

DEPARTMENT OF FAMILY MEDICINE

RESIDENT PROJECTS

June 2, 2010



SECTION A (Purple) = Agenda for Presentations in Shuttleworth

SECTION B (Blue) = Agenda for Presentations in Room 1 & 2

SECTION C (Green) = Agenda for Posters in D-1 171 & 173

SECTION A

PRESENTATIONS – SHUTTLEWORTH

TIME	PRESENTER	PRESENTATION
08:00	Coffee, Refreshments, Light Breakfast - Livingston Lounge	
08:45	Dr. Eric Wong	Opening Remarks in Shuttleworth
09:00	Wassif, Ehab	The Way We Learn In Family Medicine
09:15	Zakari, Joseph	Patient Education Resource – Type II Diabetes
09:30	Urian, Ramona	Family Physician’s attitude and practice in dealing with dysfunctional uterine bleeding (DUB) in premenopausal women
09:45	Van Dam, Darren	2009 Canadian cholesterol guidelines: Will they result in a change in management?
10:00	Coffee, Refreshments – Livingston Lounge VISIT POSTER DISPLAYS - D1-171 and D1-173	
10:45	Kentner, Taryn	Fever in a returned traveller: an update on dengue
11:00	De Silva, Lande	Impact of iron deficiency on cognitive skills and physical activity in nonanemic children, adolescents and young men and women
11:15	Norrie, Deborah	Screening for Cancer after Cosmetic Breast Augmentation
11:30	Natuik, Shannon	Falls in Long-Term Care: Analysis of Falls at Dearness Home and Review of Medication Use and Fall Rates
11:45	PLEASE HAND IN EVALUATION SHEETS	

The Way We Learn in Family Medicine

Dr. Ehab Wassif

Purpose: The purpose of this study was to 1) identify the predominant learning styles among Family Medicine Residents and Staff Members in the Department of Family Medicine at the University of Western Ontario (UWO), 2) investigate the differences between International Medical Graduates (IMGs), Canadian Medical Graduates (CMGs) and Staff Members (SMs) in preferred learning styles, and 3) offer suggestions to improve didactic teaching in the Family Medicine Resident Academic Half-Days (AHD).

Methods: Kolb's Learning Styles Inventory 3 (LSI 3) was used to determine the preferred learning styles of residents and staff members in the Department of Family Medicine at UWO. All eligible candidates were given a basic demographic questionnaire plus LSI 3 to complete.

Results: Seventy-eight participants were enrolled in the study out of estimated 150 possible participants. 55 were female (70.5 %) and 23 were male (29.5%). Of the 78, 10 were staff members (12.8%), 34 were CMGs (43.6%) and 34 were IMGs (43.6%). Overall, the predominant learning styles were converging (32.1%) and assimilating (30.8%). The predominant learning style among CMGs was converging (35.2%), among IMGs was assimilating (35.2%), and among SMs was diverging (40%).

Conclusion: There were no significant differences in preferred learning styles between IMGs and CMGs or between males and females. AHD sessions presented in an interactive way, ensuring both theoretical knowledge and hands on experience, could be the answer for residency training programs to maximize their residents' learning, as all learning styles would be addressed, and to ensure better attendance at AHD.

Patient Education Resource – Type II Diabetes

Dr. Joseph Zakaria

A perfect storm is picking up strength in health care economics, given the state of the global economy, percentage of gross domestic product devoted to health care and a population trending towards increased age and other co-morbidities. Health policy research estimates that by 2025, 55% of the provincial expenditures in Ontario will be accounted for by health care spending.³ Furthermore, the Canadian Diabetes Association (CDA) estimates that by 2014, more than 3.5 million Canadians (10% of the population) will be living with diabetes and its complications.⁵ A paradigm shift is infiltrating the health care ranks, directed towards health promotion and prevention at the individual and population levels to address these critical issues. Diabetes represents a disease whereby these principles can be applied to decrease incidence, contain medication and hospitalization costs and improve overall longevity. This notion is drawing tremendous attention from various interest groups, health care providers, government officials and patients themselves. One of the essential pillars of this construct involves patient education regarding diabetes and this project will attempt to outline a blueprint towards reaching this collaborative objective.

Through improving patient understanding of the disease, patient motivation in managing their disease, and recognition of concurrent targets and symptoms of co-morbid diseases, one hopes to lessen the impact of the storm on the horizon and improve population health outcomes. One can only wonder what the potential

burden of a multi-system disease affecting every 10th Canadian and their families will be on the nation in a period of relative economic uncertainty.

Family Physician's attitude and practice in dealing with dysfunctional uterine bleeding (DUB) in premenopausal women

Dr. Ramona Urian

Objectives: To assess the attitude, knowledge and comfort level of family physicians in dealing with DUB in premenopausal women in the urban Family Medicine centers in London, Ontario. The secondary outcome was to assess if there is a need for more gynaecological training of family physicians and Family Medicine residents in this area.

Methods: We conducted a descriptive study using a multiple-choice questionnaire, involving residents and staff physicians. The dependent variables studied were: options for conservative management of DUB, comfort level in treating DUB, reasons for being uncomfortable, premedication and number of progestin IUD insertions per year, referral options, and desire to update skills.

Results: Surveys were handed in to 65 participants (75% responded). The reported first line treatment used in the medical management of DUB was NSAIDs (48.9%, n=23) followed by OCPs (36.2%, n=17) and progestins (8.5%, n=4). Progestin IUS was the third option used overall (34.5%, n=15). Most of the residents felt not at all or somewhat comfortable in managing DUB with procedural and nonprocedural methods, while staff physicians felt confident. The main reason for not inserting progestin IUSs was the lack of skills (71.45%, n=20).

Conclusions: Although the progestin IUS appears to be the most effective medical therapy for treating menorrhagia (12), it is still an underutilised method. Referral to other GP/FP colleagues appears as well underutilized. More training is still needed to increase the confidence of residents in dealing with DUB. This study is limited in its power by the small number of participants.

2009 Canadian Cholesterol Guidelines: Will they result in a change in management?

Dr. Darren Van Dam

Cardiovascular disease (CVD) is a major cause of morbidity and mortality in Canada, estimated to account for one third of all deaths. Lipid metabolism disorder is one of the major contributing factors that predispose a patient to developing CVD. In November 2009 the Canadian Cardiovascular Society released updated consensus guidelines for the initiation and treatment targets of lipid lowering therapy. This study seeks to test the hypothesis that application of the new cholesterol guidelines will alter the risk stratification of patients and will result in more aggressive, earlier interventions for the treatment of hypercholesterolemia. A retrospective chart review was performed at the Byron Family Medical Centre (BFMC). 231 charts were identified that contained the International Classification of Primary Care (ICPC)

diagnostic code T93 for lipid metabolism disorder. These charts had Framingham Risk Scores (FRS) calculated based on both the 2006 and 2009 guidelines, and comparison was made between treatment initiation criteria and treat-to targets based on the two guidelines. Results showed that for high and moderate FRS patients respectively, 63% and 60% of patients were being treated to target based on 2006 guidelines, compared with 49% and 11% after application of 2009 guidelines. This study shows that application of the new guidelines does significantly alter risk stratification and treatment targets for patients with established lipid metabolism disorder. Based on these results, the researchers recommend that all patients with lipid metabolism disorder or who are on lipid lowering agents should have their fasting lipid profile updated and treatment plan adjusted according to new guideline targets.

Fever in a returned traveller: an update on dengue

Dr. Taryn Kentner

Dengue is an arbovirus with significant worldwide health and economical impact. (1; 2) While not a media frontrunner, such as malaria, tuberculosis, or HIV, dengue infects a large number of individuals each year with potential for future growth as climate change alters mosquito breeding territory. The *Aedes aegypti* is the main mosquito vector for transmitting the illness to humans and it lives primarily in the tropic and subtropic regions of the globe. (2; 3; 5)

Dengue has four main serotypes that infect humans: DEN 1, DEN 2, DEN 3, and DEN 4. (2; 4; 6) Pattern of repeat infection can affect the clinical picture of disease that surfaces. With regards to the clinical presentation, there is a spectrum of disease in dengue infection: Mild asymptomatic illness; Dengue fever, a febrile illness with rash, arthralgia, myalgia, headache; Dengue hemorrhagic fever, also a febrile illness but with hemorrhagic tendency, plasma leakage, and thrombocytopenia; Dengue shock syndrome, essentially dengue hemorrhagic fever with circulatory collapse and signs of shock. (3; 4; 5; 6) There is no specific management for dengue infection. Treatment is supportive and based on the clinical picture. (3; 4) Prevention of dengue fever is an ongoing challenge as economic downturn has diverted funds to other measures. However, personal protection with protective clothing, DEET repellent, and avoidance of endemic areas are relatively simple and inexpensive. (1; 14)

Dengue is a common infectious disease with major health implications in many countries in the world. While not very common in Canada, Canadian physicians should always consider it on their differential diagnosis of fever in a returned traveller.

Impact of iron deficiency on cognitive skills and physical activity in nonanemic children, adolescents and young men and women

Dr. Lande De Silva

Many times when non anemic patients presented with low serum ferritin levels, we were uncertain about correcting the levels. This ambiguity made me interested in exploring the impact of low tissue iron status on

functional status of non anemic patients. The impact of tissue iron status on cognitive and physical function was evaluated through a systematic review of the recent research literature.

Studies done on children and young adults suggest that iron deficiency without anemia can lead to decreased cognitive performance and endurance capacity (20, 21, 24, 25). These studies have shown that iron deficiency causes poor function in several domains of cognitive function like learning, memory, attention and work speed. Iron dependent changes in metabolism of CNS aminergic neurotransmitters like dopamine, serotonin and adrenalin is known to be responsible for poor cognitive function (13). Improvement in endurance capacity which was assessed using work speed, change in work rate, maximum oxygen consumption and respiratory exchange ratio, was noticed with iron supplementation in iron depleted non anemic subjects. Decreased endurance capacity in iron deficient non anemic subjects is apparently caused by reduced oxidative capacity in the muscles secondary to decreased activity of iron dependent oxidative enzymes (27, 39). In conclusion, reduced tissue iron status (in muscles and brain) can cause poor cognitive function and decreased work capacity. Hence, non anemic iron deficient patients with chronic fatigue and/or cognitive impairment may respond to iron supplementation.

A Review of Breast Cancer Screening in Women with Cosmetic Breast Augmentation

Dr. Deborah Norrie

Since 1962, in increasing numbers, women have been having cosmetic breast augmentation surgeries to improve the shape or size of their breasts. There has always been concern that implants may increase the risk of breast cancer and may delay detection of breast cancer which may lead to poorer prognosis for the women affected. This paper reviews the historical and current relevant studies regarding breast implants and the risk of breast cancer, breast cancer screening and detection of breast cancer. It summarizes the Canadian and American Guidelines for breast cancer screening in previously augmented women and includes recommendations for screening drawn from the literature. There is no conclusive evidence that supports a positive association of breast augmentation and breast cancer. Although mammography screening for previously augmented women has decreased sensitivity and specificity, the majority of epidemiological studies seems to imply that women with augmentation who develop breast cancer are not diagnosed at a later stage and do not have increased mortality rates. There is some discrepancy among the smaller studies regarding later stage at diagnosis.

Falls in Long-Term Care: Analysis of Falls at Dearness Home and Review of Medication Use and Fall Rates

Dr. Shannon Natuik

Introduction: Falls are a common occurrence among the elderly with as many as 30%-50% of people aged 65 or older having a fall annually. The risk of falls increases with age and the average fall rate for anyone aged 65 and up is approximately 0.65 falls per year.

It is well known that residents of long-term care (LTC) facilities are at higher risk for falls. These rates average approximately 1.7 falls/bed/year. Frequently, these individuals have complex medical histories with multiple comorbidities including both cognitive impairment and physical limitations. As a result of these numerous medical conditions, residents of LTC facilities are often prescribed multiple medications as treatments. Combined, these factors influence the potential for falls that may lead to injury and increase morbidity and mortality.

Objectives: 1) To evaluate and characterize falls occurring at Dearness Home and 2) to review the literature for medications that influence fall risk.

Conclusion: Of the four wards reviewed at Dearness, only one had fall rates substantially higher than the averages described in the literature. This ward overall had the youngest patient population but all residents had an underlying diagnosis of dementia or other cognitive disorder. Interestingly this ward also had the fewest average number of medications per person.

There are few randomized control trails studying the association of medications with falls. Most of the current evidence is derived from observational studies. Psychotropic medications including benzodiazepines, antidepressants, sedatives, hypnotics and neuroleptics are associated with an increased rate of falls. Vitamin D supplementation and less strict targets for hypertension and diabetes management are associated with fewer falls. Since fall risk is multifactorial and influenced by a dynamic combination of triggers including medical, physical, and environmental factors, optimizing medications alone will likely not eliminate falls completely, but could play an important role to reduce their occurrence.

SECTION B

PRESENTATIONS – ROOMS 1 & 2

TIME	PRESENTER	PRESENTATION
08:00	Coffee, Refreshments, Light Breakfast - Livingston Lounge	
08:45	Dr. Eric Wong	Opening Remarks in Shuttleworth
09:00	Mahn, Joanna	Sub-Acute Sensory Neuropathy: A Papanoeplastic Neurologic Syndrome
09:15	Chan, Nelson	Gastric Carcinoma: Alarming features of dyspepsia
09:30	Shu, Krishanthy	Ankle Brachial Index: Screening for Peripheral Arterial Disease in Primary Care– A Clinical Review
09:45	Koudra, Fahamia	Breastfeeding while on methadone: is it safe for the newborn experiencing neonatal abstinence syndrome?
10:00	Coffee, Refreshments – Livingston Lounge VISIT POSTER DISPLAYS - D1-171 and D1-173	
10:45	Asem, Kevin	Glomus tumour - A case report
11:00	Yew, Dawn	Anaphylaxis in an Office Setting
11:15	Tabor, Thomas	The Secondary Prevention of Cerebrovascular Accident: A Case Study
11:30	McNeil, Ceara	Accidental Digital Epinephrine Injection: To Treat or Not to Treat?
11:45	PLEASE HAND IN EVALUATION SHEETS	

Sub-Acute Sensory Neuropathy: A Paraneoplastic Neurologic Syndrome

Dr. Joanna Mahn

The case on which this report is based was selected due to the opportunity it provides to both review paraneoplastic syndromes while also highlighting the importance of the physician-patient relationship in Patient-Centered Medicine.

The patient presented in this case presented with a subacute sensory neuropathy secondary to a Renal Cell Carcinoma. Initial patient complaints included intermittent numbness over her anterior right thigh present for a few months and difficulty with ambulation due to a feeling of weakness in her proximal leg musculature bilaterally. Initial investigations ordered by the family physician were not welcome by the patient since her primary objective was to have disability forms filled out instead of having her illness investigated.

This case was exceptionally challenging as a result of the differing initial goals and expectations of patient and physician. It demonstrates the importance of a patient-centered approach to medicine, most notably in this case the concept of finding common ground and setting realistic expectations. Often, as physicians, we are faced with difficult clinical scenarios paired with patients whose expectations are impractical, leaving us feeling discouraged and emotionally drained. These situations, in particular, warrant both an in-depth diagnostic work-up and recognition of the patient as whole. The patient must be acknowledged both as a physical being but also as an emotional being, who ideally should be able to function as part of the society in which he or she belongs.

Gastric Carcinoma: Alarming Features of Dyspepsia

Dr. Nelson Chan

The following case report pertains to a woman who presented with symptoms of dyspepsia and was found to have gastric carcinoma. Dyspepsia is a common clinical complaint and its management can often be challenging. The majority of patients with dyspepsia have functional or benign disease but are clinical indistinguishable from patients with early gastric cancer. Fortunately, there has been an overall decline in the incidence and mortality of gastric carcinoma over the last several decades. Nevertheless, gastric carcinoma is still a common cancer worldwide and has a low survival rate. The literature has identified a number of risk factors such as previous *Helicobacter pylori* infection, foods high in salt and nitrates, increasing age and ethnicity. Histologically, 90-95% of gastric cancers are adenocarcinoma. Endoscopy is considered the gold standard for diagnosing gastric cancer. However, barium studies can be useful especially when endoscopy might not be readily available. From a patient care perspective, this case highlights the physician's roles as envisioned by the CanMEDS competency framework.

Ankle Brachial Index: Screening for Peripheral Arterial Disease in Primary Care – A Clinical Review

Dr. Krishanthu Shu

Objective: To highlight the importance of screening and diagnosing patients with Peripheral Arterial Disease (PAD) especially for those who are asymptomatic with high risk factors for Peripheral Arterial Disease (PAD) in primary care practice by performing Ankle Brachial Index.

Methodology and Quality of Evidence: PubMed was searched using the terms “Peripheral Arterial Disease”, “Screening of PAD in primary care”, “Ankle-brachial index” and “Atherosclerosis”.

Main Message: Peripheral Arterial Disease affects over 8 million people in the United States and is associated with increased incidence of coronary artery disease and cerebrovascular disease. Canadian patient population lack awareness about PAD and primary care physicians rarely give importance in bringing awareness or screening patients with Ankle-Brachial Index (ABI) due to busy practice or lack of skills and equipment to do ABI in their office. Researches show measurement of ABI is a highly specific non-invasive screening and diagnostic test for PAD which takes average of 15 minutes to perform and potentially impact patient treatment plans. When depending solely on the patient’s history, an underestimation of prevalence of PAD may occur, and asymptomatic individuals will not be recognized at all.

Conclusion: Peripheral Arterial Disease a manifestation of systemic atherosclerosis, is a marker for coronary artery disease, cerebrovascular disease and renal artery atherosclerotic vascular disease. Patients with PAD have an increased risk of cardiovascular events such as myocardial infarction and stroke in addition to significant impairment in their quality of life and physical function. Family physicians must identify high risk patients for PAD and implement measurement of ABI as a screening/diagnostic test for PAD. Early identification and more aggressive medical interventions could substantially improve morbidity and mortality.

Breastfeeding while on methadone: is it safe for the newborn experiencing neonatal abstinence syndrome?

Dr. Fahamia Koudra

Objective: The purpose of this project is to help family physicians understand the safety of breastfeeding for the newborn of mothers taking methadone.

Methods: This study consists of a discussion of two cases of neonatal abstinence syndrome (NAS) secondary to methadone exposure *in utero*. A comparison was made between a formula-fed and a breastfed infant. An extensive review of the literature was done regarding safety considerations for breast feeding in women on methadone. Articles on the topic were found by accessing Pubmed, Pubmed Central and Cochrane review through the University of Western Ontario electronic database.

Results: The breastfed infant had more severe symptoms and a longer hospital stay than the formula-fed infant. This finding is contrary to what is described in the literature.

Conclusions: Family physicians should be aware of the growing use of methadone during pregnancy and be proactive in screening for it. They should be able to recognize neonatal abstinence syndrome and initiate monitoring and treatment as per local protocols. And most important they should be aware of the advantages of breastfeeding and its safety while on methadone and be supportive to their patients.

Glomus tumour – A case report

Dr. Kevin Asem

Glomus tumours are rare, benign vascular tumours typically occurring in the digits of hands. Although these tumours are predominantly benign, they can cause severe focal pain. The present case highlights the presence and recurrence of a glomus tumour in the index finger of a 39 year old female patient who presented with the classic triad of paroxysmal pain in the subungual area, point tenderness, and sensitivity to cold. She had been diagnosed with a glomus tumour 12 years back with curative surgical excision. However 4 months prior to our visit she started to develop recurrent symptoms. Her clinical examination confirmed the diagnosis which was further supported on imaging. It is my hope that highlighting this case brings awareness to this rare diagnosis.

Anaphylaxis in an Office Setting

Dr. Dawn Yew

The following is a case report of an anaphylactic reaction that resulted from immunotherapy given in an allergist's office. The patient was given emergency epinephrine intramuscularly but continued to deteriorate despite two doses of epinephrine. Intravenous access had to be obtained by staff nurses in the office and a slow infusion of intravenous epinephrine was given. Only with this course of action did the patient regain consciousness. Immunotherapy is commonly given in primary care offices. Current practice is to ensure that intramuscular epinephrine is available. However, life threatening anaphylaxis might not respond to intramuscular epinephrine alone. Awaiting emergency services or transport to the hospital can be too late. We are advocating that primary care offices be equipped for such emergencies and that physicians be trained to use intravenous epinephrine in the occasion that intramuscular epinephrine fails to suffice.

The Secondary prevention of Cerebrovascular Accident: A Case Study

Dr. Thomas Tabor

Cerebrovascular accidents (CVAs) are the 3rd leading cause of death in Canada and each year over 14000 Canadians die from stroke. Although many patients present to the emergency department, the family physician should be familiar with the diagnosis, initial management and secondary prevention guidelines¹. This case report features the interesting case of Mr. B, seen at the Byron Family Medical Centre in November, 2009. The objective of this report is to familiarize the family physician with the Advanced Cardiac Life Support (ACLS) guidelines for the acute treatment of stroke as well as the American Heart Association/American Stroke Association (AHA/ASA) guidelines on the secondary prevention of stroke. This report covers the driving guidelines for patients with visual impairments and cerebrovascular accidents. Other important aspects of this case include anatomical stroke localization on physical exam, the indications for carotid endarterectomy, and the psychosocial impact on this interesting patient. Finally, it highlights the techniques used in family medicine to manage complex, undifferentiated problems all within the context of the case.

The methods used to complete this report included a detailed chart review and a review of the appropriate guidelines. A large component of the project was also taken from personal interactions with the patient during his clinic appointments.

The major findings were that the changes to Mr. B's medication regime appropriately reflected the recommendations of the AHA/ASA secondary prevention guidelines even though his risk factors were already well controlled. If management of this case could be changed, Mr. B would not have been allowed to drive to his initial appointment because this falls within a grey area in the guidelines. Subsequent management of Mr. B's risk factors and early detection of the medical complications of stroke will require the family physician to effectively use the four principles of family medicine. This will include being a skilled clinician, a resource to a defined practice population, community based, and maintaining a good doctor-patient relationship.

Accidental Digital Epinephrine Injection: To Treat or Not to Treat?

Dr. Ceara McNeil

One of the potential complications of epinephrine autoinjector devices is accidental digital injection. Here, we present the case of a 68-year-old male who accidentally injected his thumb with epinephrine while trying to respond to his wife's anaphylactic reaction. He developed pain, pallor, and sensory loss in his right thumb. He was treated with topical nitroglycerin paste, which helped to restore digital circulation. Other potential treatments of accidental epinephrine injection are discussed, as well as a proposed treatment algorithm.

SECTION C

POSTER DISPLAYS – ROOM D-1 171 & D1-173

PRESENTER	POSTER DISPLAY
Blaine, William	Transient Global Amnesia: A Case Study
Chuang, Evelyn	Lessons Learned From a Devastating Case of Back Pain
Hamilton, Joel	Prostate Cancer Screening: Understanding the use of Prostate Specific Antigen (PSA)
Iankova, Vesselina	Acne management
Patel, Kaleena	Chronic Malnutrition in New Immigrant-Refugees
Schlosser, Alexandra	Adult complications of preterm birth: a case report
Shareef, Raghad	Delivery of a fetus in breech
Sidhu, Kanwarinder	Parkinson's Disease in Primary Care
Renaud, Monique	Plan B Emergency Contraception: Knowledge, Experiences and Attitudes among Rural Women at an Academic Family Practice in Southwestern Ontario
Koka, Pavan	Economic Evaluation of Open Versus Endovascular Repair of Blunt Traumatic Thoracic Aortic Injuries
Faisal, Shazia	Safety and efficacy of biologics in the treatment of Rheumatoid Arthritis
Nuica, Alina	The utility of BpTRU Machine in the Primary Care Physicians' Office: Literature Review
Burgess, Stephen	Advanced Therapeutics in Chronic Plaque Psoriasis for the General Practitioner
Lee, Patricia	An update on Child Automobile Restraint Systems for General Practitioners
Nicholson, Marcia Ann	Screening for Intimate Partner Violence in Primary Care: The Result of a Systematic Literature Review
Osoro, Beatric	Pediatric depression: underdiagnosed and undertreated
PLEASE HAND IN EVALUATION SHEETS	

Transient Global Amnesia: A Case Study

Dr. William Blaine

Background: Transient Global Amnesia (TGA) was first described by Fisher and Adams in 1958. The ability to diagnose and manage TGA is relevant to primary care medicine because the incidence of TGA is between 23-32 episodes per 100 000 population per year in the United States.

Case Description: The specifics of a case involving a 60 year old gentlemen who suffered a sustained episode of non-traumatic anterograde amnesia will be discussed.

Discussion: TGA is relatively common diagnosis. Several conditions that may present in a similar manner must be recognized to prevent significant morbidity and mortality. The etiology of TGA remains obscure but imaging studies consistently implicate neurons in the CA-1 Sommer section of the Hippocampus. Currently, the leading theories proposed for the transient symptoms of TGA involve either arterial ischemia or venous congestion in the distribution of the Hippocampus. TGA is a self-limited condition that rarely recurs. Patients with typical TGA symptoms are not at increased risk for mortality, stroke or epilepsy. The treatment of TGA is supportive care, however, the appropriate management of this condition hinges on excluding other medical causes for the amnesia.

Conclusion: Many of the potential differential diagnosis of TGA can be excluded by applying the validated diagnostic criteria for TGA. The symptoms of TGA are self-limited and the symptoms rarely recur. The appropriate treatment of TGA is limited to supportive care.

Lessons Learned from a Devastating Case of Back Pain

Dr. Evelyn Chuang

Lower back pain is a common problem encountered in the family practice setting. While most are due to mechanical causes that improve without intervention, delaying or misdiagnosing those cases with worrisome features can have dire consequences.

This case report describes a patient who presented with acute on chronic back pain. The initial radiological investigation revealed a wedge compression fracture, which was presumed to be secondary to osteoporosis. Symptomatic management was initiated yet the pain persisted. On routine investigation a few months later, the patient's hemoglobin was found to be 69. Her anemia was attributed to Arthrotec use, even though she was also on Pariet. During her hospital admission, the patient's bloodwork showed pancytopenia with elevated total protein. A diagnosis of multiple myeloma was finally made.

An overview of multiple myeloma, including common complications, is provided. In addition, pathological differentials of acute back pain in an elderly patient, along with the investigational considerations, are discussed. Also, the safety of Arthrotec use in the geriatric population is reviewed.

Prostate Cancer Screening: Understanding the Use of Prostate Specific Antigen (PSA)

Dr. Joel Hamilton

Prostate cancer is the commonest non-dermatologic cancer and third leading cause of cancer-related mortality in Canada. One in seven Canadian men will be diagnosed with prostate cancer in their lifetime. Screening and early diagnosis of prostate cancer remains a controversial issue, especially the use of the prostate specific antigen (PSA) test. Recent data indicates PSA testing may reduce prostate cancer mortality; however, the benefits of PSA have yet to exceed the risks of overdiagnosis and overtreatment of clinically “insignificant” prostate cancer. In Canada, PSA testing is not currently recommended for mass population screening of all age-appropriate males; however, it is considered an appropriate test for well-informed men seeking early diagnosis of prostate cancer. Research has shown that patients who review educational pamphlets are better able to participate in decision-making processes. The *Understanding the Use of Prostate Specific Antigen* brochure is designed to help family physicians educate their male patients about the prostate gland, prostate cancer, and the risks and benefits of the PSA test. The decision to pursue the early diagnosis of prostate cancer is one that every men should be afforded the opportunity to make based on their own knowledge and values. Ultimately, the choice to participate in PSA testing is a personal one that requires careful deliberation of the risks and benefits of the test outlined in this brochure.

Acne Management

Dr. Vesselina Iankova

Objectives: A case report of acne management. To discuss some of the new therapeutic drug developments and strategies in managing acne and to emphasize the importance of an early and aggressive treatment.

Methods: Two patients with different types and severity of acne were treated in a family medicine office. The literature review on current acne management was conducted searching Medline, Cochrane library, UptoDate, and medical journals.

Key Findings: The first patient with mild-to-moderate acne was started on combination therapy with topical retinoin and topical antibiotic, while the second patient with scarring acne was successfully treated with systemic isotretinoin and monitored for side effects.

There is a strong evidence from well-designed, randomized, controlled studies for use of a combination of a topical retinoid and antimicrobial agent as a first line therapy for acne; adapalene plus oral antibiotics in the treatment of moderate or moderately severe acne; fixed-dose combination products; topical retinoid monotherapy as a maintenance therapy.

Oral isotretinoin is effective for the treatment of acne but can be associated with severe adverse effects. Evidence from nonrandomized trials suggests that medication adherence in acne is poor.

Conclusion: There are highly effective acne treatments available. The family physician should offer help for the patient's acne as soon as he or she notices it because an early treatment minimizes the severity of acne, its negative psychological effects and prevents scarring. A vital step in managing acne is to take time to assess adherence and to take appropriate actions to enhance it.

Chronic Malnutrition in New Immigrant-Refugees

Dr. Kaleena Patel

As Canada continues to welcome immigrants from a broad variety of countries, Canadian physicians are starting to see more cases of chronic malnutrition, along with the associated social and medical problems that used to be exclusive to developing nations. As more refugees find asylum in this country, physicians must increasingly be prepared to diagnose and treat this condition.

Bhutanese refugees from Nepal are the most recent group of refugees to be resettled in Canada, and chronic malnutrition is known to be a common problem in their refugee camps. This is despite the camps running for over twenty years by the UNHCR, following WHO guidelines. In preparation for their resettlement in southwestern Ontario, primary-care physicians need to be aware of the clinical presentation of chronic malnutrition, including stunted growth. By being aware of the available nutritional resources in the Bhutanese camps, and the most prevalent chronic and infectious diseases there, physicians can appropriately workup and treat chronic malnutrition in this population.

However social, cultural, and economic hardships of refugees still persist after they have been resettled, although for different reasons. Nevertheless, these factors can contribute to ongoing poor nutrition in these immigrants. Canadian physicians must be cognizant of these risk factors and be prepared to draw on community and public health resources to help their refugee patients.

It is only through taking a vested interest, and learning more about refugee history and health, that we can hope to identify the causes and solutions of chronic malnutrition in Canada's growing immigrant population. By becoming better informed, Canadian physicians can work towards the objective of making Canada a safe haven where this problem has little or no foundation for those who come to it.

Adult Complications of Preterm Birth: a case report

Dr. Alexandra Schlosser

Objective: To review a possible etiology of type 2 diabetes in a 21 year old female, presenting with BMI of 26 and known history of preterm birth. There was no family history of type 2 diabetes, she was not a member of a high-risk population and there was no personal history of dyslipidemia, polycystic ovarian syndrome, acanthosis nigricans, or hypertension.

Methods: Chart review of the patient and a literature review were completed. Literature review conducted through Medline using the keywords: “long-term complications of prematurity”, “metabolic complications of prematurity”, “type 2 diabetes and preterm birth”, “type 2 diabetes and SGA”, “hypertension and preterm birth”.

Results: Review of the literature consistently demonstrates that small size at birth confers an increased risk for type 2 diabetes. Children born small at birth are insulin resistant compared to children born appropriate for gestational age. The insulin resistance may be due to arrested muscle development after preterm birth or by alterations in metabolism as a result of uteroplacental insufficiency causing a perceived fasting state. Chart review of the patient found she was born AGA, however in early infancy proceeded to fall off the growth curve until mid-childhood. She had significant catch-up growth after the age of 5, which research has also shown to be a risk factor for type 2 diabetes.

Conclusions: Small size at birth is associated with insulin resistance and consequently with increased risk of type 2 diabetes. The research suggests that the association depends on an interaction with catch-up growth in childhood and adolescence. Guidelines will be needed for assessment and management of patients born small at birth as high risk for cardiovascular disease even prior to diagnoses of hypertension, dyslipidemia and type 2 diabetes.

Delivery of a fetus in breech presentation

Dr. Raghad Shareef

Objectives: To review Breech birth; to discuss risks associated with it; and to go over the importance for clinicians to maintain the skills of breech delivery.

Literature review of two trials in vaginal delivery versus planned caesarean section of breech presentation.

Key Message: for a Vaginal Breech Delivery, careful selection of case and labour management in a modern obstetrical setting may achieve a level of safety similar to elective caesarean section

Parkinson's Disease in Primary Care

Dr. Kanwarinder Sidhu

This is a case report of Mr. M, a 78 year old man living with Parkinson's disease. His chronic illness has affected his ability to function and represents a common scenario that is often seen in a family physician's office. This demonstrates that family physicians are in a position to understand the needs and concerns of patients. The issues discussed include how to manage Parkinson's disease and its complications as well as how to help patients with Parkinson's disease cope with the impact on their activities of daily living. Parkinson's disease is a disabling condition; but with a good knowledge base of its manifestations and options for therapy, family physicians can optimize the patients' capacity to function.

Plan B Emergency Contraception: Knowledge, Experiences and Attitudes among Rural Women at an Academic Family Practice in Southwestern Ontario

Dr. Monique Renaud

Background: Rural women are at high risk of unintended pregnancies. Plan B is a safe, effective way to prevent these; however, women in rural Canadian settings may experience barriers to accessing and utilizing Plan B.

Objective: This study will assess knowledge, experiences and attitudes regarding Plan B among rural women at an academic family practice in Mount Brydges, Ontario.

Method: All women presenting for routine care aged 18 to 45 who live outside London, Ontario were asked to complete a 25 question survey.

Results: 165 surveys were used for analysis. 81.8% of women had heard of Plan B, yet Aboriginals and those with lower education were less likely to be aware of its existence. 17.1% knew that Plan B was available on the shelf at pharmacies. 16.5% of women had used Plan B in the past and almost half of them experienced trouble accessing it from a pharmacy. 55.6% of women would use Plan B in the future and many would feel comfortable accessing it from the shelf.

Conclusions: Awareness of Plan B is high, yet past use has been low and women in this rural population face challenges accessing and using Plan B. Women had difficulty obtaining Plan B from pharmacies and less than 20% were aware that Plan B was available on the shelf. Many of these women would use Plan B in the future. Family doctors are important resources for Plan B information and further study will be necessary to delineate solutions to challenges facing rural women when it comes to Plan B.

"Economic Evaluation of Open Versus Endovascular Repair of Blunt Traumatic Thoracic Aortic Injuries"

Dr. Koka Pavan

Objectives: During the last decade endovascular repair (EV) has replaced open surgical repair (OSR) as the preferred method of treatment of blunt traumatic thoracic aortic injuries (BTAI) at many trauma centers. This has resulted in reductions in mortality, length of stay and major complications, including paraplegia, with the added expense of the initial endograft, subsequent surveillance and reinterventions. The purpose of this study was to conduct an economic evaluation comparing these two methods of repair.

Methods: We performed an economic comparison of EV and OSR for the treatment of BTAI using a decision tree analysis with transition points derived from our institution's experience and through a review of the literature. Over a 15-year period (1991-2006), 28 patients with BTAI were treated at our center (15 EV, 13 OSR). Costs were obtained from our hospital's case costing center, the Ontario Case Costing Initiative, Ontario's Drug Benefit Formulary, and Ontario's Schedule of Benefits for physician costs.

Results: EV, when compared to OSR, resulted in decreased early mortality (7.2% vs. 22.5%), decreased composite outcome of mortality and paraplegia (7.7% vs. 27.6%) and decreased composite outcome of mortality and major complications (42.5% vs. 69.8%). Patients undergoing EV also had shorter intensive care unit (12.2 vs. 15.3 days), and total hospital length of stays (22.5 vs. 28.6 days) and ventilator days (8.0 vs. 9.2 days). Additionally, patients undergoing EV had decreased total one-year costs when compared to OSR (\$73,404 vs. \$76,365).

Conclusions: EV repair of BTAs offers a survival advantage as well as a reduction in major morbidity, including paraplegia, compared to OSR, and results in a reduction in costs at one year. As a result, EV is the dominant therapy over OSR for these injuries.

Safety and efficacy of biologics in the treatment of Rheumatoid Arthritis

Dr. Shazia Faisal

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disease of unknown cause that primarily affects the peripheral joints in a symmetric pattern. RA causes joint destruction and thus often leads to considerable morbidity and mortality. With the recent addition of new and innovative therapies, the treatment of RA is rapidly advancing.

In the last decade, several biologics have been approved, and their use has revolutionized the treatment of rheumatoid arthritis. These biologics are targeted therapies that dramatically inhibit the progression of joint damage in rheumatoid arthritis. The term biological is used for therapeutics produced by biotechnology. Biologicals can be native proteins like hormones, cytokines, and growth factors or engineered molecules such as therapeutic antibodies, antibody fragments or proteins constructs. Today, monoclonal antibodies are the fastest growing class of human pharmaceuticals. More than thirty antibodies and antibody-derivatives have been approved worldwide. Several hundreds more are being investigated in clinical trials in various therapeutic indications including oncology and autoimmune disease. Biologics are recommended for use in patients with rheumatoid arthritis who have a suboptimal response or intolerance to traditional disease-modifying antirheumatic drugs, such as methotrexate. Because of the high cost of biologics, different routes and administration schedules and different adverse event profiles, family physicians and rheumatologists need to know their relative benefits and safety when deciding on treatment.

On the basis of the studies reviewed in the literature, some studies support the assertion that anti-TNF-alpha therapies for RA do not significantly increase the risk for cancer. As for the generalizability of data obtained from such large registries, we must keep in mind potential differences in ethnic makeup of the patients and drug utilization when applying these results to all patients with RA. But the findings of some other studies suggest that there is evidence of an increased risk of serious infections and a dose-dependent increased risk of malignancies in patients with rheumatoid arthritis treated with anti-TNF antibody therapy.

There is moderate-level evidence that biologics are efficacious and safe in the treatment of rheumatoid arthritis. However, significant heterogeneity in characteristics of trial populations implies that these finding must be interpreted with caution. The withdrawal and toxicity profile appears acceptable at the present time but there is a need for longer comparative effectiveness studies of biologics to provide data about the

relative and absolute benefit and safety of biologics during various stages of rheumatoid arthritis (early, established and late), the various levels of functional limitation (mild, moderate and severe limitation) and the nature of prior treatment (traditional disease-modifying antirheumatic drugs v. biologics v. both).

This information will help patients and clinicians make informed decisions about these therapies in the ever expanding area of new, effective therapies for rheumatoid arthritis. The optimal determination of the risk-benefit ratio will depend on continued careful monitoring and analysis of safety information.

The Utility of BpTRU Machine in the Primary Care Physicians' Office Literature Review

Dr. Alina Nuica

Introduction: High blood pressure is a well recognized risk factor for coronary heart disease, stroke, and chronic kidney disease. Accurate measurement of blood pressure is essential to classify individuals as hypertensive and to guide management. The purpose of this review is to evaluate the utility of BpTRU (BpTRU Medical Devices, Ltd., Coquitlam, British Columbia, Canada) in the diagnosis and management of hypertension.

Method: Literature search using Pub Med search engine. The review included the articles published after 2003, after BpTRU (BpTRU Medical Devices, Ltd., Coquitlam, British Columbia, Canada), was validated as an automated sphygmomanometer and became available for routine use in the office or clinic in 2001.¹³

Keywords: home blood pressure monitoring, hypertension, BpTRU, primary care, automated blood pressure, white coat hypertension, automated sphygmomanometers.

Conclusion: Data from non-randomized, uncontrolled trials suggests that the average of five BpTRU measurements, taken while the patient is alone, more reliably reflects "resting" blood pressure compared to manual measurements taken with a stethoscope and sphygmomanometer. The white coat response associated with office blood pressure measurements can be virtually eliminated by recording blood pressure with the automated BpTRU device with patients resting alone in a quiet examining room.^{20,3}

Advanced Therapeutics in Chronic Plaque Psoriasis for the General Practitioner

Dr. Stephen Burgess

Chronic plaque psoriasis is a heavy disease burden in North America and the rest of the world. In recent years, huge advances in the way psoriasis is treated have become available but remain underutilized due to unfamiliarity and uncertainty with the novel therapeutics. A systematic review was conducted of the recent body of literature surrounding psoriasis therapeutics including large RCTs and expert panel

guidelines. From this information, general guiding details including indications, safety and monitoring protocols were summarized for all of the major therapeutic options. This review is intended to introduce and encourage the general practitioner to explore deeper into the therapeutic options for this frustrating yet treatable disease.

An update on Child Automobile Restraint Systems for General Practitioners

Dr. Patricia Lee

Objective: To provide a comprehensive ‘best-practice’ update on child automobile safety restraints using the latest evidence for general practitioners (GPs).

Methods: Studies pertaining to child automobile safety restraints were selected using MEDLINE, EMBASE, Transport Database, CINAHL, and the Cochrane Database of Systematic Reviews. All titles and relevant abstracts published from 2005 to March of 2010 in the English language on human subjects aged 0-18 years were reviewed. A total of 20 articles were reviewed in more detail and form the evidence base for the update.

Key Findings: Appropriate usage of child automobile restraint systems is effective in significantly decreasing the risk of death and injury from motor vehicle collisions (MVC) in children. Rear-facing car seats should be used for as long as possible, preferably until the child reaches the weight of 30-35 lbs. All children less than 12 years of age should be placed in the rear of the car, preferably in the center seat. Physicians need to advise caregivers of the best medical practice based on evidence, despite of disparities between published guidelines and legislations.

Conclusions: Motor vehicle occupant injuries are amongst the leading causes of death and disability for children in Canada. Appropriate use of child automobile restraint systems can significantly decrease motor vehicle related fatalities and injuries. Physicians can play a key role in ensuring the best medical practice in the use of child automobile restraint systems by consistently counseling caregivers during routine well-child visits.

Screening for Intimate Partner Violence in Primary Care: The Result of a Systematic Literature Review

Dr. Marcia Ann Nicholson

Rationale: To examine literature and evidence on screening for intimate partner violence and how this information can be used to assist primary care physicians in effectively identifying female patients with a history of intimate partner violence.

Design: Systematic review of research and review articles published in the past 3 years except for the article “Development of the Woman Abuse Screening Tool for Use in Family Practice” which was published in June 1996.

Search strategy/Methods: Three electronic databases were searched for articles published in the past 3 years → PubMed Central, PubMed and Medline. David Le Sauvage of the Canadian Library of Family Medicine in London, Ontario helped with the electronic search for articles.

The Core Clinical Journal subset which looks at the most authoritative English language journals was used to limit the number of articles. The Psychological/Sociological/Social Sciences databases were also covered. Reference to child/children/adolescent/infant was removed.

Although I wanted to include English language journals and Canadian articles, I did not limit the articles reviewed to these criteria. As the issue of domestic violence towards women in particular that of intimate partner violence transcends geographical boundaries; I saw a need to review articles from around the world.

Age limit: 19 years old and above

Search terms: MeSH (Medical Subject Headings controlled vocabulary searched in the MeSH index)

Textwords searched in the title, abstract and MeSH index: domestic violence, spouse abuse, wife abuse, partner abuse, woman abuse, woman abuse screening tool, wast, screen, screened, screens, screening, mass screening, identify [searched in title only], research methodology, research.

Results: This generated nearly 2 000 references. Publication types searched for, using the limits function: review, comparative study, clinical trial, meta analysis, randomized controlled trial, controlled clinical trial, multicenter study.

675 results (with some duplicates) were examined for suitability using the title, abstract or MeSH terms from which the final set was selected. Out of these, 27 papers and the article “Development of the Woman Abuse Screening Tool for Use in Family Practice” which was published in June 1996 by J Brown, B Lent, P Brett, G Sas and L Pederson were selected for review.

Pediatric Depression: Underdiagnosed and Undertreated

Dr. Beatric Osoro

Background: Major depressive disorder is significantly under-diagnosed and under-treated, particularly in the primary care environmentⁱ. Although more patients are seeking help for depression and the utilization of antidepressants is on the rise, the level of treatment is inadequate.ⁱⁱ More importantly, knowledge about depression in children and adolescents and skills in its management lags behind that for adults.ⁱⁱⁱ Statistic Canada and the National Institute of Mental health have reported a rise in the rates of youth suicide in the

recent years. Therefore the role of family physician in recognizing and treating pediatric depression in a timely fashion is very important as depression is a major predictor of suicide.

Objective: This paper will discuss the role of family physicians in the identification of child and adolescent depression. My goal is to identify reasons why there is a lag in diagnosis and what family doctors can do to fill in the gap.

Methods: PubMed, Medline EMBASE and Conchrane database were searched using “depression”, “mental health”, “children”, “pediatrics”, “family physician role”, “diagnosis” and “primary care” as keywords. Among 35 articles found, a literature review was done on issues affecting diagnosis of pediatric depression in primary care and recommendations were suggested.

Conclusion: Pediatric depression as a major predictor of suicide is under-diagnosed and under-treated. The importance of better recognition and more appropriate treatment of depression in the pediatric population can prevent suicide^{iv} which is on the rise. Available evidence indicates that primary care physicians would improve their rates of depression diagnosis through training, but even more so by using symptom rating scales. Family doctors are ideally placed to detect early symptoms. This is possible because family doctors are first in contact with the patients in the community. Family doctors are more readily accessible to families than mental health services and usually they know the families well. Family doctors not only make referrals to specialist services but also support work of specialist services and families after recovery or during relapse.

ⁱ Davidson, The underrecognition and undertreatment of depression: what is the breadth and depth of the problem, *The journal of clinical psychiatry* [yr:1999 vol:60 Suppl 7 pg:4 -9

ⁱⁱ [Sheehan DV](#), Depression: underdiagnosed, undertreated, underappreciated; *Managed Care*. 2004 vol:13 iss:6 Suppl Depression pg:6 -8

ⁱⁱⁱ Leanne Rowe, Bruce Tonge, Depression in adolescents. Key issues in assessment and management. *Australian Family Physician* yr:2003 vol:32 iss:4 pg:255 -260

^{iv} Z. Rihmer, Can better recognition and treatment of depression reduce suicide rates? *European psychiatry* yr:2001 vol:16 iss:7 pg:406 -409