RESIDENT RESEARCH SYMPOSIUM 2024

MONDAY, FEB. 5
12 - 5:30 PM
GRONICH THEATRE (1M102)
FACULTY OF MEDICINE

MEMORIAL UNIVERSITY
FACULTY OF MEDICINE

RESIDENT RESEARCH SYMPOSIUM
FEBRUARY 5, 2024
FACULTY OF MEDICINE
MEMORIAL UNIVERSITY OF NEWFOUNDLAND

AGENDA

Co-hosts: Dr. Laurie Twells, Assistant Dean, Clinical Research, RGS and Dr. Sohaib Al-Asaaed, Associate Dean, PGME		12:00
Welcome – Dr. Dolores McKeen, Dean of Medicine		12:05
LUNCH		
Keynote Lecture - Dr. Carla Coffin		12:10
Dr. Hilary Strong	Resident Speaker – Radiology	1:15
Dr. Simrin Sennik	Resident Speaker – Laboratory Medicine	1:30
Dr. Brandon d'Eon	Resident Speaker – Pediatrics	1:45
Dr. Kieran Vasanthan	Resident Speaker – Medicine	2:00
Dr. Andrew Kucey	Resident Speaker – Orthopedic Surgery	2:15
Dr. Rebecca Harrison	Resident Speaker – Psychiatry	2:30
Dr. Scott Bray	Resident Speaker – Medicine	2:45
BREAK		
Dr. Meghan Wentzell	Resident Speaker – Anesthesia	3:15
Dr. Stephanie Gill	Resident Speaker – Obstetrics and Gynecology	3:30
Dr. Raleen Murphy	Resident Speaker – Family Medicine	3:45
Dr. Sarah Devereaux	Resident Speaker – Medicine	4:00
Dr. Erin Bonisteel	Resident Speaker – General Surgery	4:15
Dr. Brittany Bolt	Resident Speaker – Family Medicine	4:30
Award Adjudication & Announcement, Closing Remarks		4:45

KEYNOTE SPEAKER:

CARLA COFFIN, MD, MSC, FRCPC

PROFESSOR OF MEDICINE
CUMMING SCHOOL OF MEDICINE
UNIVERSITY OF CALGARY
MEDICAL DIRECTOR OF THE VIRAL HEPATITIS CLINIC, CALGARY DIVISION OF GASTROENTEROLOGY AND HEPATOLOGY, ALBERTA HEALTH SERVICES

Dr. Carla Coffin is a Professor of Medicine at the Cumming School of Medicine. She completed a BS (Biology), M.Sc. Immunology and Doctor of Medicine here at Memorial University. During medical school, she continued research in the woodchuck model of hepatitis B. She completed her fellowship in Gastroenterology at the University of Calgary, followed by an Advanced Hepatology Fellowship at the University of California.

Dr. Coffin is an internationally recognized expert on hepatitis B and hepatitis Delta. She has served on review panels for the World Health Organization Essential Medicines Committee (viral hepatitis), the International Coalition to Eliminate HBV Stakeholders group and the US Centres for Disease Control. She has received awards including New Investigator Award from the Canadian Institutes of Health Research (2012-2017), Research Scholar Award from the American Gastroenterology Association in 2013 and the Jan Albrecht Clinical and Translational Research Award in 2012 from the American Association for the Study of the Liver.

Dr. Coffin is President-Elect of the Canadian Association for the Study of the Liver (CASL) (2024-2026).To date, she has supervised 10 MSc / PhD students, 2 postdoctoral fellows, and published 131 peer-reviewed articles (h-index 39, i10 index 95, citations 5010). She has an integrated basic science - translational research program that is supported by two highly prestigious Canadian Institutes of Health Research (CIHR) research grants as well as internationally competitive request for proposals (RFPs) from industry.

Dr. Coffin has participated in ~30 international hepatitis B virus (HBV) Phase I-IV clinical trials (including member of Trial Guidance and Publication committee). She was integral in establishing the Canadian Hepatitis B Research Network that has enabled unique and well-characterized longitudinal national cohort studies and bio-repositories for HBV and hepatitis Delta virus. She is leading a multidisciplinary team at the University of Calgary using the woodchuck hepatitis virus model of hepatitis B to investigate HBV pathogenesis and test new therapies.

For more information about Dr. Coffin, please click here:
https://profiles.ucalgary.ca/carla-coffin

RADIOLOGY

Appropriateness of Computed Tomography Angiography of the Carotid Arteries Indications in Eastern Health Newfoundland and Labrador: How Are We Doing?

Dr. Hilary Strong BSc, MD, Christina Major BSc, Melissa Skanes MD FRCPC

In Newfoundland and Labrador (NL), the volume of carotid artery testing by all modalities has steadily increased. Appropriate utilization of computed tomography angiography (CTA) carotids is essential to ensure effective and judicious resource utilization. CTA results guide key treatments which reduce disease morbidity and mortality such as stroke. A retrospective chart review of 2,790 patients aged ≥18 years who underwent CTA carotids between January 1, 2015, and December 31, 2020, for all indications was performed. The primary objective is to analyze the proportion of appropriate and inappropriate use of CTA carotids in Eastern Health during the study period. The secondary objective is to collaborate with Quality of Care NL and Choosing Wisely Canada initiatives to help generate decision-support tools which promote evidence-based and resource-efficient use of CTA carotids in NL. Between 2015-2020, the volume of CTA carotids increased yearly, except for a small decrease in 2020. Over 6 years, ≥70% of all indications for CTA carotids were appropriate (range 71-82%), outweighing the volume of both inappropriate (range 6-14%) and inconclusive (range 9-16%) studies combined per year. The proportion of appropriate, inappropriate, and inconclusive studies remained relatively stable per year. The most common appropriate indication was stroke/TIA (68%). The most common inappropriate indication was incorrectly presumed TIA symptoms (e.g. headache; 65%). NL having the highest provincial stroke rate in Canada underscores the high volume of appropriate CTAs performed for stroke/TIA. However, the lack of significant improvement or decrease in inappropriate studies performed between 2015-2020 emphasizes the clear need for primary practitioner education regarding accurate TIA symptoms. The comparable volume of inappropriate and inconclusive studies further highlights the importance of complete and legible histories. Collaboration with Quality of Care NL can help to create education initiatives and decision-support tools such as standardized diagnostic imaging requisitions to promote appropriate resource utilization in NL.

LABORATORY MEDICINE

The Clinical and Pathologic Characteristics of Male Breast Cancers in Newfoundland and Labrador

Simrin Sennik MD, Ken Kao PhD, Offiong F. Ikpatt MD

Introduction: Male breast cancer is a relatively rare disease and accounts for only 1% of the breast cancer population. Most of the current knowledge of male breast cancer is derived from single-center experience. The therapeutic approaches are extrapolated from guidelines in female breast cancer management. Certain molecular distinctions between male and female breast cancer suggest that a different clinical approach may become necessary in managing males with breast cancer.

Purpose: The aim of this study is to assess the clinical and pathologic characteristics of male breast cancers in Newfoundland and Labrador.

Methods: A search for cases between 01/01/2003 and 01/11/2023 restricted to males only and using the search term "breast" in the final diagnostic line was performed. The histologic slides were reviewed to confirm previous diagnosis as well as note ER, PR, and HER2/neu status.

Results: 29 cases of male breast cancer met our search criteria. The average age at diagnosis was 65.7 years of age. All cases were histologically diagnosed as invasive ductal carcinoma, no special type. Out of these cases, two additionally had micropapillary features and three had lobular features. 72% of cases were histologic grade two. 62% of cases were pT1 and pT2 and 22% of cases had lymph nodes positive at the time of diagnosis, as well as metastases. Majority of cases, 79% were ER/PR+. 11% were HER2 positive and 39% were HER2 low. The chance of survival in this group at 5 years was 45-50%.

Conclusion: Our findings contribute to the baseline of further understanding the pathogenesis of male breast carcinomas and are consistent with previous studies in larger samples. This research is preliminary and will contribute to a different research question of investigating immune response and degree of neuroendocrine differentiation using immunohistochemical markers in male breast cancer patients.

PEDIATRICS

Improving children and families' healthcare experiences through a Community Social Pediatrics model

Brandon d'Eon, Kathryn Flood, Maranda Fullerton, Sarah Campbell, Marianne McKenna, Sarah Gander

Background: The clinical presentation of children with referrals for behavioural concerns is often complex and involves environmental and social components in addition to medical considerations. Many barriers impact children's access to effective, timely, holistic care, which can be further exacerbated by complex social factors.

Objective: The aim of this study was to determine if a Community Social Pediatrics (CSP) model with an interdisciplinary team can improve experiences and outcomes for families of children being assessed for behavioural concerns, who also have complex social considerations.

Methods: This pre-post study recruited families with children who had received behaviour-related referrals. Participants received the standard of care and additional resources typical to a CSP model. Three measures were used to evaluate the experience and outcomes of patients and families prior to intake and after 12 months of care: Pediatric Integrated Care Survey (PICS), Child Behaviour Checklist (CBCL), and Quality of Relationship Inventory (QRI).

Results: Thirty-one caregivers completed the intake assessment and 26 of these completed the follow-up assessment for their children (ages 5 to 14 years). The QRI scores, which assessed the child-caregiver relationship, indicated a significant decrease in the conflict subscale between timepoints (M1=2.23, M2=1.87, $p<0.005$). Similarly, the CBCL scores indicated significant reductions in aggressive behaviour (M1= 68.65, M2= 64.77, $p<0.05$) and conduct problems (M1= 68.69, M2= 62.31, $p<0.05$). The PICS scores indicated families reported fewer access problems (M1= 3.35, M2= 1.19, $p<0.005$), and better communication with health care providers (M1= 14.53, M2= 16.92, $p<0.05$).

Conclusions: The findings suggest that some aspects of the family experience and child outcomes were significantly improved after receiving care through a CSP model. The implementation of CSP models can improve fundamental aspects of care that impact the patient's ability to engage with treatment effectively.

MEDICINE

Longitudinal Electrocardiogram Changes in Patients with ARVC due to TMEM43 p.S358L in Newfoundland & Labrador

Kieran Vasanthan, Dr. Kathleen Hodgkinson, Christopher Compton, Dr. Stephen Duffett

Background: Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) is a rare inherited disorder associated with sudden cardiac death. One variant in TMEM43 (p.S358L) was identified in the genetic isolate of Newfoundland and Labrador (NL). Current ARVC diagnostic criteria include specific electrocardiogram (ECG) abnormalities via Task Force Criteria (TFC).

Objectives: (1) To evaluate longitudinal ECG changes in ARVC due to TMEM43 p.S358L . (2) To determine the frequency of TFC ECG findings in these patients.

Methods: This retrospective analysis included all variant positive patients from 27 known families, who had health records available in NL, and had a minimum of five ECGs over long-term follow-up. ECG data were analyzed by an electrophysiology cardiologist. Ethics approval is long standing (HREB# 00-176).

Results: Two-hundred-forty-seven ECGs were collected in twenty-nine patients (12 male, 17 female, avg. age 34.9y, 6 deceased). Average length of follow-up ECGs was 18 +/- 8 years (range 8 – 43 years). The most common abnormality detected was development of an intraventricular conduction delay (IVCD) or complete left bundle branch block (LBBB) (n=21, 72%). There was significant QRS widening over time (avg. baseline = 100 +/- 11 ms, avg. last follow-up = 128 +/- 25 ms, p <0.001). TFC ECG abnormalities were detected in five patients (17%) and were never present on the most recent follow-up ECG.

Conclusions: The progression of ECG changes in ARVC secondary to TMEM43 p.S358L demonstrates progressive QRS widening with an IVCD or complete LBBB from a normal baseline. The TFC should not be used for TMEM43 p.S358L ARVC.

ORTHOPEDIC SURGERY

Pain score outcomes after posterior midline approach with partial Achilles takedown for the correction of Haglund's Deformity

Andrew S Kucey MD MSc, Katherine Stone BEng, Craig Stone MD MSc, Nicholas Smith MD MSc

Background: Haglund's deformity is a debilitating hindfoot condition comprised by a triad of insertional Achilles tendonitis, posterior superior calcaneal exostosis, and retrocalcaneal bursitis. Surgical and non-surgical options are described for management. Surgery is indicated for recalcitrant hindfoot pain which failed non-operative measures. Multiple surgical techniques are supported in the literature, including both open and endoscopic approaches. The current study describes patient reported outcomes after an open Haglund's deformity correction with a midline incision and partial Achilles takedown.

Methods: Patients were recruited from the practice of two fellowship trained foot and ankle surgeons. Prospective and retrospective arms were completed. The primary outcome was preoperative versus postoperative pain. Secondary outcomes included return to work, and pain medication use preoperative versus postoperative. The prospective arm followed patients at a preoperative baseline, then 2, 6, and 12 months postoperative. Patient reported outcome measures (PROMs) were assessed using the Foot and Ankle Disability Index (FADI), SF-36, Visual Analogue Scale (VAS), and the Foot and Ankle Ability Measure (FAAM).

Results: The retrospective analysis (n=19) showed a significant reduction in pain after the procedure with the mean score being 9.21 +/- 1.03 preoperatively and 2.16 +/- 3.06 postoperatively ($p<0.0001$). The majority of patients had an improved level of function after the operation (84%), while 3 patients reported having lower levels of activity post operatively.

The prospective arm (n=16) showed significant improvement from baseline to 12 month follow-up across the FADI, FAAM, VAS, and SF-36 ($p<0.0001$ for all baseline to 12 month comparisons).

Conclusion: This study adds to the body of literature supporting an open approach with partial Achilles takedown for the management of Haglund's deformity. Patients had significant improvements in pain and overall quality of life as determined by the PROM scores.

PSYCHIATRY

Learner perceptions of and feedback for a new psychodynamic psychotherapy bootcamp course

Rebecca Harrison

Background: Boot camps have become a common way to provide intensive medical education on specific topics, within a restricted timeframe. A new boot camp was recently developed for PGY3-4 Psychiatry residents at Memorial, as part of the psychodynamic psychotherapy curriculum.

Objectivces: To elicit perceptions, feedback and suggestions that may be used to improve future iterations of the psychodynamic bootcamp.

Methods: Residents who completed the boot camp were invited to provide feedback in a semi-structured interview format. Interview questions were developed using an inductive approach, informed by Skeff's framework for improving the effectiveness of medical teaching. Thematic analysis was used to extract relevant feedback from interview transcripts. To reduce risk of bias, a second coder, not affiliated with the MUN Psychiatry Program independently coded the transcripts. Discrepancies were resolved by discussion until consensus was reached.

Results/Conclusion: Data collection and analysis in progress. Results to be presented and discussed at Psychiatry Scholarship Day.

Disclosures: I was a learner within the bootcamp. I did not provide any responses in the study.

MEDICINE

The Impact of Multi-Drug Resistance Organisms (MDRO) in the Cirrhotic Patient Population: A Retrospective Regional Health Study

Dr. Scott Bray, Dr. Mark Borgaonkar

Introduction: Patients with decompensated cirrhosis have increased hospitalizations and increased risk of infection in comparison to the general population leading to recurrent antibiotic usage. This has led to an increase in cirrhotic patients acquiring life-threatening infections caused by multi-drug resistant organisms (MDRO) leading to increased hospital stay and disease burden. MDRO lead to delayed appropriate treatment causing increased morbidity, and mortality in the cirrhotic population. The goal of this project is to assess the prevalence of MDRO in patients with cirrhosis at our institution.

Methods: Patients with a history of cirrhosis and antimicrobial resistant cultures (ascitic fluid, blood, pleural fluid, sputum, urine, and wound) admitted to an acute care facility in the Eastern Health Region of Newfoundland and Labrador (NL) between 2016-2021 were included in this study (n=173). Cirrhosis was confirmed for each patient on review of imaging demonstrating advanced liver fibrosis (ultrasound, CT-scan or MRI). Patients culture results were reviewed and then classified as non-MDRO (resistance in 1 or 2 antimicrobials) or MDRO (resistance to 3 or more antimicrobials). Culture collection date was then cross-referenced with date of admission to determine infection was diagnosed upon presentation to hospital or a hospital-acquired infection (HAI).

Results: On review of 173 cirrhotic patients with resistant cultures, urine cultures were found to be the most common source of MDRO (22.0%), followed by blood cultures (8.1%) and ascitic fluid cultures (3.5%). MDRO accounted for 57.0% of all resistant organisms in the cirrhotic patient population through 2016-2021 with the most common MDRO being Escherichia Coli (27.5%) and Enterococcus Faecium (24.6%). HAI associated MDRO accounted for 23.7% of all resistant organisms throughout this study time period.

Discussion: The preliminary data from this study demonstrates that MDRO continue to place a large burden on the healthcare system and specifically patients with cirrhosis in NL. MDRO should be considered when choosing antimicrobial therapy for patients with a history of cirrhosis in the Eastern Health Region of NL admitted with suspected infection and positive preliminary urine cultures. Furthermore, this data suggests that MDRO should be considered in patients in NL hospitalized with a history of cirrhosis that develop a HAI.

ANESTHESIA

Impact of Erector Spinae Plane Blocks on Length of Stay After Lumbar Fusion

Dr. Meghan Wentzell (Anesthesiology PGY4), Pauneez Sadri (MUN Med 2), Dr Geoff Warden (FRCPC Anesthesiology)

Lumbar spine surgery, particularly lumbar fusion, is a painful surgery that often requires a comprehensive multimodal analgesia plan. Existing literature suggests that the use of erector spinae plane blocks (ESPB) as a component of multimodal analgesia for lumbar spine procedures may reduce the length of stay (LOS), pain scores, and opioid consumption. Heterogeneity and small sample sizes among existing research prompt further study of the novel use of the ESPB in lumbar spine surgery. We performed a retrospective cohort study examining all the patients who received an ESPB for lumbar fusion surgery at the Health Sciences Centre (HSC) between January 1, 2020 – August 30, 2023, and compared their LOS, pain scores, analgesic use, and select preoperative variables to those of patients who did not receive an ESPB for lumbar fusion surgery. As data collection and analysis is ongoing, we will be presenting preliminary descriptive results.

OBSTETRICS AND GYNCEOLOGY

Feasibility of a Hyperthermic Intraperitoneal Chemotherapy (HIPEC) Program for Gastrointestinal and Gynecological Cancer Care in Newfoundland and Labrador

Stephanie Gill, Kala Hickey, Zoë Breen, Alex Mathieson, Hannah Yaremko, Patti Power, David Pace, Joannie Neveu

Background: Peritoneal carcinomatosis is a common clinical presentation found in advanced staged colorectal, appendiceal, gastric and ovarian cancers. Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) as a combined treatment modality has promising survival outcomes in select patients and is offered at high-volume tertiary centers only. Currently, this treatment is not offered in the province of Newfoundland and Labrador (NL). The aim of this project is to demonstrate that an appropriate number of patients require this therapy thus demonstrating the feasibility of implementing a program for gastrointestinal and gynecological cancer care in NL.

Methods: A retrospective chart review of the NL Cancer Care Registry identified patients diagnosed with stage IV colorectal, appendiceal or gastric cancer and stage III to IV epithelial ovarian cancer, fallopian tube carcinoma over a one-year period (Jan 1, 2020 – Jan 1, 2021) to identify patients meeting criteria for CRS/HIPEC or patients who were referred out of province to receive the treatment. Results are presented as proportions and percentages.

Results: A total of 31 patients eligible for CRS/HIPEC were identified (20 gynecological and11 gastrointestinal). All 20 of the gynecological patients underwent a form of treatment in NL consisting of a combination of chemotherapy and CRS. Of the gastrointestinal population, only 5 were referred out of province for CRS/HIPEC, 2 refused referral and 4 were never referred.

Conclusions: In a one-year time frame, between gynecologic and surgical oncology there were 31 eligible patents that would benefit from the implementation of CRS/HIPEC in NL. This annual volume of patients supports CRS/HIPEC necessity and will allow the surgical team to maintain competency and achieve good outcomes using this treatment method.

FAMILY MEDICINE

Emergency department experiences managing community emergency patients in Newfoundland and Labrador: a qualitative study.

Dr. Raleen Murphy, Dr. Christopher Patey, Dr. Kayla Furlong

Community emergency (CE) patients that present to the emergency department (ED) are older adults with no acute medical cause for their visit but rather, social, functional and/or safety concerns that prevent them from staying in their existing living situations. These patients present a particular challenge in the ED for the following reasons: they cannot be discharged, as they require additional social supports in the home; informal caregivers (i.e. family members) may no longer be able to care for them or; they may need placement where additional nursing support is available. Additionally, without an identifiable medical issue, they are often denied inpatient admission, as it might place these patients at increased risk of infections, unnecessary testing, delirium, adverse events, etc. They become "stuck" in the ED for days or weeks awaiting a more appropriate care arrangement. Presently, there is no consistent approach to the management of CE patients in NL EDs. ED physicians in NL are undoubtedly familiar with the significant challenge that CE patients present and likely have insightful approaches to managing this patient population, however, their experiences with CE patients have yet to be explored. To explore the experience of managing CE patients in NL EDs, a purposive sample of ED physicians was interviewed using a semi-structured interview guide. Responses were analyzed using a grounded theory approach and the major themes are discussed.

MEDICINE

Adjuvant Endocrine Therapy in Premenopausal Women with High-Risk Hormone Receptor-Positive Early Breast Cancer: A Survey of Practice Variations Amongst Canadian Medical Oncologists

Dr. Sarah Devereaux, Jadyn Normore, Dr. Erin Powell

Background: In 2014 and 2015, two sentinel trials were published in the area of adjuvant endocrine therapy in hormone-receptor positive breast cancer in premenopausal women. These trials demonstrated a reduced risk of breast cancer recurrence amongst high-risk women who were treated with a combination of adjuvant aromatase inhibition (AI) and ovarian function suppression (OFS), when compared with those treated with tamoxifen, the standard of care at that time, representing a change in the standard of care in this space. Despite this evidence, there is a paucity of guidance surrounding the many logistical challenges associated with this treatment regimen. The goal of this national survey was to define how providers have navigated the challenges associated with real-world implementation of combination OFS and AI in clinical practice.

Objectives: Our study addressed the following research question: What practice variations exist amongst Canadian Medical Oncologists who treat premenopausal women with high-risk hormone receptor-positive early breast cancer?

Methods: Following ethics board approval, our 18-question electronic survey was sent to Canadian medical oncologists who specialize in breast cancer. This descriptive study involved quantitative and qualitative data analysis, with a focus on key themes elucidated from participant responses.

Results: 21 total survey responses revealed a significant variation in approach to the several practical challenges associated with the use of OFS and AIs. There were only four questions where > 70% of respondents agreed on the same answer. A prominent theme was treatment toxicity and associated poor patient tolerance of this aggressive regimen.

Conclusions: This study highlights a lack of consensus amongst providers who treat premenopausal women with breast cancer, and thus the need for clearer guidance in this area, with the overall goal of standardization of care across our country. Additionally, further research to explore methods of reducing treatment toxicity would likely improve treatment adherence in this area.

GENERAL SURGERY

The Utility of Pre-emptive Ketorolac for Hernia Repair using Local Anesthetic

Erin Bonisteel, Kala Hickey, Jurgienne Umali, Ibrahim Dogar, Geoffrey Warden, Darrell Boone, Alexander Mathieson, Michael Hogan, David Pace

Background: The utility of pre-emptive ketorolac for patients undergoing hernia repair using local anesthetic is unknown, though evidence from other studies suggest there may be short-term benefits. The purpose of this study to was to evaluate the pre-emptive analgesic effect of ketorolac for hernia surgery performed using a local anesthetic.

Methods: Sixty-two patients underwent hernia repair using local anesthesia between August 2022 and September 2023. The first 33 patients received 1% xylocaine as a local anesthetic prior to and during surgery, and the subsequent 29 patients were also given 30mg of intravenous ketorolac prior to surgery. Xylocaine 1% with epinephrine was used in all cases. All patients were given a prescription of oral ketorolac for pain control following surgery and were also advised to take oral acetaminophen as required. No patients were prescribed narcotics. Patients were contacted by telephone on postoperative day (POD) 0, 1 and 7. Pain was assessed using a 4-point visual rating scale (VAS) (0=none, 1=mild, 2=moderate, 3=severe) and quality of recovery was assessed using a 9-item Quality of Recovery Score (QoR-9), both validated questionnaires.

Results: There were 53 males and 9 females enrolled in the study. The mean age was 56 (range 22-88), and mean BMI was 28 (range 21-42). There was no difference in sex, age, or BMI between the control and ketorolac groups. Repairs, performed by four different surgeons, included 29 inguinal hernias, 27 umbilical hernias, 5 incisional hernias, and one femoral hernia. A similar number of types of hernias were repaired in each group. Mean operative time was also similar between groups (28.5 vs 34.1 minutes, p=0.15).

Mean local anesthetic required was greater in the control group (42ml, sd11 vs 33ml, sd15, p=0.2) than the ketorolac group. Mean VAS score recorded on POD0 favored the ketorolac group (1.3 vs 1.0, p=0.04). There was a trend towards better QoR-9 scores on POD0 favoring the ketorolac group (16.1 vs 17.0, p=0.05). There was no difference in VAS score or QoR-9 on POD1 and POD7.

Conclusion: Hernia repair using local anesthesia is safe and well tolerated without the need for narcotics. Pre-emptive ketorolac appears to decrease pain on POD0 and decreases the amount of local anesthetic required at the time of surgery.

FAMILY MEDICINE

Family Physician Crisis: How Does it Impact the Pediatric Emergency Department?

Brittany Bolt MD, Kaya Dooley, Amelia Lacey, Gillian Sheppard MD, FCFP(EM), DRCPSC

The province of Newfoundland is experiencing a family physician crisis. The Newfoundland and Labrador Medical Association (NLMA) reports approximately 136, 000 people in the province do not have a family physician. Lack of access to a primary care provider may lead to more patients, including children, seeking care from the Emergency Department (ED). The primary objective of this project is to determine the number of pediatric patients who visited a tertiary care pediatric ED who do not have access to primary care. Secondarily, the study will look at the characteristics of the children who present to the ED with Canadian Triage Acuity Scale (CTAS) levels of 4 or more and the following traits: urban/rural, age, sex assigned at birth, CTAS score, diagnosis, disposition (home/admit), and family doctor (yes/no). For children with a family doctor, we plan to assess reasons why they sought care from the ED for low acuity complaints (CTAS 4 or higher), and for those without a family doctor, to assess if they have an alternate source of primary care (NP, virtual clinic, etc.). This will be carried out by administering an 11-item questionnaire to patients or patient's parents/guardians in the pediatric ED. One limitation is that the nature of self-reporting in the questionnaire has the potential to bring about response bias. Another is that sample bias is possible as this survey will only be available in one region of the province and for a short time frame. There are no studies to our knowledge that cover this topic within Newfoundland and Labrador, so research in this area is crucial to urge the government and healthcare organizations to act on the lack of access to family doctors.