

DEPARTMENT OF FAMILY MEDICINE

RESIDENT PROJECTS

June 3, 2009



SECTION A (Purple) = Agenda for Presentations in Shuttleworth

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

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

SECTION A

PRESENTATIONS – SHUTTLEWORTH

TIME	PRESENTER	PRESENTATION
08:00	Coffee, Refreshments - Livingston Lounge	
08:30	Dr. Eric Wong	Opening Remarks in Shuttleworth
08:45	Mahmoud, Mohamed	Evaluation of a Teaching Module for Training Family Medicine Residents in Anterior Nasal Packing
09:00	Lovesey, Natalie	A Patient Education Session on Atrial Fibrillation and Pulse Self-Examination
09:15	Cowing, Barbara	The Tavistock Vision Screening Project: Part 1
09:30	Stewart, Adam	The Family Physician's Guide to Obesity: An Efficient Approach to Modifying Diet and Exercise Behaviours
09:45	Adenwala, Tasneem	Achievement of Treatment Targets in Patients With Hypertension, Dyslipidemia and Dyslipidemic Hypertension : A Primary Care Perspective.
10:00	Duwyn, Rejean	Pediatric Type 2 Diabetes Mellitus: A Case Report
10:15	Abdel Malek, Gihan	Adult ADHD
10:30	Coffee, Refreshments – Livingston Lounge VISIT POSTER DISPLAYS - D1-171 and D1-173	
11:30	Khakshae, Amir	'Gout in Primary Care' What do you think about this?
11:45	McIntosh, Scott	Literature Review of Corticosteroid Injection in the Treatment of Tendinopathy seen commonly in Family Practice
12:00	Ray, Reema	The Effects of "Information Framing" in Current Clinical Practice
12:15	Sehrawat, Narinder	Literature Review Acute Epiglottitis in Adults
12:30	PLEASE LEAVE EVALUATION SHEETS AT FRONT	

Evaluation Of A Teaching Module For Training Family Medicine Residents In Anterior Nasal Packing Principal Investigator

Dr. Mohamed Mahmoud

Background: Epistaxis is a common medical condition that is usually encountered by family physicians in their practice and in the Emergency departments.

Methods: A teaching module is described for teaching Family Medicine residents anterior nasal packing for the treatment of epistaxis. The module is composed of a 15-minute theoretical session and a 45-minute practical session. The theoretical session is a presentation that included causes and management of epistaxis. In the practical session, we used a homemade nasal model for teaching anterior nasal packing. We designed our nasal model from simple and cheap materials, putting in mind to keep the model simple and easily reproducible. Seventy UWO Family Medicine residents attended the module. Three questionnaires (a pre-module, an immediate post-module and 2 weeks post-module) were used to assess the residents' knowledge about epistaxis and their confidence in doing the anterior nasal packing before, immediately after and 2 weeks after the module.

Results: After completing the module, there was a significant improvement in the knowledge of the residents about epistaxis together with a significant increase in their confidence level to pack the nose. This level of confidence was maintained when we checked it 2 weeks after the module.

Conclusion: We concluded that the use of this teaching module should raise the standard of treating epistaxis by Family Medicine residents.

Key Words: Epistaxis, anterior nasal packing, teaching module, nasal model, procedural skills

A Patient Education Session on Atrial Fibrillation and Pulse Self-Examination

Dr. Natalie Lovesey

Background: Atrial fibrillation (AF) is the most common sustained arrhythmia and causes significant morbidity and mortality by conferring an increased risk of ischemic stroke, independent of other cardiovascular disease.¹ Atrial fibrillation may be asymptomatic as well as paroxysmal, rendering detection of the condition difficult. The clinical hallmark of AF is an irregularly irregular pulse. Several studies have investigated screening of target populations for atrial fibrillation. Methods studied include pulse palpation by nurses,^{2,3} electrocardiogram,^{4,5} and patient self-examination of pulse.⁶

Objective: The purpose of this patient education project was to determine whether a session using the validated educational materials "Take Your Pulse for Life™" would result in monthly pulse self-examination in individuals aged 60 and over.

Results: The study sample demonstrated interest in participating in such a session, with a 39% response rate to the initial invitation. Of those who responded to the invitation, 78.9% attended the session, which

was highly rated by attendants. Of the 44.4% of eligible participants reached for three month telephone follow-up, 70% retained the key session points and 95% reported pulse-taking at least monthly.

Conclusion: This study seemed to support the concept of teaching individuals aged 60 and over pulse self-examination as a means of detection of asymptomatic atrial fibrillation. Limitations include a single center, non-representative sample and high loss of follow-up. Whether pulse self-examination screening would result in a clinically relevant increase in diagnosis of atrial fibrillation or stroke prevention remains to be determined.

The Tavistock Vision Screening Project: Part 1

Dr. Barbara Cowing

Purpose: To demonstrate the usefulness of a hand held device to screen for childhood vision problems, such as nearsightedness, farsightedness and astigmatism (refractive errors) in the primary care setting; further to examine the prevalence of previously undetected significant refractive errors in this population.

Methods: Three hundred and eighty-six children aged 6 months to 12 years presenting to a family practice clinic underwent refractive error screening with the Welch Allyn SureSight. Past history of vision disorders, refractive error testing and family history of vision disorders were determined by a questionnaire to aid in identification of previously undetected vision problems.

Results: Refractive error measurements were obtained on 340 (88.1%) subjects. Importantly, the majority (78.5%) of children under 3 years of age were found to be testable with this device. No previous refractive error measurements had been done for 80.6% of the 2 year olds, 67.6% of the 3 year olds and 52.8% of all subjects. Seventy-eight (20.2%) children screened positive for previously undetected significant refractive errors.

Conclusion: Early identification and treatment of strabismus and significant refractive error is crucial to improve outcomes and can even prevent vision loss. This device allows screening for refractive errors at a very young age. A notably high number of positive screens for previously unidentified refractive errors were found in this paediatric population. This study highlights the great opportunity for refractive error screening in the primary care setting to improve outcomes by earlier identification and treatment of vision problems.

The Family Physician's Guide to Obesity: An Efficient Approach to Modifying Diet and Exercise Behaviours

Dr. Adam Stewart

Obesity is a health concern of epidemic proportions. Patients who are overweight or obese are at risk of countless other diseases and comorbidities. Proper nutrition and physical activity are the cornerstones of the prevention and treatment of obesity. Accordingly, diet and exercise should be on the forefront of minds as it relates to health and well-being. Only a minority, though, is aware of the proper goals of these lifestyle behaviours.

It is surprisingly difficult to effectively and efficiently counsel patients to modify their behaviours. The usually brief patient encounter in a family physician's office is not conducive to establishing change in such complex behaviours as one's diet or exercise habits. Often, when the management plan is discussed at the end of visit, there is only a brief, inconsequential directive such as "*Eat according to Canada's Food Guide.*"

It is further disheartening to see what little emphasis is applied to managing obesity on the flow sheet for diseases, like diabetes management, for example. Given the importance of diet and exercise in the management plan, it is astounding to see the relatively small space on the flow sheet dedicated to these issues. Frequently, there is merely a small checkbox to designate that diet and exercise have been discussed. Again, the efficacy of such discussions is suspect.

Clearly, improvement is required. The following manual serves as a guide to efficiently and effectively assess, counsel, and manage the complicated issues of diet and exercise as they relate to the treatment of obesity.

Achievement Of Treatment Targets In Patients With Hypertension, Dyslipidemia And Dyslipidemic Hypertension: A Primary Care Perspective

Dr. Tasneem Adenwala

Background: Previous studies have shown that treatment of hypertension (HTN) and dyslipidemia (DYS) is not at target, especially when they are concurrent.

Objective: The aim of this study was to determine if the blood pressure (BP) and low density lipoproteins (LDL) levels differed from treatment targets when they coexist or not. It is hoped that the results of this study will make family physicians aware of the gap in the care.

Method: A retrospective, secondary data - descriptive analysis was conducted using data obtained from the Delivery of Primary Health Information (DELPHI) project. The information from EMRs of patients from 25 primary care centers was used. Patients selected were between 35- 74 years of age, with a clinical diagnosis of HTN and/or DYS. Chi-Square analysis was used to determine if there were statistically significant differences between the rate of target achievements among patients with HTN alone, DYS alone, and patients with dyslipidemic hypertension (DYS+HTN).

Results: There was a significant relationship between group membership and target status. Those with HTN+DYS (46.0%) were least likely to be on target compared to the HTN (61.7%) and DYS (78.4%) groups ($p=.000$). There was also a gender difference in target achievement ($p=.000$). Among those with HTN+DYS, approximately 1/3 of females were on target whereas 1/2 of males were on target.

Conclusion: Treatment of concomitant HTN and DYS is not at target. Patients with just HTN or DYS were more likely to be at target BP or LDL levels. There was also a difference in target achievements between men and women.

Paediatric Type 2 Diabetes Mellitus: A Case Report

Dr. Rejean Duwyn

The object of this project is to describe the case of a 12 year old boy who initially presented with a case of balanitis, but who in the course of his work up was diagnosed with type 2 diabetes.

Full information on this case and its development are included, along with background information on the epidemiology, diagnosis, complications and treatment of type 2 diabetes in the paediatric age group. This takes the form of a semi-structured review of the recent literature on this subject.

The key findings of the project are that the incidence of type 2 diabetes has been rising dramatically among youth in North America, but despite this alarming trend there is still limited research on this problem in children. While much is known about risk factors and epidemiology, there is still limited data on the management of the complications of the disease and on safe and effective pharmacologic agents for its management.

In conclusion, paediatric type 2 diabetes mellitus is going to be seen with increasing frequency in family medicine and this project highlights one such case, along with some basic background information on the identification, prevention and management of the condition that would be useful to family physicians.

Adult ADHD

Dr. Gihan Abdel Malek

This report describes two cases of adult ADHD as a well as review of the latest literature on the disorder. The first case is an adolescent diagnosed with ADHD by a psychiatrist and the second is a self diagnosed adult.

Surprisingly, adult ADHD was acknowledged for the first time in 1994. However there were many trials to describe the condition since 1902.

Diagnosis of ADHD for adults is a challenge for various reasons. Many family physicians believe that it is a childhood disorder, the diagnostic criteria are subjective, and might mimic other medical and psychiatric conditions. Concern about stimulant abuse is another factor which delays diagnosis and treatment.

Though ADHD is not related to low I.Q., adults with the disorder usually have problems in executive function, academic underachievement and their tendency to have lower socioeconomic status.

DSM IV describes the disorder and gives a comprehensible interpretation of the diagnostic criteria. There are also many rating scales to assess symptoms at different settings. Though the diagnostic criteria in North America and Europe are more or less the same, the Europeans have a more restrictive interpretation and they prefer to start management with psychotherapy. In North America the mainstay in ADHD treatment is pharmacological. Long acting stimulants as well as non stimulants show great success in ADHD treatment. Proper management makes a huge difference between failure and success.

'Gout in Primary Care' What do you think about this?

Dr. Amir Hosein Khakshae

Objective: To compare diagnosis and treatment of gout by primary care physicians with rheumatologists

Background: Gout, the most common inflammatory arthritis in men, is overdiagnosed, underdiagnosed, and mismanaged (1) especially in primary care. Trends in alcohol use, diet, obesity and the metabolic syndrome in the general population might explain an increase in prevalence of gout in the community (2, 3). Gout associates with poor overall quality of life mainly resulting from associated co-morbidity (4).

Methodology: PubMed, Medline EMBASE and the Cochrane Database were searched using 'primary care', 'gout', 'diagnosis', and 'management' as keywords. Among 43 articles found, information which compared primary care physicians with rheumatologists in terms of gout diagnosis or management was extracted.

Conclusion: Unfortunately, gout remains one of the most frequently mismanaged diseases in the primary care setting. The management approach needs to be comprehensive and individualized, taking into account factors unique to the patients such as comorbidities and disease manifestations and potential side effects of the medications(1).

(1) Keith MP, Gilliland WR. Updates in the Management of Gout Am J Med. 2007 Mar;120(3):221-4.

(2) Roddy E, Zhang W, Doherty M. The changing epidemiology of gout. Nat Clin Pract Rheumatol. 2007 Aug;3(8):443-9.

(3) Wallace KL, Riedel AA, Joseph-Ridge N, Wortmann R. Increasing prevalence of gout and hyperuricemia over 10 years among older adults in a managed care population. J Rheumatol 2004;31:1582-7.

(4) E. Roddy, W. Zhang and M. Doherty Is gout associated with reduced quality of life? A case-control study Rheumatology 2007 46(9):1441-1444; doi:10.1093/rheumatology/kem150

Literature Review of Corticosteroid Injection in the Treatment of Tendinopathy seen commonly in Family Practice

Dr. Scott McIntosh

This evaluative literature review examines the use of corticosteroid injections in three tendinopathies: rotator cuff tendonitis, lateral epicondylitis, and Achilles tendonitis. The evidence is reviewed to determine if corticosteroid injections in these tendinopathies is beneficial in various outcomes measures including pain and function.

Methods: The literature review was conducted using both the Cochrane central register of controlled trials and Pubmed. In total 27 articles were selected pertaining to cortisone joint/tendon/paratendinous injections. Of these, 14 articles were original research and randomized control trials, and 3 were Case Reports. Nine articles were systematic literature reviews and 1 was a meta-analysis.

Results/Discussion: This literature review found that the common practice of corticosteroid injection has some equivocal evidence supporting its use in commonly managed tendinopathies. The most support was found for use in lateral epicondylitis, and this showed only short term benefit. The data for these injections in shoulder tendonitis still allows debate, however there is no good recent evidence for the use of this treatment in Achilles tendonitis. The evidence that does support the continued use of treatment with corticosteroid injections says the effects are for improved patient-rated pain, and perhaps in function. Further discussion includes future research strategies and suggestions for the Family Physician in everyday practice.

The Effects of “Information Framing” in Current Clinical Practice

Dr. Reema Ray

Introduction: In research studies, measures of therapeutic effect are usually presented in three formats: relative risk reduction (RRR), absolute risk reduction (ARR), and number needed to treat (NNT). The impact of an intervention may appear very large or quite small depending on which measure is used. Typically we find relative ratios to be more impressive. There is always a chance of bias if absolute data is not reported. This “frame,” may influence physicians’ & health professionals’ perceptions regarding results of therapeutic interventions.

Aims and Objectives: To find out if information framing occurs in medical literature and pharmaceutical advertisements. Also if this alters physicians’ and health professionals’ perceptions of therapeutic effectiveness & decision-making.

Method: A systematic search of literature is undertaken to find out articles reporting accessibility of ratio measures in medical literature and similar data in pharmaceutical advertisements. Articles on “framing effect” altering physicians or health professionals’ perceptions are also studied. Total of 20 articles are reviewed

Result: Absolute data is often not easily accessible in articles reporting ratio measures. And typically data presented in relative format is favored over absolute ones to initiate an intention to treat response.

Sometimes the description of relative change is ambiguous and baseline risk is not reported and this seems to have a stronger influence in framing.

Conclusion: Information framing is found to exist in current practice of medicine. This influences physicians' & health professionals' judgments regarding effectiveness of a therapeutic outcome. However randomized control studies are needed to quantify this frame.

Literature Review: Acute Epiglottitis in Adults

Dr. Narinder S. Sehravat

Objective: To perform a literature review of the causes, presentation and treatment of acute epiglottitis in adults.

Acute epiglottitis is an uncommon, potentially fatal condition in adults and children. The Haemophilus influenzae type b (Hib) immunization in children has dramatically reduced the incidence of epiglottitis in children. Adults are still susceptible to acute epiglottitis because a majority of them have not been immunized against Hib. The diagnosis of epiglottitis in adults maybe challenging since clinical presentation in adults and children are different. Therefore, 23% - 31% of acute epiglottitis cases in adults are misdiagnosed. The important symptoms and signs of epiglottitis that a physician should be aware of include acute onset of sore throat, fever, stridor, odynophagia, drooling, shortness of breath, hoarse or muffled voice, pharyngitis, cervical lymph nodes and anterior neck tenderness particularly over the hyoid bone. The diagnosis of adult epiglottitis requires a high index of suspicion by the family physician and is facilitated by lateral soft tissue neck x-rays and confirmed by flexible laryngoscopy. To successfully manage adult acute epiglottitis requires early recognition, airway management, antibiotics and teamwork between primary care physicians, personnel skilled in intubation and immediate consultation with an otolaryngologist.

SECTION B

PRESENTATIONS – ROOMS 1 & 2

TIME	PRESENTER	PRESENTATION
08:00	Coffee, Refreshments – Livingston Lounge	
08:30	Dr. Eric Wong	Opening Remarks in Shuttleworth
08:45	Bath, Amitoj	Infidelity Delusions and Brain Tumor
09:00	Harricharan, Tanujaa	Examining the Role of the Family Physician in End of Life Care
09:15	Ellison, Jason	The Numb Foot: An Unusual Presentation of Metastatic Lung Cancer
09:30	Hertzman Natalie	Case Report: Postpartum Depression and Lactation
09:45	Howard, Jessica	The Role of the Family Physician in the Care of Adults with Down Syndrome: A Case Report
10:00	Keller, Jeremy	Pediatric Stroke: Case Review
10:15	Sheppard, Miranda	Discussing Resuscitation Status in Primary Care
10:30	Coffee, Refreshments – Livingston Lounge VISIT POSTER DISPLAYS IN D1-171 and D1-173	
11:30	Furtado, Norman	Care of the Transgendered Patient: A Primer for Primary Care Providers
11:45	Sereda, Andrea	Healthcare for the Homeless
12:00	Peterson, Sean	What Went Wrong? A Systems Approach to Medical Adverse Event Investigation
12:15	SEE SECTION A	SEE SECTION A
12:30	PLEASE LEAVE EVALUATION SHEETS AT FRONT	

Infidelity Delusions and Brain Tumor – A Case Report

Dr. Amitoj Bath

Brain tumors characteristically present with focal neurological symptoms. Uncommonly they can present with psychiatric presentations like depression, mania, psychosis, anxiety cognitive or personality changes and even anorexia nervosa. These patients can have no neurological signs for a long period of time hence making the diagnosis of brain tumors difficult. The delay in diagnosis might have a direct negative effect on treatment and quality of life of such patients.

A study in hospitalised psychiatric patients reported 1/1000 brain tumors. This rate is twenty times higher than in the general population. The retrospective data analysis found that 21% of patients with benign meningiomas present with psychiatric symptoms in the absence of neurological signs.

This case report is about an 83 years old woman with progressive infidelity delusions over a year and cognitive decline. She was found to have a high grade glioma.

While caring for this patient at the end of her life, ethical dilemmas like physician assisted suicide were encountered and were been discussed to better understand the needs and expectations of a dying patient and her family.

Case Report: Examining the Role of the Family Physician in End of life Care

Dr. Tanujaa Harricharan

End of life and palliative care participation are becoming more prevalent in family medicine. In many cases, these patients are older, with chronic conditions and their transition to end of life is expectant. This experience is different for younger patients faced with terminal disease as their responsibilities to their families and their goals in life are dramatically altered. The case demonstrates how the patient – physician relationship in family medicine facilitate the transition from acute care to palliative care. It involves a 39 year old gentleman, with psychological and relationship challenges, recently diagnosed with Ewing's Sarcoma and how he has come to rely on the support provided by his family physician.

The Numb Foot: An Unusual Presentation of Metastatic Lung Cancer

Dr. Jason Ellison

Lung cancer remains the most cause of cancer related mortality in both men and women. Unfortunately, due to the aggressive nature of this disease, it is often in an advanced stage, having metastasized, at the time of first presentation to a physician. Common sites of metastasis are the brain, liver and bone. This can lead to difficulty with diagnosis, as the presenting symptoms are often not as a result of the intrathoracic primary tumor, but instead are caused by secondary metastatic lesions. The following case report is intended to highlight potential difficulties in making the diagnosis under these circumstances. RH is a 49 year old man, who presented with a loss of sensation in his right foot. He is a smoker, but had no

significant respiratory symptoms or physical findings at the time of initial presentation. A CT scan of his head revealed a lesion in the left thalamus, consistent with his symptoms, although the nature of this lesion was not initially clear. Further imaging, including an MRI, MRA and MR perfusion study were subsequently carried out. Unfortunately, two more lesions developed in RH's brain while this was being done. It was not until this point that a search for a distant primary tumor was undertaken. A chest X-ray revealed a large mass in the right lower lobe of the lungs. It is my hope that this case will emphasize the importance in considering a diagnosis of lung cancer in patients who have symptoms that could be the result of a neoplastic lesion, particularly if the patient is a smoker.

Case Report: Postpartum Depression and Lactation

Dr. Natalie Hertzman

Should women who have postpartum depression, or women who are at risk of developing postpartum depression, be on anti-depressants if they are breastfeeding? How much of the drug is transmitted into breast milk, and would it be safe for the infant if it is? This case report illustrates a typical case in family practice: a breastfeeding mother who is wondering if she is harming her baby by taking celexa. A review of current literature was done to see if any one antidepressant is safer than others, and/or if there are any that are dangerous in breastfeeding.

In conclusion, sertraline, paroxetine and nortryptiline are good choices to prescribe due to the fact that very little, if any, of the drug is found in an infant's blood stream post-breastfeeding. Caution should be used with fluoxetine and high doses of citalopram. The other psychotropic drugs have not yet been well studied enough to comment on. It should be noted, however, that one study found very high levels of venlafaxine in all babies, although the study size was extremely small (N=3). Since it is well documented that children do better academically, psychopathologically, and emotionally if their mothers are not depressed, treatment of women with postpartum depression should be heavily considered.

The Role of the Family Physician in the Care of Adults with Down Syndrome: A Case Report

Dr. Jessica Howard

Family physicians can play an important role in the health care of adults with Down syndrome. Patients with this condition are likely to have greater health care needs than members of the general population and it is essential that they have a competent family physician to coordinate their care. For example, patients with Down syndrome are more likely to suffer from thyroid disorders, diabetes and cognitive decline. Therefore, screening should be targeted appropriately. In addition, there are special considerations that need to be taken into account when a patient is overwhelmed by such conditions and is nearing the end of his or her life. Discussions surrounding advanced directives and end-of-life issues need to be conducted in a frank and compassionate manner, as special challenges exist. The case of Steven, a 48 year-old man with Down syndrome illustrates many of the unique health care considerations that exist when a family physician cares for an adult member of the Down syndrome population.

- ¹ [Martin BA](#). Primary care of adults with mental retardation living in the community. [Am Fam Physician](#). 1997 Aug;56(2):485-94.
- ¹ [Pueschel SM](#). Clinical aspects of Down syndrome from infancy to adulthood. [Am J Med Genet Suppl](#). 1990;7:52-6.
- ¹ Tuffrey-Winje I. The palliative care needs of people with intellectual disabilities: a literature review. [Palliative Medicine](#) 2008; 17:55-62
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Pediatric Stroke: Case Review

Dr. Jeremy Keller

Stroke is a condition in which physicians have significant experience. It is a diagnosis that carries with considerable morbidity and mortality. It is a clinical situation that is most often diagnosed in an older patient population. However, it is known that stroke can and does affect people of all age groups. This paper reviews a case of right sided hemiplegia in an adolescent girl. It discusses the issues surrounding the diagnosis and management of stroke in the pediatric population.

Discussing Resuscitation Status in Primary Care

Dr. Miranda Sheppard

An estimated 40,000 Canadians suffer a sudden cardiac arrest (SCA) every year, yet the majority of these victims had not discussed their resuscitation wishes with a physician. An electronic search using PUBMED, plus a manual search of article bibliographies, was performed to acquire a current understanding of public knowledge surrounding resuscitation, how educational interventions can increase public knowledge, the attitudes of patients and health care professionals on the discussion of resuscitation status, what is included in these discussions, the documented survival rates post-resuscitation and the factors that can help predict survival. The general population significantly overestimates the survival rates of cardiopulmonary resuscitation (CPR) and report the mass media as the primary source of their knowledge. The majority of patients wish to discuss their wishes surrounding resuscitation but feel that it is the physicians' responsibility to initiate these discussions. By providing accurate descriptions of CPR, the procedures involved and numerical estimates of survival post-resuscitation, physicians are able to improve a patient's knowledge and may ultimately alter their desire to undergo CPR. The Canadian overall rate of survival to discharge after a SCA is 16%. Predictors of poor outcome following a SCA include an arrest between 2301-0700h, resuscitative efforts lasting longer than 20 minutes, pulseless ventricular tachycardia or ventricular fibrillation, pulseless electrical activity and asystole. Primary care physicians play an important role in initiating discussions with patients on their wishes surrounding resuscitation and it is imperative that these discussions occur while patients are competent and able to make informed decisions.

Care of the Transgendered Patient: A Primer for Primary Care Providers

Dr. Norman Furtado

Transgendered patients are those who live full- or part-time in a gender role opposite to the one into which they were born. Transsexual patients are those who seek medical intervention to align their physical appearance to their self-identified gender. Though transsexualism is listed as a diagnosis in the DSM-IV, the care of the transsexual or transgendered patient is usually a collaborative effort by mental health professionals, internists, surgeons, and primary care physicians who often initiate and coordinate this care and provide ongoing follow-up. The medical needs of the transsexual patient differ somewhat from those of the average patient because of a variety of factors including altered anatomy, ongoing hormone therapy, and greater risk of social marginalization and its associated psychological effects. Physicians who provide care to the transgendered patient should be aware of the Standards of Care document published by the World Professional Association on Transgendered Health. The annual health exam should include examination of the anatomical structures that are present, regardless of sex, and the assessment of risks associated with the interventions and treatments prescribed to patients. Physicians should also consider the possible barriers to care that may exist in their practice environments in order to facilitate the transgendered patient seeking care in the first place.

Healthcare for the Homeless

Dr. Andrea Sereda

Healthcare guidelines exist to address issues specific to women, children, the elderly, and patients of varying ethnicities. However there is another, often overlooked, group of patients within our community that has distinct healthcare issues: the homeless and others living in extreme poverty. This review attempts to cover the unique medical needs of the homeless by highlighting differences in the presentation and management of conditions frequently seen in primary care. It will also address health conditions rarely seen in housed patients but common in the homeless. A section will be also be devoted to describing economic and social factors that contribute to poverty and homelessness, since the social determinants of health feature so prominently in the lives of the homeless. Finally, suggestions are made throughout for improving the life of homeless patients through changes to social policy and advocacy.

What Went Wrong? A Systems Approach to Medical Adverse Event Investigation

Dr. Sean Peterson

A 54 year-old man presented to a community emergency department complaining of chest pain. After being diagnosed with an acute myocardial infarct he was administered thrombolytic therapy. Within 30 minutes he suffered a cardiac arrest and died. A post-mortem examination revealed a dissected thoracic aortic aneurysm. What went wrong?

An adverse event describes an unintended injury or complication caused by the delivery of clinical care rather than by the patient's medical condition. A Canadian study revealed an in-patient *preventable adverse*

event rate of 2.8% and *preventable death* rate of 0.7%. Extrapolating these findings provides a yearly estimate of 70,000 preventable adverse events and 18,000 preventable deaths. Comparing to aviation, these deaths are equivalent to 72 yearly survivourless airliner crashes in Canada! In fact, the average number of aviation deaths corresponds to 0.2 survivourless airliner crashes per year. Over the past three decades, the aviation industry has made remarkable strides to improve their safety record through the introduction of *Safety Management Systems*, and in particular, detailed systematic investigation of accidents.

Medicine would do well to apply the safety principles of aviation with particular emphasis on the concept that *adverse event investigation is a leading factor in organizational learning*. This paper explores the concept of medical error in the context of the practice of Family Medicine. Specifically, it outlines how a systematic approach to investigating an accident can be applied to the investigation of a medical adverse event. It discusses medical error in family practice, Reason's organizational model of error, and current medical investigation procedures. Throughout the paper, the proposed framework will be applied to the opening hypothetical case.

SECTION C

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

PRESENTER	POSTER DISPLAY
Muhammad, Naeem	Hyaluronic acid & its medical applications
Puente, Sara	How Should Thromboembolism in Patients with Inflammatory Bowel Disease be Managed?
Soo, Victoria	Melanoma: A Review
Walgama, B.G. Shiromi	Treatment of Plantar Warts – A Review
Bal, Krishan Sharma	Diagnostic Ultrasound-An Office Tool in Family Practice
Seevaratnam, Loretta	Factors Influencing Parental Decisions Regarding the HPV Vaccine
Ferguson, Alexander & Malik, Shiraz	Health One
Vandeyar, Thivian	Procedural Sedation and Analgesia (PSA): A Primer and Drug Reference
Mascan, Lavinia	Ethical considerations in caring for pregnant women with substance use disorders
Wilson, Tania	A 33 year old man with persistent localized lymphadenopathy after the diagnosis of cat-scratch disease: A review of the approach to lymphadenopathy in primary care
Palao, France	Febrile Neutropenia
Nedimovic, Ljubica	Case Report: Limping in a Child: Is it Always a Musculoskeletal Pain?
Hobdari, Ilda	Oxycontin abuse-is methadone the only way out?
Liu, Chongen	How are we managing type 2 diabetes in family practice: baseline data from Advancing INSIGHT Methods in General Practice (AIM@GP) study
PLEASE LEAVE EVALUATION SHEETS AT FRONT	

Hyaluronic acid & its medical applications: A review for family physicians

Dr. Naeem Muhammad

Hyaluronic acid (HA) is a glycosaminoglycan that is present in almost every tissue of human body but is most abundant in synovial fluid, skin and vitreous humour. Its highest concentration is found in synovial joints where it acts as a cushion, provides nutrition to the cartilage and removes waste products. It is also a key component of hyaline cartilage, where it is present as a coat around each chondrocyte. When aggrecan monomers bind to hyaluronan in the presence of link protein, large highly negatively charged aggregates are formed. These aggregated imbibe water and are responsible for resilience of cartilage.

In the eye its biological function is again to provide the nutrition and retain water, whereas the prime function in skin is to retain water. It is present in extracellular matrix in skin along with elastin and collagen. By holding water, hyaluronic acid keeps elastin soft and keeps the skin healthy and wrinkle free. It is also involved in tissue repair. When skin is excessively exposed to **UVB** radiation, it becomes sunburned and the epidermal cells stop producing HA. With age, the molecular weight of hyaluronic acid decreases, this decreases its concentration and leads to wear and tear in joints, wrinkling of the skin and brittleness of cartilage. Pharmaceutically produced hyaluronic acid has been used clinically for viscosupplementation since 1987 in Japan and Italy. It was approved in 1992 in Canada, 1995 in Europe and 1997 in the United States.

Recently HA has gained in popularity among a wide spectrum of medical and cosmetic community specialties including surgery, plastic surgery, obstetrics, ophthalmology, orthopaedics, dermatology, family medicine and dentistry. The purpose of this essay is to look into ongoing studies, explore the judicial use and the evidence of the effectiveness of the multiple uses of hyaluronic acid. This paper will also provide fellow family medicine residents with a brief review of these current advances.

Although many journals, articles and professional websites were consulted, as were many professionals, main research for this essay was done on pubmed. Search terms used were "hyaluronic acid, medical uses, viscosupplementation and family practice". Only reputable medical journals were selected and research was limited to the last 5 years to ensure all information is current.

How Should Thromboembolism in Patients with Inflammatory Bowel Disease be Managed?

Dr. Sara Puente

Introduction: Thromboembolic disease in IBD is a significant cause of mortality for patients and cost to the health care system. Though the actual incidence is fairly low, VTE is significantly more common than in the general population of hospitalized patients, happens in younger patients, and carries a higher mortality when associated with IBD. However, patients with IBD are frequently less likely to be on anticoagulant medications for fear of increasing the risk of rectal bleeding. The case presented illustrates the importance of considering anticoagulation in patients with IBD.

Methods: In this review, current recommendations on the prevention and management of thromboembolic disease in inflammatory bowel disease were examined. Articles were found using a PubMed search using the terms "inflammatory bowel disease", "thromboembolism", and "anticoagulation".

Discussion: The literature highlights the importance of early diagnosis and treatment of thromboembolic disease, and substantiates recommendations to prophylax with heparin in high risk situations such as hospitalizations. As many of these events occur in young patients with little comorbidity, care must be taken to remember that they are a high risk group. The risk for recurrence of VTE is 10% in the first year and 30% in the next five years if the event was unprovoked by a major transient risk factor. This risk far outweighs the 2% risk of bleeding in many patients. Heparin is the standard of care in managing VTE with or without IBD. Prophylaxis of VTE in IBD patients is a decision that must be individualized based on each patient's risk factors for embolism, taking into account the individual bleeding risk.

Melanoma: A Review

Dr. Victoria Soo

Melanoma is the deadliest skin cancer, and its incidence is increasing rapidly. The family physician will encounter numerous patients in clinic with risk factors for melanoma and suspicious appearing nevi. The purpose of this comprehensive review was to discuss the diagnosis and management of suspicious skin lesions, since prognosis is greatly improved with early detection. A review of the Medline database for the past 10 years was performed.

There are multiple risk factors for developing the disease, the most significant of which being ultraviolet radiation exposure. A combination of patient education and public health measures is essential. The family physician has a critical role in the early detection of melanoma by performing thorough skin examinations at annual physical exams. The ABCDs provide a guide in detecting suspicious lesions, which require excisional biopsy when identified. When melanoma is detected early, cure rates are high, and long-term survival is greater than 90%.

Treatment of melanoma is primarily surgical excision. Sentinel lymph node biopsy is a key tool to identify patients with regional metastatic disease who will require elective lymphadenectomy. At present, adjuvant therapy for patients with Stage III disease is limited to interferon alfa-2b. The use of this drug remains controversial and randomized trials are still underway. The prognosis of patients with metastatic melanoma is poor, and treatment strategies are limited. There are several novel therapeutic strategies currently under development. It is likely that metastatic melanoma will involve a multimodal approach in future.

Treatment of Plantar Warts – A Review

Dr. B. G. Shiromi Walgama

This study contains a review of articles on the different treatment options available for the plantar warts. Plantar wart is a common viral infection caused by human papilloma virus (HPV). The size of the lesion, the age of the patient, the patient's immunity level and the activity level are the main factors that affect the success of the treatment for plantar warts. Although small percentage of plantar warts resolve spontaneously over six months time period, most of them require treatment as they can be painful, contagious and multiply.

The success of salicylic acid treatment mainly depends on the patient's knowledge about the method of application and the compliance. Cryosurgery with liquid nitrogen after paring or de-bulking of plantar warts is a very quick, safe and highly successful technique in primary care setting. This is suitable for plantar warts in adults and children over six years.

Fulguration, radiotherapy, PDT (Photodynamic Therapy), curettage, bleomycin injection and laser are suitable for recalcitrant plantar warts, but not for the simple plantar warts. Although immunotherapy is an effective treatment modality for the plantar warts, it needs further investigation.

Therefore salicylic acid and cryotherapy will continue as the first line treatment for the majority of plantar warts. They were both more effective than any other treatment for simple plantar warts. These two treatment methods are most commonly used in podiatry and dermatology departments.

Diagnostic Ultrasound-An Office Tool in Family Practice

Dr. Bal Krishan Sharma

After decades of its use, ultrasound has proven to be one of the best diagnostic modalities. It is economical, non-invasive, and safe. It provides a real time image without use of harmful radiations or contrast media. With advancement in technology and advent of portable ultrasound, it has become possible to use it in an office set up. In this essay an attempt has been made to assess the feasibility of ultrasound as an office tool in family practice. Different issues including safety, advantages, disadvantages, training, economics and expected challenges related to its use in Family Practice office settings have been discussed using references from literature and official websites. In conclusion, with proper training program during residency in collaboration with Radiology Department and with ethical use, ultrasound could be a great tool in the office of a family physician for timely and appropriate management of patients. It may help in reducing the number of referrals to emergency room and medical specialists. A prospective study to assess its use in real life might be helpful.

Factors Influencing Parental Decisions Regarding the HPV Vaccine

Dr. Loretta Seevaratnam

Objective: To explore the knowledge and beliefs involved in the decision-making process of parents considering the HPV vaccine, and the possible reasons for poor vaccine uptake in the school-based provincial program.

Methods: An original questionnaire was designed after a literature review about knowledge and beliefs of HPV and the HPV vaccine. The questionnaire was mailed to 512 families with children under 18 years old who are patients at the Byron Family Medical Centre (BFMC). Questionnaires were collected for three months and results were analyzed for basic statistics.

Key Findings: The respondents were generally well informed regarding vaccinations in general and about HPV, but lacked knowledge about the HPV vaccine. Most found their primary care providers to be reliable sources of information about vaccinations. The majority felt comfortable with discussing sexual health with their children and that these discussions were appropriate at 9-13 years of age. 75% felt that the proposed age of administration for the vaccine is appropriate. Respondents were divided regarding whether boys should also receive the vaccine and whether the vaccine should continue to be offered as part of the school-based immunization programme.

Conclusion: The studied population is a well-informed cohort, but require more education about the HPV vaccine. Primary care providers are important resources for education. Administration to males and school-based programmes remain controversial, but comfort with sexual health discussions does not appear to be a barrier to vaccine uptake. Addressing these issues with patients and parents at the BFMC may improve uptake of the HPV vaccine.

Health One

Dr. Alex Ferguson and Dr. Shiraz Malik

Health One is a business plan for a novel healthcare delivery model within the primary care setting. At its core, the business combines primary care delivery and evidence-based health maintenance programs designed to regain or maintain a functionally improved quality of life. To achieve this, the combination of goal directed fitness classes and healthy lifestyle information sessions will take place within the primary care setting. The above will be primarily funded through various third party payment models to provide our patients a maximal healthcare return for their invested time and money.

Procedural Sedation and Analgesia (PSA): A Primer and Drug Reference

Dr. Thivian Vandeyar

Physicians trained in Family Medicine occupy a broad spectrum of clinical practices in Canada. Many of these roles include regularly practiced manual procedures. In recognition of this the College of Family Physicians of Canada (CFPC) has created guideline lists for procedural skills that should be included in residency training programs for Family Medicine. In addition, the CFPC has highlighted the importance of these procedural skills and more “enhanced procedural skills” to rural Family Physicians. In reviewing these procedures, several regularly require some form of adjunct sedation or analgesia technique. However, this level of training is not highlighted in the CFPC’s list of procedural skills.

In reflecting on my own personal clinical training I have received little formalized teaching in procedural sedation and analgesia (PSA) techniques. Working in Emergency Departments as a component of my Rural Family Medicine training, I have required the use of PSA techniques repeatedly. In seeking a concise evidence-based resource for learning and implementing PSA, I have often relied on multiple bulky Emergency Medicine textbooks, online resources or established practice patterns of attending physicians. In reviewing current literature on established PSA techniques, I have developed a portable primer and reference material for PSA practiced in the Emergency Department or hospital ward. The material is

formatted into a bound eight card pocket-set, intended as a point-of-care tool for new users of PSA. Its design is such that it serves as both a teaching material as well as a concise reference material with the potential for expansion as new techniques are better established in the literature.

Case report: Ethical considerations in caring for pregnant women with substance use disorders

Dr. Lavinia Mascan

Caring for a pregnant woman with substance use problems raised medical and, more importantly, ethical challenges. As the prevalence of this issue is increasing worldwide¹⁻³, it is critical that women's care providers are aware of its unique psychological and social needs as well as related legal and ethical ramifications⁴. The focus of this case report is to emphasize *key ethical principles* that apply to the treatment of women's addiction in general and during pregnancy in particular.

Shelly, a 22 year old female, disclosed at one of her prenatal visits cocaine and alcohol use prior to and during current pregnancy. This raised important issues about collecting in a non-judgmental manner a detailed history, counseling and initiating treatment given her situation. Although pregnancy is often seen as a "window of opportunity" to decrease or cease substance abuse^{5, 6}, there are significant challenges to effective care for both the patient and the clinician⁷ which often begin directly from tensions between core ethical principles and inconsistencies in the way these principles are applied⁸. Key values, such as voluntarism, respect for person and justice, confidentiality and truth-telling, and informed consent are invaluable in determining clinical ethical decision making. Careful consideration of these principles will help ensure that women with addiction will be cared for in a manner that is respectful, beneficent, compassionate, honest, and just.

A 33 year old man with persistent localized lymphadenopathy after the diagnosis of cat-scratch disease: A review of the approach to lymphadenopathy in primary care.

Dr. Tania Wilson

Lymphadenopathy is a common presentation to family medicine, and while most causes of the lymphadenopathy can be diagnosed in the office by history, physical exam and some basic laboratory tests, there are no guidelines for the approach to lymphadenopathy and when to refer patients for biopsy. A patient, frustrated with the difficult course to diagnosis and treatment, presented with a three-month history of generalized symptoms and a one-month history of lymphadenopathy. He was treated for a suspected case of cat-scratch disease and finally a diagnosis of Hodgkin's lymphoma was made. As lymphadenopathy is a common primary care complaint, this paper discusses the workup and management of cat-scratch disease as well as the approach to lymphadenopathy presenting to primary care. In turning to the literature, the factors more commonly associated with malignancy include lymph node size greater than two centimetres, any supraclavicular lymph nodes, age greater than 40, hard and non-tender nodes, generalized pruritis, abnormal chest X-ray, and other generalized symptoms. The risk of malignancy from lymphadenopathy in primary care is one percent, making it a concern for patients and all family physicians, who should have a general approach to patients presenting with such a complaint.

Febrile Neutropenia

Dr. France Palao

Cancer patients treated with chemotherapy may experience complications of related toxicity. Prevention of these complications is important to improve the quality of patient's lives. Febrile neutropenia still remains a frequent complication. Because of the risk of life threatening sepsis, the standard of care has been inpatient treatment with intravenous antibiotics for many years. Despite advances in management protocols using prophylactic antibiotics and granulocyte colony stimulating factors, it is still a leading cause of hospitalization for cancer patients undergoing chemotherapy. However, it is now possible to identify a subset of patients with febrile neutropenia at low risk of life threatening complications in whom duration of hospitalization and intensity of therapy can be reduced safely with the use of outpatient treatment. The purpose of this report is to look at the role of outpatient therapy or early hospital discharge for cancer patients with febrile neutropenia. It also aims to look at our role as family physicians in improving our patient's quality of life while managing complications from chemotherapy in the community.

Limping in a Child: Is it Always a Musculoskeletal Pain? A Case Study

Dr. Ljubica Nedimovic

This study follows the case of a child who presented to the clinic with a limping leg and a suspected musculoskeletal pain. Prior treatment with analgesics and physiotherapy offered little improvement. Thereafter, two magnetic resonance imaging (MRI) explorations of the bone and the soft tissues revealed a mass involving sciatica nerve. A biopsy confirmed a rare Ewing's sarcoma of the sciatica nerve. This case demonstrates the importance of considering all plausible diagnoses in differential diagnosis of childhood musculoskeletal pain and limping. Ewing sarcoma of the sciatic nerve is a rare diagnosis in children with a limping leg; however, it must not be overlooked.

Oxycontin abuse – is Methadone the only way out?

Dr. Ilda Hobdari

There is a substantial increase in oxycontin abuse in Canada, and it seems that oxycontin is easily available in the streets of Canada. Oxycontin is a controlled-release preparation, and was expected to have a lower abuse potential because users would be less likely to experience the euphoria associated with high concentrations of the drug rapidly reaching the brain. Many abusers, however, report crushing or chewing these preparations before swallowing, injecting, or snorting them, thereby destroy the slow-release properties.

This case is about a couple that did present in our clinic to ask for help about their addiction. We did try to taper off the oxycontin as they did not want to consider methadone as a treatment option, thinking that it will be a new addiction. We had lots of struggle with the oxycontin taper and managing their withdrawal

symptoms and the frustration was high when at the end they relapsed. They self-referred at the methadone clinic and once on methadone got their life back on track.

Studies have shown that Methadone is very effective in maintenance and treatment of opioid addiction. Methadone is a long acting opioid agonist. By acting slowly it can prevent withdrawal and eliminate drug cravings, without causing a person to get high. The treatment varies, from a year or two to 20 years or more. More programs are becoming available in the province of Ontario and it is important to know about these resources and direct our patients when they need them.

How are we managing type 2 diabetes in family practice: baseline data from advancing INSIGHT Methods in General Practice (AIM@GP) study

Dr. Chongen (Steven) Liu

Background: Most patients with type 2 diabetes are managed by family physicians. About half of them are not treated to target and insulin is usually underused. Our objective was to investigate the level of care for type 2 diabetes in family practice and to characterize the gap between clinical practice and guidelines. Baseline data from AIM@GP are summarized.

Methods: A total of 267 family physicians were recruited and their 6989 patients had charts audited. Information regarding glycosylated hemoglobin (A1C), fasting plasma glucose (FPG), anti-diabetic medication and insulin use were collected. Questionnaires for diabetes related knowledge, attitude and self-efficacy were filled out by physicians.

Results: Overall mean A1C was 7.05% (median 6.8%, range 3.5-16.6%, SD 1.27%). There were 56.8% patients with A1C <7%. The mean measurement of FPG was 7.81 (median 7.30, range 1.50-29.20, SD 2.47). 18% of patients were managed with lifestyle modification; 69% were taking oral anti-diabetic medications only; 8% patients were treated with both insulin and oral agents; 5% were on insulin solely. Physicians' knowledge score ranged 41.7-95.8 (mean 73.2, SD 10.9).

Conclusions: There were a substantial proportion of patients who were not treated to target. Insulin is significantly underused in family practice.
