagoides	
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Desquamation	
Marine oil treatment for psoriatic patients	0233
Developmental delay	
Multiple congenital anomalies in a Filipino infant with trisomy X syndrome	0249
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
Developmental outcome	
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Device driver	
Developing a windows [®] 2000 serial driver for bluetooth [™]	0078
Dexamethasone	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Dexamethasone-pharmacology	

A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Diabetes Education	
Facing up to the challenges of the diabetes epidemic	0188
Diabetes mellitus	
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115
Facing up to the challenges of the diabetes epidemic	0188
Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus	0245
Diabetes Mellitus, Non Insulin Dependent	
Open study of cilostazol among non-insulin dependent diabetes mellitus patients with arteriosclerosis obliterans	0258
Diabetes-gestational-metabolism	
Screening for gestational diabetes in multiparas with previous normal carbohydrate metabolism	0325
Diagnosis-differential	
The role of frozen section in the diagnosis of thyroid carcinoma	0320
Diagnostic yield	
Diagnostic yield in 33 computerized tomography-guided stereotactic biopsy	0166
Dialysis	
Clinical features of pruritus among patients undergoing hemodialysis	0126
Diaper dermatitis	
The comparative efficacy of 40% zinc oxide ointment versus white petrolatum in the treatment of diaper dermatitis: An experimental, double-blind study	0136
Diarrhea	
Rotavirus acute gastroenteritis among Filipino children	0322
Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model	0349
Diarrhea-Complications	
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Diazepam	
Rapid sequence intubation using succinylcholine	0309
Diclofenac	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Dietary treatment	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006

Dilation	
Post operative constriction or dilation in cataract surgery: Is it really necessary?	0274
Diphenhydramine	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Diphtheria	
Clinical profile of diphtheria cases, RITM	0129
Disaster management	
Management of chemical incidents: on-site medical and supporting facilities prior to hospitalization (a review)	0231
Disaster plan	
The center's disaster plan	0039
Disaster planning and management	
The center's disaster plan	0039
Disaster preparedness	
Assessment of disaster preparedness in selected public schools in Luzon, Philippines	0055
Disaster-related programs and policies	
Assessment of disaster preparedness in selected public schools in Luzon, Philippines	0055
Disease distribution	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Disease eradication	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Disease models-animal	
Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes	0162
DNA	
DNA tests for maternity determination	0167
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
DNA Typing	
DNA tests for maternity determination	0167
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
Domestic helper	
The utilization by Filipino domestic helpers in Hong Kong of medical services	0070

deliverable through telemedicine: A preliminary study	
Doppler	
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Doxorubicin	
Comparison of epirubicin and doxorubicin combination therapy for intermediate and high grade non-Hodkin's lymphoma	0143
DPT vaccine	
Clinical profile of diphtheria cases, RITM	0129
Drug adverse effects	
Adverse drug reactions among pediatric patients	0095
Drug contamination-prevention and control	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Drug hypersensitivity-etiology	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Drug resistance, microbial	
An assessment of the role of tracheal aspirate gram stain in guiding antibiotic selection in a pediatric intensive care unit 1999-2001	0107
Dyestuffs	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Dysentery, amebic	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Dyshormogenesis	
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Dyspepsia	
Patient education and compliance among patients with dyspepsia seen at the UP-PGH ambulatory emergency room from September to November 1993	0270
Dystonia	
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
e-coli	
<i>Escherichia coli</i> O157:H7 in Philippine cattle and hogs sacrificed in abattoirs	0382
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048

Eating disorders	
Cognitive-behavioral treatment for eating disorders	0133
Eccrine gland	
Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria	0186
Echocardiography	
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Medical problems in down syndrome patients among Filipinos	0240
Economic profitability	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Ectocyst	
Cyst morphology of Philippine acanthamoeba isolates	0155
Ectodermal dysplasia-genetics	
A five year retrospective study on the incidence of genodermatoses	0193
Edema-incidence	
Massive ovarian edema	0236
Edema-pathology	
Massive ovarian edema	0236
Efficacy	
A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of <i>giardia intestinalis</i> infection in children	0308
Efficiency	
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
The twelve hour shift	0353
Egg proteins	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Elderly	
Performance of community-living Filipino adults aged 21-87 years on the functional reach test	0066
Electric Impedance, Scanning	
Electrical impedance scanning (T-Scan 2000) in evaluation of breast cancer: comparison with mammography and histopathology Results	0181
Electrocardiography	

24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
Electrocardiography, ambulatory	
Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load	0254
Electroencephalography	
Altered sensorium in five patients noted to be in non-convulsive status epilepticus: A case series	0099
Electrolytes	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Electrosynthesis	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Eloquence	
Science in the "eloquence of everyday life"	0378
Emergency medical services	
The twelve hour shift	0353
Emergency medicine education	
Shiftwork tolerance and preference of emergency medicine residents	0330
Emergency medicine services	
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Emergency response capacity	
The center's disaster plan	0039
Emergency room	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Emergency service, hospital	
Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department	0321
Emergency service-hospital	
Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study	0140

Emergency service, hospital	
Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache	0182
Rapid sequence intubation using succinylcholine	0309
Emergency-medical-services	
A comparison of active compression/decompression cardio-pulmonary resuscitation (ACD-CPR) versus standard cardio-pulmonary resuscitation (Std-CPR) at the emergency department	0141
Endemic plant	
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027
Endocysts	
Cyst morphology of Philippine acanthamoeba isolates	0155
Endometrial adenocarcinoma	
Preoperative ultrasound determination of depth of myometrial invasion and cervical involvement in endometrial adenocarcinoma—A preliminary report	0284
Endometrial hyperplasia	
Proposed criteria for the diagnosis of atypical endometrial hyperplasia and well differentiated endometrial adenocarcinoma	0299
Endometrial neoplasms-pathology	
Pap smear findings in endometrial carcinoma: A retrospective study of cases with histopathologic correlation	0265
Endometriosis	
Malignancies associated with endometriosis	0228
Endoscopy	
Intravenous nizatidine in upper gastrointestinal bleeding	0221
Endothelium, corneal	
The effect of locally available viscoelastics on eyebanked corneal endothelium	0173
Endothelium, corneal pathology	
The effect of lidocaine and ropivacaine on the corneal endothelium in vitro	0172
Energy	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Engineering	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Corn oil methyl ester as fuel for diesel engines	0032
Deactivation behaviour of different supported Ni-catalysts under the conditions of the vacuum carburization of steel with acetylene	0033

Direct production of activated carbon from coconut shell through chemical activation with ammonium chloride	0034
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Purification and characterization of a poly(β -Hydroxybutyrate) depolymerase from <i>Burkholderia cepacia</i>	0037
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Entamoeba dispar	
Pathogenic or nonpathogenic entamoeba Sp.	0269
Entamoeba histolytica	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Pathogenic or nonpathogenic entamoeba Sp.	0269
Entomology	
Addition of crude methanolic <i>Allium sativum</i> (Garlic) extracts to commercial fish feed can potentially prevent or delay ichthyophthiriasis in the black molly <i>Poecilia sphenops</i>	0383
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Enucleation	
Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes	0315
Environmental science	
The center's disaster plan	0039
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Enzyme activity	
Purification and characterization of a poly(β -Hydroxybutyrate) depolymerase from <i>Burkholderia cepacia</i>	0037
Enzyme replacement therapy	
Gaucher disease in six Filipino children: a case series	0199
Epidemiology	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Epirubicin	

Comparison of epirubicin and doxorubicin combination therapy for intermediate and high grade non-Hodkin's lymphoma	0143
Ergonomics	
Anthropometric measurements of public elementary school students in district IV of Manila	0054
Erlenmeyer flask deformity	
Gaucher disease in six Filipino children: a case series	0199
Erythema	
Marine oil treatment for psoriatic patients	0233
Erythrocytes	
Nucleated erythrocytes in meconium-stained infants	0256
Erythromycin	
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Escherichia coli	
<i>Escherichia coli</i> O157:H7 in Philippine cattle and hogs sacrificed in abattoirs	0382
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Escherichia coli infections - microbiology	
Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model	0349
Esophageal and gastric varices	
Acute esophageal food impaction treated by gas forming agent	0092
Esophagoscopy	
Acute esophageal food impaction treated by gas forming agent	0092
Essential oils	
Food flavors as potential preservative systems	0046
Ethical challenges	
Responding to the ethical challenges in the conduct of clinical trials in the Philippines	0313
Ethnobotany	
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023
Etiologic factors	
A retrospective study of etiologic factors causing ventriculoperitoneal shunt infections in children	0316
Evoked potentials, auditory	
P300 evoked response potential latencies in Filipino adults	0264
Excessive daytime sleepiness	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381

Exenteration	
Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes	0315
Exercise test	
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
Exercise test-statistical and numerical data	
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
Extended-spectrum-beta-lactamase (ESBL)	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Extracapsular	
Visual outcome of cataract surgery in three regions of the Philippines	0367
Eye transplantation	
Relationship between donor age and endothelial cell count among eye donor (1996-1999)	0311
Facial dysmorphism	
Multiple congenital anomalies in a Filipino infant with trisomy X syndrome	0249
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
Family Medicine	
Predictors of family medicine residents' academic performance: A five-year study of variables in screening residents, 1989-1993	0278
Family Medicine Clinic	
A study of some factors influencing appointment-breaking among patients at the University of the Philippines-Philippine General Hospital Family Medicine Clinic	0341
Famotidine-adverse effect	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Fatty liver hemorrhagic syndrome	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Females	
Thyroid cancer in the Philippines: an update	0347
Fermentation	
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Stimulation of ethanol production by Maillard reaction products using different	0038

yeast concentrations	
Fermented milk drink	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Fertilizer application	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Fetal anoxia-metabolism	
Nucleated erythrocytes in meconium-stained infants	0256
Fetal development	
Improving human fetal development – The super baby	0215
Fetal growth retardation	
Accuracy of ultrasound in diagnosing Intrauterine growth retardation	0091
Fetal membranes	
Premature rupture of membranes and its neonatal effects	0282
FGFR3	
Characterization of mutations at nucleotide 1138 of the fibroblast growth factor receptor 3 Gene in Filipino patients with achondroplasia	0117
Filipino	
Characterization of mutations at nucleotide 1138 of the fibroblast growth factor receptor 3 Gene in Filipino patients with achondroplasia	0117
Fine needle	
Fine needle aspiration biopsy in the diagnosis of thyroid cancer: How accurate is it?	0191
Fine needle aspiration	
Fine needle aspiration of the thyroid gland a five year experience at Philippine General Hospital	0192
Fish oils, therapeutic use	
Marine oil treatment for psoriatic patients	0233
Food	
Food flavors as potential preservative systems	0046
Food and water-borne parasitoses	
Challenges in the control of food and water-borne parasitoses in the Philippines	0056
Food animals	
Livestock and poultry diseases of economic importance in the Philippines: An overview	0074
Food composition	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044

Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall	0050
Food processing	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Food safety	
Challenges in the control of food and water-borne parasitoses in the Philippines	0056
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Food science	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Food science and technology	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Food flavors as potential preservative systems	0046
Fractional crystallization of coconut oil in acetone	0047
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall	0050
Foot length	
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Forecasting	
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
Forensic autopsy	
A university-based forensic pathology practice: The UPM-PGH experience (1996-2000)	0355
Forensic Genetics	
DNA tests for maternity determination	0167
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
Forensic pathology	

A university-based forensic pathology practice: The UPM-PGH experience (1996-2000)	0355
Forestry	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Formol-ether & Kato-katz concentration techniques	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Formulations	
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Fractional curettage	
Preoperative ultrasound determination of depth of myometrial invasion and cervical involvement in endometrial adenocarcinoma—A preliminary report	0284
Fractures	
Risk factors associated with osteoporosis among Filipino adults	0069
Fraxiparine	
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
Freshwater	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Frontal sinus	
Reliability of paranasal sinus (PNS)X-ray for diagnosing acute frontal sinusitis in patients with frontal headache	0312
Frozen-section	
The role of frozen section in the diagnosis of thyroid carcinoma	0320
Fruit packaging	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Fruits	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Functional Reach Test	
Performance of community-living Filipino adults aged 21-87 years on the functional reach test	0066
Functional status	
How much functional recovery is there in post-stroke patients?	0248
Fungal infection	

Occurrence of pulmonary aspergillosis after heart transplantation	0257
Fungal root endophytes	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Fungi-isolation and purification	
An assessment of the role of tracheal aspirate gram stain in guiding antibiotic selection in a pediatric intensive care unit 1999-2001	0107
Furunculosis	
A comparative study of etiologic agents in primary bacterial skin infections occurring in MMC Dermatology Out-Patient Department and Medical Missions in Nagcarlan, Laguna	0139
Fusarium oxysporium	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Gallbladder neoplasms-diagnosis	
Cholangiocarcinoma and gallbladder carcinoma: comparison of risk factors	0118
Gamma-globulins-therapeutic use	
Preliminary experiences with IV gammaglobulins in multiple sclerosis	0279
Ganciclovir	
Intravitreal injection of ganciclovir in CMV retinitis	0222
Ganglia, parasympathetic	
Use of 4% intranasal lidocaine in the treatment of migraine	0356
Garcinia mangostana L.	
Modified-atmosphere packaging of mangosteen (<i>Garcinia mangostana</i> L.)	0010
Gas forming	
Acute esophageal food impaction treated by gas forming agent	0092
Gastrointestinal diseases	
Medical problems in down syndrome patients among Filipinos	0240
Gastrointestinal hemorrhage	
Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature	0235
Gastroscopy	
Use of serologic examination as a non-invasive method for diagnosis of helicobacter pylori infection	0359
Gaucher Disease	
Gaucher disease in six Filipino children: a case series	0199
Genetic counseling	
A master of science in genetic counseling program in the Philippines	0237

Genetic diversity	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Genetic services	
Overview of genetic services at UP Manila	0263
Genetics	
Biotechnology research in the Philippines	0052
Genital abnormality	
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
Genital chlamydia trachomatis	
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
Genodermatosis	
Incontinentia pigmenti	0216
Geographic information system	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Geographic Information System	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Giardiasis	
A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of <i>giardia intestinalis</i> infection in children	0308
Ginger	
Food flavors as potential preservative systems	0046
GIS	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Glasgow-coma scale	
Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Gliricidia sepium	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Glomerulonephritis	
Clinical profile of renal biopsy with findings of glomerular crescent	0131
Glove contamination	
The frequency of glove contamination during cesarian delivery	0196

Glucocerebroside	
Gaucher disease in six Filipino children: a case series	0199
Glucose	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Glucosephosphate dehydrogenase-metabolism	
Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center	0209
Glutathione-S-transferase	
Genetic polymorphisms of glutathione-S- transferase PI, TI and MI in pediatric patients with acute lymphocytic leukemia in a Philippine tertiary hospital	0201
Gluteal taping	
Gluteal taping on running performance of healthy young adults: A randomized controlled pilot study	0061
Glycerol	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Glycolates-therapeutic use	
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
Gmelina arborea	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Good academic performance	
Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study	0379
Government	
Cooperative actions in implementing e-Government	0076
Grains	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Gram stain	
Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and	0106

comparison with the semi-quantitative urine culture	
Gram-negative bacteria-isolation and purification	
An assessment of the role of tracheal aspirate gram stain in guiding antibiotic selection in a pediatric intensive care unit 1999-2001	0107
Granuloma	
Limited utility of a polymerase chain reaction assay in the detection of <i>Mycobacterium tuberculosis</i> in liver biopsy specimens of children	0227
Graphite	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Growth patterns	
Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines	0377
Growth response	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Guava	
Food flavors as potential preservative systems	0046
Guyabano	
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Hairpin Filter	
Design of a narrowband hairpin filter on PTFE laminate	0077
Handbook	
Validating the efficacy of the guidelines on antimicrobial therapy	0362
Hazard exposures	
Establishing risk assessment indices for occupational injuries at work in the Philippines: Strategies for prevention	0059
Hazardous chemicals	
Management of chemical incidents: on-site medical and supporting facilities prior to hospitalization (a review)	0231
HCM	
Hypertrophic cardiomyopathy among Filipinos	0212
Head injuries	
CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis	0153
Headache	
Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache	0182

Headache migraine	
Use of 4% intranasal lidocaine in the treatment of migraine	0356
Health	
Disease control priorities for child health in the tropics	0057
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Health and wellness	
Adverse health effects of organic solvent exposure: A critical review	0053
Anthropometric measurements of public elementary school students in district IV of Manila	0054
Assessment of disaster preparedness in selected public schools in Luzon, Philippines	0055
Challenges in the control of food and water-borne parasitoses in the Philippines	0056
Disease control priorities for child health in the tropics	0057
Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study	0058
Establishing risk assessment indices for occupational injuries at work in the Philippines: Strategies for prevention	0059
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Gluteal taping on running performance of healthy young adults: A randomized controlled pilot study	0061
Improvements in maximal oxygen consumption among elderly Tai Chi Chuan practitioners	0062
Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP	0063
Kinematics of bowling	0064
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Performance of community-living Filipino adults aged 21-87 years on the functional reach test	0066
Prevalence of back pain among adolescents in the city of Manila and its association to backpack use	0067
Prevalence of low back pain among jeepney drivers in Metro Manila: A descriptive study	0068
Risk factors associated with osteoporosis among Filipino adults	0069
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
A validation framework and key performance indicators for the assessment of PHILHEALTH performance	0071

Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review	0072
Health behavior	
Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights	0380
Health care	
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Health care cost trend	
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
Health care knowledge/beliefs/practices	
Woman & child health care knowledge, beliefs and practices among Filipino women randomly selected from the 1989 telephone directory of Metro Manila	0374
Health data	
Protection of electronic health data in the Philippines	0084
Health education	
Challenges in the control of food and water-borne parasitoses in the Philippines	0056
Health information system	
Protection of electronic health data in the Philippines	0084
Health related quality of life	
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
Health-Education	
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Hearing loss, drug effect	
A pilot study on the ototoxic effect of aminoglycoside use among tuberculous patients	0273
Heart transplantation	
Occurrence of pulmonary aspergillosis after heart transplantation	0257
Height	
Height and coronary vascular disease	0207
Helicobacter infection-diagnosis	
Use of serologic examination as a non-invasive method for diagnosis of helicobacter pylori infection	0359
Helicobacter pylori	
CLOtesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?	0132
Use of serologic examination as a non-invasive method for diagnosis of helicobacter pylori infection	0359

Helminths	
Parasites of medical importance in the Philippines	0268
Hematocrit	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Hematologic malignancy	
Trisomy 8 mosaicism in two Filipino children	0350
Hematologic scoring system	
The complete blood count and hematologic findings as screening criteria for neonatal sepsis	0145
Hematoma-surgery	
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Hematopoiesis	
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307
Hematuria	
Clinical profile of renal biopsy with findings of glomerular crescent	0131
Hemodialysis	
Analysis of factors determining response to hepatitis B vaccination among hemodialysis patients	0101
Clinical features of pruritus among patients undergoing hemodialysis	0126
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
Hemolysis	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Hemolytic-uremic syndrome	
Clinical features of pruritus among patients undergoing hemodialysis	0126
Hemorrhage	
Spontaneous intracerebral hemorrhage	0335
Hemorrhoids	
Ambulatory treatment of hemorrhoids by rubber band ligation: A 4-year review	0100
Hemostatic	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Heparin	
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it	0104

beneficial or not?	
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
The greenfield vena caval filter in the management of pulmonary embolism	0204
Heparin, low molecular weight - therapeutic use	
A retrospective study on the bleeding complications of low molecular weight heparins in the treatment of acute ischemic strokes	0317
Hepatic TB	
Limited utility of a polymerase chain reaction assay in the detection of <i>Mycobacterium tuberculosis</i> in liver biopsy specimens of children	0227
Hepatitis B vaccines	
Analysis of factors determining response to hepatitis B vaccination among hemodialysis patients	0101
Hepatitis G virus	
Molecular characterization of hepatitis G virus (HGV) isolates from healthy adults and risk groups in the Philippines	0246
Hepatosplenomegaly	
Gaucher disease in six Filipino children: a case series	0199
Malignant infantile osteopetrosis in a Filipino child	0229
Herbal medicine	
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Hereditary diseases	
A five year retrospective study on the incidence of genodermatoses	0193
Hernia, inguinal-surgery	
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
Heteroplasmy	
Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus	0245
Heterozygosity	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Heterozygote-Detection	
Cytogenetic analysis of patients with unknown genetic of suspected disorders	0156
HGV	
Molecular characterization of hepatitis G virus (HGV) isolates from healthy adults and risk groups in the Philippines	0246
High performance liquid chromatography	

Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
Hogs	
<i>Escherichia coli</i> O157:H7 in Philippine cattle and hogs sacrificed in abattoirs	0382
Homocysteine	
Association of homocysteine levels to traditional risk factors in unstable angina and non-ST elevation myocardial infarction: implications from the FINEST study	0108
Homocysteine-blood	
Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old	0210
Hong Kong	
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Hookworm	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Hormone therapy	
Contemporary strategies in the management of advanced prostate cancer	0149
Hospitalization economics	
Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF)	0298
Host	
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239
House dust mite	
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens	0214
HQOL	
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
HRT	
Risk factors associated with osteoporosis among Filipino adults	0069
Human parasite	
Paramyosin is a vaccine candidate against schistosoma japonicum infection	0266
Hybridization	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Hydrology	

Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Hydroquinone-pharmacology	
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
Hyperbilirubinemia	
Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center	0209
Hypercholesterolemia	
Height and coronary vascular disease	0207
Hypersensitivity	
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Hypertension	
Hypertension screening in Filipino grade-school children: A pilot study	0211
Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load	0254
Spontaneous intracerebral hemorrhage	0335
Hypertension in elderly	
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
Hypertention-complication	
Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study	0140
Hypertrophic cardiomyopathy	
Hypertrophic cardiomyopathy among Filipinos	0212
Hypertrophic obstructive cardiomyopathy	
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Hypertrophic scar	
A study on a possible alternative local pressure garment for burn scars	0342
Hypertrophic-diagnosis	
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Hypertrophy, left ventricular	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087

Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load	0254
Hyperventilation syndrome	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Hyponatremia	
Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water	0329
Hypotonia and joint laxity	
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
Hysterectomy	
Prognostic factors in the recurrence of cervical cancer after radical hysterectomy with bilateral lymph node dissection	0297
Hysteroscopy	
Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water	0329
Ichthyophthirius multifiliis	
Addition of crude methanolic <i>Allium sativum</i> (Garlic) extracts to commercial fish feed can potentially prevent or delay ichthyophthiriasis in the black molly <i>Poecilia sphenops</i>	0383
Ichthyosis vulgaris	
A five year retrospective study on the incidence of genodermatoses	0193
Identification	
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
IDMs	
Neonatal morbidity among infants of diabetic mothers	0252
Immunoglobulins administration and dosage	
Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model	0349
Immunity	
Measles immunity among rural compared to urban infants	0238
Immunization	
Factors predictive of pneumonia in measles	0190
Immunoblotting	
A western blot study of the IgG response of splenomegalic asymptomatic children in a focus of malaria transmission in Palawan, the Philippines	0373
Immunoglobulin E	
<i>Ascaris lumbricoides</i> antigen-specific IgE profiles of parasite-infected Filipino patients	0105

Immunoglobulins-administration and dosage	
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307
Immunomodulatory modalities	
The effectiveness of cimetidine in the treatment of recurrent viral warts	0175
Immunosuppressant therapy	
Occurrence of pulmonary aspergillosis after heart transplantation	0257
Immunosuppression	
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307
Impact	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Impetigo	
A comparative study of etiologic agents in primary bacterial skin infections occurring in MMC Dermatology Out-Patient Department and Medical Missions in Nagcarlan, Laguna	0139
In vivo study	
In <i>vivo</i> study on the efficacy of the topical formulations from the crude ethanolic extract of <i>Bidens pilosa</i> L. against <i>Staphylococcus aureus</i>	0370
Incontinentia pigmenti	
Incontinentia pigmenti	0216
Incontinentia pigmenti-diagnosis	
A five year retrospective study on the incidence of genodermatoses	0193
Indirect fluorescent antibody test	
Prevalence of serologically positive amebic liver abscess cases in the Philippines	0289
Indirect hemagglutination test	
Prevalence of serologically positive amebic liver abscess cases in the Philippines	0289
Industry	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Livestock and poultry diseases of economic importance in the Philippines: An overview	0074
Infancy	
Intussusception in infancy and childhood: A ten year review	0223
Infant	
An assessment of the role of tracheal aspirate gram stain in guiding antibiotic selection in a pediatric intensive care unit 1999-2001	0107

Blood pressure measurements in the first six hours of life	0111
Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center	0209
Infant feeding	
Common errors in feeding infants and young children	0375
Infant of diabetic mothers	
Neonatal morbidity among infants of diabetic mothers	0252
Infant, newborn	
A 3 year descriptive study on hepatobiliary scanning in pediatric patients	0088
Infant, Newborn	
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
Infant, newborn	
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras	0338
Infants	
Neonatal morbidity among infants of diabetic mothers	0252
Infection control methods	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Infection management	
Validating the efficacy of the guidelines on antimicrobial therapy	0362
Infections, intravenous	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Infectious diseases	
Prevention of infectious diseases in natural disasters	0290
Infectious mononucleosis	
Infectious mononucleosis in the Philippines: A report of 3 cases	0217
Information and Communications Technology	
Comparative study of linux distribution for desktop use	0075
Cooperative actions in implementing e-Government	0076
Design of a narrowband hairpin filter on PTFE laminate	0077
Developing a windows [®] 2000 serial driver for bluetooth [™]	0078
Dynamic lightpath allocation via destination-initiated group wavelength reservation	0079

in a unicast wavelength-routed WDM all-optical network	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Measuring performance of IP networks using content metrics	0081
Microelectronics design for the Philippine electronics industry: An essential for global competitiveness	0082
Peak-to-average power ratio reduction solutions for OFDM	0083
Protection of electronic health data in the Philippines	0084
Telephone survey sampling and interview as research tools in Metro Manila Philippines	0085
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Injection, intra-arterial	
Prediction of intestinal viability by intra-arterial dye injection: A simple test	0275
Insecticide residues	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Insecticide toxicology	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Insulin	
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Intensive care units	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Intensive care units, pediatric	
A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras	0338
Intercropping	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
Interface-pressure	
A study on a possible alternative local pressure garment for burn scars	0342
Internet	

Measuring performance of IP networks using content metrics	0081
Internship and residency	
The twelve hour shift	0353
Internship and residency standards	
Shiftwork tolerance and preference of emergency medicine residents	0330
Intestinal obstruction	
Intestinal obstruction in children: A five-year clinical review	0219
Intussusception in infancy and childhood: A ten year review	0223
Intestinal obstruction-veterinary	
Prediction of intestinal viability by intra-arterial dye injection: A simple test	0275
Intestinal parasites	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Intestinal perforation	
Predictors of appendiceal perforation in children: A 7-year review	0277
Intestine, small	
Prediction of intestinal viability by intra-arterial dye injection: A simple test	0275
Intraaxial brain lesion	
Diagnostic yield in 33 computerized tomography-guided stereotactic biopsy	0166
Intracapsular	
Visual outcome of cataract surgery in three regions of the Philippines	0367
Intracerebral	
Spontaneous intracerebral hemorrhage	0335
Intraocular pressure	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Intravenous nizatidine	
Intravenous nizatidine in upper gastrointestinal bleeding	0221
Intravitreal injection	
Intravitreal injection of ganciclovir in CMV retinitis	0222
Intubation, intratracheal	
Rapid sequence intubation using succinylcholine	0309
Intussusception	
Intussusception in infancy and childhood: A ten year review	0223
Intussusception, radiography	
Intestinal obstruction in children: A five-year clinical review	0219
Iodine-radioisotopes-therapeutic use	

Follicular thyroid carcinoma with metastasis to the mandible	0195
IS986	
Use of the polymerase chain reaction in the diagnosis of tuberculous meningitis	0360
Ischemia-pathology	
The effect of probiotic (lactobacilli) in experimentally-induced intestinal ischemia in mice	0174
Ischiopagus tetrapus twins	
Ischiopagus tetrapus twins: successful separation at the center	0225
Isoconazole	
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Isoleucine	
Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
ITS	
Synonymy of the three <i>Villaria rolfe</i> species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
ITS1	
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
ITS2	
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Jeepney drivers (not MeSH)	
Prevalence of low back pain among jeepney drivers in Metro Manila: A descriptive study	0068
Kappa-carrageenan	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Kawasaki disease	
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Keratitis complications	
Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes	0162
Ketamine	
Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department	0220

Kidney transplantation	
Clinical profile of renal biopsy with findings of glomerular crescent	0131
Kidney-diseases-complications	
The prevalence of acute renal failure among post-coronary artery bypass surgery patients	0285
Kidney-failure	
The prevalence of acute renal failure among post-coronary artery bypass surgery patients	0285
Kinematics	
Kinematics of bowling	0064
Kyoto and Non-Kyoto	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Lactic acid bacteria	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Lactobacillus casei	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Lactobacillus-drug effects	
The effect of probiotic (lactobacilli) in experimentally-induced intestinal ischemia in mice	0174
Land use	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Laparotomy	
The mantrel scoring system in the diagnosis of acute appendicitis	0232
Latex-pharmacology	
In vitro activity of carica papaya powdered extract alone and in combination with penicillin against clinical isolates of streptococcus pyogenes	0368
Lead accumulation	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Lead uptake	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Lenses, intraocular	
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
Leucine	

Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
Leukemia	
Medical problems in down syndrome patients among Filipinos	0240
Leukocytes	
Nucleated erythrocytes in meconium-stained infants	0256
LHRH analogues	
Contemporary strategies in the management of advanced prostate cancer	0149
Lidocaine	
Use of 4% intranasal lidocaine in the treatment of migraine	0356
Lidocaine-therapeutic use	
The effect of lidocaine and ropivacaine on the corneal endothelium in vitro	0172
Linux	
Comparative study of linux distribution for desktop use	0075
Litter	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Liver Lipids	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Liver score	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Livestock and poultry--diseases	
Livestock and poultry diseases of economic importance in the Philippines: An overview	0074
Livestock and poultry--industry	
Livestock and poultry diseases of economic importance in the Philippines: An overview	0074
Long-chain saturated fatty acids	
Fractional crystallization of coconut oil in acetone	0047
Low back pain	
Prevalence of low back pain among jeepney drivers in Metro Manila: A descriptive study	0068
Low birthweight	
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065

Low molecular weight heparin	
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
Low-pressure irrigation	
Saline jet lavage: A simple technique to combat wound infection	0323
Lubag	
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
Lung diseases-prevention and control	
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Lung Neoplasm-Complications	
Sclerosing hemangioma of the lung	0324
Lung surgery	
Parapneumonic effusion in children: A ten-year retrospective study	0267
Lymnaeidae	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Lymph node metastasis	
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Lymphatic filariasis	
The clinical epidemiology of bancroftian filariasis in an endemic village in Sorsogon, Philippines	0122
Lymphoma, follicular	
Follicular thyroid carcinoma with metastasis to the mandible	0195
Lymphoma, follicular-therapy	
Follicular thyroid carcinoma with metastasis to the mandible	0195
Lysine	
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Magnetic resonance imaging	
Normal pituitary gland: The Asian standard	0253
Magnetic resonance Imaging	
Radiosurgery	0306
Maize	
Response of maize (<i>Zea mays</i> L.) to various modes and levels of silicon application	0011
Makapuno	
A comparative cytochemical study of mature makapuno and normal coconut	0029

endosperm	
Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall	0050
Malaria	
Genetic diversity of plasmodium Sp in a low endemic area in the Philippines	0200
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239
Malathion	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Malignancies	
Malignancies associated with endometriosis	0228
Mammography	
Electrical impedance scanning (T-Scan 2000) in evaluation of breast cancer: comparison with mammography and histopathology Results	0181
Management	
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023
Mango	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Mangosteen	
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Modified-atmosphere packaging of mangosteen (<i>Garcinia mangostana</i> L.)	0010
Manila hemp	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Maple syrup urine disease	
Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
Maragondon	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Marine biology	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Mass selection	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of	0015

coconut (<i>Cocos nucifera</i> L.)	
Material science	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Maternal white classification	
Neonatal morbidity among infants of diabetic mothers	0252
Maternity	
DNA tests for maternity determination	0167
Maturity	
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Maximal Oxygen Consumption	
Improvements in maximal oxygen consumption among elderly Tai Chi Chuan practitioners	0062
Maximum residue limits	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Measles	
Factors predictive of pneumonia in measles	0190
Measles immunity among rural compared to urban infants	0238
A preliminary study on the transfer of maternal measles antibody levels among urban Filipino mothers to their newborns	0281
Measles antibodies	
Minimum level of measles antibodies for prevention of infection	0243
Measles antibody	
A preliminary study on the transfer of maternal measles antibody levels among urban Filipino mothers to their newborns	0281
Measles virus	
Minimum level of measles antibodies for prevention of infection	0243
Meconium aspiration	
Nucleated erythrocytes in meconium-stained infants	0256
Meconium aspiration-Prevention and control	
Premature rupture of membranes and its neonatal effects	0282
Medical appointment-breaking	
A study of some factors influencing appointment-breaking among patients at the University of the Philippines-Philippine General Hospital Family Medicine Clinic	0341
Medical disaster	
The center's disaster plan	0039
Medical education	
Evaluation of the effectiveness of the introduction to patient care program of the UP College of Medicine	0185

Medical services	
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Medicinal herbs	
The use of complementary and alternative medicine (CAM) in a conventionally western-oriented medical practice in the Philippines	0357
Medicine	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
A 3 year descriptive study on hepatobiliary scanning in pediatric patients	0088
Acarofauna and allergenicity of house dust mites in houses of selected Filipino allergic patients in Metro Manila	0089
Accuracy of fetal weight estimation by ultrasound using the Hadlock formulae	0090
Accuracy of ultrasound in diagnosing Intrauterine growth retardation	0091
Acute esophageal food impaction treated by gas forming agent	0092
Acute subdural hematoma: A five-year review	0093
Adnexal mass in pregnancy: A review of cases that underwent surgical management (ten years experience)	0094
Adverse drug reactions among pediatric patients	0095
Adverse outcomes among surgical patients in a tertiary teaching hospital	0096
Aeroallergen sensitization and serum immunoglobulin levels of Filipino children with chronic and recurrent otitis media	0097
Allergy	0098
Altered sensorium in five patients noted to be in non-convulsive status epilepticus: A case series	0099
Ambulatory treatment of hemorrhoids by rubber band ligation: A 4-year review	0100
Analysis of factors determining response to hepatitis B vaccination among hemodialysis patients	0101
Angiogenesis inhibition by commercial soybean oil on duck chorioallantoic membrane in ovo	0102
Anti- <i>babesia rodhaini</i> monoclonal antibodies: Effect against <i>babesia</i> Spp. and <i>Plasmodium Berghei</i>	0103
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?	0104
<i>Ascaris lumbricoides</i> antigen-specific IgE profiles of parasite-infected Filipino patients	0105
Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and comparison with the semi-quantitative urine culture	0106
An assessment of the role of tracheal aspirate gram stain in guiding antibiotic	0107

selection in a pediatric intensive care unit 1999-2001	
Association of homocysteine levels to traditional risk factors in unstable angina and non-ST elevation myocardial infarction: implications from the FINEST study	0108
Autologous ossicular grafts in one-stage surgery for chronic otitis media	0109
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Blood pressure measurements in the first six hours of life	0111
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112
Candidate vaccine antigen against schistosomiasis japonica is homologous to a family of actin-associating protein	0113
Carbon dioxide laser-assisted external dacryocystorhinostomy: A modified approach to nasolacrimal duct obstruction	0114
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115
Cathepsins from extracts of <i>Schistosoma Japonicum</i> adult worms and eggs	0116
Characterization of mutations at nucleotide 1138 of the fibroblast growth factor receptor 3 Gene in Filipino patients with achondroplasia	0117
Cholangiocarcinoma and gallbladder carcinoma: comparison of risk factors	0118
Chronic bundle branch block: clinical and angiographic correlates and early prognostic impact	0119
Chronic idiopathic urticaria (CIU), unveiled	0120
Classification and grading of intracranial lesions: Design and rationale of a new system	0121
The clinical epidemiology of bancroftian filariasis in an endemic village in Sorsogon, Philippines	0122
Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate	0123
Clinical experience with clozapine	0124
Clinical experience with risperidone	0125
Clinical features of pruritus among patients undergoing hemodialysis	0126
Clinical practice guidelines of the Philippine General Hospital for the management of thyroid nodules and well-differentiated thyroid carcinoma (2008)	0127
Clinical profile, management and long-term follow-up of hypertrophic obstructive cardiomyopathy: An in-hospital population based study, 1994-1999	0128
Clinical profile of diphtheria cases, RITM	0129
Clinical profile of patients with ovarian carcinoma at the Philippine General Hospital - a thirteen year review	0130
Clinical profile of renal biopsy with findings of glomerular crescent	0131
CLOtesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?	0132
Cognitive-behavioral treatment for eating disorders	0133

Combined heterotopic pregnancy	0134
Common sonographic features of ectopic pregnancy	0135
The comparative efficacy of 40% zinc oxide ointment versus white petrolatum in the treatment of diaper dermatitis: An experimental, double-blind study	0136
A comparative efficacy of intravenous diphenhydramine and hydrocortisone with intravenous diphenhydramine and famotidine for the treatment of hypersensitivity reactions in the emergency room setting	0137
Comparative single-blind randomized placebo-controlled clinical trial of a polyherbal formulation containing asparagus racemosus and cheiranthus cheiri in oligospermia	0138
A comparative study of etiologic agents in primary bacterial skin infections occurring in MMC Dermatology Out-Patient Department and Medical Missions in Nagcarlan, Laguna	0139
Comparative study of sublingual clonidine versus captopril in the emergency department management of hypertensive urgencies – A prospective single blind study	0140
A comparison of active compression/decompression cardio-pulmonary resuscitation (ACD-CPR) versus standard cardio-pulmonary resuscitation (Std-CPR) at the emergency department	0141
The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department	0142
Comparison of epirubicin and doxorubicin combination therapy for intermediate and high grade non-Hodkin's lymphoma	0143
A comparison of topical diclofenac sodium to dexamethasone for post cataract surgery inflammation and intraocular pressure response	0144
The complete blood count and hematologic findings as screening criteria for neonatal sepsis	0145
Computed tomography patterns of pulmonary tuberculosis in pediatric population	0146
Congenital cystic adenomatoid malformation of the lungs (CCAM)	0147
Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children	0148
Contemporary strategies in the management of advanced prostate cancer	0149
Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes	0150
Coronary-cameral fistula: A case report	0151
Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis	0153

Current management of breast cancer	0154
Cyst morphology of Philippine acanthamoeba isolates	0155
Cytogenetic analysis of patients with unknown genetic of suspected disorders	0156
The demographic background and toxidrome of methamphetamine intoxication in 47 patients seen at the Philippine General Hospital from May 1989 to June 1992	0157
Detection of circulating schistosome antigens in <i>S. Japonicum</i> Infection	0158
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159
Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting	0161
Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes	0162
Determining time to culture conversion in patients enrolled in MMC DOTS Clinic	0163
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
Development of an alamar blue-based test as an alternate method in human lymphocyte proliferation assays	0165
Diagnostic yield in 33 computerized tomography-guided stereotactic biopsy	0166
DNA tests for maternity determination	0167
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
The effect of lidocaine and ropivacaine on the corneal endothelium in vitro	0172
The effect of locally available viscoelastics on eyebanked corneal endothelium	0173
The effect of probiotic (lactobacilli) in experimentally-induced intestinal ischemia in mice	0174
The effectiveness of cimetidine in the treatment of recurrent viral warts	0175
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Effects of revascularization on the ejection fraction of patients with severe systolic	0178

dysfunction	
Efficacy and safety of low molecular weight heparin (Fraxiparine) in hemodialysis and in prophylaxis for deep vein thrombosis in patients with high hemorrhagic risk	0179
The efficacy of different concentrations of <i>Morinda citrifolia</i> (noni) cream preparations in the treatment of staphylococcal full-thickness burn wound infection in mice	0180
Electrical impedance scanning (T-Scan 2000) in evaluation of breast cancer: comparison with mammography and histopathology Results	0181
Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache	0182
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Evaluation of ras mutations in Filipino colorectal patients	0184
Evaluation of the effectiveness of the introduction to patient care program of the UP College of Medicine	0185
Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria	0186
Facial reanimation with the use of sural nerve in total parotidectomy with facial nerve Sacrifice	0187
Facing up to the challenges of the diabetes epidemic	0188
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Factors predictive of pneumonia in measles	0190
Fine needle aspiration biopsy in the diagnosis of thyroid cancer: How accurate is it?	0191
Fine needle aspiration of the thyroid gland a five year experience at Philippine General Hospital	0192
A five year retrospective study on the incidence of genodermatoses	0193
A five-year review of patch testing in a private clinical setting in Metro Manila	0194
Follicular thyroid carcinoma with metastasis to the mandible	0195
The frequency of glove contamination during cesarian delivery	0196
Frequency of resistance to trimethoprim-sulfamethoxazole in salmonella-positive blood cultures	0197
Gabapentin in neuropathic pain	0198
Gaucher disease in six Filipino children: a case series	0199
Genetic diversity of plasmodium Sp in a low endemic area in the Philippines	0200
Genetic polymorphisms of glutathione-S- transferase PI, TI and MI in pediatric patients with acute lymphocytic leukemia in a Philippine tertiary hospital	0201
Gram-positive coccal bacteremia	0202
Green tea extract in the management of <i>Molluscum Contagiosum</i> : a randomized study of the green tea extract (<i>Epigallocatechin Gallate</i>) in patients with <i>Molluscum</i>	0203

Contagiosum

The greenfield vena caval filter in the management of pulmonary embolism	0204
Head-upright tilt table testing in the evaluation of patients with unexplained syncope	0205
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
Height and coronary vascular disease	0207
The histopathologic effects of 24-hour and 144-hour exposure to Mt. Pinatubo ash on the respiratory system of rats	0208
Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center	0209
Hyperhomocysteinemia and severe coronary arteriosclerotic heart disease in a 17 year old	0210
Hypertension screening in Filipino grade-school children: A pilot study	0211
Hypertrophic cardiomyopathy among Filipinos	0212
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Immunoglobulin E binding activity of recombinant and native Blo t 11 allergens	0214
Improving human fetal development – The super baby	0215
Incontinentia pigmenti	0216
Infectious mononucleosis in the Philippines: A report of 3 cases	0217
Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte ^R methods	0218
Intestinal obstruction in children: A five-year clinical review	0219
Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department	0220
Intravenous nizatidine in upper gastrointestinal bleeding	0221
Intravitreal injection of ganciclovir in CMV retinitis	0222
Intussusception in infancy and childhood: A ten year review	0223
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Ischiopagus tetrapus twins: successful separation at the center	0225
Late-onset neonatal septicemia due to coagulase-negative staphylococcus	0226
Limited utility of a polymerase chain reaction assay in the detection of <i>Mycobacterium tuberculosis</i> in liver biopsy specimens of children	0227
Malignancies associated with endometriosis	0228
Malignant infantile osteopetrosis in a Filipino child	0229
Management of a benign parotid tumor causing oropharyngeal obstruction	0230
Management of chemical incidents: on-site medical and supporting facilities prior to hospitalization (a review)	0231

The mantrel scoring system in the diagnosis of acute appendicitis	0232
Marine oil treatment for psoriatic patients	0233
Markers of early biological effects after exposure to chemotherapy agents	0234
Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature	0235
Massive ovarian edema	0236
A master of science in genetic counseling program in the Philippines	0237
Measles immunity among rural compared to urban infants	0238
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239
Medical problems in down syndrome patients among Filipinos	0240
Methylmalonic acidemia in two Filipino children	0241
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Minimum level of measles antibodies for prevention of infection	0243
Mitochondrial DNA restriction fragment polymorphism (RFLP) of Philippine acanthamoeba isolates	0244
Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus	0245
Molecular characterization of hepatitis G virus (HGV) isolates from healthy adults and risk groups in the Philippines	0246
Molluscicidal activities of four botanical extracts against oncomelania hupensis quadrasii, snail intermediate host of schistosoma japonicum	0247
How much functional recovery is there in post-stroke patients?	0248
Multiple congenital anomalies in a Filipino infant with trisomy X syndrome	0249
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
Neonatal morbidity among infants of diabetic mothers	0252
Normal pituitary gland: The Asian standard	0253
Normotensives with electrocardiographic LVH have greater 24-hour ambulatory blood pressure load	0254
Nourishing a vital role in total patient care	0255
Nucleated erythrocytes in meconium-stained infants	0256
Occurrence of pulmonary aspergillosis after heart transplantation	0257
Open study of cilostazol among non-insulin dependent diabetes mellitus patients with arteriosclerosis obliterans	0258

An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
Oto-palatodigital syndrome in a Filipino child	0260
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
Overview of genetic services at UP Manila	0263
P300 evoked response potential latencies in Filipino adults	0264
Pap smear findings in endometrial carcinoma: A retrospective study of cases with histopathologic correlation	0265
Paramyosin is a vaccine candidate against schistosoma japonicum infection	0266
Parapneumonic effusion in children: A ten-year retrospective study	0267
Parasites of medical importance in the Philippines	0268
Pathogenic or nonpathogenic entomoeba Sp.	0269
Patient education and compliance among patients with dyspepsia seen at the UP-PGH ambulatory emergency room from September to November 1993	0270
Persistence of placenta previa according to gestational age at ultrasound detection	0271
Phase II evaluation of mitoxantrone in patients with advanced nasopharyngeal carcinoma	0272
A pilot study on the ototoxic effect of aminoglycoside use among tuberculous patients	0273
Post operative constriction or dilation in cataract surgery: Is it really necessary?	0274
Prediction of intestinal viability by intra-arterial dye injection: A simple test	0275
The predictive value of the breast imaging reporting and data system (BIRADS)	0276
Predictors of appendiceal perforation in children: A 7-year review	0277
Predictors of family medicine residents' academic performance: A five-year study of variables in screening residents, 1989-1993	0278
Preliminary experiences with IV gammaglobulins in multiple sclerosis	0279
A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro	0280
A preliminary study on the transfer of maternal measles antibody levels among urban Filipino mothers to their newborns	0281
Premature rupture of membranes and its neonatal effects	0282
Preoperative tenoxicam for post-operative analgesia: a double-blind, randomized study	0283
Preoperative ultrasound determination of depth of myometrial invasion and cervical involvement in endometrial adenocarcinoma—A preliminary report	0284
The prevalence of acute renal failure among post-coronary artery bypass surgery	0285

patients	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
The prevalence of septal perfusion defects in patients with bundle branch blocks	0288
Prevalence of serologically positive amebic liver abscess cases in the Philippines	0289
Prevention of infectious diseases in natural disasters	0290
Primary sites of brain metastasis in Filipino patients: A retrospective study	0291
Profile of cancer patient referrals to the Department of Rehabilitation Medicine, Philippine General Hospital	0292
Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program	0293
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006	0295
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296
Prognostic factors in the recurrence of cervical cancer after radical hysterectomy with bilateral lymph node dissection	0297
Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF)	0298
Proposed criteria for the diagnosis of atypical endometrial hyperplasia and well differentiated endometrial adenocarcinoma	0299
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report	0303
Prostate specific antigen, digital rectal examination, transrectal ultrasound: How accurate are they in determining prostate carcinoma?	0304
QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study	0305
Radiosurgery	0306
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307

A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of <i>giardia intestinalis</i> infection in children	0308
Rapid sequence intubation using succinylcholine	0309
Rapid uerase testing in an upper gastrointestinal endoscopy population with peptic ulcer disease	0310
Relationship between donor age and endothelial cell count among eye donor (1996-1999)	0311
Reliability of paranasal sinus (PNS)X-ray for diagnosing acute frontal sinusitis in patients with frontal headache	0312
Responding to the ethical challenges in the conduct of clinical trials in the Philippines	0313
Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting	0314
Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes	0315
A retrospective study of etiologic factors causing ventriculoperitoneal shunt infections in children	0316
A retrospective study on the bleeding complications of low molecular weight heparins in the treatment of acute ischemic strokes	0317
The RIFASAF project: A case-control study on risk factors for stroke among Filipinos	0318
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
The role of frozen section in the diagnosis of thyroid carcinoma	0320
The role of routine chest radiograph in the management of adult asthmatics in the Emergency Department	0321
Rotavirus acute gastroenteritis among Filipino children	0322
Saline jet lavage: A simple technique to combat wound infection	0323
Sclerosing hemangioma of the lung	0324
Screening for gestational diabetes in multiparas with previous normal carbohydrate metabolism	0325
Semont's maneuver in benign paroxysmal positional vertigo	0326
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water	0329
Shiftwork tolerance and preference of emergency medicine residents	0330
Shoe-lace technique: A preliminary assessment and viability study for delayed primary closure of contaminated, open wounds	0331
Significance of tuberculin testing using Mantoux test and Monovacc test among	0332

grade I students in a Makati primary public school	
SLE, kaposi sarcoma, syphilis, scabies:	0333
Specificity and sensitivity of needling technique in cytologic diagnosis of breast cancer	0334
Spontaneous intracerebral hemorrhage	0335
Staphylococcal scalded skin syndrome	0336
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras	0338
A study of chloroquine resistance of <i>Plasmodium falciparum</i> using the in-vitro sensitivity test and polymerase chain reaction (PCR)	0339
A study of factors predicting progressive neurological deficit in patients with acute ischemic stroke	0340
A study of some factors influencing appointment-breaking among patients at the University of the Philippines-Philippine General Hospital Family Medicine Clinic	0341
A study on a possible alternative local pressure garment for burn scars	0342
Subsequent pregnancy outcomes of one versus two-layer closure of a low transverse cesarean section	0343
Test characteristics of core needle biopsy of palpable breast masses: A review of Philippine General Hospital out-patient cases from 1999 to 2001	0344
Is there a role for antibiotic prophylaxis in clean elective surgical procedures? A randomized, controlled, double-blind study	0345
Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Thyroid cancer in the Philippines: an update	0347
Transdermal estrogen replacement postmenopause and effects on lipid profiles	0348
Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model	0349
Trisomy 8 mosaicism in two Filipino children	0350
Troponin-T rapid assay in the emergency department setting	0351
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
The twelve hour shift	0353
Twenty-five years of the pap smear: Have we gone beyond it?	0354
A university-based forensic pathology practice: The UPM-PGH experience (1996-2000)	0355
Use of 4% intranasal lidocaine in the treatment of migraine	0356

The use of complementary and alternative medicine (CAM) in a conventionally western-oriented medical practice in the Philippines	0357
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Use of serologic examination as a non-invasive method for diagnosis of helicobacter pylori infection	0359
Use of the polymerase chain reaction in the diagnosis of tuberculous meningitis	0360
Usefulness of rapid streptococcal antigen test in determining which patients with acute tonsillopharyngitis require throat culture and treatment	0361
Validating the efficacy of the guidelines on antimicrobial therapy	0362
Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis	0363
Value of the initial troponin T level in the diagnosis of acute myocardial infraction- A probability model	0364
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Virgin coconut oil for psoriasis	0366
Visual outcome of cataract surgery in three regions of the Philippines	0367
In vitro activity of carica papaya powdered extract alone and in combination with penicillin against clinical isolates of streptococcus pyogenes	0368
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
In vivo study on the efficacy of the topical formulations from the crude ethanolic extract of <i>Bidens pilosa</i> L. against <i>Staphylococcus aureus</i>	0370
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Voiding cystourethrogram in the evaluation of patients among pediatric age group with symptomatic urinary tract infection	0372
A western blot study of the IgG response of splenomegalic asymptomatic children in a focus of malaria transmission in Palawan, the Philippines	0373
Woman & child health care knowledge, beliefs and practices among Filipino women randomly selected from the 1989 telephone directory of Metro Manila	0374
Medium-chain fatty acids	
Fractional crystallization of coconut oil in acetone	0047
Medazolam	
Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department	0220
Melanoidin	
Stimulation of ethanol production by Maillard reaction products using different	0038

yeast concentrations	
Melanosis-drug treatment	
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
Meningeal tuberculosis	
Use of the polymerase chain reaction in the diagnosis of tuberculous meningitis	0360
Meperidine	
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Metabolic acidosis	
Methylmalonic acidemia in two Filipino children	0241
Metaclopramide-therapeutic use	
A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Metallo-beta-lactamase (MBL)	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Metallurgy	
Deactivation behaviour of different supported Ni-catalysts under the conditions of the vacuum carburization of steel with acetylene	0033
Metformin	
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Transdermal estrogen replacement postmenopause and effects on lipid profiles	0348
Methamphetamine hydrochloride intoxication	
The demographic background and toxidrome of methamphetamine intoxication in 47 patients seen at the Philippine General Hospital from May 1989 to June 1992	0157
Methyl methacrylate	
Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate	0123
Methylene blue	
Prediction of intestinal viability by intra-arterial dye injection: A simple test	0275
Methylmalonic acidemia	
Methylmalonic acidemia in two Filipino children	0241
Metoclopramide HCL	

Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache	0182
MIB	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Mice	
The efficacy of different concentrations of <i>Morinda citrifolia</i> (noni) cream preparations in the treatment of staphylococcal full-thickness burn wound infection in mice	0180
A randomized, blinded, placebo-controlled, pilot study on the effect of lyophilized bacterial extract on the hematopoietic recovery in immunosuppressed mice	0307
Trial of oral immunoglobulins for the treatment of bacterial diarrhea: A murine model	0349
Mice-diseases-pathology	
The effect of probiotic (lactobacilli) in experimentally-induced intestinal ischemia in mice	0174
Microbiology	
Microbial growths on various types of treated water	0017
Microelectronics	
Microelectronics design for the Philippine electronics industry: An essential for global competitiveness	0082
Microsatellite marker (SSR)	
Accelerated development of coconut synthetic variety using classical breeding methods and microsatellite marker technology	0019
Microsatellite Repeats	
DNA tests for maternity determination	0167
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
Microscopy	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Mid-arm circumference	
Mid-arm circumference, calf circumference and foot length as indicators of low birthweight	0065
Migraine	
Emergency department use of intravenously administered metoclopramide HCL for the relief of migraine headache	0182
Miliaria	
Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria	0186
Milk intake	

Risk factors associated with osteoporosis among Filipino adults	0069
Milk, human-chemistry	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Mite pests	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Mitigation	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Mitochondria	
DNA tests for maternity determination	0167
Overview of forensic services by the UP-NSRI DNA laboratory: a 4-year report	0262
Mitochondrial DNA	
Mitochondrial DNA (TIC) 16189 polymorphism, variants and Heteroplasmy among Filipinos with type 2 Diabetes Mellitus	0245
Mitogen-induced lymphocyte proliferation assays	
Development of an alamar blue-based test as an alternate method in human lymphocyte proliferation assays	0165
Mitoxantrone	
Phase II evaluation of mitoxantrone in patients with advanced nasopharyngeal carcinoma	0272
Modified atmosphere	
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Molecular genetics	
Overview of genetic services at UP Manila	0263
Molluscs	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
Molluscum-contagiosum-epidemiology	
Green tea extract in the management of <i>Molluscum Contagiosum</i> : a randomized study of the green tea extract (<i>Epigallocatechin Gallate</i>) in patients with <i>Molluscum Contagiosum</i>	0203
Molluscum-contagiosum-therapy	
Green tea extract in the management of <i>Molluscum Contagiosum</i> : a randomized study of the green tea extract (<i>Epigallocatechin Gallate</i>) in patients with <i>Molluscum Contagiosum</i>	0203
Morinda citrifolia	
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159

Mosaic	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Movement disorder	
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
Mt. Makiling	
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027
Mt. Pinatubo	
The histopathologic effects of 24-hour and 144-hour exposure to Mt. Pinatubo ash on the respiratory system of rats	0208
Mucocutaneous lymph node syndrome-complications	
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Multiple sclerosis-physiopathology	
Preliminary experiences with IV gammaglobulins in multiple sclerosis	0279
Multistorey system	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Mungbean	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Mupirocin	
In <i>vivo</i> study on the efficacy of the topical formulations from the crude ethanolic extract of <i>Bidens pilosa</i> L. against <i>Staphylococcus aureus</i>	0370
Musa	
Classification and characterization of musa exotica, M. alinsanaya and M. acuminata ssp. errans	0021
Musa acuminata	
Classification and characterization of musa exotica, M. alinsanaya and M. acuminata ssp. errans	0021
Musa alinsanaya	
Classification and characterization of musa exotica, M. alinsanaya and M. acuminata ssp. errans	0021
Musa exotica	
Classification and characterization of musa exotica, M. alinsanaya and M. acuminata ssp. errans	0021
Cytology of musa exotica R. valmayor sp. novo	0014
Musa exotica R. Valmayor sp. nov.	
Cytology of musa exotica R. valmayor sp. novo	0014

Musa spp.	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Musa textilis Nee	
Mapping the spread of abaca bunchy-top and mosaic diseases in the Bicol and eastern Visayas regions, Philippines	0025
Muscovado	
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Mutagenic sensitivity	
Markers of early biological effects after exposure to chemotherapy agents	0234
Mutations	
Evaluation of ras mutations in Filipino colorectal patients	0184
Mycology	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Myocardial infarction	
Association of homocysteine levels to traditional risk factors in unstable angina and non-ST elevation myocardial infarction: implications from the FINEST study	0108
Chronic bundle branch block: clinical and angiographic correlates and early prognostic impact	0119
Value of the initial troponin T level in the diagnosis of acute myocardial infarction- A probability model	0364
Myocardial infarction-diagnosis	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
Anticoagulation post coronary artery stenting in acute coronary syndromes: Is it beneficial or not?	0104
Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes	0150
Myocardial revascularization	
Effects of revascularization on the ejection fraction of patients with severe systolic dysfunction	0178
Myocardial-infarction-physiopathology	
QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study	0305
Myocardial-infarction-mortality	
QT dispersion and left ventricular wall ejection fraction in relation to acute myocardial infarction: A prospective study	0305

Myometrial carcinoma	
Preoperative ultrasound determination of depth of myometrial invasion and cervical involvement in endometrial adenocarcinoma—A preliminary report	0284
Nanowires	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Nasolacrimal Duct	
Carbon dioxide laser-assisted external dacryocystorhinostomy: A modified approach to nasolacrimal duct obstruction	0114
Nasopharyngeal Carcinoma	
Phase II evaluation of mitoxantrone in patients with advanced nasopharyngeal carcinoma	0272
Natural disasters	
Prevention of infectious diseases in natural disasters	0290
Nausea	
An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
Nebulized steroids	
The comparison of combined nebulized steroids and beta-2-agonist with beta-2-agonist alone the treatment of acute asthma in adults in the emergency department	0142
Neisseria gonorrhoea infections	
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
Neonatal	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Neonatal morbidity	
Neonatal morbidity among infants of diabetic mothers	0252
Neonatal sepsis	
The complete blood count and hematologic findings as screening criteria for neonatal sepsis	0145
Neonatal septicemia	
The complete blood count and hematologic findings as screening criteria for neonatal sepsis	0145
Neonate	
Late-onset neonatal septicemia due to coagulase-negative staphylococcus	0226
Neoplasm, metastatic	
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112

Nepenthes alatan	
Conspicificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Network Management	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Network Performance	
Measuring performance of IP networks using content metrics	0081
Neurasthenic	
Adverse health effects of organic solvent exposure: A critical review	0053
Neurocirculatory asthenia	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Neurofibromatosis-genetics	
A five year retrospective study on the incidence of genodermatoses	0193
Neurologic examination	
Altered sensorium in five patients noted to be in non-convulsive status epilepticus: A case series	0099
CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis	0153
Newborn	
Blood pressure measurements in the first six hours of life	0111
Hyperbilirubinemia in glucose-6 phosphate dehydrogenase-deficient neonates born in the Makati Medical Center	0209
Newborn screening	
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Overview of genetic services at UP Manila	0263
Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program	0293
Ni-catalyst	
Deactivation behaviour of different supported Ni-catalysts under the conditions of the vacuum carburization of steel with acetylene	0033
Nicardipine	
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
Nifedipine	
Health-related quality of life as treatment endpoint among elderly hypertensives	0206
Non Cis-Platinum	

An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
Non-Regional students	
Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study	0379
Nordic LBP questionnaire	
Prevalence of low back pain among jeepney drivers in Metro Manila: A descriptive study	0068
nrDNA	
Synonymy of the three <i>Villaria</i> rolfe species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
NS-2	
Dynamic lightpath allocation via destination-initiated group wavelength reservation in a unicast wavelength-routed WDM all-optical network	0079
Nutrition	
Common errors in feeding infants and young children	0375
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines	0377
Nutrition care	
Nourishing a vital role in total patient care	0255
Nutrition survey	
Risk factors associated with osteoporosis among Filipino adults	0069
Nutritional status	
Correlation of knee height with height and body weight in the assessment of nutritional status among students of an urban elementary school	0376
Nutritional Status	
Factors predictive of pneumonia in measles	0190
Nutritional status	
Pre- and post-evaluations of growth patterns and nutritional status of zero to 24 month old children in BIDANI and Non-BIDANI areas in lowland and coastal villages in the Philippines	0377
Nuts	
An economic review on the productivity and profitability of the two Philippine	0073

coconut tall varieties: Laguna and Baybay Talls	
Obesity	
Carpal tunnel syndrome: Our experience with the frequency of diabetes and obesity	0115
Obesity in diabetes	
Effects of metformin on insulin resistance in obese non-diabetic and obese NIDDM Patients	0177
Immunogenicity of inactivated hepatitis A vaccine in health workers	0213
Transdermal estrogen replacement postmenopause and effects on lipid profiles	0348
Occupational injury	
Establishing risk assessment indices for occupational injuries at work in the Philippines: Strategies for prevention	0059
OFDM	
Peak-to-average power ratio reduction solutions for OFDM	0083
Oligospermia	
Comparative single-blind randomized placebo-controlled clinical trial of a polyherbal formulation containing asparagus racemosus and cheiranthus cheiri in oligospermia	0138
Oncomelania hupensis quadrasi	
Molluscicidal activities of four botanical extracts against oncomelania hupensis quadrasi, snail intermediate host of schistosoma japonicum	0247
Ondansetron	
An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
One-stage surgery	
Autologous ossicular grafts in one-stage surgery for chronic otitis media	0109
Open source	
Comparative study of linux distribution for desktop use	0075
Operating System	
Comparative study of linux distribution for desktop use	0075
Operating system	
Developing a windows [®] 2000 serial driver for bluetooth [™]	0078
Optical network	
Dynamic lightpath allocation via destination-initiated group wavelength reservation in a unicast wavelength-routed WDM all-optical network	0079
Organic solvents exposure	
Adverse health effects of organic solvent exposure: A critical review	0053
Organophosphates	

Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Ornamental mite pests	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Osteoarthropathy, primary hypertrophic	
A five year retrospective study on the incidence of genodermatoses	0193
Osteoporosis	
Risk factors associated with osteoporosis among Filipino adults	0069
Otitis media	
Aeroallergen sensitization and serum immunoglobulin levels of Filipino children with chronic and recurrent otitis media	0097
Otopalatodigital syndrome type 1	
Oto-palatodigital syndrome in a Filipino child	0260
Outcome assessment health care economics	
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Outcome measures	
Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review	0072
Ovarian carcinoma	
Clinical profile of patients with ovarian carcinoma at the Philippine General Hospital - a thirteen year review	0130
Ovarian-diseases-diagnosis	
Massive ovarian edema	0236
Ovarian-diseases-pathology	
Massive ovarian edema	0236
Overseas Filipino worker	
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Overuse injury	
Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP	0063
Packaging	
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Pancreas	
Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Pancreatic islets	

Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Pancreaticoduodenectomy	
Massive gastrointestinal hemorrhage one month after pancreaticoduodenectomy: Case report and review of literature	0235
Pandanus	
Molecular differentiation of selected <i>Pandanus</i> spp. by random amplified polymorphic DNA (RAPD) analysis	0026
Pap smear	
Twenty-five years of the pap smear: Have we gone beyond it?	0354
Pap smear-autocyte, interobserver variability	
Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte ^R methods	0218
Pap smear-conventional	
Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte ^R methods	0218
Papanicolaou system	
Twenty-five years of the pap smear: Have we gone beyond it?	0354
Papaya	
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Papillary-Pathology	
Sclerosing hemangioma of the lung	0324
PAPR	
Peak-to-average power ratio reduction solutions for OFDM	0083
Paralysis-surgery	
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Parameterization	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Paramyosin	
Paramyosin is a vaccine candidate against schistosoma japonicum infection	0266
Paranasal sinus diseases-radiography	
Reliability of paranasal sinus (PNS)X-ray for diagnosing acute frontal sinusitis in patients with frontal headache	0312
Parasite	
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239

Parasites	
Parasites of medical importance in the Philippines	0268
Parasitic diseases	
Challenges in the control of food and water-borne parasitoses in the Philippines	0056
Parenteral fluid nutrition	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Parkinsonism	
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
Parotid neoplasm-pathology	
Management of a benign parotid tumor causing oropharyngeal obstruction	0230
Parotid neoplasm-surgery	
Management of a benign parotid tumor causing oropharyngeal obstruction	0230
Parotidectomy	
Facial reanimation with the use of sural nerve in total parotidectomy with facial nerve Sacrifice	0187
PATAgr	
Cyst morphology of Philippine acanthamoeba isolates	0155
Patch tests	
A five-year review of patch testing in a private clinical setting in Metro Manila	0194
Pathogen detection	
Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
Patient care	
Evaluation of the effectiveness of the introduction to patient care program of the UP College of Medicine	0185
Patient education/compliance	
Patient education and compliance among patients with dyspepsia seen at the UP-PGH ambulatory emergency room from September to November 1993	0270
Patient-acceptance, health care	
Green tea extract in the management of <i>Molluscum Contagiosum</i> : a randomized study of the green tea extract (<i>Epigallocatechin Gallate</i>) in patients with <i>Molluscum Contagiosum</i>	0203
Patient-provider relations	
Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights	0380
PCR	
Use of the polymerase chain reaction in the diagnosis of tuberculous meningitis	0360
Pediatrics	

Adverse drug reactions among pediatric patients	0095
Penicillins-therapeutic use	
In vitro activity of carica papaya powdered extract alone and in combination with penicillin against clinical isolates of streptococcus pyogenes	0368
Peppermint	
Food flavors as potential preservative systems	0046
Peptic ulcer	
CLOTesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?	0132
Rapid urease testing in an upper gastrointestinal endoscopy population with peptic ulcer disease	0310
Perception	
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023
Performance curves	
Dynamic lightpath allocation via destination-initiated group wavelength reservation in a unicast wavelength-routed WDM all-optical network	0079
Perinatal mortality	
Neonatal morbidity among infants of diabetic mothers	0252
Peripheral nervous system disease - complications	
Gabapentin in neuropathic pain	0198
Peripheral neuropathy	
Clinical evaluation of peripheral neuropathy among dental technicians exposed to methyl methacrylate	0123
Peripheral smear	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Phakoemulsification	
Visual outcome of cataract surgery in three regions of the Philippines	0367
Pharmacognosy	
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Pharmacotherapy	
Facing up to the challenges of the diabetes epidemic	0188
Pharyngitis-Drug Therapy	
Usefulness of rapid streptococcal antigen test in determining which patients with acute tonsillopharyngitis require throat culture and treatment	0361
Phenolics	
Effect of processing on the antioxidant activity and total phenolic content of some	0044

fruits and vegetables commonly consumed by Filipinos	
PhilHealth	
A validation framework and key performance indicators for the assessment of PHILHEALTH performance	0071
Philippine Oral Cleft Registry Study Group	
Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006	0295
Philippine carabao	
Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Philippine Electronics Industry	
Microelectronics design for the Philippine electronics industry: An essential for global competitiveness	0082
Philippine mites	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Philippines	
Current management of breast cancer	0154
A master of science in genetic counseling program in the Philippines	0237
Microelectronics design for the Philippine electronics industry: An essential for global competitiveness	0082
Prevention of infectious diseases in natural disasters	0290
Phytophagous mites	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Phytoseiidae	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Pigmentation disorders-therapy	
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
Piroplasmosis	
Anti- <i>babesia rodhaini</i> monoclonal antibodies: Effect against babesia Spp. and Plasmodium Berghei	0103
Pistia stratiotes Linn.	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Pituitary gland-growth and development	
Normal pituitary gland: The Asian standard	0253
Pituitary gland-pathology	

Normal pituitary gland: The Asian standard	0253
Placenta previa-ultrasonography	
Persistence of placenta previa according to gestational age at ultrasound detection	0271
Plant biology	
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Plant extracts - therapeutic use	
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159
Plant pathology	
Fungal root endophytes from <i>Musa</i> spp. as biological control agents against the plant pathogen <i>Fusarium oxysporum</i>	0024
Plants, medicinal	
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Plasmodium falciparum	
A study of chloroquine resistance of <i>Plasmodium falciparum</i> using the in-vitro sensitivity test and polymerase chain reaction (PCR)	0339
Playing surface	
Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP	0063
Pleural effusion, classification-diagnosis	
Parapneumonic effusion in children: A ten-year retrospective study	0267
Pneumonia	
Factors predictive of pneumonia in measles	0190
Pneumonia, staphylococcal-pathology	
Parapneumonic effusion in children: A ten-year retrospective study	0267
Polyaniline	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Polyherbal formulation	
Comparative single-blind randomized placebo-controlled clinical trial of a polyherbal formulation containing asparagus racemosus and cheiranthus cheiri in oligospermia	0138
Polyhydroxybutyrate depolymerase	
Purification and characterization of a poly(β -Hydroxybutyrate) depolymerase from <i>Burkholderia cepacia</i>	0037
Polymerase chain reaction	

Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
Limited utility of a polymerase chain reaction assay in the detection of <i>Wcobacterium tuberculosis</i> in liver biopsy specimens of children	0227
Polymorphic enzymes	
Genetic polymorphisms of glutathione-S- transferase PI, TI and MI in pediatric patients with acute lymphocytic leukemia in a Philippine tertiary hospital	0201
Polysaccharide	
Preliminary studies on the polysaccharide composition of coconut and makapuno cell wall	0050
Polythiophene	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Pomelo	
Food flavors as potential preservative systems	0046
Porting	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Positive predictive value	
The predictive value of the breast imaging reporting and data system (BIRADS)	0276
Post operative constriction	
Post operative constriction or dilation in cataract surgery: Is it really necessary?	0274
Post-operative procedures	
Subsequent pregnancy outcomes of one versus two-layer closure of a low transverse cesarean section	0343
Postharvest handling	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Postoperative analgesia	
Preoperative tenoxicam for post-operative analgesia: a double-blind, randomized study	0283
Postoperative-complications	
The prevalence of acute renal failure among post-coronary artery bypass surgery patients	0285
Poultry	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Poultry--production	
Livestock and poultry diseases of economic importance in the Philippines: An overview	0074

Practice-guidelines	
Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting	0161
Predatory mites	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Pregnacy outcome	
Congenital cystic adenomatoid malformation of the lungs (CCAM)	0147
Pregnancy	
Combined heterotopic pregnancy	0134
Screening for gestational diabetes in multiparas with previous normal carbohydrate metabolism	0325
Pregnancy, ectopic	
Common sonographic features of ectopic pregnancy	0135
Pregnancy, ectopic-ultrasonography	
Common sonographic features of ectopic pregnancy	0135
Pregnancy-complications	
Accuracy of ultrasound in diagnosing Intrauterine growth retardation	0091
Screening for gestational diabetes in multiparas with previous normal carbohydrate metabolism	0325
Pregnancy-complications-neoplastic-therapy	
Adnexal mass in pregnancy: A review of cases that underwent surgical management (ten years experience)	0094
Pregnancy-outcome	
Adnexal mass in pregnancy: A review of cases that underwent surgical management (ten years experience)	0094
Pregnancy-trimester, second	
Persistence of placenta previa according to gestational age at ultrasound detection	0271
Premature rupture	
Premature rupture of membranes and its neonatal effects	0282
Preoperative	
Preoperative tenoxicam for post-operative analgesia: a double-blind, randomized study	0283
Preparedness action plan	
Assessment of disaster preparedness in selected public schools in Luzon, Philippines	0055
Pressure garment	
A study on a possible alternative local pressure garment for burn scars	0342

Prevalence	
Facing up to the challenges of the diabetes epidemic	0188
Primary cancer sites	
Primary sites of brain metastasis in Filipino patients: A retrospective study	0291
Probiotic	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Processing	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Processing-type	
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Productivity	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Progeny testing	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Promethazine	
The use of intramuscular meperidine - promethazine - chlorpromazine (MPC) for conscious sedation of children undergoing laceration repair in the emergency department	0358
Prospective studies	
Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
Outpatient inguinal herniorrhaphies done under local anesthesia: A prospective study	0261
Prophylactic use of hematopoietic colony stimulating factors (G-CSF/GM-CSF)	0298
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
Prostate carcinoma	
Contemporary strategies in the management of advanced prostate cancer	0149
Prostate specific antigen (PSA)	
Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report	0303
Prostate specific antigen density (PSAD)	
Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report	0303

Prostate-Ultrasonography	
Prostate specific antigen, digital rectal examination, transrectal ultrasound: How accurate are they in determining prostate carcinoma?	0304
Prostatic Neoplasm-Diagnosis	
Prostate specific antigen, digital rectal examination, transrectal ultrasound: How accurate are they in determining prostate carcinoma?	0304
Prostatic Neoplasm-Surgery	
Prostate specific antigen, digital rectal examination, transrectal ultrasound: How accurate are they in determining prostate carcinoma?	0304
Protein	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Proteinuria	
Clinical profile of renal biopsy with findings of glomerular crescent	0131
Protozoa	
Parasites of medical importance in the Philippines	0268
Protozoan parasites	
Anti- <i>babesia rodhaini</i> monoclonal antibodies: Effect against babesia Spp. and Plasmodium Berghei	0103
Proxy agent	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Pruritus	
Clinical features of pruritus among patients undergoing hemodialysis	0126
Pseudomonas aeruginosa	
Prevalence of extended-spectrum- β -lactamase (ESBL) and metallo- β -lactamase (MBL)-producing pseudomonas aeruginosa isolates from the Philippine General Hospital	0286
Psoriasis	
Marine oil treatment for psoriatic patients	0233
Psoriasis--alternative treatment	
Virgin coconut oil for psoriasis	0366
Psychology	
Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study	0379
Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights	0380
Psychoorganic	
Adverse health effects of organic solvent exposure: A critical review	0053

PTFE and	
Design of a narrowband hairpin filter on PTFE laminate	0077
Public safety	
Adverse health effects of organic solvent exposure: A critical review	0053
Assessment of disaster preparedness in selected public schools in Luzon, Philippines	0055
Public school	
Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting	0314
Pulmonary embolism	
The greenfield vena caval filter in the management of pulmonary embolism	0204
Pyoderma-drug therapy	
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159
Pyrethroids	
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Quality control	
Determining the critical death to preservation time for procuring good quality donor corneas in the Philippine setting	0161
Microbial growths on various types of treated water	0017
Quality of life	
Profile of cancer patient referrals to the Department of Rehabilitation Medicine, Philippine General Hospital	0292
Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis	0363
Rabbit	
Determining the effects of diluted manuka honey on the anterior segment of normal rabbit eyes	0162
Rabbits	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
Rabies	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296
Radiosurgery	
Radiosurgery	0306
Rafflesia manillana	
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027

Rafflesia panchoana	
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027
Range of motion	
Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study	0058
RAPD	
Molecular differentiation of selected <i>Pandanus</i> spp. by random amplified polymorphic DNA (RAPD) analysis	0026
Rapid sequence	
Rapid sequence intubation using succinylcholine	0309
Rapid test kit	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Ras	
Evaluation of ras mutations in Filipino colorectal patients	0184
Rats	
The histopathologic effects of 24-hour and 144-hour exposure to Mt. Pinatubo ash on the respiratory system of rats	0208
rDNA	
Conspecificity of <i>Nepenthes alata</i> Blco. population found in Mt. Guisguis, Zambales inferred from internal transcribed spacer (nrDNA) sequence data	0022
Reactive dyes	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Reciprocal recurrent selection	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Rectal midazolam	
Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children	0148
Recurrence rate	
Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes	0315
Red blood cells	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Reforestation	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002

Regional students	
Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study	0379
Rehabilitation	
Profile of cancer patient referrals to the Department of Rehabilitation Medicine, Philippine General Hospital	0292
Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis	0363
Renewable energies	
Coconut carbon sequestration part 2/Strategies for carbon market & simulating potential incomes for coconut CDM projects	0002
Replanting	
Coconut productivity and production potential in coastal areas of the Philippines (A research note)	0003
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Tall	0073
Rescrudescence	
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239
Research tools	
Telephone survey sampling and interview as research tools in Metro Manila Philippines	0085
Reservation protocol	
Dynamic lightpath allocation via destination-initiated group wavelength reservation in a unicast wavelength-routed WDM all-optical network	0079
Residency training	
Predictors of family medicine residents' academic performance: A five-year study of variables in screening residents, 1989-1993	0278
Respiratory distress syndrome	
Nucleated erythrocytes in meconium-stained infants	0256
Restrospective studies	
Analysis of factors determining response to hepatitis B vaccination among hemodialysis patients	0101
Retinoblastoma	
Retinoblastoma: A clinico-pathologic review of 93 enucleated Eyes	0315
Retrospective studies	
A 3 year descriptive study on hepatobiliary scanning in pediatric patients	0088
Accuracy of ultrasound in diagnosing Intrauterine growth retardation	0091
Adverse drug reactions among pediatric patients	0095

Computed tomography patterns of pulmonary tuberculosis in pediatric population	0146
Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes	0150
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Pap smear findings in endometrial carcinoma: A retrospective study of cases with histopathologic correlation	0265
Parapneumonic effusion in children: A ten-year retrospective study	0267
Persistence of placenta previa according to gestational age at ultrasound detection	0271
Predictors of appendiceal perforation in children: A 7-year review	0277
Profile of Kawasaki disease in children and its association with coronary artery aneurysmal malformation: An 8-year review	0294
Radiosurgery	0306
Relationship between donor age and endothelial cell count among eye donor (1996-1999)	0311
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Rheology	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Rice	
Development of rapid methods of detecting pesticide residues in stored grains	0005
Rice disease	
Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
RIFASAF project	
The RIFASAF project: A case-control study on risk factors for stroke among Filipinos	0318
Risk assessment	
Adverse health effects of organic solvent exposure: A critical review	0053
Risk factors	
Association of homocysteine levels to traditional risk factors in unstable angina and non-ST elevation myocardial infarction: implications from the FINEST study	0108
Cholangiocarcinoma and gallbladder carcinoma: comparison of risk factors	0118
A study of factors predicting progressive neurological deficit in patients with acute ischemic stroke	0340
Risperidone-therapeutic use	
Clinical experience with risperidone	0125
Role of science	
Science in the "eloquence of everyday life"	0378

Rose mites	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Rotavirus acute gastroenteritis	
Rotavirus acute gastroenteritis among Filipino children	0322
Rubber band ligation	
Ambulatory treatment of hemorrhoids by rubber band ligation: A 4-year review	0100
Rubiaceae	
Synonymy of the three <i>Villaria</i> rolfe species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
Running	
Gluteal taping on running performance of healthy young adults: A randomized controlled pilot study	0061
Runoff	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
S. Japonicum infection	
Detection of circulating schistosome antigens in S. Japonicum Infection	0158
Safety	
A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of <i>giardia intestinalis</i> infection in children	0308
Saging matsing	
Classification and characterization of <i>musa exotica</i> , <i>M. alinsanaya</i> and <i>M. acuminata</i> ssp. <i>errans</i>	0021
Saline jet lavage	
Saline jet lavage: A simple technique to combat wound infection	0323
Salmonella	
Frequency of resistance to trimethoprim-sulfamethoxazole in salmonella-positive blood cultures	0197
Salt wasting	
Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program	0293
Sarcoma	
SLE, kaposi sarcoma, syphilis, scabies:	0333
Scabies	
SLE, kaposi sarcoma, syphilis, scabies:	0333
Schistosoma japonicum	
Cathepsins from extracts of <i>Schistosoma Japonicum</i> adult worms and eggs	0116

Molluscicidal activities of four botanical extracts against oncomelania hupensis quadrasi, snail intermediate host of schistosoma japonicum	0247
Paramyosin is a vaccine candidate against schistosoma japonicum infection	0266
A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro	0280
Schistosoma mansoni	
Paramyosin is a vaccine candidate against schistosoma japonicum infection	0266
Schistosome antigens	
Detection of circulating schistosome antigens in S. Japonicum Infection	0158
Schistosome infection	
Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting	0314
Schistosomiasis	
Molluscicidal activities of four botanical extracts against oncomelania hupensis quadrasi, snail intermediate host of schistosoma japonicum	0247
Schistosomiasis japonica	
Candidate vaccine antigen against schistosomiasis japonica is homologous to a family of actin-associating protein	0113
Schistosomiasis japonicum	
Resurgence of schistosomiasis japonicum in schoolchildren in Agusan Del Sur, Philippines: Opportunities for control in the school setting	0314
Schistosomulae	
A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro	0280
Schizophrenia	
Clinical experience with clozapine	0124
Schizophrenic	
Clinical experience with risperidone	0125
School-based control program	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Schoolchildren	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Science and technology	
Science in the "eloquence of everyday life"	0378
Scoring system	
The mantrel scoring system in the diagnosis of acute appendicitis	0232

Screening	
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
SDL	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Sedation	
Conscious sedation using rectal midazolam prior to suturing uncomplicated lacerated wounds in children	0148
Seeds	
Science in the "eloquence of everyday life"	0378
Seizures	
Medical problems in down syndrome patients among Filipinos	0240
SEM	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Semiconductors	
Establishing risk assessment indices for occupational injuries at work in the Philippines: Strategies for prevention	0059
Sensitivity	
Adverse health effects of organic solvent exposure: A critical review	0053
Sepsis	
Late-onset neonatal septicemia due to coagulase-negative staphylococcus	0226
Premature rupture of membranes and its neonatal effects	0282
Sepsis-congenital	
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Septicemia-blood	
Sensitivity of the neonatal sepsis protocol in the diagnosis of term and borderline term infants with septicemia	0328
Septicemia-prevention and control	
The microbiological isolates of intravenous fluids used in the NICU setting after puncture and storage	0242
Serotonin-antagonists	
A prospective and comparative study of the cost-effectivity of metoclopramide and tropisetron in the treatment of chemotherapy-induced emesis	0301
Serum glucose	
Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water	0329

Serum immunoglobulin	
Aeroallergen sensitization and serum immunoglobulin levels of Filipino children with chronic and recurrent otitis media	0097
Sex-linked recessive dystonia parkinsonism	
Muscle afferent block in the treatment of x-linked dystonia-parkinsonism (XDP)	0250
Sexually transmitted diseases	
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
Shabu	
The demographic background and toxidrome of methamphetamine intoxication in 47 patients seen at the Philippine General Hospital from May 1989 to June 1992	0157
Shelf-life	
Modified-atmosphere packaging of mangosteen (<i>Garcinia mangostana</i> L.)	0010
Shigella-Dysenteriae Salmonella	
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Shock, septic-epidemiology	
Factors predictive of adverse outcome in dengue hemorrhagic fever	0189
Shoe	
Incidence of chronic lower extremity musculoskeletal injuries among badminton players participating in UAAP	0063
Shoe-lace technique	
Shoe-lace technique: A preliminary assessment and viability study for delayed primary closure of contaminated, open wounds	0331
Shoulder	
Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study	0058
Shoulder impingement syndrome	
Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study	0058
Shoulder pain	
Effect of taping on pain and range of motion of athletes with shoulder impingement syndrome: A pilot study	0058
Silicon application	
Response of maize (<i>Zea mays</i> L.) to various modes and levels of silicon application	0011
Simple virilizing	
Profile of Filipino infants with 21-hydroxylase deficiency congenital adrenal hyperplasia detected by the Philippine newborn screening program	0293
Single-blind study	

Comparative single-blind randomized placebo-controlled clinical trial of a polyherbal formulation containing asparagus racemosus and cheiranthus cheiri in oligospermia	0138
Skeletal abnormalities	
Trisomy 8 mosaicism in two Filipino children	0350
Skin diseases-therapy	
Green tea extract in the management of <i>Molluscum Contagiosum</i> : a randomized study of the green tea extract (<i>Epigallocatechin Gallate</i>) in patients with <i>Molluscum Contagiosum</i>	0203
Sleep	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Sleep patterns	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Sleepiness	
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Slops	
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Smoking-economics	
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Smoking-prevention and control	
Experimental smoking among schoolchildren in Barangay Singkamas, Makati City	0060
Snails	
Status of taxonomic studies on Philippine molluscs: With an update on two freshwater taxa of medical significance	0018
SNMP	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Social Health Insurance	
A validation framework and key performance indicators for the assessment of PHILHEALTH performance	0071
Social sciences	
Academic performance of regionalization and non-regionalization students at the UP College of Medicine: A comparative study	0379
Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights	0380
Sleepiness and sleep patterns among air traffic controllers and communicators	0381
Socio-demography	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite	0296

patients and their bite exposure: A 2006 retrospective study	
Socio-economic factors	
Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
Sodium	
Serum glucose and sodium responses in patients during hysteroscopy with 5% dextrose water	0329
Soil conservation	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Soil erosion	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Soil nutrition	
Response of maize (<i>Zea mays</i> L.) to various modes and levels of silicon application	0011
Soil organic matter	
Coconut carbon sequestration part 1/Highlights on carbon cycle in coconut plantations	0001
Soil-transmitted helminthiasis	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Soil-transmitted helminths	
Prevalence of intestinal parasites among schoolchildren in a coastal rural area of Maragondon, Cavite, Southern Luzon, Philippines	0287
Solvent fractional crystallization	
Fractional crystallization of coconut oil in acetone	0047
Somatoform disorders	
The DSM IV classification of cases of neurocirculatory asthenia (NCA) seen in the emergency room	0169
Sorghum	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
Soursop	
Aguinaldo, the first Philippine cultivar of a processing-type soursop (<i>Annona muricata</i> L.)	0020
Soybean oil	
Angiogenesis inhibition by commercial soybean oil on duck chorioallantoic membrane in ovo	0102
Specificity	

Adverse health effects of organic solvent exposure: A critical review	0053
Spectroscopy	
Polyaniline/graphite composites: <i>In-situ</i> synthesis and characterization	0036
Speech-acoustics	
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Spider mites	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Squash	
A preliminary study on the killing effect of cucurbita maxima variety alyaga (squash) seed decoction on schistosoma japonicum In vitro	0280
Squamous intraepithelial lesion	
Interobserver variability in the low and high risk diagnoses of papanicolaou stained cervico-vaginal smears prepared via conventional and Autocyte ^R methods	0218
SSSS	
Staphylococcal scalded skin syndrome	0336
Staphylococcal infections-therapy	
Gram-positive coccal bacteremia	0202
Staphylococcal scalded skin syndrome	
Staphylococcal scalded skin syndrome	0336
Staphylococcus	
Effects of commonly used topical preparations on the cutaneous normal flora	0176
Staphylococcus aureus	
A comparative study of etiologic agents in primary bacterial skin infections occurring in MMC Dermatology Out-Patient Department and Medical Missions in Nagcarlan, Laguna	0139
The determination of the in-vitro activity of naturally-prepared <i>Morinda citrifolia</i> fruit extract against staphylococcus aureus	0159
Extracellular polysaccharide substance (EPS)-producing staphylococcus epidermidis: Its role in the production of miliaria	0186
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Staphylococcus aureus drug effects	
The efficacy of different concentrations of <i>Morinda citrifolia</i> (noni) cream preparations in the treatment of staphylococcal full-thickness burn wound infection in mice	0180
Staphylococcus epidermidis	
Extracellular polysaccharide substance (EPS)-producing staphylococcus	0186

epidermidis: Its role in the production of miliaria	
Starter	
Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Status epilepticus-diagnosis	
Altered sensorium in five patients noted to be in non-convulsive status epilepticus: A case series	0099
Steel	
Deactivation behaviour of different supported Ni-catalysts under the conditions of the vacuum carburization of steel with acetylene	0033
Stereotactic biopsy	
Diagnostic yield in 33 computerized tomography-guided stereotactic biopsy	0166
Stereotaxic techniques	
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Strawberry mites	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Streptococcal Infections-Diagnosis	
Usefulness of rapid streptococcal antigen test in determining which patients with acute tonsillopharyngitis require throat culture and treatment	0361
Streptococcus pneumoniae	
Gram-positive coccal bacteremia	0202
Streptococcus pyogenes	
An in-vitro study of the therapeutic effects of carica papaya against superficial pyodermas	0224
Stress	
The twelve hour shift	0353
Stride length	
Gluteal taping on running performance of healthy young adults: A randomized controlled pilot study	0061
Stroke	
How much functional recovery is there in post-stroke patients?	0248
The RIFASAF project: A case-control study on risk factors for stroke among Filipinos	0318
Stroke rehabilitation	
How much functional recovery is there in post-stroke patients?	0248
Succinylcholine	

Rapid sequence intubation using succinylcholine	0309
Sucrose	
The effect of different carbohydrates and protein solutions on the survival of <i>Entamoeba histolytica</i> in pure culture: diagnostic implications for increasing likelihood of recovery from stools	0171
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Sugar technology	
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Sugarcane	
Batch fermentation of <i>corynebacterium glutamicum</i> from sugarcane muscovado syrup for lysine production	0042
Sunscreening agents-therapeutic use	
Double-blind, randomized prospective study to compare 4% melfade vs. 4% hydroquinone both with 10% glycolic acid and an SPF 45 sunscreen in the treatment of melasma	0168
Surgery, operative	
Is there a role for antibiotic prophylaxis in clean elective surgical procedures? A randomized, controlled, double-blind study	0345
Surgical patients	
Adverse outcomes among surgical patients in a tertiary teaching hospital	0096
Surgical wound infection	
A retrospective study of etiologic factors causing ventriculoperitoneal shunt infections in children	0316
Survey	
Shiftwork tolerance and preference of emergency medicine residents	0330
Survival analysis	
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
Survival-Analysis	
A comparison of active compression/decompression cardio-pulmonary resuscitation (ACD-CPR) versus standard cardio-pulmonary resuscitation (Std-CPR) at the emergency department	0141
Sutures	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Syncope-etiology	
Head-upright tilt table testing in the evaluation of patients with unexplained	0205

syncope	
Synonymy	
Synonymy of the three <i>Villaria rolfe</i> species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
Synthetic variety	
Development of genetically enhanced open pollinated varieties (GEnOPVCoco) of coconut (<i>Cocos nucifera</i> L.)	0015
Syphilis	
SLE, kaposi sarcoma, syphilis, scabies:	0333
Systemic lupus erythematosus	
SLE, kaposi sarcoma, syphilis, scabies:	0333
Systole	
Effects of revascularization on the ejection fraction of patients with severe systolic dysfunction	0178
Tai Chi Chuan	
Improvements in maximal oxygen consumption among elderly Tai Chi Chuan practitioners	0062
Tall variety	
An economic review on the productivity and profitability of the two Philippine coconut tall varieties: Laguna and Baybay Talls	0073
Tarsonemidae	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Teaching hospital	
Adverse outcomes among surgical patients in a tertiary teaching hospital	0096
Telemedicine	
The utilization by Filipino domestic helpers in Hong Kong of medical services deliverable through telemedicine: A preliminary study	0070
Telephone interviews	
Telephone survey sampling and interview as research tools in Metro Manila Philippines	0085
Telephone surveys	
Telephone survey sampling and interview as research tools in Metro Manila Philippines	0085
Template synthesis	
Electrosynthesis of polythiophene nanowires on fabricated anodic alumina oxide templates	0035
Tenoxicam	
Preoperative tenoxicam for post-operative analgesia: a double-blind, randomized	0283

study	
Tetranychidae	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Tenuipalpidae	
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384
Test characteristics	
Test characteristics of core needle biopsy of palpable breast masses: A review of Philippine General Hospital out-patient cases from 1999 to 2001	0344
Textile dyes	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Thallium radioisotopes diagnostic use	
Myocardial perfusion imaging using technetium 99m-tetrofosmin: A comparative study with coronary angiography	0251
The Philippine Oral Cleft Registry	
Profile of oral cleft cases reported in the Philippine Oral Cleft Registry from May 2003 to December 2006	0295
Theobroma cacao	
Carbon stock assessment of two agroforestry systems in a tropical forest reserve in the Philippines	0051
Therapeutic Use	
Clinical experience with clozapine	0124
Therapeutic use	
Virgin coconut oil for psoriasis	0366
Thin layer chromatography	
Correlation between dried blood spot thin layer chromatography and plasma high performance liquid chromatography of leucine/isoleucine levels among Filipino patients with maple syrup urine disease (MSUD) seen at the Institute of Human Genetics, National I	0152
Thoracotomy Methods	
Sclerosing hemangioma of the lung	0324
Threatened plant	
<i>Rafflesia panchoana</i> (Rafflesiaceae), a new species from Luzon Island, Philippines	0027
Threshold values	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Thrombolytic therapy	

Determining appropriateness of thrombolytic therapy among patients with acute coronary syndrome	0160
Thyroid cancer	
Fine needle aspiration biopsy in the diagnosis of thyroid cancer: How accurate is it?	0191
Thyroid cancer in the Philippines: an update	0347
Thyroid carcinoma	
Clinical practice guidelines of the Philippine General Hospital for the management of thyroid nodules and well-differentiated thyroid carcinoma (2008)	0127
Thyroid diseases	
Fine needle aspiration biopsy in the diagnosis of thyroid cancer: How accurate is it?	0191
Thyroid dysgenesis	
Etiology of congenital hypothyroidism among infants screened by the Philippine newborn screening program	0183
Thyroid function tests	
Medical problems in down syndrome patients among Filipinos	0240
Thyroid gland	
Fine needle aspiration of the thyroid gland a five year experience at Philippine General Hospital	0192
Thyroid gland-surgery	
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Thyroid neoplasms-pathology	
Follicular thyroid carcinoma with metastasis to the mandible	0195
Thyroid nodules	
Clinical practice guidelines of the Philippine General Hospital for the management of thyroid nodules and well-differentiated thyroid carcinoma (2008)	0127
Thyroid-neoplasms-diagnosis	
The role of frozen section in the diagnosis of thyroid carcinoma	0320
Tick fever	
Anti- <i>babesia rodhaini</i> monoclonal antibodies: Effect against babesia Spp. and Plasmodium Berghei	0103
Tilt table test	
Head-upright tilt table testing in the evaluation of patients with unexplained syncope	0205
Time Factors	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Time factors	
Determining time to culture conversion in patients enrolled in MMC DOTS Clinic	0163

Microbial growths on various types of treated water	0017
Tomography	
Brain metastasis: An evaluation of the preoperative diagnostic work-up	0112
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Tomography scanners	
CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis	0153
Tomography, x-ray computed	
Computed tomography patterns of pulmonary tuberculosis in pediatric population	0146
Tomography, X-ray computed	
Third ventricle midline shift on computed tomography as an alternative to septum pellucidum shift	0346
Tonsillitis-Drug Therapy	
Usefulness of rapid streptococcal antigen test in determining which patients with acute tonsillopharyngitis require throat culture and treatment	0361
Total coconut economic value	
Coconut-based farming systems (CBFS): Concepts, principles and economic valuation for social, ecological and economical benefits	0004
Total patient care	
Nourishing a vital role in total patient care	0255
Total soluble solids	
Modified atmosphere packing of mangosteen (<i>Garcinia mangostana</i> L.)	0049
Toxic exposure	
Adverse health effects of organic solvent exposure: A critical review	0053
Trac Analysis	
Measuring performance of IP networks using content metrics	0081
Traditional plant knowledge practices	
Ethnobotanical investigations among the Ybanag ethnic minority in the Northern Cagayan Valley, Philippines	0023
Transesterification	
Corn oil methyl ester as fuel for diesel engines	0032
Transfusion	
In vitro infusion of packed red blood cells with parenteral fluid solutions in the NICU setting	0369
Transurethral resection of the prostate (TUR-P)	
Prostate specific antigen density in Filipinos with benign prostatic hyperplasia: A preliminary report	0303

Treatment	
A randomized study to compare the safety and efficacy of albendazole and metronidazole in the treatment of <i>giardia intestinalis</i> infection in children	0308
Treatment outcome	
Proposed grading system for predicting patient outcome after surgery for spontaneous supratentorial intracerebral hematoma	0300
Treatment-outcome	
Coronary artery stenting in acute coronary syndromes; early and late clinical outcomes	0150
Trichuris	
Baseline assessment of intestinal parasitism in selected public elementary schools in Luzon, Visayas and Mindanao	0110
Trimethoprim-Sulfamethoxazole	
Frequency of resistance to trimethoprim-sulfamethoxazole in salmonella-positive blood cultures	0197
Trimethylamine sensor	
Development of an ammonia and amine sensor based on Bromthymol blue	0030
Trisomy 8 mosaicism	
Trisomy 8 mosaicism in two Filipino children	0350
Trisomy X syndrome	
Multiple congenital anomalies in a Filipino infant with trisomy X syndrome	0249
Troponin	
Value of the initial troponin T level in the diagnosis of acute myocardial infraction- A probability model	0364
Troponin I	
24-hour ambulatory blood pressure profiles of Filipino hypertensives classified by 1993 JNC-V Criteria	0087
Troponin-T rapid assay in the emergency department setting	0351
Tuberculin test	
Significance of tuberculin testing using Mantoux test and Monovacc test among grade I students in a Makati primary public school	0332
Tuberculin test methods	
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Tuberculosis, pulmonary	
A pilot study on the ototoxic effect of aminoglycoside use among tuberculous patients	0273
Tuberculosis, pulmonary diagnosis	
Computed tomography patterns of pulmonary tuberculosis in pediatric population	0146

Tuberculosis, pulmonary-diagnosis	
Prospective evaluation of the IUATLD* score model for screening childhood pulmonary tuberculosis	0302
Significance of tuberculin testing using Mantoux test and Monovacc test among grade I students in a Makati primary public school	0332
Tuberculosis-pulmonary-diagnosis	
Determining time to culture conversion in patients enrolled in MMC DOTS Clinic	0163
Tuberculosis-pulmonary-drug-therapy	
Determining time to culture conversion in patients enrolled in MMC DOTS Clinic	0163
Tuberous sclerosis	
A five year retrospective study on the incidence of genodermatoses	0193
Tumor diameter	
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Tumor size	
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Tumor volume	
Tumor diameter, tumor volume, cervical stromal invasion as prognostic factors in early stage cancer of the cervix	0352
Typhlodromus	
Further records of predatory phytoseiid mites (phytoseiidae, acari) from the Philippines	0008
Typhoid	
Frequency of resistance to trimethoprim-sulfamethoxazole in salmonella-positive blood cultures	0197
UCD-SNMP	
A management information base (MIB) module implementation for the EFDATA SDM-300A satellite modem	0080
Ultrasonography, prenatal	
Accuracy of fetal weight estimation by ultrasound using the Hadlock formulae	0090
Accuracy of ultrasound in diagnosing Intrauterine growth retardation	0091
Common sonographic features of ectopic pregnancy	0135
Congenital cystic adenomatoid malformation of the lungs (CCAM)	0147
Unsaturated fatty acids	
Fractional crystallization of coconut oil in acetone	0047
Unstable angina	
Association of homocysteine levels to traditional risk factors in unstable angina and	0108

non-ST elevation myocardial infarction: implications from the FINEST study	
Upper gastrointestinal bleeding	
Intravenous nizatidine in upper gastrointestinal bleeding	0221
Upper gastrointestinal endoscopy	
Rapid urease testing in an upper gastrointestinal endoscopy population with peptic ulcer disease	0310
Urban poor	
Perceptions, attitudes and practices of Metro Manila urban poor residents on patients' rights	0380
Urban/rural setting	
Measles immunity among rural compared to urban infants	0238
Urease analysis	
CLOtesting for helicobacter pylori in peptic ulcer disease: Which site to biopsy?	0132
Ureter-ultrasonography	
Voiding cystourethrogram in the evaluation of patients among pediatric age group with symptomatic urinary tract infection	0372
Urinary tract infection	
Voiding cystourethrogram in the evaluation of patients among pediatric age group with symptomatic urinary tract infection	0372
Urinary tract infection epidemiology	
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
Urinary tract infections-complications	
A study comparing the profiles of nosocomial infection at the MMC-pediatric intensive care unit between the Pre-ISO 9002/EN 46002 and ISO 9002/EN 46002 eras	0338
Urine culture	
Assessment of autocyte prep™ gram stain as a screening test for bacteriuria and comparison with the semi-quantitative urine culture	0106
Urticarial vasculitis	
Chronic idiopathic urticaria (CIU), unveiled	0120
Uterine	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Vaccine	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296
Vacuum carburization	
Deactivation behaviour of different supported Ni-catalysts under the conditions of	0033

the vacuum carburization of steel with acetylene	
Vaginal smears	
Pap smear findings in endometrial carcinoma: A retrospective study of cases with histopathologic correlation	0265
Validation	
Development and validation of screening test for genital chlamydia trachomatis and neisseria gonorrhoea infections	0164
Validation and verification	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
Validation Framework	
A validation framework and key performance indicators for the assessment of PHILHEALTH performance	0071
Validation studies	
Validation of the arthritis impact measurement scales 2-short form (AIMS2-SF) adapted for Filipino patients with osteoarthritis	0363
Validity and reliability	
Validity and reliability of selected outcome measures used in rehabilitation for anterior cruciate ligament reconstruction: A literature review	0072
Vector	
Mechanisms and factors involved in the evolution of malaria drug resistance: The Philippine situation	0239
Vegetables	
Effect of processing on the antioxidant activity and total phenolic content of some fruits and vegetables commonly consumed by Filipinos	0044
Vehicular accident	
Acute subdural hematoma: A five-year review	0093
Vena cava filter	
The greenfield vena caval filter in the management of pulmonary embolism	0204
Ventricular dysfunction	
Effects of revascularization on the ejection fraction of patients with severe systolic dysfunction	0178
Ventriculoperitoneal shunt	
A retrospective study of etiologic factors causing ventriculoperitoneal shunt infections in children	0316
Vertebral abnormalities	
Ring chromosome 13 in a Filipino child--A new category with new features?	0319
Vertigo-physiopathology	
Semont's maneuver in benign paroxysmal positional vertigo	0326

Vesico ureteral reflux complications	
Sensitivity and specificity of KUB ultrasound in diagnosing vesicoureteral reflux in children hospitalized with recurrent urinary tract infection from 1996-2002	0327
Veterinary anatomy	
Histology of the pancreatic islets of the Philippine carabao (<i>Bubalus bubalis</i> L.)	0009
Veterinary medicine	
<i>Escherichia coli</i> O157:H7 in Philippine cattle and hogs sacrificed in abattoirs	0382
Vibration	
Rheological properties of mango (<i>Mangifera indica</i> L.) fruits in relation to handling and transport	0013
Vibrio Cholerae	
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Vicryl	
One versus two layer closure of a transverse uterine incision using chromic or vicryl sutures	0365
Villaria	
Synonymy of the three <i>Villaria</i> rolfe species (Rubiaceae): evidence from morphological and nuclear ribosomal DNA sequence data	0028
Viral etiologies	
Infectious mononucleosis in the Philippines: A report of 3 cases	0217
Viscosity	
The effect of locally available viscoelastics on eyebanked corneal endothelium	0173
Visual outcome	
Visual outcome of cataract surgery in three regions of the Philippines	0367
Visual rehabilitation	
Visual outcome of cataract surgery in three regions of the Philippines	0367
VO2max	
Improvements in maximal oxygen consumption among elderly Tai Chi Chuan practitioners	0062
Vocal cord	
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Voice-disorders	
Vocal cord paralysis: A review of its management with emphasis on thyroplasty type I	0371
Volcanic ash	
The histopathologic effects of 24-hour and 144-hour exposure to Mt. Pinatubo ash on the respiratory system of rats	0208

Vomiting	
Intestinal obstruction in children: A five-year clinical review	0219
An open study to evaluate the efficacy and safety of Ondansetron (GR 38032) in the prevention of nausea and vomiting induced by Cisplatin or Non Cis-Platinum containing cancer chemotherapy	0259
Warts treatment	
The effectiveness of cimetidine in the treatment of recurrent viral warts	0175
Wastewater treatment	
Adsorption of basic rhodamine red, basic methylene blue, reactive procion red, and reactive procion blue textile dyes by cornstalk	0031
Water Analysis	
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Water pollution	
Responses of floating weed, <i>Pistia stratiotes</i> Linn., to lead (Pb) uptake	0012
Water purification methods	
Microbial growths on various types of treated water	0017
Water soluble plastic	
Characterization of kappa-carrageenan-based water soluble plastic film a potential fruit packaging	0043
Water supply standards	
Microbial growths on various types of treated water	0017
Water supply-analysis	
Microbial growths on various types of treated water	0017
Water treatment	
Minimum boiling time and temperature to eliminate diarrheal pathogens in water	0048
Watershed management	
Geographic information system-assisted dynamic modeling of soil erosion and hydrologic processes at a watershed scale	0040
Weight correction factor	
Further method development and improvement of the accuracy of rapid test kits for pesticide residue analysis	0007
Wheat	
Fatty liver hemorrhagic syndrome in laying hens given diets varying in carbohydrate sources and levels of protein and energy	0006
White petrolatum	
The comparative efficacy of 40% zinc oxide ointment versus white petrolatum in the treatment of diaper dermatitis: An experimental, double-blind study	0136
White soft cheese	

Fermented milk drink as starter adjunct in the manufacture of probiotic white soft cheese	0045
Windows® 2000	
Developing a windows® 2000 serial driver for bluetooth™	0078
Wireless	
Peak-to-average power ratio reduction solutions for OFDM	0083
Women and child health	
Woman & child health care knowledge, beliefs and practices among Filipino women randomly selected from the 1989 telephone directory of Metro Manila	0374
Women, Working	
Bacteriological characteristics of breastmilk under various storage conditions	0041
Work schedule tolerance-psychology	
The twelve hour shift	0353
Wound and injuries	
Shoe-lace technique: A preliminary assessment and viability study for delayed primary closure of contaminated, open wounds	0331
Wound healing	
The effect of clotrimazole 1% solution (Canesten™) on the rate of corneal epithelial wound healing in rabbit eyes	0170
The efficacy of different concentrations of <i>Morinda citrifolia</i> (noni) cream preparations in the treatment of staphylococcal full-thickness burn wound infection in mice	0180
Wound infection	
Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department	0220
Saline jet lavage: A simple technique to combat wound infection	0323
Shoe-lace technique: A preliminary assessment and viability study for delayed primary closure of contaminated, open wounds	0331
Wound management	
Profile of Philippine General Hospital - Anti-Rabies Unit (PGH-ARU) animal bite patients and their bite exposure: A 2006 retrospective study	0296
Wound, penetrating	
Intramuscular ketamine and midazolam for pediatric sedation in the Emergency Department	0220
WPAN	
Validation and verification of the ASTI bluetooth host-side protocol stack through code generation and porting	0086
X-linked recessive inheritance	
Oto-palatodigital syndrome in a Filipino child	0260

X-ray computed	
CT scanning in pediatric head trauma: Correlation of clinical features with CT scan diagnosis	0153
X-ray computed stroke	
Stereotactic aspiration with thrombolytic instillation and drainage of intracerebral hematoma	0337
Xanthomonas oryzae pv. oryzicola	
Diagnostic primers for the detection of <i>Xanthomonas oryzae</i> pv. <i>oryzicola</i>	0016
Yeast	
Stimulation of ethanol production by Maillard reaction products using different yeast concentrations	0038
Zea mays L.	
Response of maize (<i>Zea mays</i> L.) to various modes and levels of silicon application	0011
Zinc oxide ointment, 40%	
The comparative efficacy of 40% zinc oxide ointment versus white petrolatum in the treatment of diaper dermatitis: An experimental, double-blind study	0136
Zoology	
Addition of crude methanolic <i>Allium sativum</i> (Garlic) extracts to commercial fish feed can potentially prevent or delay ichthyophthiriasis in the black molly <i>Poecilia sphenops</i>	0383
New mite pests and new host records of phytophagous mites (Acari) from the Philippines	0384

LIST OF PUBLICATIONS

Acta Manilana

Acta Medica Philippina

The Journal of the Philippine Medical Association

Makati Medical Center Proceedings

The Philippine Agricultural Scientist

Philippine Journal of Allied Health Sciences

The Philippine Journal of Coconut Studies

Philippine Journal of ICT & Microelectronics

Philippine Journal of Nutrition