



Research for Development, Vol 3
A Bibliography of Staff Publications
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Faculty of Medical Sciences



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Department of Basic Medical Sciences

561. **Asemota, Helen N., Felix O. Omoruyi, Marie McAnuff, Lowell L. Dilworth, McFarlane-Anderson, Norma, Errol Y. Morrison, Wayne Harding, Helen M. Jacobs, and Mohammed H. Ahmad.** “Analyses of Natural Products in Jamaican Tuber Crops: The Need for Biotechnological Exploitation.” Jamaican Journal of Science and Technology 14 (2003): 3-8. **Refereed**

Ten varieties of Jamaican tuber crops namely: *Dioscorea polygonoides* cultivar (cv.) Bitter yam, *Dioscorea alata* cvs. St. Vincent, Renta, Moonshine and Sweet Yam; *Dioscorea cayenensis* cv. Round leaf yellow yam; Hiber (*Rajania cordata*), Cocoyam (*Xanthosoma sp*), Dasheen (*Colocasia esculenta*) and sweet potato (*Ipomoea batatas*) were screened for five important natural product contents.

Bitter yam and round leaf yellow yam contain appreciable levels of the ‘phytoestrogen’ sapogenin and ascorbic acid (vitamin C). The main sapogenin found in bitter yam and round leaf yellow yam is diosgenin and it was highest in bitter yam (4.092 ± 1.800 mg/g dry weight), followed by round leaf yellow yam (0.135 ± 0.045 mg/g dry weight) while the other varieties, sweet yam, moonshine, renta and hiber showed traces of sapogenin (< 0.06 mg/g dry weight). The level of ascorbic acid in round leaf yellow yam was highest (0.84 ± 0.13 mg/g dry weight) followed by dasheen (0.38 ± 0.05 mg/g dry weight) and cocoyam (0.35 ± 0.04 mg/g dry weight). Trypsin inhibitor activity was highest in yellow yam (207.80 ± 43.3 TIU/g dry weight) and lowest in sweet potato (173.90 ± 15.39 TIU/g dry weight). The phytic acid content was highest for sweet potato (7.46 ± 0.51 mg/g dry weight) and lowest for Irish potato (3.42 ± 0.03 mg/g dry weight). Total phenol was in St. Vincent (7.93 ± 0.61 mg/g dry weight) while the other varieties contained less than 0.9 mg/g dry weight.

These tuber crops, namely: Bitter yam, Round leaf yellow yam, St. Vincent and Sweet potato could therefore be exploited for their natural product contents.

Asemota, Helen N. See also 566, 573, 577, 578, 579, 580, 581, 582, 589, 590, 591, 592, 593, 594, 603, 609, 615, 616, 617, 621, 622, 623, 624, 630

562. **Ashby, Mark K.** “Survey of the Number of Two-Component Response Regulators Genes in the Complete and Annotated Genome Sequences of Rokaryotes.” FEMS Microbiology Letters 231 (2004): 277-81. **Refereed**

The numbers of potential response regulator genes were determined from the complete and annotated genome sequences of Archaea and Bacteria. The numbers of each class of response regulators are shown for each organism, determined principally from BLASTP searches, but with reference to the gene category lists where available. The survey shows that for Bacteria there is a link between the total number of potential response regulator genes and both the genome complexity (number of potential protein-coding genes) and the organism’s lifestyle/habitat. Increasingly complex lifestyles and genome complexities are matched by an increase in the average number of potential response regulator genes per genome, indicating that a higher degree of complexity requires a higher level of control of gene expression and cellular activity.

563. **Ashby, Mark K., Sherline E. Budall, N. Burnett, and S. Morisson.** “A New Modular Approach to Isolate the Target Gene(s) for DNA Binding Response Regulator Proteins That Have Been Identified by Microbial Genome Sequencing.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003.



564. **Badall, S., Paul D. Brown, and Dalip Ragoobirsingh.** “In Vitro Studies on the Effect of Nitric Oxide on IRS-1 Phosphorylation in Signal Transduction.” [Abstract]. West Indian Medical Journal 53 .Suppl. 5 (2004): 25-26.**Refereed**

565. ——. “*In Vitro* Studies on the Effect of Nitric Oxide on IRS-1 Phosphorylation in Insulin-Mediated Signal Transduction.” [Abstract]. West Indian Medical Journal 54 .Suppl. 2 (2005): 32.**Refereed**

566. **Bahado-Singh, P. S., Andrew O. Wheatley, E. Y. St. A Morrison, I. Ahmad, and Helen N. Asemota.** “Investigation of the Effect of Food Processing on Glycaemic Indices of Some Jamaican Foods: A Proactive Approach to Management Type 2 Diabetes Mellitus [Abstracts].” West Indian Medical Journal 53 Suppl. 1 (2004): 45.**Refereed**

567. **Barrett, K., Donovan McGrowder, Paul D. Brown, and Dalip Ragoobirsingh.** “Insulin-Stimulated Glucose Uptake Is Inhibited in Adipocytes.” [Abstract]. West Indian Medical Journal 53 .Suppl. 1 (2004): 42.**Refereed**

568. **Barrett, K., Donovan McGrowder, Paul D. Brown, and Dalip Ragoobirsingh.** “Nitric Oxide Inhibits Insulin-Stimulated Glucose Transport in Adipocytes.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 52-53.**Refereed**

569. **Bromwell, G. G., N. Levy, Andrea M. Wierenga, M. Jackson, Fletcher H. Rodriguez-Orengo, and Norma McFarlane-Anderson.** “Plasma Homocysteine Levels, Folate Intake and Polymorphisms in the Methylenetetrahydrofolate Reductase Gene in Jamaican Women.” West Indian Medical Journal 53 Suppl. 5 (2004): 25.**Refereed**

570. **Brown, Paul D.** “Epidemiological Trend of Human Leptospirosis in Jamaica Between 1992 and 2002.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 59-60.**Refereed**

571. **Brown, Paul D., Diane G. Carrington , Claudia Gravekamp, Herman van de Kemp, Charles N. Edwards, Stephen R. Jones, Patsy R. Prussia, Stuart Garriques, Wiepko J. Terpstra, and Paul N. Levett.** “Direct Detection of Leptospiral Material in Human Postmortem Samples.” Research in Microbiology 154.8 (2003): 581-86.

Leptospiral culture, direct immunofluorescence, and the polymerase chain reaction (PCR) were used to detect leptospiral material in postmortem specimens collected from eight patients who died of leptospirosis. Diagnosis of leptospiral infection was based on clinical summary (premortem) and confirmed by serological analysis and/or culture of leptospire. Leptospiral culture was the least sensitive technique, yielding two isolates (3%) from 65 samples. Both isolates were from the aqueous humour and cerebrospinal fluid of the same patient. Direct immunofluorescence was of intermediate sensitivity for detection of leptospire, confirming the presence of leptospire in 11% (2 of 18) of tissue samples from three patients. PCR analysis was the most sensitive technique for detection of leptospiral material in tissue samples, being positive in 20% (11 of 56) of samples from eight patients. Both samples (cerebellum and liver) positive by immunofluorescence were also positive by PCR. The sensitivity of the PCR assay was 1–10 leptospire ml⁻¹ sample, and the assay was specific for *Leptospira* pathogenic species. Multi-system involvement was indicated based on successful amplification of leptospiral DNA from more than one tissue sample, which corroborated with the clinical and pathologic findings. The results suggest that in acute and/or fatal leptospirosis, the pathogenesis of the pathologic features are related to the presence of the organisms in the tissues. In conclusion, PCR combined with serology appears to be a useful tool for diagnosis of leptospirosis and may be invaluable in epidemiological studies.



572. **Brown, Paul D., and A. Izundu.** "Antibiotic Resistance in Clinical Isolates of *Pseudomonas Aeruginosa* in Jamaica." Pan American Journal of Public Health 16.2 (2004): 125-30.

Brown, Paul D. See also 564, 565, 567,568,595, 501, 618

573. **Brown, V. M. D., Helen N. Asemota, M. Thangavelu, and S. H. Mantel.** "Genetic Variation Among Dasheen (*Colocasia* Sp.) and Cocoyam (*Xanthosoma* Sp.) Grown in Jamaica by PCR Based Analyses ." Jamaican Journal of Science and Technology 14 (2003): 67-78.

Using 17 accessions of cocoyam and 18 accessions of dasheen collected randomly from 14 farms in 8 parishes of Jamaica, PCR-based analyses were carried out to assess the genetic diversity within and between the species, and to develop markers linked to important traits useful for the assessment and control of bacterial infections. RAPD analyses using selected random 10-mer primers and the 3' -anchored microsatellite primer, -(CA)₈RY-revealed groups of accessions that shared a similar and highly diverged amplification profiles in the samples used. PCR-based analyses of mitochondrial sequence using NAD 4.2 -NAD 4.3 and rps14 - COB and chloroplast sequence using *trnL* 03 - *trnL* 04 and *trnR* 01 - *trnQ* 01 revealed polymorphism within plastid and mitochondrial genomes of *Xanthosoma* sp. and *Colocasia* sp. The absence of NAD 4.2 - NAD 4.3 amplified fragment for *Colocasia* sp. indicates that it can be used to differentiate between species of *Xanthosoma* and *Colocasia*. Restriction analysis of amplified fragments provides evidence that at least two accessions of *Xanthosoma* sp and *Colocasia* sp. possess two *trnL* sequences. This is unusual because plants usually only possess a single *trnL* sequence. Analyses revealed that there are at least four (4) varieties of *Xanthosoma* and three (3) varieties of *Colocasia* in Jamaica.

574. **Campbell, Sacha A., Ruby L. Lindo, and Tara P. Dasgupta.** "The Effect of S-Nitrosocaptopril on Blood Glucose Metabolism and Studies on Haemodynamic Parameters." [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 82.

575. **Cohall, D. H., and Paul D. Singh.** "The Cytotoxic Effect of Plant Extract PDA316 on Yeast (*Saccharomyces Cerevisiae*) and Its Potential Anticancer Properties on Spontaneous Mammary Tumors in Sprague Dawley Rats [Abstracts]." West Indian Medical Journal 53 Suppl. 2 (2004): 53.**Refereed**

576. **Dawkins, G., Hermi Hewitt, Y. B. Wint, P. C. Obiefuna, and B. Wint.** "Antibacterial Effects of Carica Papaya Fruit on Common Wound Organisms." West Indian Medical Journal 52.4 (December, 2003): 290-92.**Refereed**

The purpose of the study was to investigate antibacterial activity of ripe and unripe Carica papaya on selected micro-organisms. Cultures of micro-organisms were routinely maintained in nutrient agar slants at 4 degrees C. Extracts of immature, mature and ripe Carica papaya fruit were obtained by separately grinding fractions of the epicarp, endocarp and seeds and filtering them through gauze. Sensitivity tests were conducted by adding 0.06 ml of extract to agar wells (6 mm diameter) prepared from 20 ml agar seeded with 10(6) cells/ml suspension of one of the eight organisms per plate. The inoculated plates were allowed to equilibrate at 4 degrees C for 1 hour, incubated at 37 degrees C for 24 hours, and zones of inhibition measured in millimetres. Anti-bacterial activity was expressed in terms of the radius of zone of inhibition. Seed extracts from the fruit showed inhibition in the following order: B cereus > E coli > S faecalis > S aureus > P vulgaris > S flexneri. No significant difference was found in bacterial sensitivity between immature, mature and ripe fruits. No inhibition zone was produced by epicarp and endocarp extracts. Carica papaya seeds contain anti-bacterial activity that inhibits growth of gram-positive and gram-negative organisms. Observed activity was independent of stage of fruit maturity. Carica papaya has antibacterial effects that could be useful in treating chronic skin ulcers to promote healing.



577. **Dilworth, Lowell L., Felix O. Omoruyi , Helen M. Jacobs, Errol Y. Morrison, and Helen N. Asemota.** “Anti-Nutritional Factors and Mineral Contents in Some Caribbean Tuber Crops: Effects of Processing.” Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 76.

578. **Dilworth, Lowell L., Felix O. Omoruyi , Oswald R. Simon, Errol Y. Morrison, and Helen N. Asemota.** “Hypoglycemia and Faecal Minerals in Phytate Fed Rats.” Nutrition and Food Science 34.2 (2004): 60-64. **Refereed**

In this study, phytic acid was extracted from Jamaican sweet potato, which has been reported to contain a high phytic acid to zinc ratio and fed to Wistar rats for three weeks. Animals were then sacrificed and blood glucose, intestinal amylase activity and faecal minerals were determined. Blood glucose levels in all the groups fed phytic acid extract from sweet potato or commercial phytic acid were reduced compared to their controls. This lowering was more pronounced in the groups fed phytic acid extract from sweet potato or commercial phytic acid plus zinc supplement. Faecal zinc was significantly higher in the groups fed phytic acid extract from sweet potato compared to the controls in weeks 1 and 2. Supplementation of the diets with phytic acid extract from sweet potato or commercial phytic acid resulted in an increase in the faecal output of iron except for the group that was fed commercial phytic acid plus zinc. Overall, the supplementation of the rat diet with phytic acid extract from sweet potato resulted in a general increase in the output of these faecal minerals. (AU)

579. **Dilworth, Lowell L., Felix O. Omoruyi , Oswald R. Simon, E. Y. St. A Morrison, and Helen N. Asemota.** “Effect of Consumption on Sweet Potato (*Ipomea, Bataas*) Phytic Acid Extract on Blood Glucose, Liver Function and Faecal Mineral Loss: A Case Study With Rat Model.” West Indian Medical Journal 53 Suppl. 1 (2004): 45. **Refereed**

580. ——. “The Effect of Phytic Acid on the Levels of Blood Glucose and Some Enzymes of Carbohydrate and Lipid Metabolism.” West Indian Medical Journal 54.2 (2005): 102-06. **Refereed**
In this study, six groups of rats were fed as follows: Group 1 and 2 were fed formulated diets supplemented with zinc or without zinc respectively. Groups 3 and 4 were fed formulated diets supplemented with zinc plus phytic acid extracted from sweet potato (*Ipomea batatas*) or commercial phytic acid respectively. Groups 5 and 6 were fed formulated diets supplemented with phytic acid extract from sweet potato or commercial phytic acid respectively. The animals were fed for three weeks and then sacrificed. The activities of key enzymes of carbohydrate and lipid metabolism as well as transaminases in the liver were determine. Blood glucose level was also assessed. Phytic acid extract consumption from sweet potato and commercial phytic acid plus zinc supplement lowered blood glucose levels. There was no significant change in activity of 6-phosphogluconate dehydrogenase among the groups. Similarly, phytic acid supplementation showed no significant decrease in the activity of pyruvate kinase compared to the group fed formulated diets. There was a significant increase in the activity of glucose-6-phosphate dehydrogenase in the groups fed phytic extract from sweet potato compared to the other groups. The activities of malic enzyme and ATP-citrate lyase in this study were not significantly altered among the groups. There is a lowering of blood glucose levels which is desirable for diabetics who consume sweet potato diets. The changes in some of the hepatic metabolic enzymes are geared towards compensating for the decreased glycolytic responses.

581. ——. “Hepatic Carbohydrate and Lipid Metabolizing Enzymes and the Transaminases in Rats Fed Phytic Acid Extrect From Sweet Potato (*Ipomea Batatas*).” West Indian Medical Journal 53 .Suppl. 2 (2004): 31-32. **Refereed**

582. **Earl-Barrett, Simone T., Kathleen S. Lobban, Andrew O. Wheatley, and Helen N. Asemota.** “Genetic Variation and Cultivar Identification of *Dioscorea Alata* Using Random Amplified Polymorphic DNA and Amplified Fragment Length Polymorphism.” [Abstract].



Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 78.

Gardner, Michael T. See 590, 591

583. **Golden, Kerith D., Opal J. Williams, and Yvonne A. Bailey-Shaw.** “High-Performance Liquid Chromatographic Analysis of Amino Acids in Ackee Fruit With Emphasis on the Toxic Amino Acid Hypoglycin A.” Journal of Chromatographic Science 40.8 (2002): 441-46.

High-performance liquid chromatography is used to determine the amino acid content of ripe and unripe ackee fruit. Specific emphasis is placed on the level of the toxic amino acid hypoglycin A (hyp-A) in the unripe and ripe ackee fruit and seed. Unripe samples are found to contain significantly higher quantities ($P < 0.05$) of hyp-A when compared with ripe samples. Uncooked unripe fruit is found to contain 124.4 +/- 6.7 mg/100 g fresh weight and uncooked ripe fruit 6.4 +/- 1.1 mg/100 g fresh weight. The seed of the uncooked unripe fruit is found to contain 142.8 +/- 8.8 mg/100 g fresh weight, and the seed of uncooked ripe fruit has 106.0 +/- 5.4 mg/100 g fresh weight. Boiling fruit in water for approximately 30 min is efficient in removing hyp-A from the edible arilli; however, low levels of 0.54 +/- 0.15 mg/200 mL are detected in the water that was used to cook the ripe fruit. The average %recovery of the amino acids was 80.34%. (AU)

584. **Golden, Kerith D., Opal J. Williams, Vijaya Raghavan, and Y. Garipey.** “Ethylene Biosynthesis in Tropical Fruits: Controlling the Ripening Process Via Postharvest Technology.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 50.

Golden, Kerith D. See also 625,627, 636, 637

Gossell-Williams, Maxine D. See also 602, 606, 1030

585. **Gossell-Williams, Maxine D., Horace M. Fletcher, Norma McFarlane-Anderson, A. Jacob, J. Patel, and S. Zeisel.** “Free Plasma Choline Concentrations During the First to Second Trimester of Pregnancy in Jamaican Women: Implications of Inadequate Dietary Intake.” West Indian Medical Journal 54 .Suppl. 2 (2005): 74.**Refereed**

586. **Gray, M., and Paul D. Singh.** “Investigation of the Effects of Manilkara Zapota (L) P. Van Royer on Blood Pressure and Heart Rate of Rats in Advancing Caribbean Herbs in the 21st Century.” The Sixth International Workshop on Herbal Medicine in the Caribbean : UWI, St. Augustine, Trinidad & Tobago, 2003.

587. **James, T., Harvey L. Reid, Anthony M. Mullings, and P. Johnson.** “The Relationship Between Body Mass Index and Serum Ferritin Concentration at Booking to Haemoglobin Concentration Throughout Pregnancy and Fetal Outcome.” West Indian Medical Journal 53 Suppl.5 (2004): 18.**Refereed**



588. **Levy, N., Norma McFarlane-Anderson, G. Bramwell, Andrea M. Wierenga, and Horace M. Fletcher.** “Pre-Eclampsia in Jamaican Women: Blood Pressure, Nitric Oxide Status, Polymorphisms in the Nitric Oxide Synthase Gene and Their Relationship to Pregnancy Outcome..” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 13. **Refereed**

Lindo, Ruby L. See 574,625

589. **Lobban, Kathleen S., Andrew O. Wheatley, G. Osuji, and Helen N. Asemota.** “Application of RFDD in the Determination of Genes Triggered During the Sprouting of Yam Tubers (*Dioscorea* Sp.)” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 51.

590. **McAnuff, Marie, Felix O. Omoruyi, M. Gardener, Helen N. Asemota, and Errol Y. Morrison.** “Alterations in Intestinal Morphology of Streptozotocin-Induced Diabetic Rats Fed Jamaican Bitter Yam (*Dioscorea Polygonoides*) Sapogenin Extract.” Nutrition Research 23.11 (2003): 1569-77.

In this study, the effect of yam steroidal sapogenin extract on intestinal morphology in streptozotocin-induced diabetic rats was examined. Diabetic male Wistar rats (n = 32) were fed diets supplemented with 1% bitter yam steroidal sapogenin extract or commercial diosgenin for three weeks. The effect on intestinal morphology was assessed. The induction of diabetes significantly increased villus length and crypt depth compared to the normal group. Supplementation of the diet with sapogenin extract or commercial diosgenin significantly increased villus width compared to the diabetic controls. The dietary supplements also significantly decreased crypt depth towards that of the normal controls. This study shows that the feeding of bitter yam steroidal sapogenin extract to diabetic rats may result in alterations in the intestinal morphology.

591. **McAnuff, Marie, Felix O. Omoruyi, Michael T. Gardner, Errol Y. Morrison, and Helen N. Asemota.** “Intestinal Morphometric Alterations in Streptozotocin-Induced Diabetic Rats Fed Bitter Yam (*D. Polygonoides*) Sapogenin Extract.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies 82-83.

592. **McAnuff, Marie, Felix O. Omoruyi, Errol Y. Morrison, and Helen N. Asemota.** “Hepatic Function Enzymes and Lipid Peroxidation in Streptozotocin-Induced Diabetic Rats Fed Bitter Yam (*Dioscorea Polygonoides*) Steroidal Sapogenin Extract.” Diabetologia Croatica 32.1 (2003): 17-23. **Refereed**

593. ——. “Plasma and Liver Lipid Distributions in Streptozotocin - Induced Diabetic Rats Fed Sapogenin Extract of the Jamaican Bitter Yam (*Dioscorea Polygonoides*).” Nutrition Research 22.12 (2002): 1427-34.

Bitter yam (*Dioscorea polygonoides*) steroidal sapogenin extract and commercial diosgenin were administered to diabetic rats for 21 days. Plasma glucose and lipids were assessed. Liver lipid distributions were also determined. The two dietary supplements fed to diabetic rats resulted in significant decreased body weight gain. The test diets significantly lowered plasma glucose and total cholesterol. Sapogenin extract supplement significantly lowered plasma total triglycerides. Plasma and liver VLDL+LDL-cholesterol were significantly reduced while the HDL fraction was increased in diabetic rats fed the test supplements. These results showed that the consumption of the two supplements may be useful in the management of hypercholesterolemia often associated with diabetes.



594. **McAnuff, Marie, Felix O. Omoruyi, E. Y. St. A. Morrison, and Helen N. Asemota.**

“Changes in Some Liver Enzymes in Streptozotocin-Induced Diabetic Rats Fed Sapogenin Extract From Bitter Yam (*Dioscorea Polygonoides*) or Commercial Diosgenin.” West Indian Medical Journal 54 (2005): 97-101. **Refereed**

The effects of steroidal sapogenin extract from bitter yam or commercial diosgenin on liver enzyme changes were investigated. Diabetic male Wistar rats were fed diets supplemented with 1% steroidal sapogenin extract or commercial diosgenin for three weeks. Plasma glucose levels and the activities of hepatic glucose-6-phosphatase, pyruvate kinase and glucose-6-phosphate dehydrogenase were assessed. Liver total cholesterol, HDL-cholesterol and total phospholipid were also measured. Plasma glucose decreased significantly ($p < 0.05$) in diabetic rats fed the three test diets compared to the diabetic control. The three test diets significantly decreased glucose-6-phosphatase activity compared to the diabetic control. The activities of ATP-citrate lyase, pyruvate kinase and glucose-6-phosphate dehydrogenase were significantly reduced in the liver of diabetic rats compared to normal control. Supplementation of the diet with bitter yam steroidal sapogenin extract or commercial diosgenin did not significantly alter ATP citrate lyase and pyruvate kinase activities but significantly increased glucose-6-phosphate dehydrogenase activity in the liver compared to diabetic rats. This study shows that the feeding of the two test diets to diabetic rats results in alterations in the metabolism of glucose with subsequent reduction in plasma glucose concentration.

McFarlane-Anderson, Norma See 561, 569, 585, 588, 604, 605, 773, 779, 780, 781, 782, 978, 979, 983, 991, 1944, 1970, 1996

595. **McGrowder, Donovan, Dalip Ragoobirsingh, K. Barrett, and Paul D. Brown.** “Direct Effect of Nitric Oxide on Basal and Insulin-Stimulated Glucose Transport in Rat Skeletal Muscle.” West Indian Medical Journal 52 Suppl. 6 (2003): 15. **Refereed**

596. **McKoy, Marsha-Lyn G., Felix O. Omoruyi, Oswald R. Simon, and Helen N. Asemota.** “Investigation of the Effects of a Sapogenin Rich Preparation From a Jamaican Yam (*Dioscorea Sp.*) on Blood Cholesterol Levels in Rats.” Proceedings of the Western Pharmacology Society 46 (2003): 156-59. **Refereed**

Hypocholesterolemia (serum cholesterol ≥ 240 mg/dl) has been associated with the development of atherosclerosis with its related cardiovascular complications including hypertension, coronary artery disease and strokes in man. In many countries, these diseases account for high mortality rates. For the period 1997-2001, cardiovascular diseases were the leading cause of death among patients ≥ 50 , years in Jamaica's public hospital system. The statistics indicate the need for an increased drive to maintain cholesterol within an acceptable range, by dietary modifications and/or pharmacological interventions. Sapogenins, especially diosgenin, have been shown to reduce blood cholesterol in several animal species by inhibiting intestinal absorption of cholesterol. Although compensatory increases in hepatic and intestinal cholesterol synthesis were also reported, this was accompanied by increased secretion of cholesterol in bile, the net effect being lowering of plasma cholesterol. Evidence has also been presented for a role of some saponins in increasing bile acid excretion. This would increase the rate of cholesterol catabolism as is the mechanism by which the commercially available “bile acid sequestrants” produce their hypocholesterolemic effect. Yams are a major source of diosgenin and Jamaica has at least 15 yam varieties, several of which are consumed locally as dietary staple. The terms “yams” and “sweet potato” are often used interchangeably in the USA. However, specific references are made here to the monocotyledon *Dioscorea species* (yam), which is rough and scaly, in appearance and dry and starchy to the taste as compared to the dicotyledonous *Ipomoea batatas* (potato) with its smooth, thin skin and moist, sweet taste. This study was designed to investigate the potential of exploiting Jamaican yams as an economic alternative of lowering blood cholesterol levels. The specific objectives were to include a hypercholesterolemic state in rats by feeding them a high-cholesterol diet, and thereafter, to investigate the effects of a preparation from a Jamaican yam of high sapogenin content on blood lipid distributions in the hypercholesterolemic animals.



597. **McKoy, Marsha-Lyn G., Felix O. Omoruyi, Helen N. Asemota, and Oswald R. Simon.** "Evaluation of Toxicological Effects of a Sapogenin-Rich Yam (*Dioscorea* Sp.) Preparation With Potential for Treating Hypercholesterolemia." Experimental Biology 2004: Meeting Abstracts: 2004.

Recently we reported that a sapogenin-rich "preparation" from a Jamaican yam variety (*Dioscorea* sp.) had anti-lipemic effects as it inhibited cholesterol-induced increases in plasma total cholesterol, LDL + VLDL-cholesterol and triglyceride levels in rats. The focus of the present investigation is on the toxicological effects of this "yam preparation". Hypercholesterolemia was induced by feeding rats (n = 8) cholesterol, 4% of the diet, over a 6-week period. Administration of the "yam preparation", 5% of the diet, over the following 6 weeks reversed hypercholesterolemic effects. There was no evidence of ulceration of the stomach or other gross toxicological effects after 6 weeks of daily administration of the "yam preparation". Additionally, histological studies of liver and kidney samples and determination of liver and kidney transaminase activities did not indicate damage caused by the course of treatment. There was no sign of acute toxicity following administration of high doses. As the "yam preparation" reduced plasma lipid levels and blood pressure in hypercholesterolemia without causing apparent toxicity, we conclude that its administration may be an effective and safe alternative in managing hypercholesterolemia.

598. **McKoy, Marsha-Lyn G., and Oswald R. Simon.** "Cyclic GMP - Independent Effects of Nitric Oxide in the Pregnant Rat Uterus." [Abstract]. XIVth World Congress of Pharmacology: Meeting Abstracts: (San Francisco, CA: July 7-12, 2002), 2002.

599. **McKoy, Marsha-Lyn G., Everton A. Thomas, and Oswald R. Simon.** "Preliminary Investigation of the Anti-Inflammatory Properties of an Aqueous Extract From *Morinda Citrifolia* (Noni)." Proceedings of the Western Pharmacology Society 45 (2002): 76-78.

The study was undertaken to investigate the potential of noni juice to protect against the development of acute inflammation in response to bradykinin and carrageenan.

McLaughlin, Wayne A. See 601, 626, 1697

600. **Menzie, Janet M.** "Induction of Breast Tumours in Rats for Assaying Natural Products for Anti-Tumour Properties." Novel Compounds From Natural Products in the New Millennium: Potential and Challenges. Editors Benny K-H Tan, Boon-Huat Bay, and Yi-Zhun Zhu. Singapore: World Scientific Publishing, 2004

601. **Miles, T. D., Wayne A. McLaughlin, and Paul D. Brown.** "Prevalence of Bacterial Resistance to Tetracycline and Other Antibiotics Among *Escherichia Coli* Isolates From Broiler Chickens and Humans in Jamaica." [Abstract]. West Indian Medical Journal 54 .Suppl. 2 (2005): 40-41. **Refereed**

Mills, James L. See 735, 891

602. **Moodie-Henry, B., Manley E. West and Maxine D. Gossell-Williams.** "Investigation of the Pharmacological Activities of Aqueous Alkaloidal Extract of *Borreria Verticillata* on the Cardiovascular and Uterine Systems." West Indian Medical Journal 52 .Suppl. 6 (2003): 36. **Refereed**



603. **Muzac-Tucker, I, Helen N. Asemota, and Mohammed H. Ahmad.** “Analysis of Genetic Polymorphism in Yam DNA by PCR Techniques.” [Abstract]. Proceedings of the First Conference of the Faculty of Natural Sciences University of the West Indies, Mona: (University of the West Indies, Mona, Kingston, Jamaica: May 1994). Editors MadgeGreenfield and Ralph Robinson. Kingston, Jamaica: Faculty of Natural Sciences, University of the West Indies, Mona, 1994.

604. **O’Connor, A., Norma McFarlane-Anderson, Edith M. W. Duff, and Rosemarie A. Wright-Pascoe.** “Oxidative Stress in Adults With Diabetes Mellitus .” West Indian Medical Journal 53 Suppl. 1 (2004): 44.**Refereed**

605. **O’Connor, A., Norma McFarlane-Anderson, Edith M. W. Duff, and Rosemarie A. Wright-Pascoe.** “Risk Assessment in Adults With Diabetes Mellitus [Abstracts].” West Indian Medical Journal 53 Suppl. 2 (2004): 70.**Refereed**

606. **O’Connor, N., Oswald R. Simon, and Maxine D. Gossell-Williams.** “Investigation of the Anti-Diabetic Potential of an Extract Prepared From *Morinda Citrifolia* (Noni) [Abstracts].” West Indian Medical Journal 52 .Suppl. 6 (2003): 36-37.**Refereed**

607. **Obiefuna, Idongesit, and Ronald E. Young.** “Concurrent Administration of Neem Extract Prevents Development of Hypertension and Accompanying Alterations in the Electrocardiogram Patterns in Deoxycorticosterone Asetate Salt Hypertensive Rats.” West Indian Medical Journal 52 Suppl. 6 (2003): 17.**Refereed**

608. **Obiefuna, Idongesit, and Ronald E. Young.** “Effect of Chronic Administration of Aqueous *Azadirachta Indica* (Neem) Leaf Extract on the Cardiovascular System in the Rat.” Novel Compounds From Natural Products in the New Millennium: Potential and Challenges. Editors Benny K-H Tan, Boon-Huat Bay, and Yi-Zhun Zhu. Singapore: World Scientific Publishing, 2004. 161-69.

Omoruyi, Felix O. See also 561, 577, 578, 579, 580, 581, 590, 591, 592, 593, 594, 597, 615, 616, 617

609. **Omoruyi, Felix O., Marie McAnuff, Lowell L. Dilworth, Errol Y. Morrison, and Helen N. Asemota.** “Exploitation of Jamaican Tuber Crops for Natural Products Utilization.” Science, Technology & Innovation: UWI Mona Leading the Nation. Mona, Jamaica: University of the West Indies, 2004. 33-36.

610. **Palmer, K. O., and Lauriann E. Young.** “The Effect of Oestrogen on Discriminative Learning and Memory in Aged Male and Female Rats.” West Indian Medical Journal 53 .Suppl. 5 (2004): 19.**Refereed**

611. **Parshad, Omkar.** “Role of Yoga in Stress Management.” West Indian Medical Journal 53.3 (2004): 191-94.**Refereed**

The state of the mind and that of the body are intimately related. If the mind is relaxed, the muscles in the body will also be relaxed. Stress produces a state of physical and mental tension. Yoga, developed thousands of years ago, is



recognized as a form of mind-body medicine. In yoga, physical postures and breathing exercises improve muscle strength, flexibility, blood circulation and oxygen uptake as well as hormone function. In addition, the relaxation induced by meditation helps to stabilize the autonomic nervous system with a tendency towards parasympathetic dominance. Physiological benefits which follow, help yoga practitioners become more resilient to stressful conditions and reduce a variety of important risk factors for various diseases, especially cardio-respiratory diseases. (AU)

Parshad, Omkar See also 628, 854, 855, 891

612. **Patterson. M. A., and Paul D. Singh.** “Effect of a Plant Extract on Urine Excretion in Sprague-Dawley Rats.” West Indian Medical Journal 53 Suppl. 2 (2004): 82. **Refereed**

Pearson, Andrew G. See 1128

613. **Pepple, D. J., Anthony M. Mullings , and Harvey L. Reid.** “Increased Incidence of Adverse Perinatal Outcome With Low Maternal Blood Viscosity in Pre-Eclampsia.” Clinical Hemorheology Microcirculation 30.2 (2004): 127-31. **Refereed**

Hyperviscosity of the maternal blood has been reported to be associated with an increased incidence of adverse perinatal outcome in preeclampsia. We related the changes in maternal blood viscosity to perinatal outcome in 47 preeclamptic, nulliparous, black Jamaican women. A group of 49 non-preeclamptic, nulliparous, gestation-matched women acted as controls. Perinatal outcome was also compared between the women with high blood viscosity (> 5 mPa.s) and those with low blood viscosity (< 5 mPa.s) in both the preeclamptic and non-preeclamptic groups. Data was analysed by the comparison of two proportions, the chi-squared test, the Fisher's exact test and the Pearson's correlation method. The level of statistical significance was taken at $p < 0.05$. The incidence of adverse perinatal outcome was significantly ($p < 0.001$) higher in the preeclamptic women as compared with that of the non-preeclamptic controls. However, of interest, was the fact that within the preeclamptic group, the incidence of adverse perinatal outcome was significantly ($p = 0.001$, Fisher's exact test) higher in those with low blood viscosity as compared with those with high blood viscosity. These results suggest that low maternal blood viscosity may be related to increased incidence of adverse perinatal outcome in Jamaican women with preeclampsia. (AU)

614. —. “Whole Blood and Serum Viscosities in Healthy, Non-Pregnant Jamaicans.” Bioscience Research Communications 15.6 (2003): 417-20. **Refereed**

Blood viscosity varies in different physiological and pathological conditions, as well as among races. This is due to differences in its major determinants, namely, the haematocrit, plasma fibrinogen and serum immunoglobulins. We measured whole blood, plasma fibrinogen and serum immunoglobulins. We measured whole blood, plasma and serum viscosities, as well as their determinants, namely, the haematocrit, plasma fibrinogen concentration and serum IgM and IgG titres in 30 non-pregnant Jamaicans. This study reports the blood viscosity values for apparently healthy, non-pregnant Jamaicans..

615. **Powell, Melissa P., Andrew O. Wheatley, Paula F. Tennant, Felix O. Omoruyi, Helen N. Asemota, Dennis Gonsalves, and Mohammed H. Ahmad.** “Rat Intestinal Transport Enzymes: Effects of Consumption of Transgenic Papaya (*Carica Papaya* L.)” Human Proteome Organisation (HUPO) Second Annual and International Union of Biochemistry and Molecular Biology (IUBMB) Nineteenth World Congress: (Montreal, Canada: October 8-11, 2003), 2003.

Genetically modified papaya was engineered using microprojectile bombardments to transform papaya tissue cultured materials with the coat protein gene of a local strain of the Papaya ringspot virus (PRSV) isolate from Jamaica, sandwiched between the neomycin phosphotransferase type II (NPTII) and the β -glucuronidase (GUS)



genes in the binary vector pGA482GG. As with any new technology, public discussion has arisen concerning the safety and advantages of genetically modified crop plants and plant products. In light of public concerns on the consumption of transgene proteins, this study was designed to assess the effects of subchronic dietary consumption of this transgenic papaya on the rat intestinal enzymes Ca²⁺, Mg²⁺ and Na / K ATPases. These are membrane bound enzymes that are responsible for maintaining the intracellular concentrations of many anions, cations and small organic compounds. It is therefore important to analyze the activity of these enzymes to ensure that vital transport functions are not compromised by the consumption of this transgenic papaya. Our results showed no significant differences in the activities of these enzymes among the test groups compared to the control group that consumed regular rodent diet. It is therefore possible to conclude that consumption of genetically modified papaya may not alter the activities of these transport enzymes.

616. **Powell, Melissa P., Andrew O. Wheatley, Paula F. Tennant, Felix O. Omoruyi, Helen N. Asemota, Dennis Gonsalves, Errol Y. Morrison, and Mohammed H. Ahmad.** “Effects of Consumption of Transgenic Papaya (*Carica Papaya L.*) on Rat Intestinal Disaccharidases.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003.

617. **Powell, Melissa P., Andrew O. Wheatley, Paula F. Tennant, Felix O. Omoruyi, Dennis Gonsalves, Helen N. Asemota, and Mohammed H. Ahmad.** “The Effects of Consumption of Coat Protein Transgenic Papaya (*Carica Papaya L.*) on Liver and Kidney Enzyme Functions in Rats.” [Abstract]. West Indian Medical Journal suppl. 51.4 (2002): 18. **Refereed**

618. **Ragoobirsingh, Dalip, Donovan McGrowder, Tara P. Dasgupta, and Paul D. Brown.** “The Effect of Nitric Oxide on Glucose Metabolism.” Molecular and Cellular Biochemistry 263.1-2 (2004): 29-34.

Nitric oxide (NO) is an important bioactive molecule that mediates a variety of normal physiological functions, which, if altered, could contribute to the genesis of many pathological conditions, including diabetes. In this study, we examined the possible diabetogenicity of NO by noting differences in the cellular binding of insulin in dogs treated with the NO donor, S-nitrosoglutathione (GSNO) compared to captopril-treated controls. GSNO administration resulted in an abnormality in glucose metabolism which was attributed to decreased binding of insulin to its receptor on the cell membrane of mononuclear leucocytes, $11.60 \pm 0.60\%$ in GSNO-treated dogs compared with $18.10 \pm 1.90\%$ in captopril-treated control ($p < 0.05$). The decreased insulin binding was attributed to decreased insulin receptor sites per cell, $21.43 \pm 2.51 \times 10^4$ in GSNO-treated dogs compared with $26.60 \pm 1.57 \times 10^4$ in captopril-treated controls ($p < 0.05$). Average affinity analysis of the binding data demonstrated that this decrease in insulin binding was also due to a decrease in average affinity of the receptor on mononuclear leucocytes for insulin. This was evident by a decrease in empty and filled site affinities in GSNO-treated dogs compared with that of captopril-treated dogs ($p < 0.05$). It appears that GSNO is exerting its effect by decreasing the number of insulin receptor sites and/or decreasing the average receptor affinity. These results provide evidence for a novel role of NO as a modulator of insulin binding and the involvement of NO in the aetiology of diabetes mellitus.

619. **Ragoobirsingh, Dalip, Errol Y. Morrison, P. Johnson, and E. Lewis-Fuller.** “Obesity in the Caribbean: The Jamaican Experience.” Diabetes, Obesity and Metabolism 6.1 (2004): 23-27. **Refereed**

This study was designed to investigate the point prevalence and pattern of obesity in the Jamaican adult population. **Methods:** A two-stage-stratified random sampling design was used, and individuals aged 15 years and over were interviewed. In addition, anthropometric measurements were performed. The data were analysed using the SPSS statistical software version 8. Non-response was documented and factored into the final analysis of the survey data.



Results: A total of 2105 individuals responded to the all island survey, with 69% being females. Truncal obesity and gynoid obesity showed similar prevalence data. Both were affected by increasing age, being female, level of education attained and smoking status. **Conclusions:** Jamaica has a point prevalence of obesity, truncal 36.2% and gynoid 34.1%, in the 15 and over age group.

620. **Ragoobirsingh, Dalip, Errol Y. Morrison, and Harvey L. Reid.** “Comparative Blood Studies in Jamaican Diabetic Patients.” Journal of the National Medical Association 96.11 (2004): 1517. <http://www.nmanet.org/LTE1517.pdf>.

(Letter to the Editor)

The World Health Organisation (WHO) accepted proposals for a Type-III or malnutrition-related diabetes mellitus (MRDM) on the basis that further characterization be conducted. This syndrome is mainly seen in tropical countries where undernutrition is not uncommon. In 1985, Morrison and Richards identified a group 59 phasic insulin-dependent diabetes mellitus (PIDDM) patients in Jamaica, with a similar clinical profile in to MRDM elaborated in the WHO report.

Ragoobirsingh, Dalip See also 564, 565, 567, 568, 595, 629, 891, 1019

Reid, Harvey L. See 587, 613, 614, 620

621. **Riley, Cliff K., Andrew O. Wheatley, A. S. Adebayo, I. Ahmad, E. Y. ST. A Morrison, and Helen N. Asemota.** “Implications of Amylose Content and in Virto Digestibility of Native Jamaican Yam (*Dioscorea Sp*) Starches in the Formulation of Tablets and Capsules for Diabetics.” West Indian Medical Journal 53 Suppl. 1 (2004): 46. **Refereed**

622. **Riley, Cliff K., Andrew O. Wheatley, Ishmael Hassan, Mohammed H. Ahmad, and Helen N. Asemota.** “Morphological Characterization of Starches Extracted From Six Jamaican Yam (*Dioscorea Spp.*) Species.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003.

623. **Riley, Cliff K., Andrew O. Wheatley, Ishmael Hassan, Mohammed H. Ahmad, Errol Y. Morrison, and Helen N. Asemota.** “In Vitro Digestibility of Raw Starches Extracted From Five Yam (*Dioscorea Sp.*) Grown in Jamaica.” Starch 56.2 (2004): 69-73.

Yams are important sources of carbohydrates in the diet of millions of people in the tropical and subtropical world, where 70-80% of the dry mass is starch. This study was designed to investigate the physiochemical characteristics of starches from different yam varieties and their influence on digestibility. Starches from five yam varieties grown in Jamaican were extracted. The physiochemical properties; crystallinity determined by X-ray crystallography, granular size and the amylose content were determined and their effects on starch digestibility assessed. Scanning electron microscopy, Crystallinity and amylose contents were determined by the method of Farhat et al (1990) and in vitro digestibility determined by method of Moorthy et al (1999). Statistical differences of starch variables were obtained by use of the student’s t test. X-ray diffractograms of Round leaf yellow yam (*Dioscorea cayenensis*), Sweet yam (*Dioscorea alata*), and Negro yam (*Dioscorea rotundata*) showed open hydrated hexagonal crystallites (type B). However, Bitter yam (*Dioscorea dumetorum*) had denser crystallites, with staggered monoclinic packing (type A), and Chinese yam (*Dioscorea esculenta*) the intermediate type crystallites (type C).

624. **Riley, Cliff K., Andrew O. Wheatley, Ishmael Hassan, Mohammed H. Ahmad, Errol Y. Morrison, and Helen N. Asemota.** “*In Vitro* Digestibility of Raw Starches Extracted From Five Yam (*Dioscorea Spp.*) Species Grown in Jamaica.” Starch . **Refereed**



Starch granules from Round leaf yellow yam, Negro yam, Sweet yam, Bitter yam and Chinese yam grown in Jamaica were isolated and characterized. The amylose content, granular size, crystallinity, and digestibility by α -amylase were determined. The granules obtained were of three crystalline types. Round leaf yellow yam, Negro yam and Sweet yam were found to be type-B, while Chinese yam and Bitter yam were type-C and type-A, respectively. Round leaf yellow yam had the highest amylose content (26.5%) while Chinese yam had the lowest (11.1%). The granule size varied between 1-3 μ m for Chinese yam and 16-42 μ m for Round leaf yellow yam. Significant variations in digestibility of the granules were observed. Raw starches from Chinese yam and Bitter yam were the most susceptible to α -amylase digestion (porcine pancreatic α -amylase, pH 5.5, 0.02% CaCl_2 , 40°C, 24 h) with $21.27 \pm 0.01\%$ and $18.11 \pm 0.02\%$ degradation, respectively, while Round leaf yellow yam, Negro yam and Sweet yam starches were the least susceptible, with $13.74 \pm 0.03\%$, $14.98 \pm 0.08\%$, and $15.32 \pm 0.04\%$ enzymatic degradation, respectively.

625. **Salmon, Colleen, Ruby L. Lindo, and Kerith D. Golden.** “The Isolation and Elucidation of the Hypoglycaemic Principles of the Indigenous Jamaican Plant *Pilea Elizabethae* [Abstract].” Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 78-79.

Simon, Oswald R. See 578,579, 580, 581, 587, 598, 599, 606, 891, 1030

Singh, Paul D. See 575, 586, 612, 891

626. **Smith, Keriayn N., Marcia E. Roye, Wayne A. McLaughlin, and Douglas P. Maxwell.** “Genetic Diversity and Evolution of Cabbage Leaf Curl Virus From Jamaica.” [Abstract]. Proceedings of the Sixth Conference, Faculty of Pure and Applied Sciences: Editors Daniel N. Coore and Robert J. Lancashire. Kingston, Jamaica: Faculty of Pure and Applied Sciences, University of the West Indies, 2003. 49.

627. **Stewart, Opal J, G. S. V. Raghavan, Kerith D. Golden, and Y. Garipey.** “Modified Atmosphere Storage of Cavendish Bananas Using Silicone Membrane and Diffusion Channel Systems .” Postharvest Biology and Technology 35.3 (2005): 309-17.

A study was conducted to evaluate the potential of the passive silicone membrane and diffusion channel systems to preserve the quality and extend the shelf-life of bananas. Cavendish bananas were stored for 42 days at 15 °C under MA conditions using silicone membrane and diffusion channel systems. The respiration rate under MA at 15 °C was estimated as 20% or 60% less, or 20% greater than that measured in regular atmosphere at the same temperature.

Three different silicone membrane areas (50.29, 98.56 and 158.43 cm^2) and three different diffusion channel lengths (4, 7 and 10 cm) were tested. Results showed that the estimation of a 60% reduction in respiration rate was most accurate. The smallest area of silicone membrane achieved gas levels of 3.5% CO_2 /3% O_2 in about 10 days while the shortest diffusion channel achieved 5% CO_2 /3% O_2 , in 12–16 days. Fruit in these atmospheres remained unripe for 42 days, had harvest-fresh appearance, good colour, minimum mould and excellent marketability compared with controls and fruit stored in different gas compositions. In general, the silicone membrane system was found to be superior; it achieved stability more quickly than the diffusion channel system, maintained more stable gas levels throughout storage and had better physiological and sensory ratings. The diffusion channel system had higher CO_2 levels that may have resulted in peel discoloration in some chambers and may have affected other quality attributes. The silicone membrane system offers an inexpensive and easy to use alternative to the traditional methods used for MA storage of bananas.



628. **Thaxter, K. A., Lauriann E. Young, Omkar Parshad, Ronald E. Young, and J. Addae.** “Effects of Neem As Revealed by Somatosensory Evoked Potentials and the Elevated x Maze.” Society for Neuroscience Abstracts Viewer 859.2 (2003).

We previously reported significant decreases in spontaneous motor activity in rats treated with neem (*Azadirachta indica*). We further studied this sedative action of neem using intracortical somatosensory evoked potentials (SEPs) and behaviour in an elevated X maze to differentiate an anxiogenic effect from motor deficiency. In SEP studies, urethane anesthetized Wistar rats (200-250g) were given a steroidal extract of neem leaf (0.07 or 7 mg/kg i.p.), vehicle (1% DMSO/saline), diazepam (1 mg/kg) or no treatment (baseline). Amplitude of wave N1 increased ($p < 0.05$) in neem versus (vs) vehicle treated rats and decreased ($p < 0.05$) in diazepam treated rats vs baseline. For behavioral studies, rats (100-150g) received neem, vehicle, diazepam (2mg/kg i.p.), sham injection or no treatment (baseline) 1 hr before a 5-min exploration of the X maze. Open arm entries (%) indicated anxiogenesis after high dose ($p < 0.05$; 7mg/kg vs 0.07mg/kg neem), and anxiolysis after low dose (0.07 mg/kg). The high-dose rats deposited more fecal boli in the maze ($p < 0.05$) vs the vehicle group. Measures of total and closed arm entries showed that neem treatment did not significantly affect ability to explore the maze. Both doses of neem also increased rearing ($p < 0.05$ vs vehicle). Sham injected rats performed more stretched-attended postures in closed areas of the maze than baseline rats ($p < 0.05$), indicating anxiogenesis due to the injections. Diazepam vs sham injection reduced both rearing and closed arm entries ($p < 0.05$), but increased both % open arm entries and residence time ($p < 0.05$) without affecting total entries. Results suggest that the neem extract has a dose-related effect on anxiety and locomotory/orienting activity of rats in an elevated X maze. At high dose, 7mg/kg neem has cortical stimulatory and anxiogenic effects. CNS correlates may include serotonin and noradrenaline.

629. **Tolan, I., Dalip Ragoobirsingh, and Errol Y. Morrison.** “Extraction and Purification of the Hypoglycaemic Principle in Bird Pepper.” Phytotherapy Research 18.1 (2004): 95-96. **Refereed**
Capsicum frutescens has been used to treat diabetes mellitus by traditional healers in Jamaica. Purification experiments employing thin layer chromatography (TLC) and high performance liquid chromatography led to the extraction of the active principle, capsaicin. Purified capsaicin caused a decrease in blood glucose levels to 4.91 +/- 0.52 (n = 6) mmol/dL versus 6.40 +/- 0.13 mmol/dL (n = 6) for the control ($p < 0.05$) at 2.5 h in an OGTT in dogs. There was a concomitant elevation in plasma insulin levels ($p < 0.05$). In conclusion, it can be stated that capsaicin is the major constituent of *Capsicum frutescens* that is responsible for the hypoglycaemic episodes seen in the dogs. It is also apparent that the latter is mediated by insulin release.

West, Manley E. See 602

630. **Wheatley, Andrew O., Mohammed H. Ahmad, and Helen N. Asemota.** “Development of Salt Adaptation in *In Vitro* Greater Yam (*Dioscorea Alata*) Plantlets .” In Vitro Cellular and Development Biology 39.3 (2003): 346-53. **Refereed**

The development of plants capable of growing under saline conditions is one approach at utilizing saline soils that are otherwise arable. This study was designed to develop salt-tolerant yam (*Dioscorea alata*) plantlets, using tissue culture techniques. Salt-tolerant yam (*Dioscorea alata* cv. Sweet yam) plantlets were produced *in vitro* through repeated culturing and selection on saline media. Two hundred plantlets were subcultured on normal multiplication media (Murashige and Skoog basal media with 30 g l⁻¹ sucrose and 0.44 μM benzylaminopurine). A further 400 plantlets were equally subcultured on multiplication media supplemented with 100 or 200 m NaCl. Plantlets that proliferated on medium with 100 m saline conditions were repeatedly subcultured on saline media. Growth of plantlets and root formation were assessed along with some biochemical parameters such as invertase (EC 3.2.1.26), peroxidase (EC 1.11.1.7), and polyphenol oxidase (EC 1.10.3.1) activities. No growth was observed for plantlets transferred to the highly saline media of 200 m NaCl and the explants did not survive beyond 6 wk. Control plantlets exhibited 100% rooting within 3 wk compared to 5 wk for plantlets on 100 m NaCl. Development of new nodes and leaves was observed for plantlets on 100 m NaCl, although at an initially slower rate than the control plantlets. The enzyme activity profiles obtained for plantlets on 100 m NaCl reflected the biochemical adjustments of the plantlets



to cope with the saline conditions. This was further substantiated by the detection of two reproducible bands of sizes 1 and 0.35 kb from reverse transcription polymerase chain reaction (RT-PCR) studies of salt-tolerant yam plantlets. These results can be translated into efforts aimed at maximizing the use of saline soils.

632. Wheatley, Andrew O., Mohammed H. Ahmad, Helen N. Asemota, and G. Osuji.

“Development of Salt Tolerance in *in Vitro* Yam (*Dioscorea*) Plantlets.” Jamaican Journal of Science and Technology 14 (2003): 46-57. **Refereed**

The development of plants capable of growing under saline conditions is one approach at utilizing saline soils that are otherwise arable. The study was designed to develop salt tolerant yam (*Dioscorea alata*) plantlets, using tissue culture techniques. Salt tolerant yam (*Dioscorea alata* cv. Sweet yam) plantlets were produced *in vitro* through repeated culturing and selection on saline media. Two hundred plantlets were subcultured on normal multiplication media (MS basal media with 30g/L sucrose and 0.1 mg/L benzylaminopurine). A further 400 plantlets was equally subcultured on multiplication media supplemented with 100mM and 200mM NaCl. Plantlets that thrived under saline conditions were repeatedly subcultured on saline media. Growth of plantlets and root formation were assessed along with the biochemical parameters, invertase (EC 3.2.1.26), peroxidase (EC 1.11.1.7), and polyphenol oxidase (EC 1.10.3.1). No growth was observed for plantlets transferred to the highly saline media of 200 mM NaCl and the explants did not survive beyond six weeks. Control plantlets exhibited 100% rooting within three weeks compared to five weeks for plantlets on 100 mM NaCl. Development of new nodes and leaves was observed for plantlets on 100 mM NaCl, although at an initially slower rate for those in saline media than control. The enzyme profiles obtained for plantlets on 100 mM NaCl revealed the biochemical adjustments of the plantlets to cope with the saline conditions. This was further substantiated by the detection of two reproducible bands corresponding to approximately 1kb and 0.35kb from RT-PCR studies of salt tolerant yam plantlets. These result can be translated into efforts aimed at maximizing the use of saline soils.

633. Wheatley, Andrew O., Helen N. Asemota , and Mohammed H. Ahmad. “A Comparison of the Storageability of *in Vitro* Derived and Traditionally Produced Yam (*Dioscorea Cayenensis*) Tubers .” Jamaican Journal of Science and Technology 14 (2003): 40-45. **Refereed**

The storageability of yam (*Dioscorea spp.*) tubers produced from tissue culture derived planting materials and traditionally produced tubers was examined. Tubers were stored at $27 \pm 1^\circ\text{C}$ on indoor shelves and $20 \pm 1^\circ\text{C}$ in the dark. The cell wall enzymes, pectin methylesterase (PME), polygalacturonase (PG) and cellulase were assayed during the storage period. To mimic the traditional practice of the removal of yam heads, *in vitro* derived tubers were also cut and stored at $27 \pm 1^\circ\text{C}$ on indoor shelves. We found that *in vitro* derived tubers stored better than traditionally produced tubers. Intact *in vitro* tubers at 27°C under ambient conditions did not sprout until the 14th week of storage as against the 5th week traditionally produced tubers. Storage of *in vitro* derived tubers at 20°C in the dark extended the storage life by 6-10 weeks. Traditionally produced tubers at 20°C in the dark stored up to the 14th week. Cutting of *in vitro* derived tubers and storing at ambient temperatures (27°C) resulted in rotting after 13 weeks. PME increased sharply to a maximum in the tenth week of storage of *in vitro* derived tubers before decreasing toward the end of the study. Polygalacturonase began increasing when PME reached a maximum in the tenth week of storage and increased with further storage. A similar trend was observed for cellulase activity as seen for PG during storage. Cellulase remained constant up to the tenth week of storage, after which the enzyme activity increased sharply. This increase in cellulase activity continued with further storage. It would appear that the source of planting material influences the storageability of the resultant tubers and that the degradation of the cell wall during storage reflects some of the biochemical changes taking place.

634. Wheatley, Andrew O., Helen N. Asemota , and Errol Y. Morrison. “Glycaemic Index: Not All Carbohydrates Are Created Equal.” [Abstract]. 51 Suppl. 1 (2002): 60.

635. Wheatley, Andrew O., Iyare A. Osarosemwen, and Helen N. Asemota. “Effect of Section of Yam (*Dioscorea Cayenensis*) Tuber Used in Minisett on the Biochemical Properties of the Resultant Tuber. “ Journal of the Science of Food and Agriculture 82.13 (2002): 1579-83.



The effect of the section of yam (*Dioscorea cayenensis*) tuber used as planting material in miniset on the biochemical properties of the resultant tuber was studied. The biochemical parameters invertase (EC 3.2.1.26), acid phosphatase (EC 3.1.3.2), peroxidase (EC 1.11.1.7), polyphenol oxidase (EC 1.10.3.1), total sugars and starch were evaluated in tubers resulting from field-grown and tissue culture-derived setts of the cultivars Roundleaf and Blackwiss yellow yams. No significant differences were observed between tubers resulting from field-grown and tissue culture-derived setts relative to the parameters studied. Invertase activity was found to be highest in tubers from middle-derived setts, while tail-derived setts had the lowest activity for both cultivars. Middle-derived tubers were also found to have significantly higher levels of acid phosphatase activity and starch content. However, middle-derived tubers had the lowest level of total sugars. Polyphenol oxidase and peroxidase were also found to be significantly higher in tubers from middle-derived setts. These results suggest a higher rate of active starch formation in tubers from middle-derived setts.

Wheatley, Andrew O. See also 566, 582, 589, 615, 616, 617, 621, 622, 623, 624

636. **Williams, Opal J., G. S. V. Raghavan, Kerith D. Golden, and Y. Gariepy.** "Postharvest Storage of Giant Cavendish Bananas Using Ethylene Oxide and Sulphur Dioxide." Journal of the Science of Food and Agriculture 83.3 (2003): 180-86.

The potential of ethylene oxide (EO) and sulphur dioxide (SO₂) to prevent ethylene-stimulated fruit ripening was assessed using Giant Cavendish bananas. Studies were carried out in a cold room at 15 °C and terminated after 6 weeks. Product quality was assessed via visual observations and physiological assessments. Fruits were exposed to EO concentrations in the range 0-400 ppm for 12 h followed by storage in regular atmosphere (RA). Results showed that EO delayed ripening at 50 and 100 ppm for single exposure and at 50 and 200 ppm for repeated exposure.

Treatment with 2 and 8 µg kg⁻¹ SO₂ was efficient in extending the shelf life of bananas for 4 weeks in RA and for 6 weeks under controlled atmosphere (CA). SO₂ preserved the quality of bananas and reduced the incidence of fungal infections during storage; however, a concentration of 15 µg kg⁻¹ shortened the shelf life. Fruits treated with low concentrations of EO and SO₂ had harvest-fresh appearance, good colour, minimum mould and excellent marketability compared with controls and store-bought references. EO and SO₂ are not approved for use on fresh fruits, with the exception of the use of SO₂ on grapes and citrus fruits. (AU)

637. **Williams, Opal J., G. S. V. Raghavan, V. Orsat, and Kerith D. Golden.** "The Effect of Drying on Unsaturated Fatty Acids and Trypsin Inhibitor Activity in Soya Bean." Process Biochemistry 39.4 (2003): 483-89.

638. **Young, Lauriann E., K. O. Palmer, and Ronald E. Young.** "Effects of Estrogen and Testosterone on the Rate of Learning and Extinction Time in Negative Patterning Discrimination in Aged Male Rats." Society for Neuroscience Abstracts Viewer 417 (2005): 10.

In humans, aging is accompanied by a convergence of reduced gonadal steroid production and an increased incidence of senile dementia. Sex differences are observed in the incidence of senile dementia and gonadal steroid production. This study was designed therefore, to evaluate whether the difference seen in estrogen (E2) production in aged male and female rats could, in part, explain differences in the incidence of senile dementia. Three groups of Sprague-Dawley male rats (each with n = 6), aged 24 months, were assigned to different treatment groups, viz: E2, anastrozole (an E2-inhibitor) and oil, and later compared with non-treated aged male (n = 12) and female (n = 12) controls. Rats were trained in a computerized Lafayette operant system, utilizing a negative patterning discrimination learning task. Rats had to learn (and were rewarded) to press a lever when a single stimulus, light or tone, was presented, but were not rewarded if they pressed the lever when both stimuli (light/tone) were simultaneously presented. Plasma estradiol and testosterone levels were verified using chemiluminescence enzyme immunoassay and enzyme immunoassay, respectively. Aged male Sprague-Dawley rats chronically treated with E2



(silastic implants) showed a significant enhancement of learning ($p < 0.007$); while, those with low E2 levels showed a significantly reduced rate of learning ($p < 0.001$). In assessment of memory, estradiol-treated aged male rats showed a significant ($p = 0.0001$) increase in time-to-extinction of negative patterning discrimination as compared to anastrozole-treated (low estrogen, high testosterone), oil and control groups. Additionally, aged male rats performed better at the negative patterning discrimination learning task than their aged female counterparts. These findings suggest that 17β -estradiol provides neuroprotection against cognitive decline in aged male rats.

Young, Lauriann E. See also 610, 628

639. **Young, Ronald E.** "Blood, Respiratory and Neuromuscular Physiology." Science, Technology & Innovation: UWI Mona Leading the Nation. Mona, Jamaica: University of the West Indies, 2004. 37.

Young, Ronald E. See also 607, 608, 628, 635, 1944

Department of Community Health and Psychiatry

640. **Abel, Wendel D., A. Aquart, A. Morris, R. C. Gibson, and Frederick W. Hickling.** "Medical Students' Performance in the Final Examination in Medicine and Therapeutics." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 37. **Refereed**

641. **Abel, Wendel D, Charles E. Denbow, Z. Ali, K. Dockery, and Frederick W. Hickling.** "Reliability and Validity of the Final Examination in Medicine and Therapeutics at the University of the West Indies." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 40. **Refereed**

642. **Abel, Wendel D., S. Forrester, J. Martin, and K. Fox.** "Sexual Behaviour Among Adolescents in Jamaica." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 27-28. **Refereed**

643. **Abel, Wendel D., K. Fox, S. Forrester, and Frederick W. Hickling.** "Antisocial and Aggressive Behaviour: Prevalence and Risk Factors." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 28-29. **Refereed**

644. **Abel, Wendel D., S. Halliday, M. McCallum, R. C. Gibson, and Frederick W. Hickling.** "Knowledge and Attitude of Health Workers Towards Mental Health." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 29. **Refereed**

645. **Abel, Wendel D., P. Milbourn, C. Sewell, R. C. Gibson, and Frederick W. Hickling.** "Characteristics of Abused Children and Adolescents Attending a Specialised Clinic." [Abstract]. West Indian Medical Journal 53 Suppl 5 (2004): 30. **Refereed**



646. **Abel, Wendel D, Russell B. Pierre, Michelle Barton-Forbes, and Frederick W. Hickling.** “Interviewing Skills of Students in the Final Psychiatry Objective Structured Clinical Examination (OSCE).” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 39. **Refereed**

647. **Alexander Sonia, and Affette M. McCaw-Binns.** “Oral Health Status of 12-Year-Old Children in Northern Saint Lucia.” St. Lucia Country Conference: November 18-19, 2004: Board for Non-Campus Countries and Distance Education, 2005.

<http://www.uwichill.edu.bb/bnccde/stlucia/conference/papers/AlexanderMcCawBinns.html>.

Dental disease results from poor oral hygiene practices, compounded by a lack of oral health education and promotion. Oral diseases have been described as the neglected epidemic, posing problems for the individual, the family and the community. Oral health care is often omitted from primary care services and is not seen as a priority. Health professionals need to develop strategies at the community and public policy level to reposition oral health as a critical element of a healthy image. More individuals lack dental insurance than those who lack health insurance, for example, 150 million and 37 million respectively in the United States. Negative attitude, lack of information and access to affordable care are integral factors associated with the epidemic. Some people associate oral care with pain and suffering and believe it is compulsory to lose teeth as you age. Good oral health is important because in addition to freedom from pain, suffering and infection, it allows for the development of speech, facilitates the eruption of permanent teeth and aids in chewing, which contributes to digestion and adequate nutrition. The contour of the face is maintained by one’s dentition and a healthy smile is important to one’s self-image and self-esteem.

648. ——. “The Oral Health Status of 12 Year Old Children in St. Lucia.” West Indian Dental Journal 7.1 (2003): 17-20. **Refereed**

This study was carried out to determine the oral health status of 12-year old children in St. Lucia and to assess its association with oral health knowledge, attitudes and practice. A cross-sectional study of 97 students from 4 of 30 randomly selected schools in the north of the island was undertaken from June to August 2000. A structured questionnaire measured student’s knowledge, attitudes and practices while dental nurses performed an oral examination to determine their decayed, missing and filled teeth (DMFT) level, using World Health Organization (WHO) guidelines. The DMFT rate was 2.0 which by WHO standards is low; however, 65% had one to seven decayed teeth, 8% had one to four missing teeth with only 9% having one or two filled teeth, indicating the need for routine dental treatment. Knowledge and practice levels were good. Lower DMFT scores among boys were predicted by more frequent dental visits. Dental health education is integrated into the school curriculum and taught mainly by teachers. This needs to be supported by increased access to routine examination and treatment, proper planning of oral health programmes, including oral health education, behaviour modification, public health measures such as salt fluoridation. These will contribute to further reducing the incidence of oral diseases.

649. **Allen, E. A., and Tomlin J. Paul.** “Spiritual Health Assessment in the Undergraduate Medical Curriculum at the University of the West Indies, Mona - Stepping Out in Faith!” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 30. **Refereed**

650. **Bain, Brendan C.** “The UWI HIV/AIDS Response Programme.” Caribbean Quarterly 50.1 (2004): 11-14. **Refereed**

At the core of this paper is the belief that strong political will to confront the Human Immunodeficiency Virus (HIV/AIDS) epidemic in an organized way is the key to progress in mitigating the impact of this disaster. The paper describes the formation and early development of the University of the West Indies HIV/AIDS Response programme (UWI HARP) and identifies the requirements for its sustainability and success. The leaders of the UWI HIV/AIDS Response Programme (UWI HARP) describe the University’s programme as a partnership “to promote awareness and appropriate action in response to the HIV/AIDS epidemic.” The UWI HARP leadership warns, “Let us neither over-emphasize nor under-emphasize HIV/AIDS.”



651. **Barnaby, Loraine A.** “The Demographics of Suicide in Jamaica: A Study of Suicides in 2003.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 28. **Refereed**
652. ——. “Factors Affecting Completion of Substance Abuse Treatment at the University of the West Indies.” [Abstract]. West Indian Medical Journal 53 Suppl. 4 (2004): 34-35. **Refereed**
653. **Barrett, D. M., A. Nembhard, Robert Sue-Ho, N. Williams, Denise A. Eldemire-Shearer, and John F. Lindo.** “Preliminary Results of a Study of Opportunistic Intestinal Parasitic Infections Among Persons Living With HIV/AIDS in Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 33-34. **Refereed**
654. **Bhardwaj, Sanjana A., D. H. Ramsay, Nancy Muturi, J. Mullings, and Brendan C. Bain.** “Capacity Building at a Tertiary Level Institution As Part of a Comprehensive HIV/AIDS Response Programme in the Caribbean..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 26. **Refereed**
655. **Blake, O. A., J. C. Jackson, Maria Jackson, and C. L. A. Gordon.** “Assessment of Dietary Exposure the Natural Toxin Hypoglycin in Ackee (*Blighia Sapida*) by Jamaican Consumers.” Food Research International 37.8 (2004): 833-38. **Refereed**
(Presented at the Annual Meeting of the Institute of Food Technologies (IFT), Anaheim, California, USA. *Awarded best student oral presentation*)
Dietary exposure to hypoglycin (HG), the natural toxin found in the ackee fruit of Jamaica, was determined for children and adults using ackee consumption data and quantifying HG levels in typical ackee diets. Ackee consumption was highest in the lower socio-economic group, particularly in children. HG occurrence levels in typical ackee diets ranged from 1.21 to 89.28 µg HG/g ackee. Dietary exposure to HG was highest in young children, who lived in lower socio-economic rural areas of Jamaica. This study is the first to quantify dietary exposure to HG by Jamaican consumers, providing some basis to guide risk assessment. The findings also concur with observations that young children in lower socio-economic groups are the most vulnerable to HG toxicity, when it occurs. (AU)
656. **Bowla, K., and Kai A. Morgan.** “Sexual Practices Among Students at the University of the West Indies, Mona..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 19-20. **Refereed**
657. **Bryan, A., A. Ward, and Karel DeCeulaer.** “Neuropsychological Impact of Systematic Lupus Erythematosus in Jamaica.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 37-38. **Refereed**
658. **Campbell-Stennett, D. S., Affette M. McCaw-Binns, Denise A. Eldemire-Shearer, and Desmalee. Holder-Nevins.** “Are Women Ready to Do a HIV Test? A Theory at Work.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 69. **Refereed**
659. **Campbell-Stennett, D. S, Affette M. McCaw-Binns, Desmalee. Holder-Nevins , and Denise A. Eldemire-Shearer.** “Factors Determining the Readiness for HIV Testing in Women of Reproductive Age Group in Westmoreland: a Theory-Based Approach.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 23. **Refereed**



660. **Carrington, D., Denise A. Eldemire-Shearer, and Affette M. McCaw-Binns.** “Screening Older Women for Cervical Cancer: Attitudes Versus Practice.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 33-34. **Refereed**

661. **Coard, Kathleen C., and Maria Jackson.** “Heart Weight and Heart Weight/Body Weight Ratio in a Jamaican Adult Autopsy Population: A Preliminary Study.” West Indian Medical Journal 52.1 (2003): 41-44. **Refereed**

The heart weight and heart weight/body weight (HW/BW) ratio were assessed in an adult autopsy population and compared with commonly used reference values. Examination of 127 adult post-mortem cases (80 males and 47 females, aged 17-91 years) revealed that the mean heart weight and the HB/BW ratios of both genders were significantly greater than the reference values, particularly so in the hypertensive patients. These findings suggest that the Jamaican adult heart is significantly heavier than values used from reference tables. In both genders, heart weight was significantly and positively correlated with body weight and and body mass index but not height, for non-hypertensive and hypertensive subjects. The present data are preliminary and not comprehensive enough to establish definitive reference values for the Jamaican population. However, this information needs to be taken into consideration when making pathologic diagnosis using heart weight as criterion in post-mortem diagnosis.

662. **Cox, L. A., A. J. Weir, and S. Hemmings.** “The University of the West Indies Medical Students’ Association Full Members of the International Federation of Medical Students Associations a First for a Medical Student Association in the English-Speaking Caribbean.” West Indian Medical Journal 51.4 (December, 2002): 273-74. **Refereed**

The University of the West Indies Medical Students’ Association (UWIMSA) became the first English-Speaking national member organization from the Caribbean to be full members of the International Federation of Medical Students Association (IFMSA) on Sunday, July 28, 2002 at the 51st August Genral Assembly in Taipei, Taiwan. The IFMSA is a non-profit and non-governmental organization, reaching out to thousands of medical students in a network of member countries. There are many benefits to the UWIMSA. This includes the ability to identify with reputable international organization such as the World Health organization. Student Exchanges are also made available to final year students at any of the member countries of the IFMSA.

663. **De La Haye, Winston.** “Community-Based Prevention of Substance Abuse.” West Indian Medical Journal 53.6 (2004): 420-23. **Refereed**

Substance abuse is pervasive in a number of countries throughout the world, placing an enormous burden and strain on their health care systems. The relationship between crime and illicit drug use increases the significance of the problem facing countries worldwide. Jamaica has not only become a trans-shipment point for cocaine from South America, but recent Drug Enforcement Agency figures show Jamaica being responsible for 30% of cocaine trafficking into the United States of America. Though all segments of society are involved, disadvantaged groups are disproportionately affected. Substance use and abuse among adolescents is of particular concern. Supply reduction approaches have not been effective enough in reducing the prevalence of substance use and abuse in many countries throughout the world. Substance abuse prevention research over 25 years has led to the identification of a number of factors differentiating substance abusers from others. The presence of risk factors and the absence of protective facts contribute to an increased potential for drug abuse. The impact that these factors have is also determined by the level of psychological and social development of an individual. The presence of risk factors as well as the absence of protective factors leads to increased “exposure opportunity”, exposure to a potential substance of abuse being closely associated with the potential for initial drug use, transition from initiation to regular use and subsequently dependence. One method of reducing “exposure opportunity” is community prevention. The basic aim of community prevention programmes is to decrease the rate of drug use in a population by enhancing protective factors and reversing or reducing risk factors.(AU)



664. —. “Exposure Opportunity to Substances of Abuse.” West Indian Medical Journal 53.3 (2004): 141-42. **Refereed**

The ‘gateway theory’ is a concept used to link alcohol, tobacco, marijuana and cocaine use. Based on the theory, substance abuse is thought to follow a progression beginning with experimentation and recreational use of alcohol and cigarettes. A mechanism developed for explaining the ‘gateway theory’ is the ‘exposure opportunity’ used by James Anthony to study why drug use takes place. Exposure opportunity looks at the process of drug use beginning with the initial stage to regular drug use and then dependence. The theory suggests that alcohol and tobacco users are more likely to use marijuana once there is ‘marijuana exposure opportunity’. Similarly, marijuana users are considered more likely to use cocaine once there is a ‘cocaine exposure opportunity’. Anthony’s findings showed a comparative estimate of US residents having an opportunity to try marijuana, cocaine, hallucinogens and heroin to be 51%, 23%, 14% and 5% respectively. Opportunity to try was ($p < 0.0001$) and actual use of marijuana ($p < 0.001$) was more likely in users of tobacco and alcohol than nonusers once marijuana exposure opportunity had occurred.

665. **De La Haye, Winston, and J. Harrison.** “Profile and Pattern of Substance Abuse in Clients Treated in an Adolescent Substance Abuse Clinic in a General Hospital in Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 27. **Refereed**

666. **De La Haye, Winston, K. Powell, S. Pinnock, and M. Panton.** “Profile and Pattern of Substance Abuse in Clients Diagnosed With HIV in a Substance Abuse Treatment Unit in a General Hospital in Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 35. **Refereed**

667. **De La Haye, Winston, L. Shand, and H. Gough.** “Profile and Pattern of Substance Abuse in Patients Admitted to Residential Treatment Facility in Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 34. **Refereed**

668. **Dockery, K., and Rosemarie A. Johnson.** “Reported Symptomatology Within a Sample of Jamaican Adult Survivors of Childhood Sexual Abuse..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 32. **Refereed**

669. **Eldemire-Shearer, Denise A.** “Diabetes in the Older Population: The Jamaican Experience.” CAJANUS 36.1 (2003): 3-20.

(Paper presented at the 9th International Diabetes Conference, 2003, Jamaica.)

The population has been aging steadily since the 1970’s and so has the prevalence of chronic diseases. Type 2 Diabetes has been increasing in importance as a leading cause of morbidity and mortality since the 1950’s. At the same time, the population has been ageing and there are many older persons living longer. Ageing is a multidimensional process influenced by many factors. Older persons have issues specific to their age group such as inadequate incomes and the accepted physical changes, which can increase their risk of disease and complicate their ability to manage their illness. Longer life expectancy translates for some into longer life with chronic disease, added disability and long term care. Many older persons live with families, which raises the increasing awareness of the burden associated with caregiving. The persistent trend of increasing levels of diabetes has accentuated the need for appropriate prevention policies and activities at all ages. Diabetes is also associated with many complications - large and small vessel related complications and neurophathies manifest as heart attacks, strokes, blindness, impotence, kidney failure, amputation and nerve damage, which can reduce the quality of life and place a heavy burden on the health services. Diabetes is also recognised as part of the metabolic syndrome, which predisposes to cardiovascular disease and is characterised by hypertension, obesity, high insulin levels, insulin resistance and high cholesterol. The development of the complications of diabetes is related to the length of time that a person has the disease as well as



the level of control. Given that maturity-onset diabetes is mainly an illness of mid-life, much of the burden of the disease is seen in old age. There is evidence that this is already a concern as it was reported that the main reason for hospitalization in middle-aged females at a major hospital in Jamaica was the complication of diabetes. Medical expenditure for people with diabetes has been reported as being two or three times higher than for those without diabetes. Care for a diabetic is estimated at US\$750.00 and a non-diabetic US\$146.00. Many of the complications can be avoided or minimized by lifestyle changes even after the illness has been diagnosed. Risks for disease and disability increase with age and can be made worse by lifestyle choices - influenced directly by an individual's motivation and attitudes and/or by other behavioural and social factors.

670. **Eldemire-Shearer, Denise A., and Paul. Tomlin J.** "Ageing - Time for a Paradigm Shift in Healthcare Services." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 45-48. **Refereed**

671. **Findlay, M. M., Anthony M. Mullings , and Denise A. Eldemire-Shearer.** "A Study of Women's Satisfaction With Antenatal Care at Government Facilities." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 31. **Refereed**

672. **Gibson, R. C., and Loraine A. Barnaby.** "Rivastigmine in the Treatment of Alcohol-Induced Persisting Dementia." West Indian Medical Journal 52.1 (2003): 59-61. **Refereed**

A case of Alcohol-Induced Persisting Dementia (AIPD) in a 62-year-old man is presented. His progress on treatment with the acetylcholinesterase inhibitor, Rivastigmine, is followed. The significant improvement observed suggests that AIPD may be a new indication for this class of drug.

673. **Gibson, R. C., R. Chung, Kai A. Morgan, and Frederick W. Hickling.** "The Constructed Realities of Jamaican Inner-City Youth: Public Health Implications." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 30. **Refereed**

674. **Gibson, R. C., R. Chung, Kai A. Morgan, Hilary Robertson-Hickling, and Frederick W. Hickling.** "Discourse Analysis and Film Semiotics in an Adolescent Mental Health Intervention." [Abstract]. West Indian Medical Journal 54 Suppl 2 (2005): 64. **Refereed**

675. **Hagley, K. E.** "Medical Graduates of the University of the West Indies: Demographic Characteristics, Specialties and Geographical Distribution." West Indian Medical Journal (2003): 28. **Refereed**

Over the years, the University of the West Indies (UWI) undergraduate medical population has exhibited marked growth in both the number of students and the number of countries of origin of the students. The first undergraduate class of 33 persons which commenced its training in 1948 at Mona, was made up of students from six different countries but in the ensuing years, students from 28 countries received their training at the various campuses of the institution. The first batch of medical graduates (class of '54) numbered 13 and, initially the growth in number of graduate was small - a total of 43 graduates in class '54, '55 and '56. Thereafter, there was an average increase of 100% in the number of graduates over a ten-year period. The class of 1973 with 104 graduates marked the beginning of the era with classes exceeding 100 graduates per year. The coming on stream of the Eric Williams Medical Sciences Complex subsequently led to a dramatic increase in the number of graduates to an average of 190 each year. In recent years, there has been a marked shift in gender composition of the classes. Classes between 1954 and 1994 generally had a heavy male preponderance but thereafter, except for the St. Augustine classes, females outnumbered males. The total number of medical graduates up until 2003 was 4936 and of this number, 1913 were females.

676. **Harvey, S. A., P. Ayabaca, M. Bucagu, S. Djibrina, W. N. Edson, S. Gbangbade, Affette M. McCaw-Binns, and B. R. Burkehalter.** "Skilled Birth Attendant Competence: An Initial



Assessment in Four Countries, and Implications for the Safe Motherhood Movement.”

International Journal of Gynaecology and Obstetrics 87.2 (2004): 203-10. **Refereed**

Objective: Percentage of deliveries assisted by a skilled birth attendant (SBA) has become a proxy indicator for reducing maternal mortality in developing countries, but there is little data on SBA competence. Our objective was to evaluate the competence of health professionals who typically attend hospital and clinic-based births in Benin, Ecuador, Jamaica, and Rwanda. **Methods:** We measured competence against World Health Organization’s (WHO) Integrated Management of Pregnancy and Childbirth guidelines. To evaluate knowledge, we used a 49-question multiple-choice test covering seven clinical areas. To evaluate skill, we had participants perform five different procedures on anatomical models. The 166 participants came from facilities at all levels of care in their respective countries. **Results:** On average, providers answered 55.8% of the knowledge questions correctly and performed 48.2% of the skills steps correctly. Scores differed somewhat by country, provider type, and subtopic. **Conclusion:** A wide gap exists between current evidence-based standards and current levels of provider competence.

677. **Haynes, T., Everard N. Barton, and Frederick W. Hickling.** “The Prevalence of Depression and Anxiety Among End Stage Renal Patients Treated With Haemodialysis at the University Hospital of the West Indies..” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 77. **Refereed**

678. **Haynes, T., and Frederick W. Hickling.** “Relapse or Reintegration: A Ten-Year Outcome Study of Schizophrenia in Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 27. **Refereed**

679. **Hemmings, S., G. L. Edwards, and G. R. Ahmad.** “Smoker: Past, Present and Future?” West Indian Medical Journal 51.2 (2002): 130-31. **Refereed**

For over forty years, *Smoker* has been an venerable annual tradition of the Faculty of Medical Sciences (FMS). It followed on the tradition of medical *Smokers* which were transplanted from England to our Caribbean shores by expatriate British lecturers when the Faculty and, for that matter, the University College of the West Indies began. This therefore, makes *Smoker* probably the oldest running cultural tradition of the University of the West Indies. The concept of *Smoker* developed out of ‘limes’ or relaxing sessions in army smoking rooms and has certainly evolved in our faculty from its embryonic days of impromptu performances to the present day “generation next” form of semi-professional theatrical performances, featuring drama, dance and song. (AU)

680. **Hickling, Frederick W.** “Community Psychiatry in the Caribbean.” [Abstract]. West Indian Medical Journal 53 Suppl. 4 (2004): 33. **Refereed**

681. ——. “From Explanitations and Madnificent Irations to De Culcha Clash.” Interventions: International Journal of Post Colonial Studies 6.1 (2004): 45-66. **Refereed**

The use of culture as an instrument for education, consciousness-raising and demystification has been rediscovered and titled ‘people’s theatre’ or ‘popular theatre’ in recent years. The use of popular culture as a designated instrument for individual and group psychotherapy is a more recent phenomenon. The paper traces the development of an active popular theatre movement in Jamaica, intensified in the decade of the 1970s and building on the blueprint of Marcus Garvey and Edelweiss Park in Kingston in the early 1910s. The 1970s saw the popular theatre trend produce a wave of performing groups, such as The Bellevue Cultural Team, Gun Court, and Sistren Theatre Collective. The prototype for the cultural therapy process began as an eight-week workshop with the reggae band Third World, and produced the popular theatre piece *Explanitations* in 1978. Cultural therapy emerged as a large-group psychotherapy process in the Bellevue Mental Hospital soon after, and was called ‘sociodrama’. Between 1978 and 1981, the cultural therapy team at the Bellevue Mental Hospital produced annual pageants called *Madnificent Irations*, *Visionated Penetrations*, *Madadaptations*, and *Iration Explosion*. The pageants told the story of the history of madness in a British postcolonial territory and the genesis of mental illness in specific patients of that hospital. The



pageants challenged the participants and the audiences to re-evaluate preconceived notions and the stigma of 'madness'. The cultural therapy process was applied as popular theatre in Grenada in 1980, producing *Genesis of Ites*; in Provident Hospital, Baltimore, USA, in 1981, producing *Cooling the Fires of Hell*; and in Belize in 1982, producing *Mongrel Juice*. In Jamaica, the cultural therapy trend culminated in the novel fusion of dub music and the operetta in 1992, resulting in the production of *Krossroads - de Culcha Clash*. The psychotherapeutic outcome of the process is outlined and discussed. (AU)

682. **Hickling, Frederick W., Wendel D Abel , and P. Garner.** "Open General Medical Wards Versus Specialist Psychiatric Units for Acute Psychoses." Vol. 2. 2003.

BACKGROUND: As international health care policy has moved away from treating people with severe mental illness in large inpatient psychiatric institutions, beds for people with acute psychiatric disorders are being established in specialised psychiatric units in general hospitals. In developing countries, however, limited resources mean that it is not always possible to provide discrete psychiatric units, either in general hospitals or in the community. An alternative model of admission, used in the Caribbean, is to treat the person with acute psychosis in a general hospital ward. OBJECTIVES: To compare the outcomes for people with acute psychoses who have been admitted to open medical wards with those admitted to conventional psychiatric units. SEARCH STRATEGY: The Cochrane Schizophrenia Group's study-based register was searched (November 2001). This register is compiled from searches of BIOSIS, CINAHL, The Cochrane Library, EMBASE, LILACS, MEDLINE, PsycINFO, PSYINDEX, Sociofile, and many conference proceedings. SELECTION CRITERIA: All relevant randomised or quasi-randomised trials, allocating anyone thought to be suffering from an acute psychotic episode to either acute management on general medical wards, or acute management in a specialist psychiatric unit. The primary outcomes of interest were length of stay in hospital and relapse. DATA COLLECTION AND ANALYSIS: Studies were reliably selected, assessed for quality, and their data would have been extracted. Homogenous data were to have been synthesised. For binary data, the risk ratios (RR) and 95% confidence intervals (CI) were to have been calculated on an-intention-to-treat basis. If possible, the number needed to treat/harm statistic (NNT/H) was to have been calculated. For continuous data, weighted mean differences (WMD) were to have been calculated and only data from valid scales would have been reported in this review. MAIN RESULTS: We identified no relevant randomised trials. REVIEWER'S CONCLUSIONS: The Caribbean practice of treating people with severe mental illness on general medical wards has been influenced by socio-economic factors rather than evidence from randomised trials. This practice affords an opportunity for a well designed, well conducted and reported randomised trial, now impossible in many other settings. (AU)

683. **Hickling, Frederick W., and Winston De La Haye.** "The Treatment of Personality Disorder in Jamaica With Psychohistoriographic Brief Psychotherapy." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 48-49. **Refereed**

684. —. "The Treatment of Personality Disorder With Psycho-Historiographic Psychotherapy." [Abstract]. West Indian Medical Journal 52 Suppl 6. (2003): 31. **Refereed**

685. **Hickling, Frederick W., Ishenkumba A. Kahwa, Trevor Munroe, Verene Shepherd, and Alvin G. Wint.** Strategic Challenges Confronting UWI Mona: An Analysis & Response. Kingston, Jamaica: University of the West Indies Press, 2003.

Gives a report of the Task-Force established by UWI (Mona)'s Academic Board in May 2003 to consider and provide a response to the strategic challenges confronted by the Mona Campus of the University of the West Indies, for presentation at the first Academic Board Meeting of the 2003-2004 academic year. Identifies strategic challenges facing the UWI and appropriate responses to these challenges based upon best practices. Also makes recommendations on specific areas of response and identifies the appropriate criteria for making adjustments.

686. **Hickling, Frederick W., and Garth Lipps.** "Tracking Professorial Appointments in the Faculty of Medical Sciences at the University of the West Indies, Mona Campus." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 80. **Refereed**



687. **Hickling, Frederick W., and Brigitte K. Matthies.** "Training Clinical Psychologists at the University of the West Indies." West Indian Medical Journal 52.4 (2003): 326. **Refereed**
The role of clinical psychology is commonly confused with psychiatry as the role of clinical psychology is not clear. There has been a growth in the need for professional persons to address mental health issues. The increase in crime, homicide, suicide, domestic violence etc. all require professional psychological attention. In addressing these issues the University of the West Indies offered for the first time, after a failed attempt in the 1980's, a MSc in Clinical Psychology for the academic year 2001-2002 and the launching of a PhD in Clinical Psychology for 2002-2003. Both programmes are offered jointly by a collaboration between the Department of Community Health and Psychiatry in the Faculty of Medical Sciences and the Psychology Unit, Department of Sociology, Psychology, and Social Work in the Faculty of Social Sciences, Mona, Jamaica.
688. **Hickling, Frederick W., Kai A. Morgan , Wendel D. Abel, Charles E. Denbow, Z. Ali, G. D. Nicholson, and C. Sinquee.** "A Comparison of the Objective Structured Clinical Examination Results Across Campuses of the University of the West Indies." West Indian Medical Journal 54.2 (2005): 139-43. **Refereed**
OBJECTIVE: To compare the performance of medical students in the Objective Structured Clinical Examination (OSCE) of the final MBBS Examination across the four campuses of The University of the West Indies, over a two-year period **DESIGN AND METHODS:** All final examination results of the Medicine and Therapeutics OSCE were collected from the Faculty of Medical Science at the four campuses of The University of the West Indies and analyzed using both parametric (t-tests and ANOVAs) and non-parametric tests (chi-squared tests). **RESULTS:** Results indicated that students achieved significantly higher mean scores in the 2002 examination than in 2001 ($t = 3.85$, $df = 415$, $p = 0.000$). There were no significant differences between campuses with regards to the mean corrected score in 2001. Also in 2001, in adult stations, all campuses achieved significantly higher scores than Jamaica. However, in Jamaica, mean child health station scores were significantly higher than all other campuses and, the mean score in Trinidad and Tobago was higher than The Bahamas and Barbados. In 2002, all other campuses achieved significantly higher scores than Trinidad and Tobago and females performed significantly better than males with regards to overall mean scores ($t = 2.814$, $df = 189$, $p = 0.005$). Also in 2002, Barbados achieved significantly higher mean corrected scores than Trinidad and Tobago ($F = 4.649$, $df = 3191$; $p = 0.004$) and Barbados and Trinidad and Tobago both obtained significantly higher mean child health station scores than Jamaica. **CONCLUSIONS:** The important conclusion from this study is that the OSCE scores in Medicine and Therapeutics are generally uniform across the four campuses of the University, thereby confirming the consistency of the approach to teaching and helping to validate the efficacy and veracity of the medical graduate being produced by The University of the West Indies. (AU)
689. **Hyatt, S., Kai A. Morgan, and T. Hylton-Kong.** "A Comparative Study Between Individual and Group Psychotherapy in Alleviating Depression in Persons Living With HIV/AIDS in Jamaica." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 34. **Refereed**
690. **Jackson, Maria, and Deanna E. Ashley.** "Workplace Violence in Jamaica's Health Sector: Determinants of Physical and Psychological Abuse." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 55. **Refereed**
(Presented at the Caribbean Health research Council, St. Georges, Grenada)
691. **Jackson, Maria, Maureen E. Samms-Vaughan, and Deanna E. Ashley.** "Psychosocial, Cognitive and Socio-Demographic Factors Associated With Under-and-Over-Nutrition Among 11-12 Year Old Jamaican Children.." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 43. **Refereed**
(Presented at the Caribbean Health Research Council, Tobago)



692. **Jackson, Maria, Susan P. Walker, Terrence E. Forrester, J. Kennedy Cruickshank, and Rainford J. Wilks.** "Social and Dietary Determinants of Body Mass Index of Adult Jamaicans of African Origin." European Journal of Clinical Nutrition 57.4 (2003): 621-27. **Refereed**

OBJECTIVES: To determine the relationships between body mass index (BMI) and diet, social and behavioural factors among adult Jamaicans of African origin. DESIGN: Cross-sectional. SETTING: Urban communities in Jamaica, West Indies. SUBJECTS: Three-hundred and sixty-three males and 561 females of African origin, aged 25-74 y. RESULTS: Women had higher mean BMIs (27.5+/-6.4 kg/m(2)) than men (23.4+/-4.3 kg/m(2)); 30.7% of women compared with 6.7% of men were obese. There was a tendency for obese men to have higher percentage of intakes from fat and less from carbohydrate, and women reported diets in which the percentage contribution of protein increased significantly with increasing BMI. In multivariate analyses, BMI was not explained by energy but was associated with protein intakes in females only. Predictors of relative weight were inversely related. Social (marital status) and behavioural (cigarette smoking) factors predicted BMI in both genders; older age in men and increased fibre intakes in women were associated with lower BMI. CONCLUSIONS: Social and behavioural factors are important determinants of body weight. Further investigations are needed which consider factors such as physical activity, genetic and other environmental variables as predictors of relative weight. (AU)

693. **Kelly, M., and Brendan C. Bain.** Education and AIDS in the Caribbean. Paris: International Institute of Educational Planning, UNESCO, 2003.

http://www.unesco.org/iiep/PDF/pubs/KellyCarib_web.pdf.

This book discusses the integral role education plays in the fight against AIDS. It speaks to the need for teachers and students to be educated as a fundamental step in the prevention of the spread of AIDS. It shows the need to provide support and care to affected educators and learners and that creative measures are needed to reduce the impact of the epidemic on the education sectors. This book provides guidelines for achieving the aims of the Havana Accord which are the education of teachers and students to prevent the spread of HIV, the provision of support and care to affected educators and learners and the need for creative measures to reduce the impact of the epidemic on the education sector

694. **Knight, P. G., J. C. Jackson, Brendan C. Bain, and Denise A. Eldemire-Shearer.**

"Household Food Safety Awareness of Selected Urban Consumers in Jamaica." International Journal of Food Science and Nutrition 54.4 (2003): 309-20. **Refereed**

Home interviews of 110 randomly selected householders representing three distinct socio-economic groups in North Central St Andrew, an urban community in Jamaica, were conducted during January-March 1999. Respondents were interviewed about their awareness of safe food handling, risk perception, food handling practices and attitude to food safety issues. The majority of respondents reported a fairly high knowledge of safe food handling practices; however, more than one-half were unfamiliar with the correct procedure for freezing and thawing of foods. Householders were very concerned about the food they purchased for preparation at home, displayed strong concerns about sanitation of food handling establishments, food handlers practices, and the appearance of foods purchased. The majority of respondents had never contacted their local Health Department or the Ministry of Health regarding food safety concerns. Diarrhoea, stomach pain, vomiting and nausea were reported as the major symptoms of food-borne illness, while animal foods including dairy, beef, chicken, pork and fish/shellfish were implicated as the main source of food borne illnesses. There were no significant differences ($P < 0.5$) observed between gender and socio-economic groups in the study, except for concern of the appearance of food and shopping options, respectively. These findings raise concerns about consumer food safety knowledge and practices in Jamaica. It is suggested that a national knowledge, awareness and practices survey should be conducted, followed by a properly designed food safety public education campaign, to enhance household food safety awareness in Jamaica.

695. **Lindo, Jascinth L. M., Janet A. La Grenade, Affette M. McCaw-Binns, Maria Jackson, and Denise A. Eldemire-Shearer.** "Assessment of General Mental Well-Being of Doctors and Nurses at the University Hospital of the West Indies and the Kingston Public Hospital." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 29-30. **Refereed**



696. —. “Evaluation of the General Mental Well-Being of Doctors and Nurses in Two Hospitals in Kingston, Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 47. **Refereed** (Presented at the Caribbean Health Research Council, Tobago)
697. —. “Evaluation of the General Well-Being of Doctors and Nurses in Two Hospitals in Kingston, Jamaica.” [Abstract]. West Indian Medical Journal 52 Suppl. 3 (2004): 47-48. **Refereed**
698. **Lindo, Jascinth L. M., Affette M. McCaw-Binns, Maria Jackson, Janet A. La Grenade, and Denise A. Eldemire-Shearer.** “Health Maintenance Practices Among Doctors and Nurses at Two Hospitals in Kingston, Jamaica..” [Abstract]. West Indian Medical Journal 54 Suppl. 5 (2005): 47. **Refereed** (Presented at the Caribbean Health Research Council, Tobago)
699. —. “Health Maintenance Practices Among Doctors and Nurses at Two Hospitals in Jamaica.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 47-48. **Refereed**
700. **Lopez, S. A., Denise A. Eldemire-Shearer, Janet A. La Grenade, and Everard N. Barton.** “Perceived Social Support of Patients With End Stage Renal Disease on Haemodialysis: Preliminary Report.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 74-75. **Refereed**
701. **Lord, C., Denise A. Eldemire-Shearer, Tomlin J. Paul, Desmalee Holder-Nevins, L. Lord, and Michelle. Barton-Forbes.** “Knowledge Levels of Tuberculosis, Why It Is So Important Today?.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 64. **Refereed**
702. **Lowe, Gillian, S. Halliday, and Frederick W. Hickling.** “Evaluation of a Community Mental Health Aftercare Programme for Acute Mentally Ill Patients in a Psychiatric Ward of a General Hospital.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 48. **Refereed**
703. **Lowe, Gillian, and Frederick W. Hickling.** “Evaluation of the Clinical Outcome of Patients Treated in the Psychiatric Ward of a General Hospital Followed by a Community Mental Health Programme on Discharge From Hospital.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 18. **Refereed**
704. —. “Evaluation of the Effects of an Open-Door Policy on the Clinical Outcome of Patients Treated in a Psychiatric Ward of a General Hospital..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 30. **Refereed**
705. **Lowe, Gillian, Garth Lipps, Wendel D Abel, A. Brown, and Frederick W. Hickling.** “Depression Among Fourth Form Students In Three High Schools in Kingston.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 62. **Refereed**
706. —. “Evaluation of Body Image Satisfaction Among Adolescents From Three High Schools in Kingston, Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 29. **Refereed**
707. —. “A Socio-Demographic Profile of 4th Form Students Screened for Depression in Three High Schools in Kingston.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 36-37. **Refereed**



708. **MacGillivray, I, Affette M. McCaw-Binns, Deanna E. Ashley, A. Fedrick, and J. Golding.** "Strategies to Prevent Eclampsia in a Developing Country: II. Use of a Maternal Pictorial Card ." International Journal of Gynaecology and Obstetrics 87.3 (2004): 295-300. **Refereed**
Objective: To assess the efficacy and acceptability of a patient-held pictorial card aimed at raising awareness and appropriate health seeking behavior in response to prodromal symptoms of imminent eclampsia. **Method:** Pictorial cards (and posters) were issued to antenatal clinics and used to focus instruction and advice to pregnant women. Mothers were surveyed before and after the cards were introduced to assess maternal likelihood of seeking care if edema was seen, and of attending hospital if so advised. The eclampsia rate was monitored. Health workers were interviewed 6 months after cards and posters were issued to determine the acceptability of using the cards as part of routine antenatal care. **Results:** The card was seen as widely acceptable by health professionals. It increased their own awareness of the prodromal symptoms of eclampsia and their discussion of these symptoms with antenatal mothers. Mothers' awareness and response to symptoms improved significantly and there was a marked drop in eclampsia incidence. Suggested improvements to the card were made by mothers and health workers. **Conclusion:** The cost of providing a card for every pregnant mother is likely to be offset by health service delivery savings.
709. **McCaw-Binns, Affette M.** "Safe Motherhood in Jamaica: From Slavery to Self-Determination." Pediatric and Perinatal Epidemiology 19.4 (2005): 254-61. **Refereed**
 The development of maternal health care in Jamaica is reviewed by examining government documents and publications to identify social and political factors associated with maternal mortality decline. Modern maternity services began with the 1887 establishment of the Victoria Jubilee Hospital and Midwifery School. Community midwives were deployed widely by the 1930s and community antenatal care expanded in the 1950s. Social policies in the 1970s increased women's access to primary health care, education and social support; improved transportation in the 1990s facilitated hospital delivery. Maternal mortality declined rapidly from 600/100 000 in the 1930s to 200/100 000 in 1960, led by a 69% decline in sepsis by 1950, and a 72% decline from all causes thereafter, settling at 100/100 000 in the 1980s. Skilled birth attendant deliveries moved from 39% in 1950 to 95% in 2001 and hospital births from 31% in 1960 to 91% in 2001. 80% prevalence of skilled delivery care. Deployment of midwives into rural communities and social development focused on women and children were associated with the observed improvements. Further reductions will require greater attention to the quality of emergency obstetric care. (AU)
710. **McCaw-Binns, Affette M., Alexander Sonia, Jascinth L. M. Lindo, Carlos T. Escoffery, K. Spence, K. Lewis-Bell, and G. Lewis.** "Surviving Pregnancy in Jamaica - Changing Epidemiology and Challenges for the 21st Century." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 49-50. **Refereed**
711. **McCaw-Binns, Affette M., Deanna E. Ashley, L. Knight, I. MacGillivray, and J. Golding.** "Strategies to Prevent Eclampsia in a Developing Country: I. Re-Organisation of Maternity Services." International Journal of Gynaecology and Obstetrics 87.3 (2004): 286-94. <http://www.figo.org/content/PDF/ijg04656.pdf>. **Refereed**
Objective: To determine whether changes in primary and secondary care service delivery could prevent antenatal eclampsia. **Method:** One intervention (St. Catherine) and two control (St. Ann, Manchester) parishes were chosen. The health system in St. Catherine was restructured. Primary antenatal clinics had clear instructions for referring patients to a high-risk antenatal clinic or to hospital. Guidelines were provided to high-risk clinics and the antenatal ward for appropriate treatment of hypertension and preeclampsia when induction of labour should occur. Antenatal eclampsia incidence was monitored before and during the intervention and compared with control parishes (no intervention). Each eclampsia case was investigated to identify inadequacies in the system. **Results:** The process resulted in better identification of women at risk. antenatal eclampsia incidence dropped dramatically as care improved. Compared with control areas, by completion of the study, the rate was significantly lower than at the start: OR 0.19, (95% CI:0.13- 0.27;p<0.001 trend). Antenatal admissions for hypertensive disorders declined significantly,



and the number of bed days halved. **Conclusion:** Reorganization of maternal care can have major public health benefits and cost savings. However, women need to be alerted to recognise and act upon signs of impending eclampsia. (AU)

712. **Mitchell, A., Tomlin J. Paul, Janet A. La Grenade, Affette M. McCaw-Binns, and Pauline Williams-Green.** “Assumptions About Disease Treatment Challenged in a Family Health Clerkship: Views of First Clinical Year Medical Students.” Education Health (Abingdon) 18.1 (2005): 14-21. **Refereed**

OBJECTIVE: To determine the main assumptions related to disease treatment, which students have had to re-think after engaging in this clerkship. **METHODS:** End of clerkship assessments were carried out from two successive groups of third year medical students (n=64) at the University of West Indies, Jamaica. Students were asked to “list two assumptions regarding treating disease that have been challenged by your experience”. A subsequent content analysis was done. **RESULTS:** Fifty-five students (86%) completed the assessment. All assumptions were listed (n=99) and similar issues were linked into emerging themes. Twenty-five groups of assumptions produced seven main themes: “Issues related to compliance” (27.3%), “Patient’s treatment is mainly physical” (17.2%), “Superiority of western medicine over alternative” (15.2%), “Patients’ health seeking behavior and attitudes” (12.1%), “The extent of the contribution of social factors on health” (12.1%) and “Patients’ knowledge and understanding of health” (7.0%). **CONCLUSION:** The majority of students examined felt challenged on three themes: relating to issues of compliance, treating the “whole” patient not just the physical, and the superiority of western medicine over alternative. The three most popular individual assumptions were; patients have a mindset that favours compliance, medication affordability does not affect compliance and treatment is independent of social and environmental conditions.

713. **Morgan, Kai A., R. Chung, R. C. Gibson, and Frederick W. Hickling.** “Insights into the Psychosocial Health of Inner-City Youth Through Projective Drawings..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 31-32. **Refereed**

714. **Morgan, Kai A., Hilary Robertson-Hickling, and Wendel D Abel.** “Social and Demographic Characteristics of Mentally Ill Deportees..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 19. **Refereed**

715. **Morris, A., Wendel D Abel, Russell B. Pierre, and Frederick W. Hickling.** “Students’ Performance in the Final Objective Structured Clinical Examination (OSCE).” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 40. **Refereed**

716. **Richards, S., Desmalee Holder-Nevins, and Denise A. Eldemire-Shearer.** “Blood Donation Actions and Intent Among University Students.” [Abstract]. West Indian Medical Journal 53 Suppl.2 (2004): 73. **Refereed**

717. ——. “Factors Influencing Blood Donation Actions and Intent Among Students at the University of Technology.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 20. **Refereed**

718. **Richards, V., and A. Mathews.** “Factors Affecting the Quality of Services Offered at Selected Health Centre in East Rural, St. Andrew .” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 30-31. **Refereed**



719. **Rodney-Peart, N., Anthony M. Mullings, Denise A. Eldemire-Shearer, and Maria Jackson.** “Knowledge, Attitude and Practices of Female Health Workers Regarding Methods of Early Detection of Breast Cancer.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 32-33. **Refereed**
720. **Skyers, N. A., and Desmalee Holder-Nevis.** “Accident and Emergency Misuse? Bustamante Hospital for Children.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 50. **Refereed**
721. **Thesiger, Charles H.** “Treatment/Rehabilitation Research and Evaluation of Existing Intervention/Treatment Programmes for Drug Abusers.” [Abstract]. West Indian Medical Journal 3 Suppl. 4 (2004): 10. **Refereed**
722. **Thompson, S. A., Tomlin J. Paul, and Desmalee Holder-Nevis.** “Ganja Use Among Teenagers 12 to 17 Years Old in St. Thomas, Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 29-30. **Refereed**
723. ——. “To Smoke or Not to Smoke: Understanding Ganja Use in Adolescents.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 35. **Refereed**
724. **Wagaarachchi, P., K. Asare, Deanna E. Ashley, G. Gordon, W. Graham, M. H. Hall, R. Henneh, Affette M. McCaw-Binns, G. Penney, K. Y. Antwi, and C. H. W. Bullough.** Improving the Quality of Obstetric Care Through Criterion-Based Clinical Audit: A Practical Field Guide. Aberdeen: Dugald Baird Centre for Research on Women’s Health, 2002.
The purpose of this field guide is to describe the steps involved in setting-up and conducting criterion-based clinical audit. The guide has been developed from a research project conducted in Ghana and Jamaica, which focused specifically on improving the quality of emergency obstetric care at the district hospital level. However, this approach to improving quality of care can be used for other clinical areas, such as, paediatrics and at other types of health facilities, such as tertiary hospitals or health clinics. (AU)
725. **Watson, Donnie W., and Winston De La Haye.** “Caribbean Adaptation of Cognitive Behavioural Therapy As HIV Prevention.” West Indian Medical Journal (2004): 70-72. **Refereed**
Describes the need for an intervention that is consistent with NIDA’s goals to support efforts to develop and test new approaches to the clinical training of providers both domestically and internationally. By using an individual cognitive behavioural treatment model, there is great probability of increasing providers’ competence and adherence to research-based cognitive behavioural treatment for cocaine abuse, which includes HIV/AIDS risk reduction training for drug treatment providers. This topic is timely and innovative, given the twin epidemics of drug abuse and HIV that are facing the Caribbean Islands. The ultimate goal is to inform the research community about the development and testing of the efficacy of psychosocial interventions to prevent HIV infection in at-risk populations.
726. **Young, J., Michelle Barton-Forbes, M. A. Richards-Dawson, and Helen Trotman.** “Knowledge, Perception and Practice of Healthcare Professionals Toward Pain in Neonates at Tertiary Level Hospitals in Kingston, Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 12. **Refereed**



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727. **Barton, Everard N., Lincoln A. Sargeant, D. Samuels, R. Smith, J. James, R. Wilson, F. Smith, H. Falconer, C. Yeates, Monica F. Smikle, and David T. Gilbert.** “A Survey of Chronic Renal Failure in Jamaica.” West Indian Medical Journal 53.2 (2004): 81-84. **Refereed**

The prevalence of chronic renal failure (CRF)/end stage renal disease and the accessibility of long term renal replacement therapy in Jamaica were evaluated. The study was conducted at six Jamaican healthcare facilities between July 1998 and December 1999 and included 605 patients with CRF. Men with CRF (57% of patients, mean age of 56.7 years) were significantly older than women (mean age 53.2 years). Hypertension was the most commonly associated medical condition (60.8% of patients) followed by diabetes mellitus (31.4% of patients). The estimated crude point prevalence of CRF in persons 20 years and over at the end of 1999 was 327 per million population. More than one-third of patients with CRF (39%) were receiving renal replacement therapy, the most common modality being haemodialysis, and only 1.8% of patients had received kidney transplantation. The prevalence of chronic renal failure was not increased in areas known to have high soil cadmium levels. Chronic renal failure is a significant public health problem in Jamaica and is placing an increasing financial burden on the healthcare sector. (AU)

728. **Besterman, Edwin.** “The Early Story of Coronary Artery Disease.” West Indian Medical Journal 53.3 (2004): 196-97. **Refereed**

Angina pectoris was first adequately described and named in 1772. However, coronary artery disease, as the cause, was noted in 1779. The pathology and clinical features of myocardial infarction were only recognized in 1912. The distinction between angina and infarction was clarified in the 1920s. Nitrate therapy remained the sole treatment until modern medical and surgical developments which this review does not cover. (AU)

729. —. “Listening to the Heart.” West Indian Medical Journal 53.4 (2004): 263-64. **Refereed**

Presents a medical history of the instruments used to interpret the heart. It illustrates the development of interpretations of the arterial pulse and gives further details of instruments discovered by professors around the world; which are used to listen to the heart and act as indicators for ventricular dysfunction in hypertensive and coronary heart disease today.

730. —. “William Harvey and His Discovery of the Circulation of the Blood.” West Indian Medical Journal 53.6 (2004): 425-26. **Refereed**

Discusses the medical history of the circulation of blood. Shows that before Harvey’s discovery of the heart being the central organ of the body in 1628, the liver was the centre of the body. Proceeds to look at the stages of Harvey’s discovery of the circulation of the blood.

731. **Denbow, Charles E.** “A History of Cardiology in Jamaica.” West Indian Medical Journal 53.3 (2004): 184-87. **Refereed**

The history of cardiology in Jamaica is conveniently considered in decades beginning in the 1950s. The decade of the 1950s was characterized by early descriptions of the pattern of cardiac disease in adults and children in Jamaica, the establishment of a cardiac clinic at the University Hospital of the West Indies and early cardiac surgical landmarks. Extensive preparatory experimental work in the canine laboratory with respect to cardiopulmonary bypass in the early to mid-1960s culminated in the successful completion of the first open heart surgical procedure in April, 1968. Cardiac catheterization was also increasingly developed in the decade of the 1960s. A highlight of the decade of the 1970s was the establishment of the Heart Foundation of Jamaica which began contributing greatly to preventive cardiology in Jamaica by providing a variety of programmes of prevention. In the decade of the 1980s, non-invasive cardiac diagnostic facilities in Jamaica were considerably enhanced by the introduction and development of echocardiography, treadmill exercise testing and ambulatory electrocardiography. In addition, the



very important National Rheumatic Fever prevention programme was established. The cardiac catheterization laboratory was re-opened in the 1990s, thus allowing the performance of coronary arteriography in Jamaica for the first time, and interventional cardiology procedures soon followed. The Jamaica Foundation for Cardiac disease was also established in this decade. The vision for the new millennium of “A heart healthy Jamaica in the 21st century” is achievable, but will require appropriate emphasis on expanded preventive and curative cardiology programmes.

732. **East-Innis, Althea D.** “The Quest for the Global Elimination of Leprosy.” West Indian Medical Journal 54.1 (2005): 1-2. **Refereed**

In 1991, the World Health Organisation (WHO) and its member states committed themselves to the challenge of eliminating leprosy as a public health problem by the year 2000. Elimination was defined as a prevalence of less than one case per 10 000 persons. The introduction of multidrug therapy for leprosy recommended by WHO had a major impact on the global picture of leprosy in the early 1990s and, at the end of the year 2000, the overall prevalence rate at the global level was below one case per 10 000. Of the 122 countries where the disease was considered endemic in 1985, 107 countries have reached the elimination goal. In early 2002, 90% of cases detected worldwide were in the top six countries where the disease is most prevalent and endemic. These comprise India, Brazil, Nepal, Mozambique, Angola and Myanmar. Of these, 70% of the world’s leprosy patients were in India. Although no Caribbean country has been named among those countries of concern, the challenge must be eliminated in those countries with highest prevalence in order to attain global leprosy control.

733. **East-Innis, Althea D., and Alison M. Nicholson.** “The Variation of Dermatophyte Species Cultured (for *Tinea Capitis*) From Hair and Scalp Samples at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 19. **Refereed**

734. **Edward, Murphy, Steven Jacobson , Genoveffa Franchinni, Graham P. Taylor, Barrie Hanchard, Owen St. C. Morgan, and Michael. Lairmore.** “International Retrovirology Association Brings Together Scientists and Clinicians to Bridge Discoveries About Human T-Lymphotropic Viruses From the Laboratory to Clinical Trials .” Retrovirology 2.22 (2005): 1-5. **Refereed**

Human T-lymphotropic virus type 1 (HTLV-1) and HTLV-2 were among the first human retroviruses discovered in the early 1980’s. The International Retrovirology Association is an organized effort that fostered the efforts of scientists and clinicians to form interdisciplinary groups to study this group of retroviruses and their related diseases. The Association promotes excellent science, patient education, and fosters the training of young scientists to promote “bench-to-bedside” research. The *International Conference on Human Retrovirology: HTLV and Related Viruses* sponsored by the Association supports clinicians and researchers in the exchange of research findings and stimulation of new research directions. This year’s conference will be held from June 22 to 25, in Montego Bay, Jamaica <http://www.htlvconference.org.jm/>. Since its inception in 1988, these conferences have provided a highly interactive forum for the global community of HTLV scientists. This is of particular importance as HTLV research enters its third decade and a new generation of scientists takes over this important work. Many of the scientists attending the meeting will be from developing countries where HTLV is endemic, consistent with the history of international collaborations that have characterized HTLV research. The International Conference on Human Retrovirology provides a unique opportunity for researchers of all disciplines interested in HTLV infections to meet their peers and to address the questions facing clinicians and scientists who study retroviruses, like HTLV.

735. **Frayling, T. M., C. M. Lindgren, J. C. Chevre, S. Menzel, M. Wishart, Y. Benmezroua, A. Brown, J. C. Evans, P. S. Rao, C. Dina, C. Lecoeur , T. Kanninen, P. Almgren, M. P. Bulman, Y. Wang, James L. Mills, Rosemarie A. Wright-Pascoe, M. M. Mahtani, F. Prisco, A. Costa, I. Cognet, T. Hansen, O. Pedersen, S. Ellard, T. Tuomi, L. C. Groop, P. Froguel, A. T. Hattersley , and M. Vaxillaire.** “Genome-Wide Scan in Families With Maturity-Onset Diabetes of the Young: Evidence for Further Genetic Heterogeneity .” Diabetes 52 (2003): 872-81. **Refereed**
Maturity-onset diabetes of the young (MODY) is a heterogeneous single gene disorder characterized by non-insulin-



dependent diabetes, an early onset and autosomal dominant inheritance. Mutations in six genes have been shown to cause MODY. Approximately 15–20% of families fitting MODY criteria do not have mutations in any of the known genes. These families provide a rich resource for the identification of new MODY genes. This will potentially enable further dissection of clinical heterogeneity and bring new insights into mechanisms of β -cell dysfunction. To facilitate the identification of novel MODY loci, we combined the results from three genome-wide scans on a total of 23 families fitting MODY criteria. We used both a strict parametric model of inheritance with heterogeneity and a model-free analysis. We did not identify any single novel locus but provided putative evidence for linkage to chromosomes 6 (nonparametric linkage [NPL] score 2.12 at 71 cM) and 10 (NPL score 1.88 at 169–175 cM), and to chromosomes 3 (heterogeneity LOD [HLOD] score 1.27 at 124 cM) and 5 (HLOD score 1.22 at 175 cM) in 14 more strictly defined families. Our results provide evidence for further heterogeneity in MODY. (AU)

736. **Gilbert, David T.** “Magnetic Resonance Imaging and Stroke.” West Indian Medical Journal 51.2 (June, 2002): 57-58. **Refereed**

Neuroimaging has revolutionised the diagnosis, investigation and management of neurological disease. The clinician in evaluating a patient with acute stroke, must answer several questions including: have non-stroke diagnoses been excluded (eg tumor, subdural)? What is the location and arterial territory represented by the stroke? Are the stroke mechanisms involved ischaemic or haemorrhagic? Are therapeutic interventions aimed at limiting or preventing recurrent brain injury feasible? Magnetic resonance (MR) imaging techniques are playing an increasingly important role in providing answers to these questions. MR techniques are used not in identifying the location, size, number and mechanism of lesions in acute stroke but also in identifying appropriate patients for early intervention therapy and in influencing long-term management decisions (1,2). MR angiography is providing critical information on vascular anatomy in the evaluation of intra- and extracranial occlusive arterial disease and subarachnoid haemorrhage. MR imaging utilizes the principle that certain nuclei will emit a radio signal if they are placed in a strong magnetic field and then subjected to pulses of radiofrequency energy. Spinning atomic nuclei act as tiny “bar magnets” which orient themselves along the axis of a strong magnetic field. Application, for a few milliseconds, of a radio wave pulse at the proper “resonant” frequency will tilt the “bar magnets” out of alignment with the field. When the radio wave pulse is turned off the atomic nuclei (hydrogen atoms in MR imaging) will reorient in alignment with the strong magnetic field, releasing energy in the form of radio waves that are used to generate the MR image. The hydrogen atoms reorient or “relax” by two different mechanisms resulting in “relaxation times” termed T1 and T2. Corresponding T1-weighted images (T1WI) and T2-Weighted images (T2WI) and proton density-weighted images (PDWI) can then be generated. T1WI produce excellent anatomic detail while T2WI are sensitive to the presence of increased water and allow detection of oedema or tumor contrasting against normal brain. (AU)

737. **Lee, Michael G.** “Dyspepsia: Review of Management Options.” West Indian Medical Journal 53.3 (2004): 188-90. **Refereed**

Dyspepsia is a common clinical problem which is associated with significant healthcare cost. The management of patients presenting with dyspepsia remains controversial. It has been shown to be cost effective and associated with long-term improvement to test and treat young patients positive for *H. pylori*, who present to the primary care setting. Patients negative for *H. pylori* may be treated with an antisecretory medication. Prompt endoscopy is recommended in patients over age 50 years, those with alarm symptoms and those who have failed previous therapy. In the Caribbean, the management of patients should be individualized in view of the relatively high prevalence of *H. pylori* infection and gastric carcinoma. (AU)

738. ——. “*Helicobacter Pylori* - Aspects of the Epidemiology in Jamaica.” West Indian Medical Journal 54.2 (2005): 158-59. **Refereed**

Helicobacter pylori infection is one of the commonest chronic infections worldwide. It is estimated that about 30% of the population in developed countries and over 60% in developing countries are infected. In developing countries, infection commonly occurs during childhood. In contrast, in developed countries, infection tends to occur in adult



life. An increase in prevalence occurs with age. In Jamaica, an endoscopic study revealed *H pylori* infection in 55% of 102 patients using gastric biopsy and the urease test for confirmation. In a subsequent endoscopic study, 60% had active infection, by direct testing on gastric biopsy, but 70% had positive serology which indicated previous exposure to *H pylori*. In an urban community in Kingston, 69% of 202 randomly chosen persons had positive serology for *H pylori*. In this study, 27% of children under five years of age and 93% of adults 45 years of age and over, had infection. Several factors were associated with infection including: older age, large yard size and the presence of domestic animals in the home environment. Specific virulence associated with *H pylori* genotypes may influence the development of clinical disease. In Jamaica, of 15 isolates of *H pylori* in symptomatic patients, 80% were cag A positive and all were genotype vac A-ml strains with 80% having s lb genotype. The predominant genotype in symptomatic patients in Jamaica is therefore; cag+ vacA s lb-ml, iceA2. (AU)

739. **Lee, Michael G., M. Arthurs, Monica F. Smikle, Gwendolyn Dowe, V. Levy , and Everard N. Barton.** "Antibiotic Sensitivity of Helicobacter Pylori in Jamaica." West Indian Medical Journal 53.6 (2004): 374-77. **Refereed**

Helicobacter pylori infection is one of the commonest chronic infections worldwide. Eradication regimes usually contain two antibiotics, however resistance is increasing and this decreases treatment success. This study reports on the sensitivity and resistance of H pylori to several antibiotics in patients undergoing upper gastrointestinal endoscopy in Jamaica. The rapid urease test (CLO) was positive in 128 (38%) of 336 patients. Fifty patients (39%; 50/128) with positive CLO tests had positive cultures for H pylori. Two-thirds (32/48) of isolates were sensitive to metronidazole and one-third (16/48) were resistant. Ninety-seven per cent of isolates (31/32) were sensitive to erythromycin. The sensitivity for clarithromycin was 92% (11/12) with one isolate (8%) resistant. All strains of H pylori (48/48) were sensitive to ampicillin and amoxicillin - clavulanate. Metronidazole resistance is present in one-third of H pylori isolates and resistance to macrolides is relatively low in Jamaican patients. It is important to monitor antibiotic resistance in order to provide clinicians with data on the most appropriate and cost effective eradication regimes for H pylori. (AU)

740. **Morgan, Owen St. C,** Editor. Health Issues in the Caribbean. Kingston: Ian Randle, 2005.

Today, medical doctors and health practitioners have had to turn their attention to chronic non-communicable diseases which have now become the leading cause of death, with heart disease, stroke, diabetes, cancer and injuries being among the most frequent. Addresses a range of health issues including child health, adolescence and early adult life, HIV and other sexually transmitted diseases, substance abuse, injuries, hypertension, diabetes, coronary artery disease, cancers and the elderly, and provides new ideas and approaches to health care delivery. Draws on the experience of health practitioners and key individuals such as educators, political leaders and bankers, in an attempt to find solutions to the complex health issues facing the region. Analyses and offers direction for public health practice in the twenty-first century.

741. **Simon, S., S. Stephenson, K. Whyte, M. Stubbs, I. E. Vickers, Monica F. Smikle, David T. Gilbert, and Everard N. Barton.** "Prevalence of Chronic Renal Failure in the Diabetic Population at the University Hospital of the West Indies." West Indian Medical Journal 53.2 (March, 2004): 85-58. **Refereed**

The prevalence of chronic renal failure (CRF) in 460 patients with diabetes mellitus attending the diabetic outpatient clinic at the University Hospital of the West Indies in Jamaica was determined from a review of medical records. The prevalence of CRF was 10% (39/386) in the diabetic clinic population. Significant positive associations with CRF were found with male gender (20/98, 20% vs 19/287, 7%; odds ratio (OR), 3.24; p = 0.001); age 60 years and older (22/162; 14% vs 17/221, 8%; OR, 2.01; p = 0.04); fasting blood glucose concentrations exceeding 8.0 mmol/L (22/162, 13% vs 12/182, 7%; OR, 2.08; p = 0.05); the presence of significant proteinuria as a marker for outcome (13/39, 33% vs 48/346, 14%; OR, 3.60; p = 0.02) and peripheral vascular disease (6/20, 30% vs 139/386, 10%; OR, 4.75; p = 0.005). The prevalence of CRF did not differ significantly between patients with Type 1 and Type 2 diabetes mellitus. Also, the presence of CRF was not significantly associated with duration of diabetes mellitus, type of hypoglycaemic agents used, or history of hypertension. However, the presence of persistent proteinuria was



significantly associated with duration of diabetes mellitus exceeding five years (46/255, 17% vs 11/149, 7%; OR, 2.52; $p = 0.005$) and a history of hypertension (41/235, 17% vs 20/198, 10%; OR, 1.88; $p = 0.03$) but not with age or gender. This study emphasizes the need to evaluate patients with diabetes mellitus for renal impairment so that intervention strategies may be adopted early to delay progression to endstage renal disease. (AU)

742. **Vickers, I. E.** “Infections Linked to Personal Appearance Workers.” West Indian Medical Journal 53.6 (December, 2004): 367. **Refereed**

Summarizes and discusses the available cancer incidence (1996-2000) and mortality data (1990- 2000) for the tri-island Caribbean nation of Grenada, Carriacou and Petit Martinique. Data for the analysis came from three sources: the Grenada Department of Statistics, the histopathology specimen books from St. George’s General Hospital and the Death Registry of the Ministry of Health Grenada. The age-standardized rates (ASR) per 100 000 for all cancer sites combined were 170.2 in females and 158.2 in males. The four most frequent diagnoses (ASR) cancer site in females were cervix (60.7), breast (49.1), uterus (28.4), skin (13.3); and among males, prostate (61.4), bladder (16.3), skin (19.3) and stomach (10). Age-standardised mortality rates per 100 000 for all cancer sites were 105.4 in females and 165 in males. The four most frequent cancer associated mortalities (ASR) breast (17.9), uterus (11-2), colon (10.3) and cervix (9.7); and among males, prostate (53.6), lung (18.7), stomach (14.5), and colon (10.9). This study found statistically significant spatial trends for overall cancer mortality and temporal trends in incidence and mortality rates for prostate and for incidence rates for stomach cancer. These rates are compared with those from other areas in the Caribbean and the United States of America and encourage efforts to establish a cancer registry in Grenada. (AU)

743. **Williams, Winston, A. Bhagwandass, Lincoln A. Sargeant, and Dipak J. Shah.** “Severity of Systemic Lupus Erythematosus With Diffuse Proliferative Glomerulonephritis and the Ineffectiveness of Standard Pulse Intravenous Cyclophosphamide Therapy in Jamaican Patients.” Lupus 12.8 (2003): 640-45. **Refereed**

The majority of patients seen at the renal clinic of the University Hospital of the West Indies (UHWI) are of African descent. The case notes of patients with systemic lupus erythematosus (SLE) with class 4 nephritis and who were given standard pulse intravenous cyclophosphamide therapy during the period 1990-2000 were retrospectively reviewed. Primary outcomes were doubling of serum creatinine and development of end stage renal disease (ESRD). Secondary outcomes were return of proteinuria to normal and renal remission. A total of 117 patients had a renal biopsy for SLE nephritis at the UHWI between 1990 and 2000. Of the patients, 34 (29%) had diffuse proliferative glomerulonephritis (WHO class 4), of which 29 were reviewed. Twenty-two patients of 24 in whom it was measured (92%) had significant proteinuria at presentation. The 24-hour proteinuria was measured at final review in 16 patients and in 10 patients it went into complete remission. At the beginning of therapy, 24 patients (83%) had renal impairment. Of the 18 who had final creatinine values, the renal function returned to normal in eight patients (44%) and an additional six patients showed a significant improvement in renal function at final review. Six patients developed end stage renal disease (ESRD). The risk (95% confidence interval) of developing ESRD at one year was 16.2% (CI, 6.4-37.6) and at two years was 23.2% (CI, 10.0-48.5). There were three deaths, two from sepsis and one from heart failure. The one-year mortality (95% CI) was 8% (CI, 2.0-28.5), the two-year mortality was 15.6% (CI, 4.9-43.5) and the five-year mortality was also 15.6% (CI, 4.9-43.5). Intravenous pulse cyclophosphamide for Jamaican patients with SLE and diffuse proliferative glomerulonephritis is an ineffective form of treatment. (AU)

744. **Williams, Winston, Lincoln A. Sargeant, Monica F. Smikle, R. Smith, H. Edwards, and Dipak J. Shah.** “The Outcome of Lupus Nephritis in a Cohort of Black Jamaican Patients.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 22. **Refereed**

745. **Williams, Winston, and Dipak J. Shah.** “Renal Histopathological Changes in Adults With Haemoglobin SS Disease.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 37. **Refereed**



746. **Williams, Winston, Dipak J. Shah, and Lincoln A. Sargeant.** "The Clinical and Epidemiologic Features in 140 Patients With Lupus Nephritis in a Predominantly Black Population From One Center in Kingston, Jamaica." American Journal of the Medical Sciences 327.6 (2004): 324-29. **Refereed**

Background: Lupus nephritis has emerged as a major factor in the overall survival of patients and may help to explain the poor prognosis associated with systemic lupus erythematosus (SLE) in black patients.

Methods: The authors reviewed the clinical and epidemiologic features of lupus nephritis in 130 women and 10 men who were mainly of African descent. **Results:** The mean (standard deviation) age at diagnosis of SLE was 27.9 (10.3) years. The majority of patients (75%) developed renal involvement within 1 year of presentation with SLE. The most frequent extrarenal manifestations were arthritis (67%), malar rash (44%), serositis (41%), and neurologic disorders (30%). Class IV nephritis was the most common glomerular lesion, accounting for 49% of the biopsies, with class II accounting for a further 23%. Proteinuria was a common feature at presentation in all classes. Nephrotic range proteinuria was most common in classes III and IV. Prevalence of nephrotic range proteinuria was similar in classes II (23%) and V (19%). Hematuria occurred in more than one half of the patients with classes II, IV, and V disease. Fifty-nine percent of the patients had renal impairment at the time of renal biopsy. The prevalence of hypertension, the nephritic syndrome, and renal impairment was significantly higher in class IV patients compared with all the other groups. Factors that were significantly associated with classes III and IV disease compared with the other classes on univariate analysis were renal impairment, proteinuria (but not in nephrotic range), low C3 levels, and anemia. **Conclusions:** The clinical features of the study patients were similar to those of patients belonging to other ethnic groups, but a high proportion of the study patients had renal impairment at the time of renal biopsy.

747. **Williams, Winston, Dipak J. Shah, and Lincoln A. Sargeant.** "The Clinical and Epidemiologic Features of SLE Nephritis in 140 Patients in a Predominantly Black Population From One Center in Kingston Jamaica." The American Journal of the Medical Sciences 327.6 (2004): 324-29. **Refereed**

BACKGROUND: Lupus nephritis has emerged as a major factor in the overall survival of patients and may help to explain the poor prognosis associated with systemic lupus erythematosus (SLE) in black patients. **METHODS:** The authors reviewed the clinical and epidemiologic features of lupus nephritis in 130 women and 10 men who were mainly of African descent. **RESULTS:** The mean (standard deviation) age at diagnosis of SLE was 27.9 (10.3) years. The majority of patients (75%) developed renal involvement within 1 year of presentation with SLE. The most frequent extrarenal manifestations were arthritis (67%), malar rash (44%), serositis (41%), and neurologic disorders (30%). Class IV nephritis was the most common glomerular lesion, accounting for 49% of the biopsies, with class II accounting for a further 23%. Proteinuria was a common feature at presentation in all classes. Nephrotic range proteinuria was most common in classes III and IV. Prevalence of nephrotic range proteinuria was similar in classes II (23%) and V (19%). Hematuria occurred in more than one half of the patients with classes II, IV, and V disease. Fifty-nine percent of the patients had renal impairment at the time of renal biopsy. The prevalence of hypertension, the nephritic syndrome, and renal impairment was significantly higher in class IV patients compared with all the other groups. Factors that were significantly associated with classes III and IV disease compared with the other classes on univariate analysis were renal impairment, proteinuria (but not in nephrotic range), low C3 levels, and anemia. **CONCLUSIONS:** The clinical features of the study patients were similar to those of patients belonging to other ethnic groups, but a high proportion of the study patients had renal impairment at the time of renal biopsy. (AU)



Department of Microbiology

748. **Akpaka, P. E., Nicole Christian, Nabin C. Bodoaik, and Monica F. Smikle.** "Epidemiology of Blood Isolates of Coagulase Negative Staphylococci at the University Hospital of the West Indies." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 65. **Refereed**
749. ——. "Molecular Epidemiology of Blood Isolates of Methicillin Resistant Coagulase Negative Staphylococci at the University Hospital of the West Indies.." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 21. **Refereed**
750. ——. "The Prevalence of Coagulase Negative *Staphylococci* in Blood Cultures at the University Hospital of the West Indies." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 26. **Refereed**
751. **Akpaka, P. E., Robert Sue-Ho, and Nabin C. Bodoaik.** "Frequency of Occurrence and Antibiotic Resistance in Bacteria Isolated From Patients in Intensive Care Unit." [Abstract]. West Indian Medical Journal 51 Supl. 4 (2002): 17. **Refereed**
752. **Bodoaik, Nabin C.** "Decrease in the Incidence of Tetracycline Resistance in Strains of *Neisseria Gonorrhoea* in the Nineties." West Indian Medical Journal 52.3 (2003): 228-30. **Refereed**
Antibiotic resistance determined by standard disc-diffusion method on GC agar with supplement B in 583 strains of *Neisseria gonorrhoea* encountered between 1991 and 1996 at the University Hospital of the West Indies, Kingston, Jamaica, were analyzed. The level of penicillin resistance varied between 40% and 28% over the years. Tetracycline resistance fell from 44.2% in 1991 to 23.9% in 1996. Twenty-one per cent of the isolates were resistant simultaneously to both penicillin and tetracycline in 1991. The percentage of such strains decreased to 6.5% in 1996. Ceftriaxone was introduced as a first line drug in treatment of gonococcal infections in the late 1980s. The declining trend of tetracycline resistance may be due to a decrease in the usage of tetracycline in recent years. (AU)
753. **Bodoaik, Nabin C., Orville Heslop, and Robert Sue-Ho.** "Change in the Incidence of Gentamicin Resistance in 15 Years in a Tertiary Care Teaching Hospital." 10th International Congress on Infectious Diseases: (Singapore: March 11-14, 2002).
Gentamicin remains an important front-line aminoglycoside in the therapy of gram-negative infections. The incidence of gentamicin resistance varies in different areas and largely is related to the trend of usage of the compound. This report examines the prevalence of gentamicin resistance in 786 gram negative bacilli comprising 279 *E. Coili*, 240 *Klebsiella*, 178 *Enterobacter* and 89 *Proteus mirabilis* encountered from various clinical specimens between April and August 1996 at the University Hospital of the West Indies, (a 512 bed tertiary care teaching hospital) in Kingston, Jamaica and compares the data with the results of a similar study conducted in 1981 in this institution.
754. **Bodoaik, Nabin C., Orville. Heslop, and Robert Sue-Ho.** "Penicillin Resistance in Strains of *Streptococcus Pneumoniae* Encountered in Jamaica." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 61. **Refereed**
755. **Bodoaik, Nabin C., and S. Moonah.** "Coagulase Negative Staphylococci From Blood Cultures: Contaminants or Pathogens." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 66. **Refereed**



756. **Bodonaik, Nabin C., S. Moonah, Alison M. Nicholson, Karen J. Roye-Green, Sandra Jackson-Betty, Geoffrey Saunders, and Robert Sue-Ho.** “Dramatic Increase of *Cryptococcus Neoformans* Meningitis at the University Hospital of the West Indies, Jamaica in Recent Years. Comparison With the Incidence in Pre-AIDS Era.” [Abstract]. International Journal of Infectious Diseases 8 Suppl. 1 (2004): S133. **Refereed**
757. **Bodonaik, Nabin C., Alison M. Nicholson, R. Brown, Robert Sue-Ho, and Geoffrey Saunders.** “Clinicians’ Role in the Performance of Blood Cultures: How Often Is a Correct Number of Specimens Sent to the Laboratory? Data From a Tertiary Care Teaching Hospital of a Developing Country.” International Journal of Infectious Diseases 8 Suppl. 1 (2004): S214. **Refereed**
- Background:** The yield from blood cultures depends on several factors, the important ones being the volume of blood and the number of culture sets obtained per septic episode. For an optimum recovery, at least 2 sets (4 bottles) should be cultured within a 24 hour period. In this report, we analyze the number of bottles sent and the yield in each of the 8719 patients who had blood cultures in 2 years between January 1998 and December 1999 at the University Hospital of the West Indies (A512 bed Tertiary Care teaching Hospital) in Kingston, Jamaica.
758. **Bodonaik, Nabin C., S. Noonah, Robert Sue-Ho, and P. E. Akpaka.** “Comparison of Duration in Incubation to Detect Growth of True Pathogens and Contaminants From Blood Cultures.” [Abstract]. International Journal of Infectious Diseases 8 Suppl. 1 (2004): S128. **Refereed**
759. **Bodonaik, Nabin C., and Robert Sue-Ho.** “Frequency of Occurrence and Antimicrobial Resistance of Community Acquired Uropathogens Encountered in Jamaica.” [Abstract]. International Journal of Infectious Diseases 8 Suppl. 1 (2004): S104. **Refereed**
760. ——. “Gonorrhea in Pediatric Patients.” [Abstract]. International Journal of Infectious Diseases 8 Suppl. 1 (March, 2004): 64. **Refereed**
761. **Bodonaik, Nabin C., Robert Sue-Ho, and L. Rainford.** “Analysis of 370 Culture Proven Gonococcal Infections and Antibiotic Resistance in Strains of *Neisseria Gonorrhoeae* Encountered in Jamaica.” [Abstract]. International Journal of Infectious Diseases 8 Suppl. 1 (2004): S65. **Refereed**
762. **Dowe, Gwendolyn, Monica F. Smikle, Williams Elaine E. , T. Hylton-Kong, and G. Shorposner.** “Non-Ulcerative Sexually Transmitted Disease and Human Immunodeficiency Virus Infection in Patients Attending a Sexually Transmitted Disease Clinic in Jamaica.” West Indian Medical Journal 53.1 (2004): 55-56. **Refereed**
- To assess the impact of repeat non-ulcerative STD on HIV seropositivity, 954 consecutive patients (479 first time attendees and 475 repeat clients) who presented at the Comprehensive Health Centre, Kingston, Jamaica between 1997 and 1999 for STD treatment were studied. Ethical approval was obtained and the participants agreed to a one year follow-up visit for HIV testing. The appropriate clinical algorithm for management was applied on examination by a Clinician to confirm STD signs. The participants were interviewed and a standardised questionnaire pertaining to demographic factors, STD history, sexual behaviours, other risk behaviours including narcotic drug use and current STD signs and symptoms was administered. Blood samples collected from each participant were screened for syphilitic infection using the venereal disease research laboratory (VDRL) test and reactive results confirmed by fluorescent treponemal antibody absorption (FTA-ABS) test. Enzyme immunoassays (EIA) were performed for hepatitis B surface antigen (HbsAg) and antibodies to HIV-1 with the reactive HIV results being confirmed by Western immunoblot (Abbott Diagnostics, Abbott Park, ILL).



763. **Lorenzo-Morales, J., D. M. Barrett, A. Ortega-Rivas, B. Valladares, and John F. Lindo.** "Isolation and Identification of Pathogenic *Acanthamoeba* Strains From Water Sources in Jamaica, West Indies." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 19. **Refereed**

764. **Morales, J. L., John F. Lindo, D. Calder, B. Valladares, and A. Ortega Rivas.** "Identification of Pathogenic *Acanthamoeba* Strains From Water Sources in Jamaica." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 65. **Refereed**

765. **Nicholson, Alison M., D. Castle, P. E. Akpaka, I. Tennant, and Maria Nelson.** "The Emergence of *Stenotrophomonas maltophilia* As a Significant Nosocomial Pathogen at the University Hospital of the West Indies." West Indian Medical Journal 53.1 (2004): 17-22. **Refereed**
Stenotrophomonas maltophilia is emerging worldwide as a nosocomial pathogen. It is associated with certain risk factors and a wide range of infections. This study was done to document its emergence at the University Hospital of the West Indies and to determine the incidence, distribution and risk factors associated with it. A retrospective study was conducted over the period April 1997 to December 2000. Clinical records were available for 46 of the 66 patients identified over the study period. Fifty-five per cent of the cases came from the Intensive Care Unit (ICU) and the rest from other wards. There was a slight increase in the prevalence of infection with increasing age. The surgical service accounted for the largest number of isolates. Of the cases presented, 95.7% were exposed to a wide range of antibiotics and had some form of instrumentation. Underlying disease was found in 71.7% of the patients. *S. maltophilia* was found most often in the sputum of ICU patients whereas it was most often isolated from wound swabs in the ward patients. The organism was isolated from blood more often in ICU patients (23.3%) than in ward patients (9.5%) and there was a 44% mortality rate among the cases in ICU compared with those on the wards (4.8%). *Stenotrophomonas maltophilia* is an important nosocomial pathogen and occurs in a wide cross-section of patients. The risk factors must be addressed and infection control measures implemented to restrict the spread of this organism.

766. **Nicholson, Alison M., P. Gayle, and Karen J. Roye-Green.** "Extended Spectrum Beta-Lactamase Producing Organisms at the University Hospital of the West Indies." West Indian Medical Journal 53.2 (2004): 104-08. **Refereed**

Extended spectrum beta-lactamases (ESBL) represent a major group of beta-lactamases that have the ability to inactivate beta-lactam antibiotics containing an oxyimino group such as third generation cephalosporins and monobactams. These enzymes are produced by gram negative organisms, especially members of the Enterobacteriaceae family such as *Klebsiella pneumoniae* and *Escherichia coli*. The prevalence of these organisms varies widely internationally, as well as within the same country. This is the first study on ESBL production in *K. pneumoniae* and *E. coli* at the University Hospital of the West Indies, a tertiary care hospital in Jamaica. Two-hundred and sixty-four isolates of *K. pneumoniae* and 300 isolates of *E. coli* were collected over the study period January 2002 to December 2002. Forty-eight (18.2%) *K. pneumoniae* isolates were confirmed to be ESBL producers, while there was no ESBL producing *E. coli*. Infections with ESBL producing organisms can pose a therapeutic challenge, leading to treatment failure if the wrong class of antibiotics is used. With increasing resistance to all classes of antibiotics, there is a narrowing of available treatment options. It is very important that these organisms be monitored and antibiotic policies as well as infection control policies be in place to curtail their spread.

767. **Nicholson, Alison M., L. Rainford, V. Elliott, and Celia D. Christie.** "Disseminated Histoplasmosis and AIDS at the University Hospital of the West Indies. A Case Report." West Indian Medical Journal 53.2 (2004): 126-30. **Refereed**

Disseminated histoplasmosis is rare in Jamaica. However, with the increase in the number of immunocompromised patients in the population, the prevalence of this infection is likely to increase. We present a case of disseminated histoplasmosis in a 16-year-old girl with the Acquired Immune Deficiency Syndrome who presented to the Paediatric Infectious Diseases Service of the University Hospital of the West Indies, with cervical lymphadenitis progressing to ulcers and abscesses showing granulomatous inflammation likely to be of fungal aetiology. She was later presented to the Emergency Room, with respiratory and gastrointestinal symptoms and was admitted to



hospital, disoriented and with a persistent fever. She developed nuchal rigidity while in hospital and was anaemic, leukopaenic and thrombocytopaenic. She died of gastrointestinal bleeding ten days post admission. She was the oldest known survivor of mother-to-child-transmission of human immunodeficiency virus in Jamaica. The slow growing fungus, *Histoplasma capsulatum*, was isolated from the patient's blood three weeks after the specimen was sent to the laboratory.

768. **Saunders, Geoffrey, Nabin C. Bodoanik , and Monica F. Smikle.** "Diffusible Betalactamase From *Enterobacter Cloacae*." [Abstract]. West Indian Medical Journal 51 Suppl. 4 (2002): 30. **Refereed**

769. **Saunders, Geoffrey, Bodoanik. Nabin C., Monica F. Smikle, A. Jones, and J. Jones.** "Multi-Resistant *Escherichia Coli*." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 24. **Refereed**

770. **Saunders, Geoffrey, Nabin C. Bodoanik , Monica F. Smikle, and M. Parsad-Asnani.** "Ceftazidime Resistant *Salmonella Enteritidis* in Jamaica." West Indian Medical Journal 54.4 (2005): 268-69. **Refereed**
(letter to the Editor)

771. **Saunders, Geoffrey, Alison M. Nicholson, Karen J. Roye-Green, P. E. Akpaka, Nabin C. Bodoanik, Sandra Jackson-Betty, and Monica F. Smikle.** "Yields From Paired Blood Culture Bottles." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 24. **Refereed**

772. **Saunders, Geoffrey, Karen J. Roye-Green, Nabin C. Bodoanik, and Monica F. Smikle.** "Plasmid Content of Extended Spectrum Betalactamase (ESBL) Producing *Escherichia Coli*." [Abstract]. West Indian Medical Journal 51 Suppl. 4 (2002): 31. **Refereed**

773. **Smikle, Monica F., Nicole Christian, Karel DeCeulaer, Everard N. Barton, Karen J. Roye-Green, Gwendolyn Dowe , Norma McFarlane-Anderson, and G. D. Nicholson.** "HLA-DRB Alleles and Systemic Lupus Erythematosus in Jamaicans." Southern Medical Journal 95.7 (July, 2002): 717-19. **Refereed**

BACKGROUND: The human leukocyte antigens (HLA) are associated with susceptibility to systemic lupus erythematosus (SLE) and manifestations of SLE in different ethnic groups. **METHODS:** A DNA-based HLA-typing method was used to determine alleles of HLA-DRB1, DRB3, DRB4 and DRB5 in Jamaican patients. A total of 70 patients and 100 control subjects were studied. **RESULTS:** HLA-DRB3*01/03 was significantly associated with susceptibility to SLE, while DRB1*15/16 was associated with the presence of oral ulcers in patients with SLE. The haplotype DRB1*13/14.DRB3*01/03 was also more frequent in SLE patients. No other significant associations were found. **CONCLUSION:** The SLE HLA associations in Jamaicans differ from those in other black populations. (AU)

774. **Smikle, Monica F., Orville Heslop, I. E. Vickers, Gwendolyn Dowe, D. Deer, Robert Sue-Ho, Charles E. Denbow, Owen St. C. Morgan, Brendan C. Bain, and Everard N. Barton.** "A Serosurvey of Hepatitis B Virus, Hepatitis C Virus, Human T Lymphotropic Virus Type-1 and Syphilis in HIV-1-Infected Patients in Jamaica." West Indian Medical Journal 52.1 (March, 2003): 14-17. **Refereed**

The seroprevalences of hepatitis B virus (HBV), hepatitis C virus (HCV), human T lymphotropic virus type-1 (HTLV-1) and syphilis were determined in 129 HIV-1-infected patients using commercially prepared reagents. The seroprevalences were HCV, 0% (0/129); HBV, 37% (48/129); HTLV-1, 5% (6/129) and syphilis, 20% (26/129).



Fifteen per cent (19/129) of the patients had active/chronic HBV infection. The seroprevalence of HBV was statistically significantly higher in HIV-1 infected men (24/49, 50% versus 17/80, 21%; $p = 0.005$), while the seroprevalence of syphilis was statistically significantly increased in HIV-1 infected patients in the over-40 age group (10/31, 32% versus 6/53, 11%; $p = 0.05$). These findings throw the spotlight on HBV infection and syphilis and suggest that these two sexually transmitted infections should be carefully surveyed in patients with HIV/AIDS in Jamaica. It is essential for management protocols in Jamaica to include screening for evidence of these co-infections. (AU)

775. Smikle, Monica F., Gillian H. Wharfe, Horace M. Fletcher, Marvin E. Reid, Karen J. Roye-Green, S. Federick, and Silvia S. Pierangeli. “Anticardiolipin, Other Antiphospholipid Antibody Tests and Diagnosis of the Antiphospholipid Syndrome.” *Human Antibodies* 12 (2003): 63-66. **Refereed**

The frequent occurrence of false positive results in the anticardiolipin (aCL) enzyme linked immunosorbent assay (ELISA) hampers its application in identifying the antiphospholipid syndrome (APS), a condition characterized by a myriad of clinical presentations. This study highlights some of the pitfalls in the use of assays for antiphospholipid (aPL) antibody in clinical practice. The aCL ELISA, commercially prepared anti-beta2-glycoprotein 1 (beta2-GP1) and antiphospholipid (APhL) assays were evaluated in the diagnosis of antiphospholipid syndrome (APS) in 94 pregnant women who had spontaneous abortion and a group of 177 healthy blood donors. Serological tests were used to rule out syphilis as the cause of false positive results in the aCL ELISA. The prevalences of positive aCL ELISA results (29/94, 31% v 26/177, 14%; $p = 0.001$) and aCL antibodies of the IgM isotype (19/94, 20% v 6/177, 3%; $p = 0.001$) were significantly higher in aborters compared to healthy subjects. The majority of the sera which were positive in the aCL ELISA were shown to be false positives as 93% (27/29) of aCL positive aborters and 67% (8/24) of aCL positive healthy subjects were negative in the anti-beta2-GP1 assay. Similarly, the sensitivity of the APhL ELISA was low and only 1% (1/94) of the sera of aborters and 6% (11/177) of healthy subjects were positive in this assay. The frequent occurrence of anticardiolipin antibodies of the authentic non-autoimmune variety and the low sensitivity of the other more specific aPL assays make the positive aCL ELISA difficult to interpret. We recommend that the diagnosis APS be made with strict adherence to the preliminary criteria for classification of APS. (AU)

776. Smikle, Monica F., Gillian H. Wharfe, Horace M. Fletcher, Marvin E. Reid, Karen J. Roye-Green, Joseph Frederick, and Silvia S. Pierangeli. “Anticardiolipin, Other Antiphospholipid Antibody Tests and Diagnosis of the Antiphospholipid Syndrome.” *Human Antibodies* 12.3 (2003): 63-66. **Refereed**

The frequent occurrence of false positive results in the anticardiolipin (aCL) enzyme linked immunosorbent assay (ELISA) hampers its application in identifying the antiphospholipid syndrome (APS), a condition characterized by a myriad of clinical presentations. This study highlights some of the pitfalls in the use of assays for antiphospholipid (aPL) antibody in clinical practice. The aCL ELISA, commercially prepared anti-beta2-glycoprotein 1 (beta2-GP1) and antiphospholipid (APhL) assays were evaluated in the diagnosis of antiphospholipid syndrome (APS) in 94 pregnant women who had spontaneous abortion and a group of 177 healthy blood donors. Serological tests were used to rule out syphilis as the cause of false positive results in the aCL ELISA. The prevalences of positive aCL ELISA results (29/94, 31% v 26/177, 14%; $p = 0.001$) and aCL antibodies of the IgM isotype (19/94, 20% v 6/177, 3%; $p = 0.001$) were significantly higher in aborters compared to healthy subjects. The majority of the sera which were positive in the aCL ELISA were shown to be false positives as 93% (27/29) of aCL positive aborters and 67% (8/24) of aCL positive healthy subjects were negative in the anti-beta2-GP1 assay. Similarly, the sensitivity of the APhL ELISA was low and only 1% (1/94) of the sera of aborters and 6% (11/177) of healthy subjects were positive in this assay. The frequent occurrence of anticardiolipin antibodies of the authentic non-autoimmune variety and the low sensitivity of the other more specific aPL assays make the positive aCL ELISA difficult to interpret. The authors recommend that the diagnosis APS be made with strict adherence to the preliminary criteria for classification of APS.



777. **Steiner, M. J., T. Hylton-Kong, J. P. Figueroa, M. Hobbs, F. Behets, Monica F. Smikle, K. Tweedy, S. Powell, L. McNeil, and A. R. Brathwaite.** “Does a Choice of Condom Impact Sexually Transmitted Infections: A Randomized Controlled Trial.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 30. **Refereed**

Department of Obstetrics, Gynaecology and Child Health

778. **Barton-Forbes, Michelle, Minerva M. Thame, R. Melbourne-Chambers, L. Gabay, and R. Gray.** “Recent Upsurge of Tuberculosis in Paediatric Admissions at the University Hospital of the West Indies.” West Indian Medical Journal 52.3 (2003): 244-48. **Refereed**

These case reports describe the clinical course of eight children who were admitted to the University Hospital of the West Indies, Kingston, Jamaica, between July 2000 and November 2001 because of a diagnosis of tuberculosis. This represented an increase in the incidence of the disease in children at this institution. The purpose of this report is to make healthcare workers aware of the resurgence of tuberculosis. The diagnosis of paediatric tuberculosis is challenging and requires a high index of suspicion in the presence of suggestive clinical and laboratory findings. The diagnosis should not be limited to the immunocompromised patient, as in this report the majority of the patients were HIV negative. (AU)

779. **Bazuaye, P. E., Horace M. Fletcher, and Norma McFarlane-Anderson.** “Lifestyle and Cervical Dysplasia in Jamaica.” International Journal of Gynecology and Obstetrics 84 (2004): 175-77.

In Jamaica as in other developing countries, cervical cancer is the most common cancer among females with rates of 27.5 per 1000 000 and is second only to breast cancer as a cause of cancer death in women. The objective of the present study was to assess whether lifestyle factors and sexual practices are associated with development of cervical dysplasia. Risk factors are compared in 242 women recruited from the Colposcopy Clinic, University Hospital of the West Indies (abnormal Pap smears) and a control group (n= 102) without a history of abnormal Pap smear results. Diagnosis of the cases was confirmed by colposcopic biopsy histology. Data were collected by a female interviewer and associations analyzed using SSPS software (version 11).

780. **Bazuaye, P. E., Horace M. Fletcher, Monica F. Smikle, Maria Jackson, and Norma McFarlane-Anderson.** “The Association Between Tumor Necrosis Factor (TNF α) - 308 Polymorphism and Cervical Dysplasia in Jamaican Women.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 14-15. **Refereed**

781. ——. “Class 1 HLA-A-B Haplotypes and Tumour Factors (TNF-?) - 308 Polymorphism and Cervical Dysplasia .” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 72. **Refereed** (Presented at the Caribbean Health Research Council, Tobago)

782. ——. “Class 1 HLA-A-B Haplotypes and Tumour Necrosis Factor (TNF- α) – 308 Polymorphism and Cervical Dysplasia.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 72. **Refereed**



783. **Bell, Y., Michelle Barton-Forbes, Minerva M. Thame, Alison M. Nicholson, and Helen L. Trotman-Edwards.** “The Edpidemiology of Bacterial Infections in the Neonatal Unit at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 33. **Refereed**

784. **Bell, Y., Michelle Barton-Forbes, Minerva M. Thame, Alison M. Nicholson, and Helen L. Trotman-Edwards.** “Urinary Tract Infection in Jamaican Neonates With Serious Bacterial Infections.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 34. **Refereed**

785. **Blanc, R., Santosh K. Kulkarni, Anthony M. Mullings, and Lennox Matadial.** “Audit of Caesarean Sections at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 29. **Refereed**

786. ——. “Evaluation of Clinical Practices Associated With Caesarean Sections at the University Hospital of the West Indies, Jamaica.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 21-22. **Refereed**

787. **Brooks, K., Maureen E. Samms-Vaughan, and W. Karmaus.** “Are Oral Contraceptive Use and Pregnancy Complications Risk Factors for Atopic Disorders Among Offspring?” Pediatric and Immunology 15.6 (2004): 487-96. **Refereed**

In utero programming of atopic manifestations has been suggested. We investigated the association between oral contraceptive (OC) use before, and complications during pregnancy (CDP) and asthma, along with other atopic manifestations. The study is based on neonates from Kingston and St Andrew, a geographic subcohort from the Jamaican Perinatal Morbidity, Mortality Survey conducted in 1986-1987. Information on OC use and CDP was extracted from maternal interviews and medical records. In a follow up in 1997-1998, via interviews with mothers, trained nurses collected information on asthma/wheezing, coughing, eczema, and hay fever. Data, specific to this paper, from birth and 11-12 yr of age was available for a total of 1040 of the 1720 members of the geographic subcohort. Using logistic regression, controlling for confounders, we estimated adjusted odds ratio (aOR) and corresponding 95% confidence intervals (CI). For asthma or wheezing, and coughing, a OR for OC use were 1.81 (95% CI: 1.252.61), and 2.72 (95% CI: 1.415.24), respectively. CDP was only shown to be a significant risk factor for hay fever. Additionally, a higher number of older siblings were protective for hay fever. The results suggest that asthma in childhood may be programmed *in utero*.

788. **Christie, Celia D.** “A Paediatric and Perinatal HIV/AIDS Leadership Initiative in Kingston, Jamaica.” West Indian Medical Journal 53.5 (2004): 283-92. **Refereed**

In Jamaica 1-2% of pregnant women are HIV-positive; 876 HIV-positive pregnant women will deliver and at least 283 newly infected HIV-infected infants will be born in 2003; HIV/AIDS is the leading cause of death in children aged one to four years. We describe a collaborative “Town and Gown” programme to address the paediatric and perinatal HIV epidemic in Kingston. **Method:** A team of academic and government health care personnel, comprising paediatricians, obstetricians, public health practitioners, nurses, microbiologists, data management and information technology personnel collaborated to address this public health emergency. **Result:** A five-point plan was implemented. This comprised leadership and training of a core group of paediatric/perinatal HIV professionals to serve Greater Kingston and St Catherine and be a model for the rest of Jamaica. Mother-to-child transmission of HIV/AIDS is prevented by counselling and HIV-testing women in the antenatal clinics, giving azidothymidine (AZT) to HIV pregnant women beginning at 28 weeks gestation, throughout labour and to the HIV-exposed infants for the first six weeks of life. A unified parallel programme for identifying the HIV-infected infant and delivering paediatric HIV care at the major paediatric centres was implemented. In three years, over 30,000 pregnant women are being tested for HIV; 600 HIV-exposed babies are being identified and about 140 paediatric HIV infections will be prevented. The team is building research capacity which emphasizes a strong outcomes-based research agenda



and implementation of clinical trials. We are collaborating, locally, regionally and internationally. **Conclusion:** Collaboratively, the mission of reducing mother-to-child transmission of HIV/AIDS and improving the quality of life for those already living and affected by HIV/AIDS can be achieved. (AU)

789. ——. “A Paediatric and Perinatal HIV/AIDS Leadership Initiative in Kingston, Jamaica.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 26-27. **Refereed**

790. **Douglas, L. L., K. Wedderburn, Carole A. Rattray, and C. M. Cadogan.** “Transverse Ureterotomy in Open Ureterolithotomy.” West Indian Medical Journal 52.2 (2003): 140-44. **Refereed**

Open ureterolithotomy is now a seldom performed operation but is still occasionally necessary. We report on the transverse ureterotomy (TU) in this procedure and its effect on reducing morbidity. Results from 100 cases of TU for stone disease since 1976 were compared with those from 50 ureterolithotomies using the standard longitudinal ureterotomy (LU) performed during the same period. The parameters considered were urinary leakage, length of hospital stay and ureteric narrowing as assessed on intravenous urogram at three months. The cases utilizing TU were associated with significantly less urinary leakage, a shorter hospital stay and no ureteric narrowing. Transverse ureterotomy for stone disease significantly reduces the morbidity associated with the operation when utilizing the standard LU. The fear of transecting the ureter may be overcome by good exposure and gentle careful dissection. We suggest that TU be used for open ureterolithotomy. (AU)

791. **Evans-Gilbert, Tracy, Ian R Hambleton , Colin A. McKenzie, and Maureen E. Samms-Vaughan.** “Pediatric HIV/AIDS in Jamaica: A Hospital Based Description.” West Indian Medical Journal 51.2 (2002): 74-79. **Refereed**

The continuing world wide epidemic of adult HIV/AIDS has led to an increase in the number of HIV-positive children mainly through perinatal transmission. Although national data are available, there is no published report of the epidemiology of HIV/AIDS in children in Jamaica. A multicentre retrospective analysis of 183 HIV seropositive children admitted to hospitals in Jamaica between 1990 and 1996 was conducted. Ages at diagnosis were available for 172 patients with 61% diagnosed in the first year of life. Clinical histories were available for 129 patients with the primary presenting symptoms of infected children being failure to thrive, pneumonia, diarrhoea, dermatitis and lymphadenopathy. Classification was possible in 128 patients: 49 were exposed, 76 were infected and three were seroreverters. As of December 31, 1997, 125 patients had defaulted, nine patients were alive and 51 were reported dead with a median age of death of 12 months. From these data, it is estimated that the hospital-based HIV incidence among children in Jamaica increased from 0.149 per 10,000 person years in 1990 to 1.331 per 10,000 person years in 1996. This study demonstrates a rise in the estimated incidence of HIV/AIDS but we were unable to estimate survival reliably since the data required were not available for 75% of children identified. These data highlight the urgent need for targeted interventions to reduce vertical transmission of HIV as well as a need for prospective studies to establish reliable data on incidence and long-term outcome for HIV-infected children. (AU)

792. **Evans-Gilbert, Tracy, Russell B. Pierre, Julianne C. Steel-Duncan, B. Rodriguez, S. Whorms, Ian R. Hambleton , J. P. Figueroa, and Celia D. Christie.** “Antiretroviral Drug Therapy in HIV-Infected Jamaican Children.” West Indian Medical Journal 53.5 (2004): 322-26. **Refereed**

Background: The study describes a cohort of HIV-infected Jamaican children receiving antiretroviral therapy (ART) and reports the outcome. **Method:** An observational prospective study was conducted on HIV-infected Jamaican children receiving anti retroviral drug therapy (ART). The outcome measures, weight, height, hospital admissions and length of stay were compared at initiation and within six months of commencing ART.

Results: There were 37 (33.6%) of 110 HIV-infected children receiving ART during 2001 to 2003. The median age at commencement was six years (age range 1-16 years) with 54.1% (20) males and 48% AIDS orphans. Care was home-based for 68 % of all cases with the University Hospital of the West Indies managing 27 (73%) and the Bustamante Hospital for Children 10 (27%). The distribution by Centers for Disease Control and Prevention (CDC)



clinical class was C (severely symptomatic), 22 (59.5%); B (moderately symptomatic), 8 (21.6%); A (mildly symptomatic), 6 (16.2%) and N (asymptomatic), 1 (2.7%). Among 14 (36%) children with CD4 counts, 8 (57%) were CDC immune class 2 (moderate immunodeficiency) and 6 (43%) were class 3 (severe immunodeficiency). After commencing ART the mean difference in admissions was -1.5 ± 2.55 admissions (95% CI -2.3, -0.6; $p < 0.001$) and in length of stay was -12.9 ± 21 day (95% CI -19.9, -0.5.9; $p < 0.001$). Antiretroviral therapy resulted in a mean weight gain of $2.8 \text{ kg} \pm 4.9 \text{ kg}$ (95% CI 1.0, 4.5; $p < 0.003$) and a mean gain in height of $1.7 \text{ cm} \pm 2.6 \text{ cm}$ (95% CI 0.6, 2.8; $p < 0.003$). Five children required second line therapy.

Conclusion: The introduction of antiretroviral therapy has resulted in improved outcomes and is being initiated in older children cared for mainly at home. Limitations in accessing affordable second line agents underscore the need for compliance with first line therapy.

793. **Fletcher, Cyril, A. Barrett, R. Halsall, R. Harris, T. Wallace, and Michelle Barton-Forbes.** "Parents' Knowledge, Concerns and Misconceptions About Immunization." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 25. **Refereed**

794. —. "Vaccines and Vaccine-Preventable Diseases: What Do Parents Know and What Do They Fear?." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 74. **Refereed**

795. **Fletcher, Horace M.** "HIV in Jamaica: Are We Being Alarmist?" West Indian Medical Journal 51.3 (2002): 202-03. **Refereed**

The article is an editorial which discusses the prevalence of HIV in Jamaica. The Caribbean has the highest prevalence of HIV after Sub-Saharan Africa. This is closely linked to Haiti which is said to have the highest prevalence in the region. Guyana also has a problem, especially in high risk groups, which is also linked to the Caribbean. HIV has been used to stigmatize groups of people, based on ethnicity, sexual preferences and country of origin. People have written about the Sub-Sahara and the Caribbean with regards to high HIV rates, sometimes unfairly using high risk groups to support their points. This has affected our society on all levels and should therefore be taken into consideration. The Caribbean people need to make sure that they do not become alarmist and cause further harm to the economy. As such, individual countries need to give more balanced reports about HIV prevalence in the region and not link themselves unnecessarily with countries with which they have no contact.

796. —. "The Impact of Deportees on the Epidemic of Violent Crimes in Jamaica and Other Countries in the Region." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 40-41. **Refereed**

797. **Fletcher, Horace M., Barrie Hanchard, Gillian H. Wharfe, Garfield O. Blake, C. Wolf, A. Reynolds, N. Waugh, and Marvin E. Reid.** "Multiple Primary Malignancies in Jamaica: An Epidemiological Review." [Abstract]. West Indian Medical Journal 53 Suppl.2 (2004): 67. **Refereed**

798. **Geoghagen, M., J. A. Farr, Ian R. Hambleton, Russell B. Pierre, and Celia D. Christie.** "Tuberculosis and HIV Co-Infections in Jamaican Children." West Indian Medical Journal 53.5 (2004): 339-45. **Refereed**

OBJECTIVE: To determine associated factors and outcomes of tuberculosis in HIV-infected and noninfected children in Jamaica. **METHOD:** We reviewed records of children aged 0 - 12 years attending the University Hospital of the West Indies during January 1999 to December 2002. Associated factors and outcomes in HIV-infected and HIV-negative cases with TB were compared using exact statistical methods to account for the small number of children and an adjustment for multiple testing. TB diagnosis was determined using modified World Health Organization (WHO) criteria. **RESULTS:** There was a significant increase of active TB cases from 1999 to 2002 with 24 children diagnosed over this period All 24 children (100%) had received the Bacillus-Calmette-Guerin (BCG) vaccine. Eleven (46%) of these were HIV-infected, all via mother-to-child transmission. HIV-infected



children were statistically more likely to be older than non-infected children (mean 4.2 vs 2.6 years), and also to have failure to thrive, digital clubbing, hepatomegaly, splenomegaly, generalized adenopathy and negative Mantoux tests. Appropriate in-hospital anti-TB therapy was given. Hospital stay was longer (median 7.4 vs. 2.8 months) and death was more likely (7/11 vs 2/13) in HIV-infected vs non-infected children. Triple antiretroviral therapy was given in three of the 11 HIV-infected cases and this markedly improved outcome. Household family members with active TB were identified in twelve cases. CONCLUSIONS: HIV and TB co-infection is an increasing problem in Jamaican children. Severity of illness and death is greater in HIV-infected children, despite appropriate anti-TB therapy. Antiretroviral drugs must be made available to this population. Efforts must be enhanced to reduce mother-to-child-transmission of HIV/AIDS and to strengthen the public health management of TB (contact tracing and completion of TB therapy by directly observed therapy) to eliminate the spread. (AU)

799. **Geoghagen, M., J. A. Farr, Russell B. Pierre, Ian R. Hambleton, and Celia D. Christie.** "Tuberculosis and Human Immunodeficiency Virus Co-Infections in Jamaican Infants and Children." [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 25. **Refereed**

800. **Geoghagen, M., Russell B. Pierre, Tracy Evans-Gilbert, B. Rodriguez, and Celia D. Christie.** "Tuberculosis, Chickenpox and Scabies Outbreaks in an Orphanage for Children With HIV/AIDS in Jamaica." West Indian Medical Journal 53.5 (2004): 346-51. **Refereed**

OBJECTIVES: The aim of this study is to describe the investigation and management of outbreaks of acute tuberculosis, varicella zoster virus and scabies in a residential facility for children with HIV/AIDS. METHOD: A review of the results and management for diagnosed cases of acute TB (four between 2001 and 2002) as well as varicella zoster virus (15) and scabies (14) (concurrent in March-June 2003), in a residential facility housing 24 abandoned children with HIV/AIDS was conducted. Outbreak control methods and challenges are described The modified WHO criteria were used for TB diagnosis. The diagnoses of varicella and scabies were entirely clinical. RESULTS: Of the surviving 22 children, 12 (mean age 8 years 2 months) were female, and 10 (mean age 5 years 6 months) were male. Full immunization (primary series) was documented for 16 children, partial in one child, unknown status was documented in five children. One child had received varicella vaccine previously. Eleven (50%) children had been receiving antiretroviral triple therapy since 2002 (all in Centers for Diseases Control immunological categories 2-3). Two of the four children with tuberculosis died between 2001 and 2002; these were not on antiretroviral therapy—the 2 survivors are still on antiretroviral therapy. All staff mantoux test results were negative. Fifteen (68%) children developed chickenpox as well as three caregivers. The index case was a 13-year-old resident attending a nearby school with HIV negative children. This varicella outbreak went on to affect household members for the caregivers as well as other residential facilities nearby. Scabies affected 14 children (no caregivers); the index cases were most likely three new child residents who entered the institution in 2002 (from other homes) with histories of scabies infestation. Chickenpox and scabies dual infection occurred in seven (31%) of residents. No cases of herpes zoster, disseminated varicella infection or death because of varicella occurred Diagnosed cases of chickenpox were treated with oral acyclovir Knowledge about these disease outbreaks and their control was generally lacking. CONCLUSIONS: Improvement in immunization coverage for children and staff as well as educating staff about infectious disease outbreaks, is necessary for effective control. Appropriate screening for infection/disease for all susceptible persons is essential along with timely reporting of outbreaks/reportable diseases. There is need for increased awareness of acute opportunistic infections in children with HIV/AIDS living in close proximity.

801. **Johnson, N., Horace M. Fletcher, and Marvin E. Reid.** "Depo Medroxyprogesterone Acetate (DMPA) Therapy for Uterine Myomata Prior to Surgery ." International Journal of Gynecology and Obstetrics 85.2 (2004): 174-76 .

802. ——. "Effect of Labour Induction With Misoprostol on Pregnancy Outcome in Gravidas With Pre-Eclampsia." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 22. **Refereed**



803. —. “Effect of Pre-Operative Depo-Medroxyprogesterone Acetate Therapy on Uterine Myomata-Associated Menorrhagia in Women Admitted for Surgical Treatment (Hysterectomy/Myomectomy).” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 36.**Refereed**

804. **Johnson, N., Anthony M. Mullings, K. Harvey, G. Alexander, D. McDonald , Williams Elaine E., Paulette Palmer, and Celia D. Christie.** “HIV Positivity, Uptake of Interventions to Reduce Mother-to-Child Transmission and Birth Outcomes in Greater Kingston - A Preliminary Report of the Kingston Paediatric and Perinatal HIV Programme..” [Abstract]. West Indian Medical Journal 52 Suppl. 2 (2003): 26.**Refereed**

805. **Lambert, M. C., N. Schmitt, Maureen E. Samms-Vaughan, J. S. An, M. Fairclough, and C. A Nutter.** “Is It Prudent to Administer All Items for Each Child Behaviour Checklist Cross Informant Syndrome? Evaluation of the Psychometric Properties of the Youth Self Report Dimensions Via Conformatory Factor Analysis and Item Response Theory.” Psychological Assessment 15.4 (2003): 530-68.**Refereed**

Through surveying of children in 10 nations with parent, teacher, and Youth Self-Report (YSR) forms of the Child Behaviour Checklist (CBCL), cross-informant syndromes (CISs) were derived and cross-validated by sample-dependent methodology. Generalizing CBCL syndromes and norms to nations excluded from its normative sample is problematic. This study used confirmatory factor analyses (CFAs) to test factor model fit for CISs on the YSR responses of 625 Jamaican children ages 11 to 18 years. Item response theory (IRT), a sample-independent methodology, was used to estimate the psychometric properties of individual items on each dimension. CFAs indicated poor to moderate model-to-data fit. Across all syndromes, IRT analyses revealed that more than 3/4 of the cross-informant items yielded little information. Eliminating such items could be cost effective in terms of administration time yet improve the measures discrimination across syndrome severity levels.

806. **Lord, L., and Santosh K. Kulkarni.** “A Study of Maternal Mortality at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 33.**Refereed**

807. **McGregor, Duncan, Michelle Barton-Forbes, S. Thomas, and Celia D. Christie.** “Invasive Pneumococcal Disease in Jamaican Children.” Annals of Tropical Paediatrics 24.1 (2004): 33-40.**Refereed**

A 5-year retrospective review of cases of invasive pneumococcal disease admitted to the Bustamante Hospital for Children, Jamaica was conducted. A total of 111 cases were identified. The estimated incidence of invasive pneumococcal disease in Kingston and St Andrew was 21/100,000 children under the age of 10 years. The majority of cases (76%) were in the under-2-years age group. All four deaths were of infants. Pre-existing medical conditions included sickle cell disease, HIV and undernutrition. The rate of resistance to penicillin was 13.8%. Meningitis accounted for three of the four deaths identified and poor outcome was identified in 28% of cases of meningitis. We conclude that invasive pneumococcal disease causes significant morbidity and mortality in young Jamaican children. Strategies directed at preventing HIV infection and malnutrition and improving the care of children with sickle cell disease and HIV infection would significantly reduce disease incidence.

808. **Miller, M. E. Y., Russell B. Pierre, M. H. Plummer, and Dipak J. Shah.** “Hepatitis B-Associated Nephrotic Syndrome in Jamaica Children.” Annals of Tropical Paediatrics 22 (2002): 261-66.**Refereed**

Between December 1984 and November 1996, 171 children under 12 years old presented to the University Hospital of the West Indies with nephrotic syndrome. Hepatitis B surface antigen (HBsAg) was found in ten (6%) of these



children, eight of whom had membranous nephropathy (MN), and one each had mesangial proliferative glomerulonephritis (MesN) and animal change nephrotic syndrome (MCNS). Only those children with MesN and MCNS were steroid-sensitive. The HBsAg-positive status was indentified incidentally on screening. At a mean follow-up of 34 months, seven of ten children had experienced complete or partial remission and three had persistent nephrotic syndrome, although none was in renal failure. Six of ten had biochemical hepatitis. All the children were still HBsAg-positive. Hepatitis B virus (HBV) is a factor contributory to nephrotic syndrome in Jamaican children. As diagnostic clinical markers for HBV-associated nephropathy are usually absent, all children presenting with nephrotic syndrome should be screened for HBsAg. A policy should be implemented in Jamaica for screening pregnant women and at-risk groups for HBsAg, as well as for immunising susceptible neonates, in order to reduce the incidence of HBV-associated pathology.

809. Miller, M. E. Y., and J. A. Williams. "Chronic Renal Failure in Jamaican Children." West Indian Medical Journal 51.4 (2002): 220-24. **Refereed**

In order to document the incidence, aetiology and outcome of chronic renal failure in Jamaican children, paediatric surgeons and hospital based paediatricians island-wide were contacted, and the nephrology records at the island's paediatric nephrology centres searched for data on children < 12-year-old with chronic renal failure diagnosed for the first time between January 1985 and December 2000. Thirty-four children were identified, 21 were male. The cumulative annual incidence of chronic renal failure was 3.2 per million children aged < 12 years. The incidence is likely underestimated, as some children may have been undiagnosed and/or not referred. Glomerulonephritis was the commonest cause of chronic renal failure (50%) followed by obstructive uropathy, reflux nephropathy, renal dysplasia and chronic pyelonephritis (41.2%). Five children (14.7%) had reflux nephropathy (post obstructive in four). Half the children were already in chronic renal failure at time of presentation. Mortality was 65%. In Jamaica, childhood chronic renal failure is due mainly to potentially treatable diseases. Local physicians should be more aware of potentially progressive renal diseases and their prevention. Earlier referral of difficult cases for nephrological consultation is recommended. A paediatric dialysis/transplant programme is needed.

810. Perkins, A., and Santosh K. Kulkarni. "The Performance of Lucozade™ or Choice Compared With O'Sullivan in Screening for Gestational Diabetes Mellitus. [Abstract] ." West Indian Medical Journal 53 Suppl. 2 (2004): 71. **Refereed**

811. Phillip, H., Horace M. Fletcher, and Marvin E. Reid. "The Impact of Induced Labour on Postpartum Blood Loss." Journal of Obstetrics and Gynaecology 24.1 (2004): 12-15. **Refereed**

It is generally believed that postpartum blood loss is less in patients whose labour is induced with prostaglandins than in patients delivered without induction. However, postpartum blood loss is known to be greater with precipitate labour and labours induced with oxytocin and prostaglandins, unless an oxytocic agent is continued after delivery. A retrospective study was undertaken at the University Hospital of the West Indies to look at the outcome of induced labour during 3 months, October-December 1998. Misoprostol induction was compared to the outcome after oxytocin induction, misoprostol induction plus oxytocin augmentation and those patients who delivered without oxytocics during this same time period. During that period, 524 patients were delivered and 51 (9.7%) were induced with misoprostol, 174 (33.2%) with oxytocin, 21 (4%) misoprostol plus oxytocin and 271 (51.7%) without oxytocic. Seven patients were eliminated from further analysis, as we were unsure of their induction status. Results showed no significant differences between the groups for variables such as maternal age, parity and fetal birth weight. There was a significantly greater mean blood loss at delivery with all induced labour compared with those not induced. For misoprostol 162.5(SD 190) ml, oxytocin (150 (SD 100) ml and for oxytocin plus misoprostol 150 (SD 150) ml, while controls had the lowest mean blood loss 100 (SD 130) ml occurring where no predelivery oxytocin was needed ($P<0.03$). Postpartum haemorrhage was highest with misoprostol 5.8% versus 4.4% for no oxytocin, 1.1% for oxytocin and 0% for misoprostol plus oxytocin. However, none of these values reached statistical significance. The misoprostol group also had the shortest first stage, 333 minutes versus 557 minutes for oxytocin, 576 minutes when both misoprostol and oxytocin was used and 344 minutes with no oxytocic. Blood loss was also independently directly associated with placental weight ($P=0.01$) and fetal birth weight ($P=0.03$), as well as the length of the third



stage of labour ($P=0.01$), but not the length of the first stage of labour. Induction of labour with oxytocic agents is associated with greater blood loss. However, increased blood loss is not due to precipitate labour alone. (AU)

812. **Pierre, Russell B., Joseph M. Branday , Andrea M. Wierenga, and Audrey M. Pottinger.** “Students’ Perception of the ‘Educational Climate’ at the Faculty of Medical Sciences, Mona.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 38. **Refereed**

813. **Pierre, Russell B., R. Melbourne-Chambers, Garfield O. Blake, and Williams Elaine E.** “Progressive Epstein-Barr Virus Infection in a Six-Year-Old Male.” West Indian Medical Journal 51.4 (2002): 247-50. **Refereed**

Progressive Epstein-Barr virus infection is described in a six-year-old Jamaican male with no previous evidence of immune deficiency.

814. **Pierre, Russell B., Hope Ramsay, and Mark Loudon.** “HIV/AIDS and Affected Jamaican Children: A Vulnerable Generation.” Caribbean Childhoods: From Research to Action. Vol. 2. Kingston, Jamaica: Ian Randle, 2005. 82-99.

HIV/AIDS is not simply a life-threatening disease; it poses major psychosocial challenges for all whose lives are touched by it. Children are particularly vulnerable, both because of their dependent status and because they lack the emotional tools to deal with their situations. Health care and social work professionals play a pivotal role in dismantling the barriers to appropriate care and support, and in developing and implementing policies that would address these challenges. (AU)

815. **Pierre, Russell B., Julianne C. Steel-Duncan, Tracy Evans-Gilbert, B. Rodriguez, Paulette Palmer, Monica F. Smikle, S. Whorms, Ian R. Hambleton, J. P. Figueroa, and Celia D. Christie.** “CDC-Defined Diseases and Opportunistic Infections in Jamaican Children With HIV/AIDS.” West Indian Medical Journal 53.5 (2004): 315-21. **Refereed**

OBJECTIVE: To document the frequency of Centers for Disease Control and Prevention (CDC)-defined clinical conditions, opportunistic and co-infections among children with HIV/AIDS. METHODS: This prospective, observational study reports the findings of 110 HIV-infected children followed in multicentre ambulatory clinics during September 1, 2002, to August 31, 2003, from the 239 children enrolled in the Kingston Paediatric and Perinatal HIV/AIDS Programme, Jamaica. We describe the clinico-pathologic characteristics of these children with HIV/AIDS, using the CDC criteria. RESULTS: The client distribution by clinic site was as follows: the University Hospital of the West Indies, 71 (64.6%), Bustamante Hospital for Children, 23 (20.9%), Comprehensive Health Centre 13 (11.8/%) and Spanish Town Hospital, 3 (2.7%). The median age of the 110 children with HIV/AIDS was 6.0 years (range 0.9-17.5). Mode of transmission was primarily mother-to-child (88.0%) and only 4% maternal/infant pairs received antiretroviral prophylaxis. Grouped by CDC category: 17 (15.4%) were asymptomatic (N), 22 (20.0%) mildly symptomatic (A), 30 (27.3%) moderately symptomatic (B) and 41 (37.3%) severely symptomatic (C). The most common CDC-defining symptoms were lymphadenopathy (12, 42.8%) and asymptomatic (6, 21.4%) in category N; lymphadenopathy (30, 29.7%), dermatitis (20, 19.8%) and persistent or recurrent upper respiratory tract infections (20, 19.8%) in category A; bacterial sepsis (18, 34.6%) and recurrent diarrhoea (11, 21.2%) in category B; and wasting (28, 30.0%), encephalopathy (26, 27.9%), and serious bacterial infections (15, 16.1%) in category C; Pulmonary tuberculosis (7, 7.5%) and Pneumocystis (jiroveci) carinii pneumonia; (5, 5.4%) were the most frequent opportunistic infections. Streptococcus pneumoniae (10, 30.3%) was the most common invasive bacterial pathogen causing sepsis and Escherichia coli (14, 34.2%) was the most common bacterial pathogen causing urinary tract infections, among the cohort. Thirty-three per cent commenced antiretroviral drugs (ARVs). There were 57 hospitalizations and five deaths. CONCLUSIONS: The study is an important step toward documentation of the natural history of paediatric HIV/AIDS in a primarily ARV-naive population from a developing country. It promotes training in paediatric HIV management as we move toward affordable access to antiretroviral agents in the wider Caribbean and the implementation of clinical trials. (AU)



816. **Pierre, Russell B., P. Swaby, Robert Sue-Ho, and C. Walters.** “Impact of a Lifestyle Risk Intervention in High School Students in Jamaica.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 67-68. **Refereed**

817. **Pierre, Russell B., Andrea M. Wierenga, Michelle Barton-Forbes, Joseph M. Branday, and Celia D. Christie.** “Student Evaluation of an OSCE in Paediatrics at the University of the West Indies, Jamaica.” BMC Medical Education 4.22 (2004): 1-7.

<http://www.biomedcentral.com/1472-6920/4/22>. **Refereed**

Background: The Faculty of Medical Sciences, University of the West Indies first implemented the Objective Structured Clinical Examination (OSCE) in the final MB Examination in Medicine and Therapeutics during the 2000–2001 academic year. Simultaneously, the Child Health Department initiated faculty and student training, and instituted the OSCE as an assessment instrument during the Child Health (Paediatric) clerkship in year 5. The study set out to explore student acceptance of the OSCE as part of an evaluation of the Child Health clerkship. **Methods:** A self-administered questionnaire was completed by successive groups of students immediately after the OSCE at the end of each clerkship rotation. Main outcome measures were student perception of examination attributes, which included the quality of instructions and organisation, the quality of performance, authenticity and transparency of the process, and usefulness of the OSCE as an assessment instrument compared to other formats. **Results:** There was overwhelming acceptance of the OSCE in Child Health with respect to the comprehensiveness (90%), transparency (87%), fairness (70%) and authenticity of the required tasks (58–78%). However, students felt that it was a strong anxiety-producing experience. And concerns were expressed regarding the ambiguity of some questions and inadequacy of time for expected tasks. **Conclusion:** Student feedback was invaluable in influencing faculty teaching, curriculum direction and appreciation of student opinion. Further psychometric evaluation will strengthen the development of the OSCE.

818. **Pierre, Russell B., Andrea M. Wierenga, Michelle Barton-Forbes, K. Thame, Joseph M. Branday, and Celia D. Christie.** “Student Self-Assessment in a Paediatric Objective Structured Clinic Examination..” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 79. **Refereed**

819. ——. “Student Self-Assessment in a Paediatric Objective Structured Clinical Examination.” West Indian Medical Journal 54.2 (2005): 144-48. **Refereed**

OBJECTIVE: The objective structured clinical examination (OSCE) has been recognized not only as a useful assessment tool but also as a valuable method of promoting student learning. Student self-assessment is also seen as a means of helping students recognize their strengths and weaknesses, understand the relevance of core learning objectives and to take more responsibility for each stage of their work. The authors sought to evaluate the accuracy of medical student self-assessment of their performance in the paediatric clerkship OSCE and thus obtain preliminary data for use in programme strengthening. **DESIGN AND METHODS:** A self-administered questionnaire was completed by successive groups of students immediately after the OSCE at the end of each clerkship rotation. Students assessed their performance at each station, using a performance rating scale. Performance data were summarized using descriptive and non-parametric tests. Basic statistical analysis of the Likert items was conducted by calculating frequencies, means and standard deviations. Regression analysis was used to correlate self-reported rating and actual performance in each station. A p value of < 0.05 was considered significant. Eighty-one students (92%) completed the questionnaire. **RESULTS:** Fifty-eight (72%) of the students achieved greater than minimum competence in their overall scores. Significant positive correlation ($p < 0.05$) between student self-rating and actual score was noted- among the following stations: technical skills, cardiovascular examination, assessment of dysmorphism, dermatology, communication and photographic interpretation stations. Students overestimated their performance in the gastrointestinal examination, radiological and arterial blood gas interpretation. Students underestimated their performance in the following: respiratory system, examination of the head, developmental and nutritional assessment. **CONCLUSIONS:** The findings highlight the perceived strengths and weaknesses in clinical competence and self-assessment skills and provide direction for programme training needs.



820. **Potter, T., Horace M. Fletcher, and Marvin E. Reid.** "Vasopressin As a Hemostatic and Dissection Aid at Vaginal Hysterectomy ." International Journal of Gynecology and Obstetrics 86.1 (2004): 65-66.

Postmenopausal bleeding is traditionally investigated with invasive procedures. Recent studies in white populations have suggested that these procedures can be avoided, as ultrasonographic endometrial thickness of < 5 mm is not associated with malignancy. The authors performed a prospective study in 75 Jamaican Afro-Caribbean women with postmenopausal bleeding to determine whether an endometrial thickness of < 5 mm excluded endometrial cancer. They also examined the aetiology of postmenopausal bleeding and looked for possible risk factors. Double-layer transvaginal ultrasonographic measurement of the endometrial thickness was followed by hysteroscopy, suction curettage and histopathological confirmation. Correlation between imaging and pathology was not reliable. Half the patients with endometrial cancer had an endometrial thickness of between 3 mm and 4 mm. Seventy per cent of the women with endometrial thickness of greater than 5 mm had benign pathology. Additionally, the following characteristics were found to be more strongly associated with women with endometrial cancer: age over 65 years and 5 or more years since menopause. However parity < 2 appeared not to have a significant effect.

821. ——. "Vasopressin Versus Normal Saline As Haemostatic Aids to Dissection at Vaginal Hysterectomy." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 22-23. **Refereed**

822. **Potter, T., Horace M. Fletcher, Mitko K. Vutchkov, and Gerald. C. Lalor.** "The Mercury Concentration in the Placentae of Parturients at the University Hospital of the West Indies and Its Correlation to Known Risk Factors During Pregnancy." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 32. **Refereed**

823. **Pottinger, Audrey M.** "Disrupted Caregiving Relationships and Emotional Well Being in School Age Children Living in Inner City Communities." Caribbean Childhoods: From Research to Action. Vol. 2. Kingston, Jamaica: Ian Randle, 2005. 38-57.

Three types of parent-child separation - parental death, migration and separation/divorce - were investigated in a sample of 52 children living in inner-city communities. Grief feelings were directly related to depressive and suicidal thoughts and poor self-esteem in children who had been separated from their parents through parental migration and divorce, but not death. Multiple regressions identified parental separation as the only loss that predicted poor self-esteem in children. Factors relevant to living in inner-city communities, such as exposure to violence and the quality of family functioning, were directly related to children's grief response to parental death or migration, but did not appear to worsen their psychological well-being. Direct comparisons of different types of childhood disruptions will advance our understanding of the grief experience of children who are separated from their parents.

824. **Pottinger, Audrey M., Colin A. McKenzie, Joseph. Frederick, Vernon E. DaCosta, Shaun H. Wynter, D. Everett, and Y. Walters.** "Gender Differences in Coping Responses and Beliefs About Infertility Between Afro-Caribbean Men and Women Undergoing *In Vitro* Fertilization ." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 47. **Refereed**

825. **Pottinger, Audrey M., P. Milbourn, and J. Leiba.** "Suicidal Behaviour and Risk Factors in Children and Adolescents in Jamaica." West Indian Medical Journal 52.2 (2003): 127-30. **Refereed** Suicidal attempts and ideation were examined in children attending child and adolescent mental health clinics in the Kingston Metropolitan Area during October 1998 to September 1999. The case records of fifty-seven 6-18 year-olds were selected for review in order to identify social and familial factors that place Jamaican children and adolescents at risk for suicidal behaviour. In addition, in order to examine the consistency of risk factors, data from child and adolescent mental health clinics were compared over a ten-year period between 1989 and 1999. The results indicated that having a poor relationship with the primary caregiver was significantly associated with suicidal behaviour ($p <$



0.01) as well as experiencing abuse ($p < 0.05$). These children also tended to externalize their behaviours ($p < 0.01$). The findings suggest that, over the ten-year period, Jamaican children seem to be more readily talking about, contemplating and attempting, suicide. The importance of managing intrafamilial issues affecting children is highlighted.

826. **Rockhead, C., Horace M. Fletcher, Marvin E. Reid, and O. Morgan.** "A Comparison of Two Methods of Labor Induction With Vaginal Misoprostol." International Journal of Gynecology and Obstetrics 80.3 (2003): 271-77.

Objectives: To evaluate if labor induction with 50 g of vaginal misoprostol twice per day is as effective as and safer than 100 g used once per day. **Methods:** Misoprostol was used to induce labor in 204 consecutive pregnant women assessed as needing labor induction, 104 at the University Hospital of the West Indies in Kingston, Jamaica, and 100 at the Victoria Jubilee Hospital, also in Kingston. At the former institution, the women were administered 100 g of misoprostol once per 24 h and at the latter 50 g every 12 h. The doses were repeated if there was no cervical change or if the woman was not in labor. Bishop scores were determined before initiation of induction and again 12 h later. Women's records were reviewed after 24 h to determine delivery outcome. **Results:** The indications for labor induction were similar in each group. There was no significant difference in the group demographics. In the group given 50 g of misoprostol twice per day the mean time \pm S.D. from insertion of misoprostol to delivery was significantly shorter than in the other group (560.14 \pm 269.20 min vs. 729.90 \pm 471.65 min; $P < 0.01$), and the percentage of women who were delivered within 12 h was higher (75% vs. 56.8%; $P < 0.002$). There was no significant difference between the two groups in the rate of cesarean births, the need for oxytocin, or blood loss. Only two patients experienced uterine hyperstimulation, both in the group that had received 100 g of misoprostol per day. There was no significant difference between the two groups in the birthweight of the neonates and in the number of neonates with Apgar scores less than 7 at 1 min and 5 min. There were, however, significantly fewer neonates who needed resuscitation (6% vs. 14.7%; $P = 0.04$) and admission to the special care nursery (7% vs. 17%; $P = 0.03$) in the group that had received 50 g of misoprostol twice per day. **Conclusions:** A dose of 50 g of misoprostol twice per day appears to be more efficient and safer than a dose of 100 g once per day, but this may partially be due to weaknesses in the study design.

827. **Rodriguez, B., Julianne C. Steel-Duncan, Russell B. Pierre, Tracy Evans-Gilbert, Ian R. Hambleton, Paulette Palmer, J. P. Figueroa, and Celia D. Christie.** "Socio-Demographic Characteristics of HIV-Exposed and HIV-Infected Jamaican Children." West Indian Medical Journal 53.5 (2004): 303-07. **Refereed**

Background: In the face of the continuing pandemic of HIV/AIDS, the burden of the disease is now largest in the resource-poor developing world. The Joint United Nations Programme on HIV/AIDS (UNAIDS) has listed the adult prevalence rate for the Caribbean as second only to Sub-Saharan Africa. **Objective:** To document the socio-demographic characteristics of paediatric and perinatal HIV/AIDS in Kingston, Jamaica. **Methods:** A cohort of HIV-infected pregnant women were identified at the leading maternity centres in Kingston and St Catherine and were enrolled in the Kingston Paediatric and Perinatal HIV/AIDS Programme. Infants born to mothers within the programme were prospectively enrolled. Infants and children identified after delivery, whether HIV-exposed or infected, were also enrolled (retrospective group). All were followed according to standardized protocols. **Results:** We report on a total of 239 children, 78 (prospective group) and 161 (retrospective group). Among the retrospective group, 68% were classified as infected. For the prospective group, the patients were recruited within twenty-four hours of birth in 98.7% of cases, whereas in the retrospective group, the median age of recruitment was 2.6 years. The median age of the mother was 27 years and that of the father was 33 years. There were seven teenage mothers. Twenty-six per cent of the children were in institutional care. Family size ranged from one to nine children—the median was two children. For those parents where occupation was reported, the majority held semi-skilled or unskilled jobs. Patients attended their regional clinics. **Conclusion:** HIV/AIDS represents a significant human and financial burden on a developing country such as Jamaica and this underscores the need for urgent and sustained interventions to stem the epidemic.



828. **Rose, G., K. Bailey, K. Brightly, and Michelle Barton-Forbes.** “Does Asthma Clinic Attendance Improve Quality of Life in Jamaican Children Diagnosed With Asthma.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 71-72. **Refereed**

829. **Samms-Vaughan, Maureen E.** The Jamaican Pre-School Child: The Status of Early Childhood Development in Jamaica. Kingston, Jamaica: Planning Institute of Jamaica, 2005.

Examines pre-primary children, assesses their learning environments and identifies key issues affecting outcomes for child development. Argues that home environment, relationships with parent figures, early stimulation and physical factors greatly impact children’s cognitive and behavioural development. Urgent intervention is needed in the early years to ensure appropriate child development. The book is a collaborative project of the Caribbean Child Development Centre and the section of Child Health at the University of the West Indies, with funding from the Planning Institute of Jamaica.

830. **Samms-Vaughan, Maureen E., Deanna E. Ashley, and Maria Jackson.** “Nutritional Status of 11–12-Year-Old Jamaican Children: Coexistence of Under- and Over Nutrition in Early Adolescence .” Public Health Nutrition 5.2 (2002): 281-88. **Refereed**

Objective: To determine the nutritional status of a cohort of 11–12 year olds and ascertain social and demographic factors associated with under- and overweight in early adolescence. *Design:* Cross-sectional. *Subjects:* Subgroup ($n=1698$) of the birth cohort (September–October 1986) of the Jamaican Perinatal Survey enrolled in schools in the Kingston Metropolitan area. One thousand and sixty-three parents or caregivers provided social and demographic information. *Results:* Undernutrition and overnutrition are of public health significance among adolescent Jamaican children. Ten per cent of 11–12 year olds had body mass index (BMI) values below the 5th percentile (boys, 10.6%; girls, 7.1%) but this prevalence is relatively low compared with other developing countries. The prevalence of stunting was low (3%). The prevalence of overweight (BMI85th percentile) (19.3%) was approaching prevalence rates found in the USA. Similar social and demographic variables were associated with thinness and fatness in males. Birth weight predicted overweight in girls.

831. **Samms-Vaughan, Maureen E., Maria Jackson, and Deanna E. Ashley.** “Urban Jamaican Children’s Exposure to Community Violence.” West Indian Medical Journal 54.1 (January, 2005): 14-21. **Refereed**

Exposure to violence in childhood is associated with aggression in adulthood. The high level of community violence in Jamaica is likely to expose Jamaican children to violence. There has been no detailed study of the exposure of Jamaican children to violence in their daily lives. Some 1674 urban 11-12-year-old children, previously part of a national birth cohort study, completed a questionnaire detailing their exposure to violence as witnesses, victims and aggressors. Their parents completed a socio-economic questionnaire. Jamaican children had high levels of exposure to physical violence. A quarter of the children had witnessed severe acts of physical violence such as robbery, shooting and gang wars, a fifth had been victims of serious threats or robbery and one in every twelve had been stabbed. Children reported being least exposed to sexual violence and to being shot at. Robbery was an almost universal experience affecting children from all schools and socio-economic groups. The single commonest experience as a victim of violence was the loss of a family member or close friend to murder, affecting 36.8% of children. Children’s experiences of witnessing violence occurred chiefly in their communities but their personal experiences of violence occurred at school. Boys and children attending primary school had greater exposure to violence as witnesses and victims. Socio-economic status discriminated exposure to physical violence as witnesses but not as victims. Intervention strategies to reduce children’s exposure to violence should include community education on the impact of exposure to violence on children, particularly the loss of a significant person, and the development of a range of school-based violence prevention programmes.

832. **Samms-Vaughan, Maureen E., Sian Williams, and Janet Brown.** “Determining Early Childhood Indicators for Jamaica: A Methodological Approach.” Journal of the Children’s Issues Coalition 1.39-53 (2003). **Refereed**

Economic indicators have been widely used to monitor the economic status of countries. Social indicators, and in



particular, indicators of child well being are less well known and used. Within the last decade, child indicators have become increasingly important as a means of describing the current status of children, monitoring trends over time and setting attainment targets. The early childhood period is considered an important phase for children's future academic and behavioural development. Developing countries like Jamaica have poorer academic achievement at the primary years than developed countries, a phenomenon believed to have its genesis in the early childhood period. The absence of adequate information on children at the early childhood stage was considered an important contributor to the inability to address children's well being. The Profiles project was designed to obtain information on the status of children at the end of the pre school period and to develop indicators to monitor the status of children. This paper describes the methodology used to develop indicators for Jamaican children, from the collection of national survey data to the scientific selection of indicators. From hundreds of individual questions addressing child well being, nineteen indicators under the categories of Population, Family and Neighbourhood; Economic security; Health; Education; Social Development and Problem Behaviour; Outcome Indicators and International Comparison Indicators were identified. Recommendations for the indicators to be placed within a national monitoring system within Jamaica have been made. Other Caribbean nations may choose to adopt a similar methodology to determine indicators relevant to their own countries or may opt to utilise Jamaican indicators within their own monitoring systems

833. —. "Disciplinary Practices Among Parents of Six Year Olds in Jamaica." Caribbean Childhoods: From Research to Action. Vol. 2. Kingston, Jamaica: Ian Randle, 2005. 58-81.

The authoritarian nature of Caribbean parenting is expected to be associated with harsh disciplinary methods. There is little information available on the extent to which disciplinary measures are used for Caribbean children, particularly those under the age of six years. A representative sample of 245 Jamaican families with six-year-olds was identified from the National Labour force Survey. One hundred and ninety-three parents responded to questionnaires about the disciplinary methods used in their homes. Twenty-eight per cent of parents or guardians reported that non-violent methods were most commonly used, while 25.4 per cent reported psychological aggression and 46.6 per cent physical assault. A range of psychological aggression measures was reported. Shouting or scolding, explaining or counselling, time out or isolation and spanking were the methods most frequently used in the week prior to the survey. There were no gender or social class differences. When compared with the findings of a previous study, the use of corporal punishment appears to have decreased over time. However, the extent and frequency of its use in the home remains unacceptably high, given the known consequences. Parental education on the consequences of corporal punishment and on alternative methods of discipline is recommended, using the mass media to reach a wide audience.

834. **Serjeant, Graham R., L. Look-Loy, M. Crowler, Ian R. Hambleton, and Minerva M.**

Thame. "The Outcome of Pregnancy in Homozygous Sickle Cell Disease: Observations From the Jamaican Cohort." Journal of Obstetrics and Gynaecology 103.6 (2004): 1278-85. **Refereed**

Objective: Previous reports on pregnancy in homozygous sickle cell (SS) disease are biased by hospital-based, more severely affected subjects and may have underestimated recurrent early pregnancy losses. We report pregnancy outcome in a representative sample of SS subjects subsequently referred to as "subjects" or "sickle cell subjects," and matched normal controls followed from birth. **Methods:** The outcomes of 94 pregnancies in 52 subjects and 157 pregnancies in 68 controls followed in a cohort study from birth are presented. Outcome measures included the age at menarche, interval to first pregnancy, outcome of pregnancy, and maternal complications. Possible predictors of low birth weight are assessed. Outcomes were compared by the Kaplan-Meier analysis for interval to first pregnancy and by Student t test, chi(2) test, or Fisher exact test, as appropriate. Correction was made for multiple testing, and multiple linear regression was used for analysis of birth weight. **Results:** Compared with controls, SS subjects had later menarche (median age 15.4 versus 13.0 years) and first pregnancy (median age 23.7 versus 20.1 years), and more spontaneous abortions (36% versus 10%). Babies of SS subjects had a lower gestational age ($P < .001$) and lower birth weight ($P < .001$), the latter being significantly affected by sickle-related events in pregnancy. There was no difference in pregnancy-induced hypertension, preeclampsia, or antepartum or postpartum hemorrhage, but a retained placenta was marginally more common in SS subjects (Fisher exact test, $P = .007$ after adjustment for multiple testing). Two SS subjects died, a mortality rate of 2.1%. **Conclusion:** The increased fetal loss and maternal morbidity in mothers with homozygous sickle cell disease is confirmed. **Level of Evidence:** II-2



835. **Shetty, G. T., Maureen E. Samms-Vaughan, and Frederick W. Hickling.** “A Study of Psychosocial Factors Affecting Jamaican Children With Attention Deficit Hyperactivity Disorder.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 19. **Refereed**

836. **Simms-Stewart, D., Vernon E. DaCosta, Horace M. Fletcher, and Marvin E. Reid.** “Comparison Between Actual Birthweight, Ultrasonographic Fetal Weight and the Effect of the Level of Experience on the Accuracy of the Measurement .” West Indian Medical Journal 53 Suppl. 5 (2004): 31-32. **Refereed**

Objective: Analysis of the accuracy of ultrasonographic estimation of fetal birthweight by a group of residents at the University Hospital of the West Indies and to test if the level of experience made a difference.

Method: This is a prospective study carried out between March 2002 and March 2003. Standard ultrasound fetal biometric assessments were performed for 50 women in labour and between gestational age 37 and 41 weeks. Measurements were taken of the fetal biparietal diameter, abdominal circumference, and femur length to calculate the estimated fetal weight (EFW). Participants were delivered within three days of ultrasound. The EFW was compared to the actual birth weight. The residents performing each ultrasound were compared and were classified as junior if they were in their second to third postgraduate year and senior if in the fourth to fifth postgraduate year

837. **Simms-Stewart, D., Horace M. Fletcher, S. Y. Mitchell, E. Walters, Marvin E. Reid, and Franklyn I. Bennett.** “Low Bone Mineral Density in an Afro-Caribbean Jamaican Population and the Associated Risk Factors.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 14. **Refereed**

838. **Sorhaindo, A., David Becker, Horace M. Fletcher, and Sandra G. Garcia.** “Emergency Contraception Among University Students in Kingston, Jamaica: A Survey of Knowledge, Attitudes, and Practices.” Contraception 66.4 (2002): 261-68. **Refereed**

Emergency contraceptives (ECs) are an important option for young women in Jamaica, where rates of unplanned pregnancy are high. Few previous studies of EC exist in Jamaica. A random sample of 205 students living on campus at the University of the West Indies in Kingston, Jamaica was surveyed, to learn more about students' knowledge and opinions of EC pills (ECPs). General awareness of ECPs was high (84%), although many students were unaware of specific details regarding the method's appropriate use, such as the time frame. Twenty students (10%) had used ECPs themselves or had a partner who had used them. Most had used ECPs for the first time because they lacked contraception or because of contraceptive failure. Following their first use of ECPs, 55% adopted an ongoing method of contraception. Most students felt ECPs were an important option for women in Jamaica; however, some feared ECPs might be overused. Future educational campaigns should provide Jamaican university students with detailed information about this method

839. **Sorhaindo, A., David Becker, Horace M. Fletcher, Sandra G. Garcia, and E. Mitchell.** “Exploring Knowledge and Attitudes About Emergency Contraceptive Pills Among University Students in Jamaica. A Qualitative Approach.” West Indian Medical Journal 53.1 (2004): 33-38. **Refereed**

Emergency contraceptive pills (ECPs) are an important option for university students who may be at high risk for unplanned pregnancies. In the Caribbean, little research has been carried out on university student's knowledge and opinions of this method. This study uses qualitative methodology to explore knowledge and opinions on ECPs among university students attending The University of the West Indies (UWI) Mona campus. We conducted eight focus groups (n = 71) with female and male university students at The University of the West Indies, Kingston, Jamaica, in March 2000. The group discussions lasted approximately two hours. We tape-recorded discussions and then transcribed and analyzed them by coding responses according to themes. General knowledge of ECPs was high, but students lacked specific information about the method such as its time frame and its mechanism of action. Most



students supported the method, especially after learning correct information. However, several students were concerned about its side effects and the potential for abuse or irresponsible use by young adults. Although the university students in this study lacked detailed information about ECPs, their opinion toward the method was favourable. We suggest further research to investigate the prevalence of misinformation about the method among other groups of Jamaicans.

840. **Steel-Duncan, Julianne C., Russell B. Pierre, Tracy Evans-Gilbert, B. Rodriguez, Monica F. Smikle, Paulette Palmer, S. Whorms, Ian R. Hambleton, J. P. Figueroa, and Celia D. Christie.** "Uptake of Interventions, Outcomes and Challenges in Caring for HIV-Exposed Infants in Kingston, Jamaica." *West Indian Medical Journal* 53.5 (2004): 308-14. **Refereed**

Background: In a few Caribbean islands, prevention of mother-to-child transmission (pMTCT) of HIV with zidovudine prophylaxis has reduced transmission rates from 27 - 44% to 5.5 - 9%. **Objectives:** To highlight the uptake of interventions, preliminary outcomes and challenges in caring for HIV-exposed infants in a pMTCT HIV programme in a resource-limited setting. **Method:** A cohort of HIV-infected pregnant women were identified at the leading maternity centres in Greater Kingston through HIV counselling and testing and enrolled in the Kingston Paediatric and Perinatal HIV/AIDS Programme. Antiretroviral prophylaxis with zidovudine or nevirapine was given to the HIV-positive women and their newborns along with formula feeding. Some infants were enrolled retrospectively and followed irrespective of whether they had or had not received antiretroviral prophylaxis. A multidisciplinary team at the paediatric centres supervised protocol-driven management of the infants. Infants were followed for clinical progress and definitive HIV-infection status was to be confirmed at 18 months of age by ELISA or the Determine Rapid Test. **Results:** During September 1, 2002 through August 31, 2003, 132 HIV-exposed infants were identified. For those infants prospectively enrolled (78), 97% received antiretroviral prophylaxis and 90% were not breastfed. For all HIV-exposed children, 90% received cotrimoxazole prophylaxis and 88% continued follow-up care. Ninety-two per cent of all the infants remained asymptomatic and five died; of these deaths one is possibly HIV-related (severe sepsis at 11 weeks). This infant was retrospectively identified, had received no antiretroviral prophylaxis and was breastfed. The main programme challenges, which were overcome, included the impact of stigma, compliance with antiretroviral chemoprophylaxis, breast-milk substitution and follow-up care. Financial constraints and laboratory quality assurance issues limited early diagnosis of HIV infection. **Conclusion:** Despite the challenges, the expected outcome is to prevent 50 new cases of HIV/AIDS in children living in Greater Kingston per year (300 over six years).

841. **Steel-Duncan, Julianne C., Russell B. Pierre, Tracy. Evans-Gilbert, B. Rodriguez, and Celia D. Christie.** "HIV/AIDS Following Sexual Assault in Jamaican Children and Adolescents: A Case for HIV Post-Exposure Prophylaxis." *West Indian Medical Journal* 53.5 (October, 2004): 352-55. **Refereed**

Reported sexual assault in Jamaica is highest among children and adolescents. The risk of HIV transmission after sexual assault, although small, may be significant in certain circumstances, and it is therefore reasonable that post-exposure prophylaxis should be offered. These HIV transmission rates are similar to those of health care workers after occupational exposure to known HIV-infected blood for which routine post-exposure prophylaxis is recommended. We present a case series of children/adolescents with HIV/AIDS post-sexual assault and make the case for post-exposure prophylaxis for HIV infection following sexual assault

842. **Steel-Duncan, Julianne C., Russell B. Pierre, Tracy. Evans-Gilbert, Rodriguez B., Paulette Palmer, S. Whorms, Monica F. Smikle, J. P. Figueroa, and Celia D. Christie.** "Outcomes of Infants Born to Women With HIV Infection in Greater Kingston, 2002-2003: A Preliminary Report of the Kingston Paediatric and Perinatal HIV/AIDS (KPAIDS) Programme.." [Abstract]. *West Indian Medical Journal* 52 Suppl. 6 (2003): 25-26. **Refereed**



843. **Steel-Duncan, Julianne C., Russell B. Pierre, L. Gabay, and Celia D. Christie.**

“Nevirapine-Associated Rash in a Jamaican Child With HIV/AIDS.” West Indian Medical Journal 53.5 (2004): 356-58. **Refereed**

Nevirapine is one of the first line antiretroviral agents used in the treatment of HIV/AIDS as well as for prophylaxis against mother-to-child transmission of HIV. As antiretroviral medication becomes more available it is important for physicians to recognize the major clinical toxicities of these medications. We report a HIV-infected infant who developed a rash with systemic symptoms in association with nevirapine administration.

844. **Thame, Minerva M., L. Franklin, J. Young, C. Hall, Geoffrey Saunders, and Nadia P. Williams.** “An Unusual Presentation of Group B Streptococcal Sepsis.” West Indian Medical Journal 53.6 (2004): 416-19. **Refereed**

This paper describes the devastating outcome of a neonate who presented with severe late onset group B β -*haemolytic* streptococcal (GBS) disease. There were extensive infarcts of the brain and gangrene of the toes. The purpose of this report is to alert healthcare workers of the unusual presentation and the fetal late onset group B β -*haemolytic* streptococcal disease may occur despite early and effective management.

845. **Thame, Minerva M., J. Lewis, Helen L. Trotman-Edwards, and Graham. R. Serjeant.** “Pregnancy Performance in Homozygous Sickle Cell Disease at the University Hospital of the West Indies, Jamaica.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 40-41. **Refereed**

846. **Thame, Minerva. M., Clive. Osmond, Horace M. Fletcher, and Terrence E. Forrester.** “Ultrasound Derived Fetal Growth Curves for a Jamaican Population.” West Indian Medical Journal 52.2 (2003): 99-110. **Refereed**

The objective of this study was to develop fetal growth curves and percentile growth charts for a Jamaican population. Four hundred and ninety-nine Jamaican women of African origin were enrolled in a prospective study from the antenatal clinic of the University Hospital of the West Indies, Kingston, Jamaica. Serial ultrasound scans were performed between 14 and 37 weeks gestation to measure fetal growth. The ultrasound measurements performed were biparietal diameter, head and abdominal circumference and femoral length. A total of 2574 ultrasound scans were performed on the 499 women (mean 5.2 per woman). From these data, centiles for fetal growth curves for the four fetal measurements were constructed and percentile tables were created for a Jamaican population. Birthweight varies between ethnic groups and, therefore, so must fetal growth rates. At present, fetal growth in Jamaica is assessed using standards based on data derived from Caucasian populations. Fetal growth curves using data from this study would more accurately identify a fetus that is at risk and hence, provide information that could improve obstetric care. These new growth curves should provide data, which will improve obstetric decision making

847. **Thame, Minerva M., Clive. Osmond, Rainford J. Wilks, Franklyn I. Bennett, and Terrence E. Forrester.** “Fetal Growth Is Directly Related to Maternal Anthropometry and Placental Volume.” European Journal of Clinical Nutrition 58.6 (2004): 894-900. **Refereed**

Objective: To describe the influence of maternal weight and weight gain, placental volume and the rate of placental growth in early pregnancy on fetal dimensions measured sonographically. **Design:** In a prospective study, 712 women were recruited from the antenatal clinic of the University Hospital of the West Indies. Data analysis was confined to 374 women on whom measurements of the placental volume at 14, 17 and 20 weeks gestation were complete. Measurements of maternal anthropometry and fetal size (by ultrasound) were performed. Weight gain in pregnancy between the first antenatal visit (8-10 weeks) and 20 weeks gestation, and the rate of growth of the placenta between 14-17 and 17-20 weeks gestation were calculated. **Main Outcome Measures:** Fetal anthropometry (abdominal and head circumferences, femoral length, and biparietal diameter) at 35 weeks gestation. **Results:** Lower maternal weight at the first antenatal visit was associated with a significantly smaller placental volume at 17 and 20



weeks gestation ($P < 0.002$ and < 0.0001 respectively). In all women, maternal weight gain was directly related to fetal anthropometry. Placental volume at 14 weeks gestation and the rate of growth of the placenta between 17 and 20 weeks gestation were significantly related to all four fetal measurements. **Conclusion:** This study has provided evidence that both placental volume, and the rate of placental growth may influence fetal size. These effects are evident in the first half of pregnancy, and appear to be mediated through maternal weight and weight gain.

848. **Thame, Minerva M., Helen L. Trotman-Edwards, Horace M. Fletcher, and Matthias Antoine.** "Body Composition Between Pregnancies of Adolescent Girls and Mature Women and the Impact on Fetal Growth and Birthweight." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 37. **Refereed**

849. **Trotman-Edwards, Helen L., Michelle. Barton-Forbes, and V. Mitchell.** "Outcome of Neonates Admitted to the Intensive Care Unit at the University Hospital of the West Indies: A 15 Year Review." [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 11. **Refereed**

850. **Trotman-Edwards, Helen L., and Y. Bell.** "Neonatal Group B Streptococcal Infection at the University Hospital of the West Indies: A Ten-Year Experience." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 13. **Refereed**

851. **Trotman-Edwards, Helen L., C. Lord, Michelle Barton-Forbes, and Matthias Antoine.** "Hypernatraemic Dehydration in Jamaican Breastfed Neonates: A 12-Year Review in a Baby-Friendly Hospital." Annals of Tropical Paediatrics 24.4 (2004): 295-300. **Refereed**

A 12-year retrospective review of neonates admitted with hypernatraemic dehydration to the neonatal unit of the University Hospital of the West Indies was conducted between 1 January 1990 and 31 December 2001. Twenty-four infants fulfilled the criteria for hypernatraemic dehydration. Nineteen (79%) women were either nulliparous or primiparous with a mean (SD) age of 26.9 (4.4) yrs. Modal length of hospital stay for mothers was 24 hrs. Twenty (83.3%) infants were exclusively breastfed. Mean (SD) age at presentation was 7.4 (3.8) days. Mean (SD) percentage weight loss between birth and presentation was 18.9% (6.3). Mean (SD) serum sodium at presentation was 164.8 (13.9) mmol/L. Babies visited at home by nurses had a lower mean serum sodium, were less dehydrated and were significantly less acidotic. Their mean (SD) length of hospital stay was also significantly less [4.2 (1.4) days] than those who were not visited [7.9 (3.8) days] ($p < 0.05$). Complications occurred in 19 (79%) infants and included renal failure (19, 79%), seizures (3, 13%) and intraventricular haemorrhage (1, 4%), and one died (4%). Hypernatraemic dehydration is an uncommon complication of failure to establish breastfeeding but is associated with severe morbidity and mortality. Education programmes are needed to increase awareness amongst health-care workers and mothers in order to prevent the problem.

852. **Trotman-Edwards, Helen L., Elizabeth Ward, and Affette M. McCaw-Binns.** "Non-Fatal, Unintentional Injuries in Children in Six Parishes in Jamaica." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 70-71. **Refereed**

853. **Walker, Susan P., Minerva M. Thame, Susan M. Chang, Franklyn I. Bennett, and Terrence E. Forrester.** "The Effects of Growth *in Utero* on Cognitive Function at Age Six to Eight Years." [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 25-26. **Refereed**

854. **Wissart. J., Santosh K. Kulkarni, and Omkar Parshad.** "Pre- and Postpartum Depression in Jamaican Women Attending Antenatal Clinic at the University Hospital of the West Indies." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 14. **Refereed**



855. **Wissart, J., Santosh K. Kulkarni, and Omkar Parshad.** “Status of Thyroid Gland in Pregnancy and Its Relation to Postpartum Depression.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 76. **Refereed**

856. **Wynter, Shaun H., Carole A. Rattray, Joseph Frederick, Charles H. Thesiger, Hugh H. Wynter, John F. Lindo, A. McGilchrist, and S. D. King.** “Who Is at High Risk? A Comparison of the Seroprevalence of Human Immunodeficiency Virus in Pregnant Women and a High Risk Group.” West Indian Medical Journal 52.4 (2003): 293-95. **Refereed**

To compare the seroprevalence of HIV in Jamaican pregnant women with that in substance abusers, two groups of antenatal patients were studied, one (A) attending a public hospital clinic and the other (B) attending private clinics. The HIV seroprevalence in the antenatal patients was compared with that in the substance abusers, group C, in 1996 and five years later in 2001. HIV antibody was determined by enzyme immunoassay. The HIV seroprevalence in group A more than doubled (1.6%-3.8%) in five-years, 1996-2001. There were no seropositives in group B. In group C, the seroprevalence rose from 2.08% in 1996 to 5.76% in 2001. There was indication that group A might no longer be considered “low risk”, as there was no significant difference from group C in HIV seroprevalence in 1996 and 2001. The trend seen in this study is worthy of further investigation.

Department of Pathology

857. **Blake, Garfield O., Barrie Hanchard, Tracey N. Gibson, C. Wolff, E. Samuels, N. Waugh, and D. Simpson.** “Gynaecologic Cancer Incidence, Kingston and St Andrew, Jamaica, 1973-1997, and Gynaecologic Cancer Mortality, Jamaica, 1999.” West Indian Medical Journal 52.4 (December 2003): 273-77. **Refereed**

The incidence of gynaecologic cancers in women from Kingston and St Andrew for the period 1973-1997 were reviewed by analyzing data previously published by the Jamaica Cancer Registry. Gynaecologic cancer-related mortality statistics for the entire island for 1999 were compiled from data obtained from the Registrar General’s Department (RGD) and the Statistical Institute of Jamaica (STATIN). Data were compared to gynaecologic cancer statistics for women from the United States of America for 1973-1997. A total of 2862 gynaecologic cancers were registered for the years 1973-1997, which represents 26.8% of all female cancers from Kingston and St Andrew. Cervical cancer accounted for 62% of these gynaecologic cancers. The 268 cancer-related deaths (168 due to cervical cancer) registered in Jamaican women for 1999 represent approximately 15% of all female cancer-related deaths. The present incidence (27.9 per 100,000) and mortality rate (15.8 per 100,000) of cervical cancer are much higher than that documented for American women—both African Americans and Caucasians—and signify the limited success, to date, of efforts to decrease the incidence and mortality of cervical cancer by the implementation of cervical cancer screening programmes. For the time period reviewed, an increase was noted in the incidence of cancer of the corpus uteri while decreases were recorded for the incidence of choriocarcinoma, ovarian cancer and cancers arising from the vulva, vagina and fallopian tube. (AU)

858. **Blake, Garfield O., Michael James, C. Ramjit, G. Char, R. Hunter, and Ivor W. Crandon.** “Acute Subdural Haematoma Without Subarachnoid Haemorrhage Caused by Rupture of an Intracranial Aneurysm.” West Indian Medical Journal 52.1 (2003): 80-81. **Refereed**

Discusses the case of a 35-year old woman who was brought to the University Hospital of the West Indies, Kingston, Jamaica, shortly after experiencing a right hemiparesis with altered consciousness. A diagnosis of subarachnoid haemorrhage secondary to a ruptured berry aneurysm was made. The article further illustrates the conditions of the female and conditions associated with the brain. It was concluded that a ruptured berry aneurysm as the cause of a subdural haematoma should be considered in young persons, especially women, with no history of traumatic head injury.



859. **Castle, P. E., Carlos T. Escoffery, J. Schachler, Carole A. Rattray, M. Schiffman, J. Moncada, K. Sugai, C. Brown, Beverley E. Cranston, Barrie Hanchard, J. M. Palefsky, R. D. Burk, M. L. Hutchinson, and H. D. Strickler.** "Chlamydia Trachomatis, Herpes Simplex Virus 2 and Human T-Cell Lymphotropic Virus Type I Are Not Associated With Grade of Cervical Neoplasia in Jamaica Colposcopy Patients." Sexually Transmitted Diseases 30.7 (2003): 575-80. **Refereed**

Background: Recent studies have suggested that other sexually transmitted infections may increase the likelihood of a human papillomavirus (HPV) infection progressing to high-grade cervical neoplasia and cancer. **GOAL:** The goal was to assess whether exposures to Chlamydia trachomatis, human T-cell lymphotropic virus type 1 (HTLV-I), and/or human simplex virus type 2 (HSV-2) are greater in colposcopy patients with cervical intraepithelial neoplasia grade 3 or cancer (CIN3+) than in patients with low-grade cervical neoplasia (CIN1). **Study Design:** Sequential patients (n=447) attending a colposcopy clinic in Kingston, Jamaica, a country with high cervical cancer rates and high HTLV-I prevalence, were tested for (1) HPV DNA by L1 consensus primer (MY09/11) polymerase chain reaction assays, (2) C trachomatis DNA by ligase chain reaction, (3) C trachomatis antibodies by both microimmunofluorescence and a peptide (VS4) enzyme linked immunosorbent assay (ELISA), (4) HTLV-I antibodies by ELISA confirmed by western blotting, and (5) HSV-2 antibodies by a recombinant HSV-2-specific ELISA. Odds ratios and 95% confidence intervals were estimated with use of multinomial logistic regression models. **Results:** HPV DNA detection was associated with grade of cervical neoplasia but other evaluated sexually transmitted infections were not. **Conclusions:** HTLV-I, C trachomatis, and/or HSV-2 were not associated with severity of cervical neoplasia in Jamaican women.

860. **Char, G., C. Ramjit, Horace M. Fletcher, and W. Harvey.** "Granulosa Cell Tumour of the Ovary With Bilateral Mature Cystic Teratomas. A Case Report." West Indian Medical Journal 53.2 (2004): 135-37. **Refereed**

Granulosa cell tumour with synchronous mature cystic teratoma is extremely rare and only eight cases are documented in the literature. Granulosa cell tumours are low-grade malignancies and need a close follow-up for recurrences which may be late. We report a case of granulosa cell tumour and mature cystic teratoma occurring synchronously in the same ovary in a post-menopausal woman.

861. **Coard, Kathleen C., Karen Bishop, and J. Julius.** "Trends in Prostate Pathology at the University Hospital of the West Indies, Jamaica, Over the Last 10 Years." West Indian Medical Journal 51.4 (2002): 277-78; Discussion 278-9. **Refereed**

Records of the Department of Pathology at the University Hospital of the West Indies were analysed. The study identifies changes, within the last decade, in the volume and pattern of prostate pathology at the University Hospital of the West Indies, that are most likely associated with availability of a PSA test.

862. **Coard, Kathleen C., and D. Skeete.** "Aortic Dissection at the University Hospital of the West Indies, 1989-2002: An Evaluation of Autopsied Cases." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 35-36. **Refereed**

863. ——. "Bilateral Synchronous Carcinoma of the Male Breast in the Patient Receiving Estrogen for Carcinoma of the Prostate: Cause or Coincidence?" Southern Medical Journal 97.3 (2004): 308-10. **Refereed**

An unusual case of bilateral, synchronous breast cancer in a male patient who had a history of long-term estrogen therapy for prostate cancer is presented. The possible role of estrogen in the development of male breast cancer is revisited.



864. —. “Infective Endocarditis at the University Hospital of the West Indies: A Revisit.” West Indian Medical Journal 52.3 (2003): 235-39. **Refereed**

Many countries have reported a change in the profile of infective endocarditis (IE) over the past three decades. The objective of this study was to evaluate the characteristics of IE from the autopsy service of the University Hospital of the West Indies (UHWI) during the last 15 years and to compare the results with that of an earlier study. There were 26 cases of IE during the period under review with a M:F ratio of 1.2:1. The ages ranged from 15 days to 74 years with a mean of 36.4 +/- 24.57 years. The largest number of cases (n = 7) occurred in the 10 to 19-year-age group. Cardiac predisposing factors were identified in 14 patients; nine with rheumatic heart disease, four with prosthetic valves and one with a bicuspid aortic valve. All vegetations were located on valves, the aortic being the most frequently involved followed by the mitral. Streptococcus species were the most common causative organisms followed by Staphylococcus aureus. Compared with the profile seen 15 years ago, there have been only minor changes in the characteristics of IE cases observed in the autopsy service at the UHWI.

865. **Escoffery, Carlos T., Garfield O. Blake, and Lincoln A. Sargeant.** “Histopathological Findings in Women With Postmenopausal Bleeding in Jamaica.” West Indian Medical Journal 51.4 (2002): 232-35. **Refereed**

The researchers investigated the histopathological findings in women presenting with postmenopausal bleeding in a population predominantly of African descent by conducting a six-year retrospective study of 716 gynaecological surgical specimens from 629 women accessed in the Department of Pathology, The University of the West Indies, Jamaica. Histopathological diagnoses were correlated with patients' age, specimen volume, duration of bleeding and length of postmenopausal interval at presentation using t-tests and linear regression models. The mean (SD) age was 63.6 (9.3) years. The frequency of the main causes of postmenopausal bleeding was: endometrial hyperplasia (22.3%); endometrial atrophy (21.3%); non-diagnostic (19.9%); endometrial carcinoma (9.5%); cervical carcinoma (6.8%); cervical polyps (4.5%); endometrial sarcoma (3.5%); proliferative endometrium (3.2%). Mean (SD) duration of bleeding was 6.9 (12.7) months. The percentage of women with malignant lesions was two to three times greater than those reported in the United States of America and Europe subsequent to 1980. The delay between the onset of bleeding and presentation is worrisome and suggests the need for public education.

866. **Escoffery, Carlos T., and Suzanne E. Shirley.** “Fatal Poisoning in Jamaica: A Coroner's Autopsy Study From the University Hospital of the West Indies.” Medical Science Law 44.2 (2004): 116-20. **Refereed**

This study reviewed cases of fatal poisoning in a coroner's autopsy series at the University Hospital of the West Indies and represented the first such study reported from Jamaica. The autopsy protocols of all coroner's autopsies performed over the 20-year period January 1980 to December 1999 were reviewed retrospectively; 22 (1.0%) cases were identified and relevant clinical and pathological data analysed. There were 13 males and nine females (M:F ratio 1.4:1) with an age range of 2 - 69 years (mean +/- SD = 27 +/- 16.1 years). The 20 - 29 year group was most commonly affected and five patients (22.7%) were children (< 18 years of age). Pesticides (herbicides/ insecticides) were implicated in nine (41%) cases: paraquat was the most common, found in six (27%) cases. Prescription drugs were the next most prevalent group with six (27%) cases, followed by anti-psychotic drugs in four (18%) cases. Cocaine and ackee were each implicated in two (9%) cases. The manner of death was suicidal in 14 (64%) cases and accidental in eight (36%) cases. Seven patients had documented psychiatric illnesses, six of whom committed suicide. Autopsy findings were largely non-specific. The relatively small number of cases was consistent with the low incidence of fatal poisoning in Jamaica.

867. **Freeman, V. L., Kathleen C. Coard, E. Wojcik, and R. Durazo-Arivizu.** “Use of Gleason System in International Comparisons of Prostatic Adenocarcinomas in Blacks.” The Prostate 58 (2004): 168-73. **Refereed**

Comparisons of prostate cancer in blacks living in different countries can shed light on factors responsible for high rates of the disease among blacks in America. Since the prognostic value of the Gleason grading system is well established, we assessed agreement between pathologists in countries where black populations of the African



Diaspora reside. **METHODS:** Three genitourinary pathologists at hospitals in Nigeria, Jamaica, and the US independently assessed sextant biopsies from 12 patients. Gleason sum and percentage involvement were recorded, and a percent-weighted average calculated. Agreement under different groupings was evaluated using the kappa statistic generalized to three raters. **RESULTS:** Agreement was significant for individual sums (kappa = 0.3317, P = 0.0173), sums grouped as well (2-4), moderately (5-6), and poorly differentiated (7-10) (kappa = 0.2437, P < 0.0001) and other groupings. Agreement between at least two raters was 91.7-100%; complete agreement was 41.7-66.7%. **CONCLUSIONS:** The Gleason system is feasible and practical for international studies of prostate cancer among blacks from contrasting environments. Copyright 2003 Wiley-Liss, Inc. (AU)

868. **Gaskin, D. A., Nabin C. Bodoaik, and Nadia P. Williams.** "Hepatic Abscesses at the University Hospital of the West Indies. A 24-Year Autopsy Review." West Indian Medical Journal 52.1 (March, 2003): 37-40. **Refereed**

A retrospective review of all hepatic abscesses identified at autopsy over the 24-year period 1977-2000 at the University Hospital of the West Indies (UHWI), Kingston, Jamaica, was conducted. Post mortem and microbiology records were reviewed. Data collected included age, gender, predisposing factors, organisms isolated, number of abscesses and associated conditions, such as diabetes mellitus. Data for the adults was analyzed separately. Thirty-nine cases of pyogenic abscesses were identified from 7480 post-mortems. Thirty-three occurred in adults of mean age 59.5 years. Sixty per cent of the abscesses were solitary. Biliary tract disease was the predisposing factor in 33% of cases. Six per cent were cryptogenic: 11/33 patients were diabetic and these were significantly older than non-diabetics (p < 0.014) *Klebsiella pneumoniae* was the most common organism isolated from diabetics (6.9). Only 2/33 abscesses were diagnosed ante-mortem. The abscesses in children were more frequently multiple and associated with extra-abdominal infection. Gram positive cocci were the commonly isolated organisms in children. There were no cases of amoebic abscess. The prevalence of hepatic abscess was low. Diabetes mellitus was a significant contributing factor. A high index of clinical suspicion is therefore warranted particularly in elderly diabetics. (AU)

869. **Gaskin, D. A., Pamela S. Gaskin, and Nadia P. Williams.** "Gastrointestinal Carcinoids in Jamaica: 1966 - 2002." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 59. **Refereed**

870. **Gaskin, D. A., and Dipak J. Shah.** "Bilateral Epididymal Metastases From Primary Adenocarcinoma of the Prostate." West Indian Medical Journal 52.3 (2003): 253-54. **Refereed**

A 65-year-old man diagnosed with adenocarcinoma of the prostate gland opted for hormonal manipulation and had bilateral orchiectomy. Histological evaluation showed tumour deposits in both epididymides. Despite the relatively common occurrence of adenocarcinoma of the prostate, epididymal metastasis is a rare occurrence. This case highlights the need for proper evaluation of the testes and para-testicular structures so that accurate staging of these tumours can be made

871. **Gibson, Tracey N., Kathleen C. Coard, Mark S. Newnham, and Michael S. Boyne.** "Multiple Endocrine Neoplasia Type 2B. A Case Report and Review of the Syndrome." West Indian Medical Journal 51.4 (2002): 251-53. **Refereed**

This paper presents a case of the very rare multiple endocrine neoplasia Type 2B syndrome. It highlights that because of the presence of superficial neuromas in this condition, there is the possibility for early diagnosis. Recent knowledge of the molecular genetics of this syndrome and the ability to screen family members is also stressed since early thyroidectomy is now recommended to prevent the development of thyroid carcinoma which is the main determinant of prognosis

872. **Gibson, Tracey N., Suzanne E. Shirley, Carlos T. Escoffery, and Marvin E. Reid.**

"Discrepancies Between Clinical and Postmortem Diagnoses in Jamaica: a Study From the University Hospital of the West Indies ." Journal of Clinical Pathology 57 (2004): 980-85.

http://jcp.bmjournals.com/cgi/content/full/57/9/980?maxtoshow=&HITS=&hits=&RESULTFORMAT=1&andorexacttitle=and&fulltext=jamaica&andorexactfulltext=and&searchid=1129300325010_853&stored_search=&FIRSTINDEX=0&sortspec=relevance&fdate=11/1/2002&resourcetype=1



Aims: It has previously been shown that the low necropsy request rate at the University Hospital of the West Indies (UHWI) in Jamaica (35.3%) results primarily from clinicians' confidence in clinical diagnoses and laboratory investigations. This study aimed to determine the rates of discrepancy between clinical and necropsy diagnoses at the UHWI, because many previous studies from other institutions have shown persistent high rates of discrepancy, despite advances in medical investigative technology over the past several years. **Methods:** Data were extracted retrospectively from consecutive necropsies performed at the UHWI over a two year period. The data were analysed to determine the categories and rates of discrepancy, and to determine the relation between discrepancy rates and age, sex, type and number of diagnoses for each patient, hospital service, and length of hospitalisation. **Results:** Necropsies were performed on 446 patients; 348 were suitable for further analysis. The overall discrepancy rate was 48.4% and the diagnoses with the highest individual discrepancy rates were pneumonia (73.5%), pulmonary thromboembolism (68.3%), and myocardial infarction (66.7%). Males and older patients were more likely to have discrepant diagnoses. There was a high frequency of discrepancies in patients who died within 24 hours of admission, but there was no consistent relation between length of hospitalisation and discrepancy rate. **Conclusions:** The high discrepancy rates documented at the UHWI are similar to those reported globally. This study supports previous attestations that the necropsy remains a vital tool for determining diagnostic accuracy, despite modern modalities of clinical investigation and diagnosis.

873. **Hanchard, Barrie.** "Human T-Cell Lymphotropic Virus Type 1 (HTLV-I): The Forgotten Retrovirus?" Postgraduate Doctor Caribbean 19.3 (2003): 72-74.

Human T-cell lymphotropic virus type 1 (HTLV-1) was the first human retrovirus to be isolated and the first to be associated with malignancy. Although there are several million carriers worldwide, only 2-10% develop associated disease in their lifetime. The popularity in the early 1980s of HTLV-1 as a model for human retroviral disease has since diminished greatly in the face of the HIV/AIDS global pandemic, generating speculation as to whether HTLV-1 is the 'forgotten' retrovirus. However, in countries where it is endemic, HTLV-1 contributes significantly to morbidity and mortality, and lessons learned from HTLV-1 continue to be relevant to the understanding of human retroviral diseases in general. (AU)

874. **Krishan, A., P. Arya, P. Ganjei-Azar, Suzanne E. Shirley, Carlos T. Escoffery, and M. Nadji.** "Androgen and Vitamin D Receptor Expression in Archival Human Breast Tumors." Cytometry Part B: Clinical Cytometry 58.1 (2004): 53-60. **Refereed**

BACKGROUND: The present study was undertaken for quantitation of androgen (AR) and vitamin D (VDR) receptor expression in human male and female breast tumors by flow cytometry. **METHODS:** Nuclei isolated from sections of paraffin-embedded tumors by pepsin digestion were treated for antigen unmasking and incubated with antibodies to AR and VDR. Flow cytometric analysis was used to determine the percentage of receptor-positive nuclei with fluorescence greater than 95% of the isotype nuclei. Mean log fluorescence channel values were used for comparing antigen density of the isotype and the antibody-treated nuclei. **RESULTS:** Six of 23 female breast tumors had aneuploid DNA content. Nineteen of 20 estrogen receptor-positive female tumors by immunohistochemical analysis (IHC) were also AR positive by flow analysis. Aneuploid subpopulations had higher percentages of AR-positive nuclei than did diploid populations. Eight of 33 male breast tumors had aneuploid DNA content. Twenty-three of 33 male breast tumors were AR positive by flow analysis compared with six that were AR positive by IHC. Six AR-positive (IHC) male tumors were also AR positive by flow analysis. VDR expression was higher in diploid female tumors than in aneuploid tumors. **CONCLUSIONS:** Lack of a strong correlation between IHC and flow analysis may be due to differences in criteria used for identification of receptor-positive and -negative tumors by the two methods



875. **Li Hong-Chaun, Biggar, J. Robert, Wendell J. Miley, Elizabeth M. Maloney, Beverley E Cranston, Barrie Hanchard, and Michie Hisada.** "Provirus Load in Breast Milk and Risk of the Mother-to-Child Transmission of Human T-Lymphotropic Virus Type I." The Journal of Infectious Disease 190.7 (2004): 1275-78. **Refereed**

In a prospective study of 101 mother-child pairs in Jamaica, we examined the association of provirus load in breast milk and the risk of mother-to-child transmission of human T lymphotropic virus type I. The provirus load in breast milk was a strong predictor of risk of transmission to children (relative risk, 2.34/quartile), after adjustment for other known risk factors. The risk of transmission increased from 4.7/1000 person-months when the provirus load in breast milk was <0.18% to 28.7/1000 person-months when it was >1.5%. Provirus detection in maternal breast milk predicted transmission months before infection in children was detected by serologic testing. (AU)

876. **Maloney, Elizabeth M., Stefan Z. Wiktor, Paulette Palmer, Beverley E. Cranston, Ernest J. Pate, Sylvia Cohn, Norma Kim, Wendell J. Miley, Terry I. Thomas, William A. Blattner, and Barrie Hanchard.** "A Cohort Study of Health Effects of Human T-Cell Lymphotropic Virus Type I Infection in Jamaican Children ." Paediatrics 112.2 (2003): 136-42. **Refereed**

OBJECTIVE: Human T-cell lymphotropic virus type I (HTLV-I) infection in childhood is believed to play an important role in risk for adult T-cell leukemia/lymphoma. Although HTLV-I is known to be associated with infective dermatitis in childhood, other HTLV-I-associated morbidity in children has not been well studied. We sought to determine the HTLV-I-associated health effects in Jamaican children. METHODS: We compared incidence rates of several health outcomes in 28 HTLV-I-infected and 280 uninfected children clinically followed from age 6 weeks to a maximum of 10 years. Cox proportional hazards regression analysis was used to analyze these prospectively collected data, adjusting for confounding effects of other variables as necessary. RESULTS: HTLV-I-infected children had significantly higher incidence rates of seborrheic dermatitis (rate ratio [RR] = 4.8, 95% confidence interval [CI] = 1.9-12.5), eczema (RR = 3.1, CI = 1.2-7.9) and persistent hyperreflexia (RR = 3.7, CI = 1.6-8.2). Additionally, HTLV-I infected children had increased rates of severe anemia (RR = 2.5, CI = 0.8-7.9) and abnormal lymphocytes (RR = 2.4, CI = 0.8-7.6) that were of borderline statistical significance. CONCLUSIONS: Our study suggests that HTLV-I-associated skin diseases of childhood may include seborrheic dermatitis and eczema. Additionally, these data suggest that persistent hyperreflexia of the lower limbs may be an early sign of HTLV-I-associated neurologic involvement in children. Expansion and continued clinical observation of this cohort would be valuable

877. **Shirley, Suzanne E., N. D. Duncan, Carlos T. Escoffery, and A. B. West.** "Angiomatosis of the Breast in a Male Child. A Case Report With Immunohistochemical Analysis." West Indian Medical Journal 51.4 (2002): 254-56. **Refereed**

Angiomatosis is a benign vascular lesion that has been described rarely in the breast. We describe a case in a seven-year-old boy of African descent who presented with progressively increasing, unilateral breast enlargement, the first such report in a male child. The patient underwent excisional biopsy of the breast mass followed by mastectomy. Pathologic examination revealed a diffuse proliferation of variably-sized, thin-walled vascular channels lined by flattened endothelium that showed negative immunohistochemical staining for von Willebrand factor, factor VIII-related antigen, CD34 and S-100 protein. There is no evidence of recurrence after 24 months of follow-up. (AU)

878. **Shirley, Suzanne E., Carlos T. Escoffery, Marvin E. Reid, K. K. Hay, M. Sutherland, and J. Gray.** "Utility of Rapid Staining of Fine Needle Aspiration Smears at the University Hospital of the West Indies." West Indian Medical Journal 52.1 (2003): 34-36. **Refereed**

In a prospective study at the University Hospital of the West Indies, 187 fine needle aspiration cytology (FNAC) specimens, comprising 100 breast, 75 head and neck, and 12 miscellaneous specimens, were subjected to rapid Papanicolaou staining and immediate assessment. Inadequate aspirates were repeated, and all cases were also evaluated after routine Papanicolaou staining. Histologic and clinical follow-up data were obtained. The overall concordance between rapid and routine cytologic diagnoses ranged from 79% to 87% for the three specimen cohorts.



Sensitivity and specificity values were similar for rapid and routine-stained slides and ranged from 80% to 100%. There were no false positive or false negative diagnoses in the cases for which the outcome was known. Rapid staining of cytologic smears is a useful adjunct to the evaluation of aspirated material, improving adequacy rates and overall performance of the FNAC service, and should also result in significant savings in time and cost to patients. (AU)

879. **Shirley, Suzanne E., Carlos T. Escoffery, Lincoln A. Sargeant, M. Sutherland, J. Gray, and K. K. Hay.** "Non-Gynaecologic Exfoliative Cytology at the University Hospital of the West Indies, 1997-1999." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 33. **Refereed**

880. **VanVeldhuisen, Paul C., Michael Walters, Takasi Sawada, Paul H. Levine, Rainford J. Wilks, Barrie Hanchard, and Michie Hisada.** "Seroincidence of Human T-Lymphotropic Virus Type I Infection and Characterization of Seroconverters in Jamaican Food Handlers." Journal of Acquired Immune Deficiency Syndrome 33.3 (2003): 387-92.

In a prospective study of food handlers in Jamaica, the authors estimated the age- and sex-specific seroincidence of human T-lymphotropic virus type I (HTLV-I) infection. Of 682 sexually active adults (132 males and 550 females) who were initially seronegative, 12 (1 male and 11 females) seroconverted over 8 years of follow-up. The seroincidence was 1.2 per 1,000 person-years for males and 3.2 per 1,000 person-years for females. The age-standardized incidence was 1.8 times higher for females than for males ($P = 0.55$). Within a median of 4 years after seroconversion, the median HTLV-I provirus load was 500 copies/10⁵ cells, and the median antibody titer was 1:3109. Four of 12 seroconverters developed antibody to the Tax regulatory protein. HTLV-I infection in this population occurred at a rate comparable with that described for a Japanese cohort. Provirus load, titer and appearance of antibody to the Tax regulatory protein were typical of chronic carriers within a few years of seroconversion.

881. **Wharfe, Gillian H., Horace M. Fletcher, and S. Y. Mitchell.** "Placental Separation From a Seatbelt Injury Due to Severe Turbulence During Aeroplane Travel." Journal of Obstetrics and Gynaecology 23.1 (2003): 73-74. **Refereed**

The researchers presented a case of a patient 14 weeks pregnant who while travelling by air sustained abdominal trauma from a lap seat belt during severe air turbulence. Clinical examination revealed lower abdominal tenderness and no vaginal bleeding. Ultrasonography revealed placental separation with a live fetus compatible with dates. They believe that, as in the case with car seat belts, shoulder restraints need to be provided for pregnant women who travel by air to avoid this and other obstetric complications.

882. **Wharfe, Gillian H., Horace M. Fletcher, Monica F. Smikle, Joseph Frederick, and Marvin E. Reid.** "The Prevalence of Positive Anticardiolipin Antibody in Jamaican Women With Spontaneous Abortion and the Correlation With Past Clinical History." Journal of Obstetrics and Gynaecology 24.4 (2004): 452-54.

One hundred and thirty-eight (138) pregnant women who had spontaneous abortions were screened for immunoglobulin G (IgG) antibodies to cardiolipin (aCL) by enzyme immunoassay (EIA). A total of 85 (61.6%) tested negative, while 53 (38.4%) had positive aCL test results. A review of the patients' hospital notes was conducted and comparisons were made between patients with moderate/high positive (21/138, 15.2%), those with low positive (32/138, 23.1%) and those with negative aCL results (85/138, 61.6%). The variables examined were a history of previous abortions, the number of previous fetal deaths and a past history of medical problems such as thrombosis or high blood pressure. No significant differences were found between the patients with moderate/high positive aCL; low positive aCL; and those with negative aCL test results for any of the clinical variables examined. In conclusion, the prevalence of positive IgG aCL tests was high in this cohort of patients with spontaneous abortion. However, intervention is not necessary in many of these patients who have only a positive aCL test, but none of the clinical conditions of the antiphospholipid syndrome.



883. **Wharfe, Gillian H., Monica F. Smikle, Gwendolyn Dowe, L. Buchner, Eric G. Choo-Kang, S. Graham, and D. King.** "Seroprevalence of Hepatitis C Virus in Haemophiliacs in Jamaica." *Human Antibodies* 11.3 (2002): 61-64. **Refereed**

Haemophilic patients (n = 90) and household contacts (n = 40) were tested for serological markers of hepatitis B virus (HBV), hepatitis C virus (HCV) and elevated serum aminotransferases using commercially prepared reagents. Of the haemophiliacs 41% (37/90) tested positive for antibodies to HCV (anti-HCV); 36% (32/90) antibodies to hepatitis B core antigen (anti-HBc); 54% (49/90) antibodies to hepatitis B surface antigen (anti-HBs) and 2% (2/90) hepatitis B surface antigen. On the other hand, 29% (26/90) of the patients and 90% (36/40) of the household contacts tested negative for all of the viral markers. Anti-HCV positivity in the haemophilic patients correlated positively with anti-HBc ($p < 0.025$). Increasing age (odds ratio 2.09; $p < 0.01$), severity of disease (odds ratio 6.2; $p < 0.05$) and the requirement for transfusion (odds ratio 3.2; $p < 0.05$) were risk factors for anti-HCV positivity. The presence of anti-HBc (odds ratio 3.8; $p < 0.01$) and coinfection with HCV and HBV also correlated positively with age (odds ratio 2.5; $p < 0.01$). The provision of anti-HCV screened donor blood and virally inactivated blood products for treatment of all haemophilic patients are goals that must be achieved. (AU)

884. **Williams, Nadia P., Elaine E. Williams, and Horace M. Fletcher.** "Smooth Muscle Tumours of the Vulva in Jamaica." *West Indian Medical Journal* 51.4 (2002): 228-31. **Refereed**

Smooth muscle tumours of the vulva are uncommon and their behaviour is unpredictable. A 30-year retrospective analysis of the pathology files and patient records revealed 10 cases diagnosed at the University Hospital of the West Indies, Kingston, Jamaica, with one malignant and one recurrent tumour. Size, infiltrating margins and mitotic count are important parameters to determine prognosis. Although these tumours are of low malignancy, mitotic count may be mandatory in determining their potential for recurrence. (AU)

Department of Surgery, Radiology, Anaesthesia and Intensive Care

885. **Aiken, William D.** "Trends in Prostate Pathology at the University Hospital of the West Indies Jamaica Over the Last 10 Years." *West Indian Medical Journal* 51.4 (December, 2002): 278-79. **Refereed**

(Comments on letter to the editor)

This letter posits that the increase in the incidence of prostate cancer diagnosed at the UHWI after 1997 is partly related to an increase in awareness and has very little to do with the availability of a biopsy gun and PSA testing. Other factors contributing to the increase in the incidence of prostate cancer at the UHWI includes: contractual arrangements between the Jamaica Cancer Society and (JCS), which runs a prostate cancer screening clinic whereby patients in need of a prostate biopsy are sent to the UHWI; an increase in the consultant urological staff at the UHWI; economic factors have also caused a number of patients being referred for public urological care at the UHWI to increase dramatically. Any discussion of prostate cancer must also take into account the effect of the ageing male population as prostate cancer is a disease of advancing age.

886. **Aiken, William D., T. Tulloch, V. L. Freeman, Franklyn I. Bennett, Kathleen C. Coard, B. Panton, T. Mason, J. Cudecki, and R. Flanigan.** "Differences in Patient Characteristics in Men of African Descent, With Prostate Cancer From Jamaica and Chicago." [Abstract]. *West Indian Medical Journal* 52 Suppl. 5 (2003): 17. **Refereed**



887. **Ali, J., A. H. McDonald, and Mark S. Newnham.** “Improving Medical Undergraduate Trauma Education Through the Trauma Evaluation and Management Programme at Mona.” West Indian Medical Journal 52.1 (2003): 45-48. **Refereed**

This study examines the potential role of the Trauma Evaluation and Management (TEAM) programme in the undergraduate curriculum for medical students in Jamaica. Thirty-two final year medical students were randomly assigned to two groups of 16. One group (No TEAM) completed two 20-item multiple choice question (MCQ) examinations on trauma resuscitation topics. The second group (TEAM group) completed the first 20-item MCQ. The TEAM manual was then distributed to both groups. After the TEAM programme for both groups, the TEAM group had the second MCQ examination. Unpaired “t” tests were used for in-between group and paired “t” tests for between group comparisons with $p < 0.05$ being considered statistically significant. Both groups completed a post-course questionnaire rating five items on a scale of one to five. The No TEAM group showed no difference in mean scores between the 1st and 2nd tests (55.3% in the 1st test to 52.2% in the 2nd test, $p = 0.32$). The TEAM Group improved their MCQ scores from 53.1% pre-module to 69.4% post-module ($p < 0.001$). A score of four of five was assigned by 28 students for the statement that the objectives were met, that trauma knowledge was improved and that there was overall satisfaction; by 17 students that clinical trauma skills were improved and 29 students that TEAM should be mandatory in the undergraduate curriculum. The TEAM programme improved trauma knowledge skills among senior medical students in Jamaica. The questionnaire results suggested enthusiasm for the programme and that it be made mandatory in the senior undergraduate medical curriculum. (AU)

888. **Arscott, Guyan.** “Tumescent Local Aesthesia and Titrated Sedation; A Safe Technique in Plastic Surgery.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 34. **Refereed**

889. **Arscott, Guyan, L. Gabay, and H. R. Craig.** “Failure of Bromocriptine Therapy to Control Juvenile Mammary Hypertrophy.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 16. **Refereed**

890. **Arscott, Guyan, and R. Venugopal.** “The Challenge of Managing Dermatofibrosarcoma Protuberans.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 21. **Refereed**

891. **Branday, Joseph M., Brendan C. Bain, Eric G. Choo-Kang, Cyril Fletcher, Joseph Frederick, S. Jackson, James L. Mills, Omkar Parshad, Russell B. Pierre, Dalip Ragoobirsingh, Paul W. Scott, Oswald R. Simon, Paul D. Singh, Williams Elaine E., and Andrea M. Wierenga.** “Medical Curricular Reform at the Mona Campus of the University of the West Indies.” [Abstract]. West Indian Medical Journal 49 Suppl. 2 (2002): 64. **Refereed**

892. **Branday, Joseph M., and Andrea M. Wierenga.** “Changes in the Selection Criteria for the MBBS Degree, Faculty of Medical Sciences, Mona: An Early Evaluation.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 28-29. **Refereed**

893. **Bruce, C. A., Ivor W. Crandon, and L. Dooquah.** “Modern Utilization of the Anterolateral Skull-Base Approach.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 63. **Refereed**

894. **Bruce, C. A., Ivor W. Crandon, and R. Ramcharan.** “Syringomyelia: Does Pathophysiologic-Guided Intervention Yield Better Results?.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 14. **Refereed**

895. **Bruce, C. A., J. Jaggon, Ivor W. Crandon, G. Char, G. Donaldson, and D. Patten.** “Utilization of Stereotaxy in Brain Biopsy: A More Refine and Accurate Method of Localization.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 58. **Refereed**



896. **Crandon, Ivor W., C. A. Bruce, and Hyacinth E. Harding.** “Civilian Cranial Gunshot Wounds: A Jamaican Experience.” West Indian Medical Journal 53.4 (September, 2004): 248-51. **Refereed**

Gunshot injuries are an escalating social and medical dilemma in many Western and some developing countries. Of 40 patients arriving at the University Hospital of the West Indies (UHWI), Jamaica, from 1993 to 1998, with gunshot wounds of the head, 30 were admitted. Six of those admitted died within 24 hours, five with poor Glasgow Coma scores. Ten patients had surgery, two of whom died. Six complications occurred: two patients each developed an infection, cerebrospinal fluid fistula or seizures. All patients were victims of an assault and all had intracranial penetration, the most common sites of which were facial and frontal. Median hospital stay was eleven days. The Glasgow Coma Score on admission was a good prognostic indicator. Fourteen patients had associated injuries, four of which were in the neck. Surgery was considered inappropriate for moribund patients and those with inaccessible bone and bullet fragments. Young males were the most common victims of this devastating form of assault. (AU)

897. **Crandon, Ivor W., C. A. Bruce, Hyacinth E. Harding, D. Webster, A. H. McDonald, Doreen Ferron-Boothe, and Nicola Meeks-Aitken.** “Cranial Machete Injuries.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 58. **Refereed**

898. ——. ““Head Chopping”.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 40. **Refereed**

899. **Crandon, Ivor W., Reginald A. Carpenter, Joseph M. Branday, Hyacinth E. Harding, D. T. Simeon, and F. Pencle.** “Surgery in the Elderly: A Prospective Study in a Developing Country.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 12. **Refereed**

900. **Crandon, Ivor W., Hyacinth E. Harding , M. Benaris, C. A. Bruce, and A. H. McDonald.** “Unnecessary Admissions of Head-Injured Patients at The University Hospital of the West Indies: Are There Implications for Cost Saving?.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 41. **Refereed**

901. ——. “Unnecessary Admissions of Patients With Head Injury at the University Hospital of the West Indies. Are There Implications for Cost Saving?.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 36. **Refereed**

902. **Crandon, Ivor W., Hyacinth E. Harding , Joseph M. Branday, D. T. Simeon, A. Rhoden, and Reginald A. Carpenter.** “The Prevalence of Seat Belt Use in Kingston, Jamaica: a Follow-Up Observational Study Five Years After the Introduction of Legislation.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 40. **Refereed**

903. ——. “The Prevalence of Seat Belt Use in Kingston, Jamaica: A Follow-Up Observational Study Five Years After the Introduction of Legislation.” West Indian Medical Journal 54 Suppl. 2 (2005): 52. **Refereed**

Objective: To assess the effect of legislation on driver and passenger seat belt use and the impact on road traffic accidents in Jamaica. **Method:** This is an observational cross-sectional study. Data were expressed as frequencies or means with standard deviations as appropriate and were analyzed using the SPSS version 10.0 Differences in seat belt use between genders and grades of vehicles were examined using chi square tests.

904. **Crandon, Ivor W., Hyacinth E. Harding , C. A. Bruce, A. H. McDonald, Doreen Ferron-Boothe, A. Rhoden, and Nicola Meeks-Aitken.** “Outcome of Severe Head Injury in a Developing Country Using Evidence-Based Guidelines..” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 23-24. **Refereed**



905. **Crandon, Ivor W., Hyacinth E. Harding , A. H. McDonald, C. A. Bruce, Doreen Ferron-Boothe, and Nicola Meeks-Aitken.** “The Aetiology of Head Injury in Admitted Patients in Jamaica: Implications for Prevention Strategies and Cost Control.” [Abstract]. *53 Suppl. 5 (2004): 39-40*. **Refereed**
906. **Crandon, Ivor W., Hyacinth E. Harding , A. H. McDonald, C. A. Bruce, Doreen Ferron-Boothe, A. Rhoden, and Nicola Meeks-Aitken.** “Transfer of Patients With Head Injury in Jamaica: Is There a Problem?.” [Abstract]. *West Indian Medical Journal 53 Suppl. 2 (2004): 64*. **Refereed**
907. **Crandon, Ivor W., Hyacinth E. Harding , Eric W. Williams, C. A. Bruce, D. T. Simeon, I. Titus, C. Batchelor, M. Bullock-DuCasse, and A. H. McDonald.** “Inter-Hospital Transfer of Injured Patients in Jamaica: What Is the Reality?.” [Abstract]. *West Indian Medical Journal 54 Suppl. 2 (2004): 39*. **Refereed**
908. **Crandon, Ivor W., R. Ramcharan, Hyacinth E. Harding, C. A. Bruce, and G. Donaldson.** “Neuro-Endoscopy in Jamaica.” [Abstract]. *West Indian Medical Journal 53 Suppl. 2 (2004): 64-65*. **Refereed**
909. ——. “Neuroendoscopy in Jamaica.” *West Indian Medical Journal 54.1 (2005): 34-37*. **Refereed**
This retrospective, descriptive study reviewed the patient profile, disease spectrum, indications for and results of treatment and complications of all 27 patients who had neuroendoscopy at the University Hospital of the West Indies (UHWI) over the three-year period between November 2000, when the service was first introduced, and November 2003. Nineteen (67.9%) were males and eight were females. Their mean age was 27.5 +/- 21.4 years with a range of four months to 70 years. Of the entire group, 20 had hydrocephalus with raised intracranial pressure, of which 15 had endoscopic third ventriculostomy (ETV) for the treatment of obstructive hydrocephalus, using two different techniques for ventricular floor fenestration. There was no demonstrable difference in outcome between the water jet and blunt forceps techniques. Three procedures failed to relieve the hydrocephalus, requiring subsequent ventriculoperitoneal shunts. Three patients had successful cyst fenestrations. Six patients had endoscope assisted trans-sphenoidal resection for pituitary tumours. There were five complications and no deaths. Mean hospital stay was 18.4 +/- 16.7 days and mean follow-up was 29 weeks. There were no late failures. Neuroendoscopy is the treatment of choice for obstructive hydrocephalus due to aqueduct stenosis or posterior fossa tumours and has the advantage of avoiding shunt related complications. It is safe and effective for the majority of patients and has a significant role in the management of neurosurgical patients in the Caribbean. (AU)
910. **Crawford-Sykes, Annette M., D. E. Chin, and Ian R. Hambleton.** “Paravertebral Anaesthesia for Breast Surgery an Initial Experience at the University Hospital of the West Indies.” *West Indian Medical Journal 53.3 (2004): 174-77*. **Refereed**
Paravertebral blockade (PVB) is a regional anaesthetic technique that allows the injection of local anaesthetic agents into the paravertebral space. It has been used for acute and chronic pain relief and as an anaesthetic technique for unilateral surgery of the chest, breast, shoulder, kidney, and inguinal region. Paravertebral blockade has been performed on a limited basis for breast surgery at the University Hospital of the West Indies (UHWI) since 1998. This retrospective review was undertaken to report the initial experience with this block. We reviewed the notes of all patients who were given a PVB alone, or in combination with general anaesthesia (GA). Twenty-one patients had PVB: twenty females and one male, with age range of 24 to 90 years. Six were attempted with PVB alone, but two of these needed supplementation with a GA. Fifteen were done in combination with GA. No complications were recorded. The initial experience shows that the performance of PVB is both possible and safe; it may offer an alternative to GA for breast surgery. A randomized prospective study is underway to allow a detailed comparison between the two methods.



911. **Crawford-Sykes, Annette M., Marinna D. Scarlett, Ian R. Hambleton, Maria Nelson, and Carole A. Rattray.** “Anaesthesia for Operative Deliveries at the University Hospital of the West Indies: a Change of Practice.” West Indian Medical Journal 54.3 (2005): 187-91. **Refereed**

There has been an increasing trend worldwide to use regional anaesthesia for operative deliveries. The Confidential Enquiry into Maternal Deaths in the United Kingdom has demonstrated a steady decline in the anaesthesia-related deaths since the introduction of regional anaesthesia. There are lower morbidity profiles in mothers delivering under regional anaesthesia as well as better infant Apgar scores. In 1997, a decision was taken to have at least 60% of all elective Caesarean sections done at the University Hospital of the West Indies (UHWI) performed under spinal anaesthesia. This is a review of the anaesthetic technique for Caesarean sections at the UHWI since 1996. The Deliveries and Anaesthetic Books on the labour ward were reviewed and the type of anaesthesia for elective and emergency Caesarean sections recorded for the period January 1996 to December 2001. At the beginning of the period under study, more than 90% of the Caesarean sections were being done under general anaesthesia. By the middle of 1998, spinal anaesthesia was more commonly employed than general anaesthesia for Caesarean sections and by December 2001, more than eight out of every ten Caesarean sections were being done under spinal anaesthesia. The main reasons for the successful change of practice were that it was consultant-led, there was good communication between relevant departments, the junior staff were properly trained, there was a consistent supply of appropriate drugs and there was a high level of patient satisfaction.

912. **Duncan, N. D.** “Splenoectomy in Children With Sickle Cell Beta Thalassaemia.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 55. **Refereed**

913. **Duncan, N. D., B. Brown, S. E. Dundas, Klaus J. Wierenga, Santosh K. Kulkarni, C. Pinnock-Ramsaran, and C. Abel.** “Minimal Intervention Management for Gastroschisis: A Preliminary Report.” West Indian Medical Journal 54.2 (2005): 152-54. **Refereed**

The replacement of eviscerated bowel, without anaesthesia, has been performed safely in stable neonates with gastroschisis. This technique, termed “minimal intervention management”, was used in three infants treated at the Newborn Special Care Nursery of the University Hospital of the West Indies. Two infants had excellent results but one had bowel perforation during the procedure, necessitating conversion to formal laparotomy under general anaesthesia. In selected patients, advantages of this technique include the ability to be guided by patient response during the procedure in order to avoid excessive intra-abdominal tension, the avoidance of anaesthesia and minimal cost. This technique is proposed for wider use in developing countries.

914. **Duncan, N. D, S. E. Dundas, B. Brown, C. Pinnock-Ramsaran, and G. Badal.** “Circumcision of Jamaican Newborn Using the Plastibell TM Device.” West Indian Medical Journal 53.1 (2004): 27-29. **Refereed**

Circumcision of newborn male infants is widely practiced but controversial. Our experience gained circumcising 205 Jamaican neonates, using the Plastibell device is presented. Circumcisions, were requested by parents usually for hygienic reasons, and were brief outpatient procedures. Subcutaneous penile ring block with 1% lidocaine provided the most effective form of procedural analgesia. Bell separation usually occurred within 10 days of the procedure. Cosmetic results met with unanimous parental acceptance. Minor complications occurred in 2.4% of circumcisions. Physicians circumcising newborns must be readily accessible post procedure to address parental concerns and allay anxiety. (AU)

915. **Duncan, N. D., S. E. Dundas, B. Brown, C. Pinnock-Ramsaran, and G. Badal.** “Newborn Circumcision Using the Plastibell Device: An Audit of Practice.” West Indian Medical Journal 53.1 (2004): 23-26. **Refereed**

Circumcision of newborn male infants is widely practiced but controversial. Our experience gained circumcising 205 Jamaican neonates, using the Plastibell device is presented. Circumcisions, were requested by parents usually for hygienic reasons, and were brief outpatient procedures. Subcutaneous penile ring block with 1% lidocaine provided



the most effective form of procedural analgesia. Bell separation usually occurred within 10 days of the procedure. Cosmetic results met with unanimous parental acceptance. Minor complications occurred in 2.4% of circumcisions. Physicians circumcising newborns must be readily accessible post procedure to address parental concerns and allay anxiety. (AU)

916. **Ehikhametalor, K., Maria Nelson, D. Treasure, and C. D. McGaw.** “Complex Regional Pain Syndrome.” West Indian Medical Journal 52.3 (2003): 257-58. **Refereed**

A previously well fifty-five year-old female household helper developed complex regional pain syndrome Type II (reflex sympathetic dystrophy) following a minor injury to her left hand. She had marked hyperaesthesia and allodynia and was unable to perform her household work and to participate in the required physiotherapy. Following a series of stellate ganglion block, neurostimulation as well as physical therapy, there was a dramatic improvement in her condition and she was able to return to normal function. (AU)

917. **Fletcher, P. R., A. H. McDonald, T. McCartney, and Reginald A. Carpenter.** “Surgery in Jamaica.” Archives of Surgery 138.10 (2003): 1150-53. **Refereed**

This research provides detailed information on the quality and quantity of tertiary health care offered in the public hospitals in Jamaica in general but moreso on surgery during the period 2001-2002. It discusses the information under the following headings: hospital facilities, surgical diseases, graduate surgical training, staffing research health care financing. The research indicate that the national budget of Jamaica in 2001-2002 was J \$22 billion (US \$400 million). Of this, 3.9% was budgeted for health. To properly finance the Ministry of Health, between 9% and 10% of the national budget is required, so it is evident that health is underfunded. Health care in Jamaica is financed by the government of Jamaica, by fee for service, and by private health insurance. There is no national health care plan. Initially, access to government-supported (public) hospitals was free. Recently, because of the underfunding of the health sector, it has become necessary to charge fees based on the ability to pay, but no patient is denied care because of the inability to pay. This is an unsatisfactory situation, and the public hospitals continue to be without adequate financial resources. Upgrading and replacement of equipment is slow and often depends on philanthropy from the private sector. A national health fund is expected to be launched to help pay for the cost of drugs for patients having long-standing diagnoses of chronic diseases, such as diabetes mellitus, hypertension, and arthritis. A national health insurance scheme has been proposed, which should assist in recovering the costs of hospitalization, especially for the indigent. Surgical options have become increasingly complex and sophisticated, but in most hospitals there is a need for well-trained general surgeons with additional experience in the care of the trauma patient, especially during the acute phase. With the support of adequate numbers of nurses, some with graduate training, and the regular availability of basic laboratory and imaging services, it will be possible to provide the level of surgical care for the Jamaican people appropriate to their needs and size.

918. **Greenidge, C., Hyacinth E. Harding , K. Ehikhametalor, Marvin E. Reid, and Maria Nelson.** “Assessing Postoperative Adverse Events and Outcome in the Elderly Surgical Patients at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 12. **Refereed**

919. **Harding, Hyacinth E., Ivor W. Crandon , A. H. McDonald, C. A. Bruce, Doreen Ferron-Boothe, A. Rhoden, and Nicola Meeks-Aitken.** “Descriptive Epidemiology of the Surgical and Intensive Care Needs of Craniocerebral Trauma Patients Transferred to the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 39. **Refereed**



920. **Harding, Hyacinth E., Ivor W. Crandon , A. H. McDonald, C. A. Bruce, Doreen Ferron-Boothe, A. Rhoden, and Nicola Meeks-Aitken.** “Descriptive Epidemiology of the Surgical and Intensive Care Needs of Craniocerebral Trauma Patients Transferred to the University Hospital of the West Indies..” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 56. **Refereed**

921. **MacFarlane, Michael E. C.** “Ambulatory Treatment of Haemorrhoids With the Infrared Coagulator .” Ambulatory Surgery 12.2 (2005): 53-55. **Refereed**
(In Press (Available on line May 31, 2005))

The objective of the study was to demonstrate the effectiveness of infrared photocoagulation (IRC) for the outpatient treatment of internal haemorrhoids.

One hundred and seven consecutive patients were prospectively studied during a 2-year period in a general surgery ambulatory practice using a Redfield infrared coagulation system without anaesthesia or sedation.

There was improvement in 73% of patients. Fifty-nine percent of patients became asymptomatic and 14% of patients had partial improvement with reduction in bleeding and prolapse. No response was seen in 15%.

Infrared coagulation should be considered as a simple trouble-free option in the outpatient management of haemorrhoids. (AU)

922. **Mansingh, Akshai, and M. Ware.** “Acute Haematogenous Anaerobic Osteomyelitis in Sickle Cell Disease. A Case Report and Review of the Literature.” West Indian Medical Journal 52.1 (2003): 53-55. **Refereed**

Patients with sickle cell disease are more susceptible to acute anaerobic osteomyelitis due to focal gut mucosal ischaemia, translocation of bacteria, and seeding in infarcted bone marrow. Modulation of the immune system is also present. The isolation of anaerobic organisms requires a high index of suspicion, correct specimen collection procedures and meticulous specimen handling. Bacteroides is the predominant organism isolated. Intra-osseous gas in the bone may be seen within four days and radiographs are therefore useful earlier than with aerobic osteomyelitis. Surgical debridement and intravenous antibiotics are the mainstay of treatment with the erythrocyte sedimentation rate being relied on heavily to guide conversion to oral antibiotics. Coexistence of septic arthritis is more common with anaerobic osteomyelitis. (AU)

923. **McDonald, A. H., J. Ali, D. I. G. Mitchell, Mark S. Newnham, Alan Barnett, Williams Eric W., and A. Martin.** “Potential Role for Advanced Trauma Life Support Programme in Improving Trauma Care in Jamaica.” West Indian Medical Journal 52.3 (2003): 208-12. **Refereed**

Data from the Road Safety Unit in the Ministry of Transport and Works, Jamaica, show an increase in road traffic accidents from 7861 in 1991 to 11,010 in 1999. The average number of deaths annually was 380 +/- 48 (SD) while injuries averaged 3320 +/- 262 per year. This represents an injury to death ratio of 8.7 compared with 24.9 for Trinidad and Tobago and 40 for Canada. During the period 1991 to 2000, an average of 796 +/- 159 (SD) murders were committed annually. The number of murders increased by over 280 per cent between the decade of the seventies and the nineties. Data from the trauma registry of the University Hospital of the West Indies showed that 29.6 per cent of all admissions to the surgical ward between January 1998 and December 31, 2000, were due to injuries. There were 97 deaths (3%) during this period and 33 occurred in the Accident and Emergency Department with 70 per cent occurring within 120 minutes of their arrival. The Advanced Trauma Life Support (ATLS) Programme emphasizes the resuscitation and stabilization of injured patients in the first few hours after injury. Most Emergency Departments in Jamaica are staffed by relatively junior medical officers and the low injury to death ratio among victims of motor vehicle accidents may be due to suboptimal care. Introduction of an ATLS programme in Jamaica may reduce the number of preventable deaths and also stimulate interest in trauma care thus increasing preventative measures to decrease the high incidence of trauma in Jamaica. (AU)



924. **McFarlane, Michael E., and Mark S. Newnham.** "Pancreatitis and Duodenal Obstruction Following Abdominal Aortic Aneurysm Repair." West Indian Medical Journal 51.2 (2002): 119-21. **Refereed**

This paper reports one case of pancreatitis and duodenal obstruction that occurred following repair of an abdominal aortic aneurysm. The patient had neither antecedent biliary or pancreatic disease nor alcohol abuse. The presentation was mild and the patient had an uneventful recovery without surgery. We present this uncommon entity and review the available literature.

925. **McFarlane, Michael E., A. Rhoden, P. R. Fletcher, and Reginald A. Carpenter.** "Cancer of the Colon and Rectum in a Jamaican Population: Diagnostic Implications of the Changing Frequency and Subsite Distribution." West Indian Medical Journal 53.3 (2004): 170-73. **Refereed**

The aim of this study was to examine the clinical and pathological characteristics of colorectal cancer in Jamaica, to determine whether there was a change in the anatomic distribution and clinical presentation and to discuss the options for diagnosis and management. A comprehensive retrospective review of patients newly diagnosed with colorectal carcinoma was conducted at The University Hospital of the West Indies by reviewing both patient records and pathological data. These data were compared with previous reports of patients with colorectal cancer seen in Jamaica. One hundred and forty-seven patients were studied. There were 85 females and 62 males with a female to male ratio of 1.37:1. The median age was 65.5 years (range 19 to 94 years). The predominant symptoms were abdominal pain in 91 patients, change in bowel habit in 77 patients and rectal bleeding in 74 patients. Sixty patients presented with weight loss and 28 with a rectal mass. The most common tumours were right-sided colonic cancers in 42 patients (28.5%) followed by sigmoid colon in 30 (20.4%) rectum in 34 (23.1%) and left and transverse colon accounting for 16 and 10 cases respectively. Most of the tumours were well or moderately differentiated adenocarcinomas. Only eight patients presented with Dukes' A disease, 50 with Dukes' B, 53 with Dukes' C disease and 34 with advanced disease. The findings showed that sigmoid and rectal tumours accounted for 43.5% of cancers. The colon/rectum ratio in this series was 3.3:1 indicating a significant proximal shift of colorectal cancers in this population in keeping with recent reports. The results of the current study suggest that the sub-site location of colorectal cancers seen is similar to that reported in high incidence countries such as the United States of America and parts of Europe but differs from the African continent which has a high proportion of rectal tumours. This right-sided preponderance also differs from previous studies in Jamaica, which report a higher incidence of rectal lesions. The detection of early colorectal carcinoma will require screening at a stage when the disease is asymptomatic in order to improve the chance for cure. The data presented here imply that screening programmes should allow evaluation of the entire colon rather than the distal 25 cm. (AU)

926. **McFarlane, Michael E., C. A. L. Thomas, T. McCartney, P. Bhoorasingh, G. Smith, P. Lodenquai, and D. I. G. Mitchell.** "Laparoscopic Cholecystectomy Without Routine Intra-Operative Cholangiography: A Review of 136 Cases in Jamaica." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 34-35. **Refereed**

927. **McFarlane, Michael E., C. A. L. Thomas, T. McCartney, P. Bhoorasingh, G. Smith, P. Lodenquai, D. I. G. Mitchell, and UHI/KPH Laparoscopic Surgery Group.** "Selective Operative Cholangiography in the Performance of Laparoscopic Cholecystectomy." [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 55-56. **Refereed**

928. **O'Shea, M., Ivor W. Crandon, Hyacinth E. Harding, G. Donaldson, C. A. Bruce, and K. Ehikhametalor.** "Infections in Neurosurgical Patients Admitted to the Intensive Care Unit at the University Hospital of the West Indies." West Indian Medical Journal 53.3 (2004): 159-63. **Refereed**

Patients admitted to the Intensive Care Unit are at risk of developing life-threatening nosocomial infections,



especially with organisms resistant to commonly used antibiotics. Neurosurgical patients are particularly vulnerable because of the serious nature of their illness, the frequency of associated trauma and the presence of invasive devices. Of 120 neurosurgical patients admitted to the ICU of the University Hospital of the West Indies between September 1995 and December 1999, the records of 73 patients were available for analysis. All had prophylactic antibiotics. Twenty-one of these 73 patients (28.8%) developed 22 infections after a mean of five days in the ICU: nine with chest infection, seven with urinary tract infection, four with central nervous system infection and one each with wound and skin infection. This is an incidence of 11.6/1000 patient-days. The responsible organisms included *Pseudomonas* (7/21), *Acinetobacter* (3/21), *E. coli* 2/21, *Enterobacter* (2/21), and *Klebsiella* (2/21), and one each with *Staphylococcus aureus*, methicillin resistant *Staphylococcus aureus*, coagulase negative *Staphylococcus*, group D *Streptococcus* and *bacteroides* (1/21). Infection was significantly related to length of hospital stay, length of ICU stay, duration of intubation, duration of ventilation and the presence of diabetes mellitus. All patients who had surgery after ICU admission developed infection, seven with chest infection, two with urinary tract infection, two with CNS and one with skin infection. The three patients who were admitted with intracranial infections all developed other infections. Infected patients had a significantly longer hospital stay. Five patients died, none directly attributable to infection, while 55 (75.5%) made a good recovery. The problem of ICU infection may be expected to escalate with the increased use of intensive care, increasingly more complex surgical procedures and the growing problem of antibiotic resistance. Since infection is related to the length of ICU stay, earlier discharge of neurosurgical patients to an appropriately staffed high dependency unit is likely to result in reduction of the infection rate. Reinforcement of infection control strategies within the ICU may be expected to further minimise the infection rate.

929. **Plummer, J. M., M. Arthurs, A. H. McDonald, D. I. G. Mitchell, Michael E. McFarlane, Mark S. Newnham, and Wayne M. West.** "Endoscopic Retrograde Cholangiopancreatography Use at the University Hospital of the West Indies." West Indian Medical Journal 53.4 (September, 2004): 234-37. **Refereed**

All patients undergoing endoscopic retrograde cholangiopancreatography at the University Hospital of the West Indies were entered into a prospective database. Parameters included demographics, indication for the procedure, success of the ERCP and any immediate complications noted. Retrospectively, the patients' case notes were analysed for complications developing after 24 hours, and outcome. During the period March 1999 to December 2002, a total of 120 consecutive patients were subjected to 123 ERCPs, all being performed by a single gastroenterologist. Of these 120 patients, eight had ERCP as outpatients and were transferred back to their referring hospitals. These patients were excluded from further analysis. Of the 115 UHWI patients, the case notes of 96 were available for analysis and this group formed the basis of this review. ERCP had successful cannulation in 95% of patients. There were 70 females and 26 males with a female to male ratio of 2.7:1. Age ranged from 13 to 85 years (mean +/- SD, 43 +/- 17), males being an average six years older than females. The most common indication for ERCP was a patient with cholelithiasis and abnormal liver function tests scheduled for laparoscopic cholecystectomy. This made up 33% of patients and in this subgroup, sickle cell disease accounted for 50% of cases. Patients with common bile duct stones preoperatively and post-cholecystectomy accounted for 13% and 17% respectively while gallstones pancreatitis accounted for 13% of cases, including three patients with severe pancreatitis. While 64% of the patients had normal cholangiogram, 66% of them had sphincterotomy. Common bile duct stones were seen in 23 cases and complete removal was successful in 48%. There were ten cases (10%) of ERCP pancreatitis and this was severe in three patients and the direct cause of death in one. One patient had ascending cholangitis post ERCP and there were no cases of post-sphincterotomy bleeding or duodenal perforation. Endoscopic retrograde cholangiopancreatography at the UHWI has high diagnostic yield but its therapeutic use needs further development.

930. —. "Endoscopic Retrograde Cholangiopancreatography : A Single Institution Experience." West Indian Medical Journal 53 (Suppl. 2) (2004): 67. **Refereed**

931. —. "Endoscopic Retrograde Cholangio-Pancreaticography Use at the University Hospital of the West Indies.." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 14. **Refereed**



932. **Plummer, J. M., N. D. Duncan, D. I. G. Mitchell, and M. Arthurs.** “Bile Duct Injuries in the Laparoscopic Era: the University Hospital of the West Indies Experience.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 56. **Refereed**

933. **Plummer, J. M., N. D. Duncan, D. I. G. Mitchell, A. H. McDonald, Marvin E. Reid, and M. Arthurs.** “Laparoscopic Cholecystectomy in Jamaican Patients With Sickle Cell Disease: Preliminary Experience.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 55. **Refereed**

934. **Plummer, J. M., Tracey N. Gibson, Michael E. McFarlane, Barrie Hanchard, A. Martin, and A. H. McDonald.** “Clinicopathological Profile of Gastric Carcinomas at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 58-59. **Refereed**

935. **Plummer, J. M., Tracey N. Gibson, Mark S. Newnham, and A. H. McDonald.** “The Management of Isolated Splenic Abscess.” West Indian Medical Journal 53.3 (2004). **Refereed** (Letter to the Editor)

Isolated splenic abscess is a rare but important surgical entity. If left untreated it can be fatal. However, surgical and antibiotic therapy has reduced mortality rate from 100 to 10 percent. The article discusses the cases seen at the University Hospital of the West Indies for the past decade highlighting major factors accounting for splenic abscess and the susceptibility to the formation of splenic abscess.

936. **Plummer, J. M., A. H. McDonald, Mark S. Newnham, and Michael E. McFarlane.** “Civilian Rectal Trauma: The Surgical Challenge .” West Indian Medical Journal 53.6 (2004): 382-86. **Refereed**

Using the Department of Surgery, Radiology, Anaesthesia and Intensive Care’s operative database and information from the Trauma Registry for patients presenting after 1998, a retrospective study of patients seen between the period 1992 and 2002 was done at the University Hospital of the West Indies with the objective of determining the treatment and outcome of patients with a diagnosis of rectal trauma. Over the 10-year period, 45 patients were seen with this diagnosis. Eighty-two per cent of the cases were males, with a mean age of 29.8 years (range 16-70 years) while the eight female patients had a mean age of 36.8 years. Low velocity gunshot wounds accounted for 64% of the entire group and for 78% in males. Six of the eight cases seen in females were iatrogenic occurring during gynaecological operations. Sixty-three per cent of rectal injuries were associated with other injuries with the genitourinary system most commonly involved. The majority (83%) were diagnosed preoperatively by visualization of the rectal wound or the presence of blood on proctosigmoidoscopy. All the patients had peri-operative antibiotics and diversion with a proximal sigmoid colostomy. Fifteen per cent of cases had presacral drain insertion. Distal rectal washout was not used. There were no deaths. Seventy-three per cent of patients had closure during the period under review at an average time of 8.5 months after initial surgery. The other 27% after an average of 23 months did not have documented closure. The mainstay of treatment for civilian rectal trauma remains diverting sigmoid loop colostomy, despite its morbidity, and peri-operative antibiotics. (AU)

937. —. “Civilian Rectal Trauma: The Surgical Challenge.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 63. **Refereed**

938. **Plummer, J. M., Michael E. McFarlane, K. G. Jones, and D. I. G. Mitchell.** “Popliteal Artery Transection Associated With Blunt Knee Injury: Controversies in Management—A Case Report.” West Indian Medical Journal 54.1 (2005): 82-84. **Refereed**

Blunt popliteal artery injuries are associated with significant morbidity. They are rare, and compared to penetrating injuries, more energy is absorbed resulting in damage to integument, muscle and skeletal structures. prompt



diagnosis is critical and can be made in the majority of patients clinically. If there is doubt, angiography should be obtained. Even with adequate and timely revascularization, functional outcome is less than desirable, largely because of the associated soft tissue injuries. There are several pitfalls in management of this injury and the opportunity is taken to review an acceptable management path for this challenging clinical problem.

939. **Plummer, J. M., Michael E. McFarlane, and Mark S. Newnham.** "Surgical Management of Perforated Duodenal Ulcer: The Changing Scene." West Indian Medical Journal 53.6 (2004): 378-81. **Refereed**

To determine the management of perforated duodenal ulcer at the University Hospital of the West Indies (UHWI) in this era of *Helicobacter pylori*, the medical records of all patients seen at the UHWI during the period July 1997 to June 2002 with an intra-operative diagnosis of perforated peptic ulcer were reviewed. The records were analysed for the following: age, gender, duration of symptoms, non-steroidal anti-inflammatory drug use, smoking status, operative repair duration of hospitalization, *Helicobacter pylori* status and medical therapy, peri-operative complications, mortality and recurrence. Ninety per cent of the cases were males. All females in whom perforation occurred were age 50 years and older compared to males where 58% of cases presented before age 50 years. Perforations in acute ulcers occurred in 80% of cases. The majority of patients were male smokers. Non-steroidal anti-inflammatory drug use was also an important risk factor in elderly females. Simple surgical closure and standard triple therapy antibiotics to eradicate *Helicobacter pylori* was the most common treatment offered. Mortality was one per cent and follow-up poor but 11% of patients had documented recurrent peptic ulceration. In this study population, perforated duodenal ulcer occurred overwhelmingly in males less than 50 years of age. There is a trend towards exclusive simple surgical closure and *H pylori* eradication at the UHWI for patients with perforated duodenal ulcer but this needs to be supported by documentation of *H pylori* prevalence in the population of patients presenting with perforated peptic ulcers.

940. **Ramphal, Paul S., Daniel N. Coore, Michael P. Craven, Neil F. Forbes, Somara M. Newman, Adrian A. Coye, Sherard G. Little, and Brian C. Silvera.** "A High Fidelity Tissue-Based Cardiac Surgical Simulator." European Journal of Cardio-Thoracic Surgery 27.5 (2005): 910-16. **Refereed**

Objective: Issues concerning the training and certification of surgical specialists have taken on great significance in the last decade. A realistic computer-assisted, tissue-based simulator developed for use in the training of cardiac surgical residents in the conduct of a variety of cardiac surgical procedures in a low-volume cardiothoracic surgery unit of a typical developing country is described. The simulator can also be used to demonstrate the function of technology specific to cardiac surgical procedures in a way that previously has only been possible via the conduct of a procedure on a live animal or human being. **Methods:** A porcine heart in a novel simulated operating theatre environment with real-time simulated haemodynamic monitoring and coronary blood flow, in arrested and beating-heart modes, is used as a training tool for surgical residents. **Results:** Standard and beating-heart coronary arterial bypass, aortic valve replacement, aortic homograft replacement and pulmonary autograft procedures can be simulated with high degrees of realism and with the superimposition of adverse clinical scenarios requiring valid decision making and clinical judgments to be made by the trainees. **Conclusions:** The cardiac surgical simulation preparation described here would appear to be able to contribute positively to the training of residents in low-volume centres, as well as having the potential for application in other settings as a training tool or clinical skills assessment or accreditation device. Collaboration with larger centres is recommended in order to accurately assess the utility of this preparation as an adjunctive cardiothoracic surgical training aid. (AU)

941. **Ramphal, Paul S., Adrian A. Coye, and J. Blidgen.** "A Simple Preparation for Introductory Training in the Construction of Distal Coronary Anastomoses." West Indian Medical Journal 53.1 (2004): 27-29. **Refereed**

A simple laboratory preparation for use in training of junior level residents in the construction of distal coronary anastomoses is described. The preparation is easily stored and rapidly set-up, and provides a realistic substrate upon which basic anastomotic technical skills can be taught and the trainee's effort can be immediately assessed. (AU)



942. **Ramphal, Paul S., R. W. Irvine, J. Blidgen, and Adrian A. Coye.** "A Simple, Inexpensive Simulation Exercise in the Construction of Sutured Intra-Thoracic Oesophageal Anastomoses." West Indian Medical Journal 53.1 (2004): 30-32. **Refereed**

The ability to perform a hand-sutured intra-thoracic oesophago-gastric anastomosis remains an important skill for surgeons in the developing world to master. In the developed world, this skill is no longer widely practiced due to the prevalent use of surgical staplers in most centres. A simple preparation for teaching aspects of hand-sutured anastomotic techniques is described. The set-up accurately evokes the spatial relationships and restrictions encountered during the course of an intra-thoracic oesophago-gastric anastomosis, and enables trainees to gain immediate feedback regarding their progress towards mastering this important thoracic surgical skill.

943. **Ramphal, Paul S., R. W. Irvine, D. I. G. Mitchell, Marinna D. Scarlett, C. D. McGaw, P. R. Fletcher, and H. W. Spencer.** "Thymic Surgery in Jamaica 1992-2000." West Indian Medical Journal 52.3 (2003): 213-18. **Refereed**

The treatment for thymic tumours and/or myasthenia gravis (MG) includes thymectomy. Controversy exists as to the optimal timing and operative approach to thymectomy. At the University Hospital of the West Indies, Kingston, Jamaica, the results of thymic surgery during the period 1992 to 2000 were studied retrospectively. There were 26 patients operated on, 17 females and nine males. Twenty-three underwent thymectomy to treat MG, and three to remove a thymoma. The average age for females was 30.7 years, and 25.1 years for males. Average duration of symptoms prior to surgery was 16 months (all patients), and the interval between diagnosis and referral averaged 2.6 months. All patients underwent thymectomy via median sternotomy with a cervical extension of the incision if required. A policy of phrenic nerve preservation, even if residual tumour was left behind, was followed. Patients with thymomas were given post-operative radiotherapy. Chemotherapy was not given to any patient. The medium and long term results of thymic surgery in a developing country are presented. The results are within international norms, although the small patient population makes statistical analysis difficult. There appears to be no need to change current practice, despite the reported efficacy of less invasive approaches to thymic surgery.

944. **Ramphal, Paul S., R. W. Irvine, Andrea M. Wierenga, Marinna D. Scarlett, and C. D. McGaw.** "Initial Experience With Beating-Heart Single Valve Replacement Surgery at the University Hospital of the West Indies, Kingston, Jamaica." West Indian Medical Journal 53.2 (2004): 109-12. **Refereed**

The objective of this study was to examine the consequences of performing single cardiac valve replacement procedures utilising a beating-heart technique on typical patients presenting to the cardiothoracic surgery service for aortic or mitral valve replacement. Beating heart aortic (4) or mitral valve (1) replacement was performed on patients from July 2000 to November 2002. A stratified sample of five patients who underwent standard arrested-heart single valve replacement procedures between April 1997 and November 2002 was selected for retrospective comparison with the beating-heart group. Operative and post-operative variables were compared between the two groups of patients and subjected to statistical analysis. There was no statistical difference between the two groups with respect to age, pre- or post-operative New York Heart Association (NYHA) scores, cardiopulmonary bypass time, aortic cross-clamp time, intra-operative blood transfusion, or post-operative hospital stay. Post-operatively, in the beating heart group, ventilation time, mediastinal blood loss and requirements for inotropic drugs were significantly reduced ($p = 0.0054$), $p = 0.0019$ and $p = 0.02$ respectively) compared to the arrested-heart group. Single cardiac valve replacement surgery utilising a beating heart technique may offer benefits to patients over traditional arrested-heart surgery. Post-operative blood loss, inotrope requirements and ventilation times are significantly reduced, possibly resulting in better recovery and potentially fewer complications in the post-operative period. There may be cost benefits, important in the context of healthcare delivery in developing nations. These early results suggest the need for a regional prospective randomised trial to compare beating-heart single valve replacement surgery with traditional techniques. (AU)



945. **Ramphal, Paul S., Dipak J. Shah, D. I. G. Mitchell, and J. Wynter-Daley.** "A Case of Pulmonary Lymphangiomyomatosis." West Indian Medical Journal 52.3 (2003): 250-52. **Refereed**

A case of pulmonary lymphangiomyomatosis (PLAM) occurring in a 48-year-old Jamaican female is presented. The clinical, radiological, and pathological findings are typical of this rare condition, and serve to emphasise the need for a high index of suspicion in order to make the diagnosis and commence therapy early in the course of the disease. The outlook for patients with PLAM continues to be poor. (AU)

946. **Rose, Romer E.** "The Ilizarov Technique in the Treatment of Tibial Bone Defects. Case Reports and Review of the Literature." West Indian Medical Journal 51.4 (2002): 263-67. **Refereed**

Autogenous cancellous bone grafting has long been the hallmark of skeletal defect management. Unfortunately, the small number of donor sites in the human body constitutes an absolute limit on the quantity of fresh autogenous cancellous bone available for filling a segmental defect. In addition, the donor sites are always a source of discomfort and morbidity for the patients. Intercalary defects resulting from trauma, infection or tumour can be treated with transport of a segment of bone within the limb using the Ilizarov technique. We report on three cases of local bone transportation for intercalary tibial defects by the Ilizarov method.

947. ——. "Metatarsal Lengthening by Callus Distraction for Branchymatarsia." Internet Journal of Third World Medicine 1.2 (2004).

<http://www.ispub.com/ostia/index.php?xmlFilePath=journals/ijtwm/vol1n2/brachy.xml>.

Congenital metatarsal shortening (brachymetatarsia) causes minor disability in daily life. However, patients are likely to seek medical care complaining mainly of cosmetic problems when they reach adolescence or adult life. Callus distraction is a unique method for enlongating a long bone. As with any lengthening procedure by callotaxis there are complications and these can be avoided or minimised by careful monitoring of progress throughout distraction and consolidation. This is the first reported case of callus distraction for brachymetatarsia from the English-speaking Caribbean. The technique and complications are discussed. (AU)

948. ——. "Routine Prophylactic Antibiotics for Arthroplasty Patients Receiving Dental Care. Is It Necessary?" West Indian Medical Journal 52.4 (2003): 317-20. **Refereed**

Much of the debate regarding the prophylactic use of antibiotics for patients who have had a total joint replacement has focused on their use before dental procedures. Despite the fact that almost all orthopaedic surgeons routinely recommend antibiotics for patients with prosthetic joints who require dental treatment, there is little evidence of a definitive link between transient bacteraemia occurring during dental procedures and late infections around prosthetic joints. An extensive review of the literature reveals that most authors recommend prophylactic antibiotics in high-risk patients or in those who undergo extensive dental surgery.

949. **Rose, Romer E., R. Dixon, and R. Bullock.** "Chondro-Epiphyseal Separation of the Distal Humerus in the Newborn. A Case Report and Review of the Literature." West Indian Medical Journal 51.4 (2002): 268-71. **Refereed**

Chondro-epiphyseal separation of the distal humerus is a rare injury, and when it occurs in the newborn, it may be difficult to diagnose and is easily mistaken for a dislocation of the elbow. The unimpressive clinical appearance of such an injury of the elbow in an infant, as well as the absence of ossific nuclei of the distal humerus in the newborn, are responsible for the dilemma in making the diagnosis. Ultrasonography, a readily available, non-invasive technique, can be used to evaluate the non-ossified epiphysis about the elbow of infants to demonstrate dislocations, fractures, and physeal separations. Closed reduction with or without percutaneous Kirschner wire fixation is the treatment of choice for these injuries. In this article, we report on a case of complete epiphyseal separation in a neonate and discuss the problems arising in its diagnosis.



950. **Scarlett, Marinna D., Annette M. Crawford-Sykes, and Maria Nelson.** “Preoperative Starvation and Pulmonary Aspiration. New Perspectives and Guidelines.” West Indian Medical Journal 51.4 (2002): 241-45. **Refereed**

The fear of aspiration of gastric contents and its life-threatening consequences in patients has caused many medical practitioners, particularly anaesthetists, to rigidly follow conservative (i.e. prolonged) preoperative fasting standards. This is the nil per os order for clear fluids/liquids and solids overnight or six to eight hours preceding the induction of anaesthesia. This practice neither takes into account the differences in the rate of gastric emptying for solid food and clear liquids, nor the differences in scheduled times of surgery. Long-term prospective studies and retrospective reviews have shown that the incidence of significant clinical aspiration is low: 1.4-6.0 per 100,00 anaesthetics for elective general surgery. Experimental studies and reviews have consistently shown the safety of clear liquid ingestion up to two hours before induction of anaesthesia in healthy patients without risk factors, and the fact that a longer fluid fast does not necessarily offer any added protection against pulmonary aspiration. The conservative preoperative fasting standard causes discomfort and in some cases, suffering of patients and is therefore unnecessary for patients without risk factor(s). Anecdotal reports at the University Hospital of the West Indies (UHWI) have shown that application of the liberalized guidelines for preoperative fasting and fluid intake has not resulted in increased pulmonary aspiration, morbidity or mortality. Instead it has resulted in decreased irritability, anxiety, thirst and hunger in the peri-operative period. Patients, especially children are more comfortable and the perioperative period is better tolerated. It is therefore time that all medical personnel adopt the liberalized guidelines.

951. **Scarlett, Marinna D., C. D. McGaw, Paul S. Ramphal, R. W. Irvine, and H. W. Spencer.** “Thirty-Five Years of Cardiac Surgery in Jamaica.” West Indian Medical Journal 53.3 (2004): 178-83. **Refereed**

A retrospective review of the files of all patients who underwent cardiac surgery at the University Hospital of the West Indies (UHWI) and the Bustamante Hospital for Children (BHC), during the period April 1968 to June 2003 was undertaken. Data collected included age, gender New York Heart Association risk score, type and date of cardiac surgery. The mortality rate of patients who underwent surgery during the period January 1994 to June 2003 was also analyzed. A total of 2202 patients had undergone cardiac surgery (CS) in Jamaica during the study period of 35 years and two months. The common surgical procedures were valve surgery—replacement and repair (37.65), correction of patent ductus arteriosus (25.2%) and repair of congenital heart disease (24.2%). Coronary arterial bypass grafting procedures constituted a small percentage (4.1%) of the cardiac surgical operations. A considerable number of patients have undergone CS in Jamaica, but much more needs to be done as the patient load exists. The future of the cardiac surgical service therefore depends on improvement in the facilities at both institutions and the cadre of the intensive care nursing staff. The building of the Cardiothoracic-Neurosurgical Unit (commenced in March, 2003) is an essential step towards this.

952. **Scarlett, Marinna D., I. Tennant, K. Ehikhametalor, and Maria Nelson.** “Vomiting Post Tonsillectomy at the University Hospital of the West Indies.” West Indian Medical Journal 54.1 (2005): 59-64. **Refereed**

A three-year observational study of patients undergoing tonsillectomy at the University Hospital of the West Indies was conducted to determine the incidence of postoperative vomiting. Data were collected to assess possible risk factors for vomiting as well as possible alleviating agents. Two hundred and fifty-two patients were included in the study and a thirteen per cent incidence of postoperative vomiting was found. This is significantly less than that quoted in other studies (40-73%). Results also showed that steroids significantly reduced the incidence of postoperative vomiting in the study population. Muscle relaxants reversal agents and antibiotics particularly co-trimoxazole and ceftriaxone significantly increased its incidence. Usual antiemetic agents including dimenhydrinate (gravol) and promethazine (phenergan), as well as drugs known to possess antiemetic properties such as midazolam and propofol, lacked any significant protective effect against emesis. Opioid analgesia, inhalational induction and blood loss of greater than 10% of estimated blood volume appeared to increase emesis but failed to achieve statistical significance. (AU)



953. **Shaw, H.** “Acute Pulmonary Embolism After Major Head and Neck Surgery.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 20. **Refereed**

954. ——. “Autism - The Role of the Otolaryngologist.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 17. **Refereed**

955. **Soares, Deanne P., and Ivor W. Crandon.** “Pituitary Apoplexy Associated With Ptosis.” West Indian Medical Journal 54.1 (2005): 87-89. **Refereed**

Pituitary tumours are the most common sellar masses, frequently presenting with visual impairment and endocrine abnormalities. Two cases of pituitary tumour presenting with ptosis are reported.

956. **Soares, Deanne P., and P. Gilligan.** “Ionizing Radiation. The Question of Responsible Use: Pandora’s Box Revisited.” West Indian Medical Journal 53.2 (March, 2004): 118-21. **Refereed**

For over one hundred years, ionizing radiation has assisted in medical diagnostics. Recently, there have been reports of radiation injury in patients undergoing fluoroscopic procedures. It is time to review some of the risks of ionizing radiation as well as some of our practices at the University Hospital of West Indies. In this review, we discuss the relative risks associated with common radiological examinations as well as explore the relative merits of various clinical protocols for the radiological investigation of common diseases seen at the UHWI.

957. **Soares, Deanne P., Marvin E. Reid, and Michael James.** “Age As a Predictive Factor of Mammographic Breast Density in Jamaican Women.” Clinical Radiology 57.6 (2002): 472-6.

Refereed

Aim: The study determine the relationship between age and other clinical characteristics such as parity, oestrogen use, dietary factors and menstrual history on breast density in Jamaican women. **Methods and Materials:** A retrospective study was done of 891 patients who attended the breast imaging unit. The clinical characteristics were extracted from the patient records. Mammograms were assessed independently by two radiologists who were blinded to the patient clinical characteristics. Breast densities were assigned using the American College of Radiology (ACR) classification. **Results:** The concordance between the ACR classification of breast density between the two independent radiologists was 92% with $k = 0.76$ ($SE = 0.02$, $P < 0.001$). Women with low breast density were heavier (81.3 ± 15.5 kg vs 68.4 ± 14.3 kg, $P < 0.0001$, mean \pm standard deviation (SD)) and more obese (body mass index (BMI), 30.3 ± 5.8 kg m^{-2} vs 26.0 ± 5.2 kg m^{-2} , $P < 0.0001$). Mammographic breast density decreased with age. The age adjusted odds ratios (ORs) for predictors significantly related to high breast density were parity, OR = 0.79 (95% CI ratio 0.71, 0.88), weight, OR = 0.92 (95% CI ratio 0.91, 0.95), BMI, OR = 0.83 (95% CI ratio 0.78, 0.89), menopause, OR = 0.51 (95% CI ratio 0.36, 0.74) and a history of previous breast surgery, OR 1.6 (95% CI ratio 1.1, 2.3). **Conclusion:** The rate decline of breast density with age in the population was influenced by parity and body composition.

958. **Valentine, C., and J. East.** “Subxiphoid Pericardial Window in Stable Cardiac Proximity Injuries .” West Indian Medical Journal 52.4 (2003): 296-99. **Refereed**

The use of the subxiphoid pericardial window in evaluating stable patients with cardiac proximity injuries is presented in a short case series. There were 11 patients with four positive and seven negative SPW. There was one false positive and no false negatives. Review of the literature on the use of the SPW as a diagnostic tool in evaluating cardiac proximity injuries shows the SPW to be a rapid and reliable method of detecting occult cardiac injuries, and is especially useful in areas where emergency echocardiography is not available. (AU)

959. **Venugopal, R., Doreen Ferron-Boothe, Nicola Meeks-Aitken, Reginald A. Carpenter, and Guyan Arscott.** “Epidemiology of Burns at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 16. **Refereed**



960. **Venugopal, R., Doreen Ferron-Boothe, Nicola Meeks-Aitken, Reginald A. Carpenter, Guyan Arscott, and A. H. McDonald.** “Epidemiology of Burns at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 34. **Refereed**

961. **Vickers, A. R., A. R. Brathwaite, M. Levy, and J. P. Figueroa.** “Seroprevalence of Sexually Transmitted Infections Among Accepted and Deferred Blood Donors in Jamaica.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 21. **Refereed**

962. **West, Wayne M.** “Image and Diagnosis. Carcinoid Tumor of the Lung.” West Indian Medical Journal 51.3 (2002): 200, 204. **Refereed**

This contribution is a question and answer concerning a sixty-three year old male presented with a history of intermittent cough and two episodes of haemoptysis within the four-month period prior to presentation at the University Hospital of the West Indies. X-ray and computed tomography (CT) scan was done, images presented, and findings analysed.

963. **West, Wayne M., Doreen C Brady-West, A. H. McDonald, Barrie Hanchard, and D. I. G. Mitchell.** “Ultrasonography and White Blood Cell Count in the Diagnosis of Acute Appendicitis.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 25. **Refereed**

964. **Wierenga, Andrea M., Joseph M. Branday, D. T. Simeon, Audrey M. Pottinger, and B. Brathwaite.** “Motivation for and Concerns About Entering a Medical Programme.” West Indian Medical Journal 52.4 (December, 2003): 304-10. **Refereed**

The motivation for and concerns about studying medicine and future career plans of students at the Faculty of Medical Sciences, The University of the West Indies (UWI), were studied using a cross-sectional survey that included Year 1 medical students at both the Mona (Jamaica) and St Augustine (Trinidad and Tobago) medical schools of the UWI. The data were collected using a self-administered questionnaire containing structured questions on demographics and family background, motivation for and concerns about studying medicine and future career preferences. A total of 193 students took part in the study, 103 from Mona and 90 from St Augustine (88% response rate). Seventy per cent of the students were between 18 to 22 years of age with 59% being females. The highest rated motives for studying medicine were the ‘opportunity for working with people’ and an ‘interest in human biology’. Female students scored significantly higher for the motive of an ‘opportunity for working with people’, while males rated the ‘social prestige/status’ significantly higher. The greatest concerns of the students were ‘fear of failure’ and ‘contracting diseases’. The female students had a greater concern for dealing with the long hours involved in medical training than their male counterparts. Surgical specialties (43%), family medicine (38%) and paediatrics (34%) were the top choices of the students for future specialty and more women than men chose obstetrics. Although the motives that students have reported are varied, there was a reasonable spread of desirable motives. This study provides a baseline for observing possible changes as students advance through medical training. A programme of study that strives to maintain these well-placed motives while providing opportunities for dealing with the concerns of the students will assist in creating caring, empathetic physicians for the Caribbean.

965. **Williams, A., Hyacinth E. Harding, and Ian R. Hambleton.** “Predicting Outcome in the Intensive Care Unit of the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 13. **Refereed**

966. **Williams Eric W., D. Chambers, Hugh Ashman, J. A. Williams-Johnson, P. Singh, A. H. McDonald, John F. Lindo, Andrea M. Wierenga, and R. Forde.** “Oesophageal Foreign Bodies at the University Hospital of the West Indies.” [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 20-21. **Refereed**



967. **Williams, Eric W., D. Chambers, Hugh Ashman, J. A. Williams-Johnson, P. Singh, A. H. McDonald, Marvin E. Reid, and B. Brown.** "Oesophageal Foreign Bodies at the University Hospital of the West Indies." West Indian Medical Journal 54.1 (2005): 47-50. **Refereed**

A retrospective study was conducted of 97 patients with oesophageal foreign bodies (EFB). The patients were admitted to assess characteristics of EFB, modes of presentation and radiological and endoscopic findings. The patients were from the University Hospital of the West Indies and most (42%) were over the fourth decade of life. The commonest EFB were bones. A negative radiological finding was not a reliable means to select patients for endoscopy. Oesophagoscopy is a reliable method in the treatment of EFB impaction. There were no major complications or deaths. (AU)

968. **Williams Eric W, Hyacinth E. Harding , R. Forde, and D. Chambers.** "Tetanus: The Bug-Bear of the Elderly." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 13. **Refereed**

969. **Williams, Eric W., Hyacinth E. Harding, R. Forde, D. Chambers, K. Alagappan, J. A. Williams-Johnson, S. French, R. Hutson, P. Singh, and A. H. McDonald.** "Tetanus - Going But Not Gone! Preventative Strategies Revisited." [Abstract]. West Indian Medical Journal 52 Suppl. 5 (2003): 24. **Refereed**

970. **Williams, Eric W., Akshai Mansingh, A. H. McDonald, and P. Singh.** "Bilateral Simultaneous Rupture of the Quadriceps Tendon." West Indian Medical Journal 53.2 (March, 2004): 139-40. **Refereed**

(Letter to the Editor)

Rupture of the quadriceps tendon is an uncommon injury and bilateral simultaneous rupture is rare (1-3). This injury usually occurs in persons over the age of 40-years and the diagnosis is sometimes missed or delayed. In the reported cases, obesity, diabetes mellitus, chronic renal failure, gout systemic lupus erythematosus, rheumatoid arthritis, the use of anabolic steroid and hyperparathyroidism have been associated with the injury. We report a case of bilateral simultaneous rupture of the quadriceps tendon in a 73-year-old woman which is unique in the absence of the above medical conditions. (AU)

971. **Williams-Johnson, J. A., A. H. McDonald, Nicola Meeks-Aitken, Eric W. Williams, John F. Lindo, and P. Singh.** "Epidemiology of Admissions for Sports-Related Injuries at the University Hospital of the West Indies." [Abstract]. West Indian Medical Journal 53 Suppl. 5 (2004): 38-39. **Refereed**

972. **Williams-Johnson, J. A., Rainford J. Wilks, and A. H. McDonald.** "Falls: A Modifiable Risk Factor for the Occurrence of Hip Fractures in the Elderly." West Indian Medical Journal 53.4 (2004): 238-41. **Refereed**

The objective of the study was to examine the clinical and demographic features of patients with hip fractures presenting to the Accident and Emergency Unit, the University Hospital of the West Indies (UHWI). The study involved all patients with hip fractures registered in the Trauma Registry at the UHWI between January 1, 1998 and December 31, 2001. They were assessed retrospectively for age, gender, associated extrinsic and intrinsic factors, cause of the fall, location when fracture occurred and the site of the femur that was fractured. One hundred and fifty-two persons were identified. There were one hundred and eleven women and forty-one men. Seventy-eight per cent of the falls occurred in the over sixty-five-year age group. Ninety per cent of the patients had a fall associated with their fracture. Most of the falls occurred at the patients' homes. This study indicated that falling at home was the commonest associated factor for the occurrence of hip fractures and preventive measures may lead to reductions in the frequency of hip fractures seen in the emergency room.



973. **Williams-Johnson, J. A., Eric W. Williams, C. Harris, and A. H. McDonald.** "Chest Pain in the Emergency Department: The Broad Spectrum of Causes." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 13-14. **Refereed**

UWI School of Nursing

974. **Badran, M. F., D. A. Gould, C. Sampson, P. L. Harris, Hermi Hewitt, R. Stables, and A. Rashid.** "Transluminal Occlusion of a Pseudoaneurysm Arising From a Thoracic Aortic Graft Patch Using Catheter Delivery of Thrombin." Journal of Vascular and Interventional Radiology 14.9 (Pt.1) (2003): 1201-05. **Refereed**

A 39-year-old man with Marfan syndrome underwent replacement of the aortic valve, root, and ascending aorta for acute type A dissection. Subsequently, he underwent infrarenal aortic replacement for aortic rupture and then graft repair of a thoracoabdominal aneurysm with patch-bearing intercostals. After the third procedure, massive intraperitoneal hemorrhage required three subsequent laparotomies. CT scan showed two thoracic aortic pseudoaneurysms at the patch-graft junction that were sequentially embolized with transcatheter delivery of thrombin.

975. **Bobb-Liverpool, B., Edith M. W. Duff, and Ellen Y. Bailey.** "Compliance and Blood Pressure Control in Women With Hypertension." West Indian Medical Journal 51.4 (2002): 236-40. **Refereed**

Compliance with treatment is a fundamental prerequisite for therapeutic benefit. The aim of this study is to determine the level of knowledge of hypertension, compliance with recommended antihypertensive therapy, and current blood pressure status in women with hypertension attending a Type V health centre. A pre-tested questionnaire with 37 in-depth items was administered to 30 (37.5%) women, selected by quota sampling, from a population of 80 women with hypertension, on four consecutive regular clinic days in May/June 2001. Weights and the mean of two blood pressure measurements were recorded. Data were analysed using Statistical Package for the Social Sciences (SPSS) version 7.5. The median age and weight of the respondents was 57 years (range 36-85 years) and 80.3 kg (range 66.8-150 kg). Median duration of hypertension was five years. Fifty per cent of the sample were diabetic. The longer the patient had been hypertensive, the greater the compliance with medication ($p < 0.05$). Twenty per cent of non-diabetics were controlled to blood pressure $< \text{or} = 140/90$ mmHg and 13% of the diabetics were controlled to blood pressure $< \text{or} = 135/85$ mmHg. Twenty per cent reported ill effects from medication; 60% used "folk remedies" such as garlic. Only 27% of patients were fully compliant with medication. Sixty per cent did no exercise, 73% did less than one hour of exercise per week. Diabetics took more exercise than non-diabetics ($Z = -2.1, p < 0.05$) and were more compliant with medication than non-diabetics ($Z = -2.3, p < 0.05$). All respondents included salt in their diets and consumed fruits and vegetables only "sometimes". One third believed that hypertension could be "cured". The overall median knowledge score and median compliance score were 50% (range 16.7%-100%) and 31% (range 13%-60%) respectively. This group had inadequate knowledge of hypertension, poor compliance with recommended antihypertensive therapy (JNCVI) and limited BP control. Counselling of these patients in the areas of medication, diet, exercise and weight control is recommended. Further research, using randomized samples, to inform interventions to improve the knowledge, compliance and self-care management of patients with hypertension is indicated. (AU)

976. **Campbell, A., A. Scott, S. Stanley, I. Wright, Y. Bancroft, Edith M. W. Duff, Ellen Y. Bailey, Eulalia Kahwa, D. Manning, and Hermi Hewitt.** "Quality of Life of Informal Home-Based Caregivers of Persons With HIV/AIDS." [Abstract]. 53 Suppl. 5 (2004): 35-36.

977. **Douglas, H., Edith M. W. Duff, and Ellen Y. Bailey.** "Knowledge, Attitudes, Practices and Views of Midwives Regarding Patients With HIV/AIDS." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 27. **Refereed**



978. **Duff, Edith M. W., A. O'Connor, Norma McFarlane-Anderson, Y. B. Wint, Ellen Y. Bailey, and Rosemarie A. Wright-Pascoe.** "Nutritional Status, Self-Care Practices and Glycaemic Control in Adults With Diabetes Mellitus." [Abstract]. West Indian Medical Journal 53 Suppl. 1 (March, 2004): 40. **Refereed**

979. **Duff, Edith M. W., A. O'Connor, Norma McFarlane-Anderson, Y. B. Wint, Ellen Y. Bailey, and Rosemarie A. Wright-Pascoe.** "Nutritional Status, Self-Care Practices and Glycaemic Control in Patients With Diabetes Mellitus." West Indian Medical Journal 52 Supl. 6 (2003): 16. **Refereed**

Objective: To determine the nutritional status and self-care practices in relation to glycaemic control in patients with diabetes mellitus (DM) attending the Specialist Diabetes Clinic (SDC), University Hospital of the West Indies (UHWI). **Methods:** A pre-tested interview schedule was administered to 98 women and 35 men, randomly selected from population (n = 510) of patients with diabetes mellitus attending the SDC, UHWI. Waist circumferences (WC), heights and weights were measured. HbA_{1c} was used as the index of glucose control. Self-care practice scores indicated the extent of compliance with appropriate lifestyle practices. Respondents were asked to recall their usual 24 hour dietary intake, the quantity of sugar added to food and beverages and their intake, the quantity of sugar added to food and beverages and their intake of packaged soft drinks. Data were analyzed using SPSS version 7.5.

980. **Duff, Edith M. W., and Rainford J. Wilks.** "Six-Month Hypertension Intervention Study. One Year Follow-Up." West Indian Medical Journal 52.3 (2003): 219-22. **Refereed**

The aim of this study was to assess the long term impact of an educational and monitoring intervention on blood pressure control in patients (n = 80) who had blood pressure > 140/90 mm Hg in January 1999, and attended the Specialist Hypertension Clinic, the University Hospital of the West Indies. Forty-two of these patients (cases) attended the monthly educational and monitoring intervention for six months, in addition to their usual care. The other 38 (controls) attended only one educational intervention at the end of the six months. One year later, patients were traced by telephone or clinic attendance. Data were collected on 73 (91%) patients, 40 (95%) cases and 33 (87%) controls by clinic records or by direct measurement of blood pressure and weight. Three (7.5%) cases and two (6%) controls had died. One (2.5%) case and five (15%) controls had been referred to renal or cardiac clinics. Twenty-five (59.5%) cases, and 14 (36.8%) controls were still attending the clinic. At the end of the year, 26% (7/27) of the cases and 30% (6/20) of the controls had blood pressure (BP) controlled to < 140/90 mm Hg. These proportions compare to 28% (11/39) cases and 22% (8/36) controls at the end of the six-month intervention. At the end of one year, neither cases nor controls showed significant mean changes in BP, weight, nor body mass index (BMI). There was no significant difference between the median BMI of the cases, 31.2 kg/m² and that of the controls, 29.3 kg/m². Seventy-seven per cent (21/27) cases and 84.2% (16/19) controls had BMI > 25 kg/m². These data, though limited, are consistent with reports that the impact of lifestyle interventions in chronic diseases may be short lived. This study suggests that therapeutic lifestyle intervention strategies need to be integrated with the overall management of patients so that the effect may be sustained. (AU)

981. **Forde, S., Edith M. W. Duff, and Ellen Y. Bailey.** "Stress and Coping Mechanisms of First Year Students at the Kingston School of Nursing." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 27-28. **Refereed**

982. **Ingram-Martin, P., Edith M. W. Duff, and Ellen Y. Bailey.** "Perceived Quality of Health Care Services by Patients With Caesarean Section." [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 29. **Refereed**



983. **Kahwa, Eulalia, Lincoln A. Sargeant , Affette M. McCaw-Binns, Norma McFarlane-Anderson, Monica F. Smikle, Terrence E. Forrester, and Rainford J. Wilks.** “Antiocardioliopin Antibodies in Jamaican Primiparae.” [Abstract]. West Indian Medical Journal 53 Suppl. 2 (2004): 41. **Refereed**

984. **McFarlane, D., Edith M. W. Duff, and Ellen Y. Bailey.** “Coping With Occupational Stress in an Accident and Emergency Department.” West Indian Medical Journal 53.4 (2004): 242-47. **Refereed**

Kingston Regional Hospital’s Accident and Emergency Department (A&E), located in a volatile area of Kingston, Jamaica, treats 90-170 patients daily. It does so with limited staff and a potentially stressful work environment. This study explores the factors associated with occupational stress in the Department, and the coping strategies used by the doctors and nurses working there. A pre-tested self-administered questionnaire was completed by 28 (84.8%) of the total population (n = 33) of health personnel working in the A&E. The participants were 15 (53.6%) doctors, eight (28.6%) registered nurses and five (17.8%) enrolled assistant nurses. The data were analyzed using Statistical Package for the Social Sciences (SPSS) Version 7.5. Qualitative data were analyzed by sorting texts into related themes and describing the ideas of the subjects. The median age was 32 years, range 23-50 years. Median duration of employment in the A&E was three years, range 0.5-22 years. Eighteen (60%) rated the A&E as “stressful”. The major sources of stress were the external environment and the amount and quality of the workload. Ninety-six per cent reported experiencing one to seven emotional and physical symptoms. Forty-six per cent also reported behavioural symptoms. The emotional, physical and behavioural symptoms of stress were associated ($p < 0.05$). The number of behavioural symptoms experienced was associated with age ($p < 0.05$). The majority (89.2%) of doctors and nurses reported that they were satisfied with their jobs and had no intention of leaving their jobs within a year. This suggested the effectiveness of the reported humour, teamwork and “extracurricular” activities in buffering the effects of stress. Nurses were more likely to be “burned out” than doctors ($p = 0.03$). The respondents suggested increased monetary compensation, more staff and positive feedback from managers as factors which may relieve work stress. They suggested that organized counselling and stress management programmes would be useful. (AU)

985. **Pyne, C., Edith M. W. Duff, and Ellen Y. Bailey.** “Knowledge and Attitudes of Third Year Nursing Students Regarding Caring for Patients With HIV/AIDS.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 27. **Refereed**

986. **Schultz, A. A., D. Drew, and Hermi Hewitt.** “Comparison of Normal Saline and Heparinized for Patency of IV Locks in Neonates .” Applied Nursing Research 15.1 (2002): 28-34. **Refereed**
In this randomized double-blind experiment of 49 neonatal intensive care unit patients, probable time to catheter failure was significantly longer ($p = .0358$) for catheters flushed with heparinized saline (median = 127) compared with those flushed with normal saline (median = 39). This is in contrast to the nonsignificant difference ($p = .841$) in mean scores for six heparin-flushed catheters (M = 41.5 hours, SD = 44.0) compared with 18 saline-flushed catheters (M = 30.4 hours, SD = 20.8) discontinued for reasons other than completion of treatment. We concluded that survival time analysis is necessary when evaluating results of time-dependent studies in which the end point may not be elective. Copyright 2002 by W.B. Saunders Company

987. **Thompson, D., Edith M. W. Duff, Ellen Y. Bailey, and Eulalia Kahwa.** “Factors Influencing Students’ Career Choice at the University Hospital of the West Indies School of Nursing.” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 28-29. **Refereed**

988. **Walker, E., B. Mayes, Hope Ramsay, Hermi Hewitt, Brendan C. Bain, and Celia D. Christie.** “Socio-Demographic and Clinical Characteristics of Jamaican Adolescents With HIV/AIDS.” West Indian Medical Journal 53.5 (2004): 332-38. **Refereed**

Background: Clinical symptomatology and socio-demographic factors have not been characterized in Jamaican



adolescents with HIV/AIDS. **Methods:** We studied these factors in 25 HIV-positive Jamaican adolescents, 10-19 years of age, who were seen at the Centre for HIV/AIDS Research, Education, and Services (CHARES) between the years 1996 and 2002. Data were collected between June 2003 and August 2003 from CHARES social work files and The University Hospital of the West Indies (UHWI) medical records. Microsoft Excel was used to compile descriptive statistics for the data. **Results:** The mean age of HIV diagnosis was 15.6 (+/-3.09) years, and the mean age of enrollment at CHARES was 16.3 (+/- 2.9) years. Consensual sexual intercourse was the most prominent mode of transmission (56%), followed by vertical transmission (16%), unknown (16%), forced sexual intercourse (8%), and blood transfusion (4%). The predominant clinical presentations among these adolescent patients were generalized dermatitis (77.2%) and lymphadenopathy (50%). Of the patients for whom clinical status could be determined, 70% were “Severely Symptomatic “. Of these patients only 14% were recommended for antiretroviral treatment. **Conclusions:** These findings reinforce the need to globally incorporate the goal of the 2002 Joint United Nations Programme on HIV/AIDS (UNAIDS) to provide reproductive health services, including low-cost or free condoms, voluntary counselling and testing, diagnosis and treatment of sexually transmitted diseases and infections for adolescents in order to effectively prevent HIV infection . (AU)

989. **Weaver, C., Edith M. W. Duff, and Ellen Y. Bailey.** “Job Satisfaction Among Staff Nurses at the Holberton Hospital, Antigua..” [Abstract]. West Indian Medical Journal 52 Suppl. 6 (2003): 28.**Refereed**

990. **Weaver, S.** “Cultural Construction of Illness: Selecting Between Western Biomedical Sciences and Traditional Healing Practices.” [Abstract]. West Indian Medical Journal 54 Suppl. 2 (2005): 35.**Refereed**

991. **Wint, Y. B., Edith M. W. Duff, A. O’Connor, Norma McFarlane-Anderson, and Ellen Y. Bailey.** “Knowledge and Self-Reported Motivational Factors in Adults With Diabetes Mellitus.” [Abstract]. West Indian Medical Journal 53 Suppl. 1 (2004): 40.**Refereed**

