

# DISCIPLINE OF OBSTETRICS & GYNECOLOGY

33<sup>rd</sup> Annual Resident Research Day  
June 3, 2022



## PROGRAM

**MEMORIAL**  
UNIVERSITY

FACULTY OF MEDICINE

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Discipline of Obstetrics & Gynecology  
33rd Annual Resident Research Day  
1M102

**PART 1: ORAL PRESENTATIONS**

- 8:30 **Introduction and Welcome**  
*Dr. Lesa Dawson*
- 8:40 **Opening Remarks**  
*Dr. Laurie Twells*
- 8:45 **Transverse Abdominis Plane (TAPs) Block versus Wound Infiltration for Analgesia after Pfannenstiel Laparotomy for Gynecological Surgery: A Randomized Controlled Trial**  
*Dr. Helena Paddle, Dr. Michaela Ryan*
- 9:00 **The Maternal and Neonatal Outcomes of Methadone Use in Pregnancy: A Single-Center Retrospective Cohort Study from 2005-2020**  
*Dr. Adam Comerford*
- 9:20 **The Prevalence of Dissemination and Implementation Research and Training Grants at National Cancer Institute–Designated Cancer Centers**  
*Dr. Ada Hsieh*
- 9:40 **Early Prenatal Care Providers and Prenatal Screening: Perceptions and Practice Patterns of Prenatal Counselling in Newfoundland and Labrador**  
*Dr. Nicole Ralph*
- 10:00 **The Impact of COVID-19 Restrictions on Pregnant and Post-Partum Women: A Mixed Methods Study**  
*Dr. Stephanie Gill*
- 10:20 **The Impact of Gestational Age on the Development of Neonatal Abstinence Syndrome: A Retrospective Cohort Study**  
*Dr. Emily Ryan (Virtual)*

**10:40 NUTRITION BREAK AND POSTER PRESENTATIONS**

**Exploration of the Optimal Model of Systematic Family Member Outreach in High-risk Families across Canada**  
*Dr. Kimberly Burke*

**The Uptake of Opportunistic Salpingectomy as a Benign Gynecologic Surgery in General Population of Newfoundland and Labrador**  
*Dr. Tara Zadabedini*

**Vulvar Squamous Cell Carcinoma Metastasizes to Lung Pleura: A Case Report**  
*Dr. Stephanie Gill*

**The Impact of Feedback on Laparoscopic Skills for Surgical Residents during COVID-19**  
*Dr. Chelsea Harris*

**A Constellation of Rare Gynecological Malignancies and Familial Adenomatous Polyposis  
Gastrointestinal Adenocarcinoma: A Case Report**

*Dr. Stephanie Gill*

**RAD51C: Proposed Pathogenic Founder Mutation Causing Breast & Ovarian Cancer in  
Newfoundland**

*Dr. Kerri Smith*

**Exploring Potential Founder Mutations in Fanconi Anemia Cases in Newfoundland**

*Dr. Kaitlyn Jarvis*

**PART 2: ORAL PRESENTATIONS**

**11:15 Comparing Self-swab or Health Care Provider Swab for Identifying Group B Streptococcus  
Colonization in Pregnancy: A Systematic Review and Meta-analysis**

*Dr. Mandy Litt*

**11:35 Prolonged Exogenous Testosterone in Transgender Male with Diagnosis of Endometrial  
Adenocarcinoma: A Case Report**

*Dr. Stephanie Gill*

**11:55 Enhanced Recovery after Surgery (ERAS): How Does an Educational Session Impact the  
Perception of ERAS Principles among Perioperative Care Staff**

*Dr. Tracey Roche*

**12:15 Canadian Management of Serous Tubal Intraepithelial Carcinoma (Can-STIC)  
Memorial University Division**

*Dr. Ada Hsieh*

**LUNCH AND GUEST SPEAKER**

**12:40 LUNCH**

**1:00 Opportunistic Salpingectomy for Ovarian Cancer Prevention**

*Dr. Gillian Hanley*

**PART 3: ORAL PRESENTATIONS**

**2:00 When Should Pregnant Residents Discontinue On-call? A Mixed-Methods study**

*Dr. Mandy Litt*

**2:20 Earlier Detection of Lynch Syndrome: Could we Detect Women with Lynch Syndrome Prior to  
their First Cancer?**

*Dr. Joannie Neveu*

**2:40 A Policy Proposal for a Dedicated Hereditary Breast and Ovarian Cancer Syndrome Follow up and  
Navigation Program**

*Rebecca Puddester*

**3:00 Perception of Birth versus Lived Experience: The Role of Social Media**

*Dr. Charlotte Roy (Virtual)*

- 3:20 **Presentation of the James T. Dunne Award**  
Dr. Deanna Murphy
- 3:25 **Closing Remarks**  
Dr. Lesa Dawson
- 6:30 **Awards Presentation Dinner and Dance**  
Yellowbelly Brewery

## **LAND ACKNOWLEDGEMENT**

*I would like to respectfully acknowledge the territory in which we gather, as the ancestral homelands of the Beothuk, and the island of Newfoundland as the ancestral homelands of the Mi'kmaq and Beothuk. I would also like to recognize the Inuit of Nunatsiavut and NunatuKavut and the Innu of Nitassinan, and their ancestors, as the original people of Labrador. We strive for respectful relationships with all the peoples of this province as we search for collective healing and true reconciliation and honour this beautiful land together.*

# PART 1: ORAL PRESENTATIONS

# **TRANSVERSE ABDOMINIS PLANE (TAPS) BLOCK VERSUS WOUND INFILTRATION FOR ANALGESIA AFTER PFANNENSTIEL LAPAROTOMY FOR GYNECOLOGICAL SURGERY: A RANDOMIZED CONTROLLED TRIAL**

Paddle H, Ryan M, Gill A, Au K

Memorial University, Department of Obstetrics and Gynecology

**Objective:** To compare the analgesic effect of a TAP block versus a local wound infiltration in patients undergoing a pfannenstiel incision laparotomy for gynecological surgery.

**Methods:** The double blind RCT will take place in two parts: a pilot study to determine the current analgesic effects of standard practice at a tertiary care centre in women undergoing gynecological surgery with a pfannenstiel incision and a double blind RCT to compare and contrast the effects of a TAPs block versus local wound infiltration for postoperative pain control.

Women undergoing gynecological surgery involving a pfannenstiel incision will be recruited to participate in the RCT. Participants will be randomized into two groups: one group receiving a TAP block with placebo at the incision and one receiving local wound infiltration with placebo at the TAP block site. Participants will be asked to rate their post-operative pain on a Visual Analog Scale scale at 6hrs, 12hrs and 24 hrs postoperatively. Exclusion criteria for participants in the study include those undergoing a gynecological oncology procedure, those with recent opioid use, or hypersensitivity to the medications being used in the study.

**Results:** Pending

**Conclusion:** Pending

## THE MATERNAL AND NEONATAL OUTCOMES OF METHADONE USE IN PREGNANCY: A SINGLE-CENTER RETROSPECTIVE COHORT STUDY FROM 2005-2020

Comerford A, Ryan R, Murphy P, O'Brien D, Crane J  
Memorial University, Department of Obstetrics and Gynecology

**Objective:** To compare the maternal and neonatal outcomes for live, singleton pregnancies of patients using methadone with those who do not use methadone at our center.

**Methods:** A retrospective cohort study of patients with live, singleton pregnancies who were delivered in St. John's, NL, between April 2005 and December 2020 was completed. Data was obtained from the Newfoundland & Labrador Provincial Perinatal Program. Outcomes included the rates of NICU admission, preterm birth, fetal growth restriction, and rates of congenital anomalies. Univariate and logistic regression analyses were performed.

**Results:** A total of 36,523 patients were included. 368 patients were taking methadone during pregnancy while 36,155 did not. Neonates born to mothers using methadone were more likely to require admission to NICU (45.7 vs. 10.2%;  $p < 0.001$ ) (RR 4.46; 95% CI 3.97-5.00). Mothers using methadone were more likely to experience preterm birth  $< 34$  weeks (9.5 vs. 3.9%;  $p < 0.001$ ) (RR 2.43; 95% CI 1.77-3.35) and  $< 37$  weeks (23.1 vs. 8.9%;  $p < 0.001$ ) (RR 2.61; 95% CI 2.16-3.15). Babies born to mothers taking methadone were more likely to be growth restricted (19.8 vs. 4.1%;  $p < 0.001$ ) (RR 4.82; 95% CI 3.90-5.95). There was an increased risk of microcephaly among babies exposed to methadone (1.6 vs. 0.05%;  $p < 0.001$ ) (RR 34.68; 95% CI 13.75-87.45). Statistical analyses of other major congenital anomalies were not significant. Univariate analysis showed that 53.0% of mothers using methadone were breastfeeding at the time of discharge compared to 72.3% of mothers not using methadone. However, multiple regression analysis revealed an adjusted odds ratio (aOR) of 1.538 (95% CI 1.23-1.92) for breastfeeding in mothers prescribed methadone.

**Conclusions:** Methadone is known to be a safe and effective treatment for opioid use disorder in pregnancy. Data from our center shows that babies of mothers who are prescribed methadone are at an increased risk of requiring NICU admission, preterm birth, and IUGR. Previous research at our center showed an association between methadone and congenital anomalies. Our study shows an increased risk of microcephaly in newborns exposed to methadone during pregnancy, but no significant association with other major anomalies.

## **THE PREVALENCE OF DISSEMINATION AND IMPLEMENTATION RESEARCH AND TRAINING GRANTS AT NATIONAL CANCER INSTITUTE–DESIGNATED CANCER CENTERS**

Hsieh A, Mueller N, Ramanadhan S, Lee R, Emmons K

Memorial University, Department of Obstetrics and Gynecology

<sup>1</sup>Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, MA, USA,

and <sup>2</sup>Dana-Farber/Harvard Cancer Center, Boston, MA, USA

**Objective:** Dissemination and implementation (D&I) research is a key factor in the uptake and use of evidence-based cancer control interventions. National Cancer Institute (NCI)–designated cancer centers are ideal settings in which to further D&I knowledge. The purpose of this study was to summarize the characteristics of NCI-funded D&I science grants in the nation’s cancer centers to understand the nature, extent, and opportunity for this key type of translational work.

**Methods:** We identified 104 active NCI-funded D&I research or training grants across the 64 cancer centers; 57.8% of cancer centers had at least 1 NCI-funded D&I grant. Most awards (71.1%) were for research grants. Training grants constituted 29.1% of D&I-focused grants. Overall, 50.0% of grants (n 1/4 52) concentrated on specific cancers. Almost two-thirds of grants (n 1/4 68, 65.4%) had a stated health equity focus.

**Conclusion:** More than one-half of NCI-designated cancer centers have active funding in D&I science, reflecting a substantial investment by NCI. There remains considerable room for further development, which would further support NCI’s translational mission.

## **EARLY PRENATAL CARE PROVIDERS AND PRENATAL SCREENING: PERCEPTIONS AND PRACTICE PATTERNS OF PRENATAL COUNSELLING IN NEWFOUNDLAND AND LABRADOR**

Ralph N, Cook C

Memorial University, Department of Obstetrics and Gynecology

**Objective:** Informed access to prenatal screening (PNS) services is of paramount importance. All pregnant women should be offered prenatal screening regardless of risk factors and this counselling should be performed in a manner such that it empowers them to make their own informed choice. In Newfoundland and Labrador we have a shared care model of prenatal care. The majority of early prenatal care in this province is provided by Family Physicians and Nurse Practitioners prior to referral to an Obstetrician Gynecologist at twenty eight weeks gestation. The present study aims to examine the perceptions and practice patterns of early prenatal care providers in the province of Newfoundland and Labrador as it pertains to PNS. Ultimately, we would like to harness this information to facilitate the creation of a learning module for early prenatal care providers in order to educate about, and advocate for, offering comprehensive prenatal screening to all obstetrical patients.

**Methods:** A digital survey will be disseminated to Family Physicians, Nurse Practitioners, and Obstetrician Gynecologists in Newfoundland and Labrador via association e-mail distribution lists. This digital survey will capture practice patterns of PNS including frequency with which PNS is offered, perceived comfort levels with PNS counselling, knowledge of current provincial PNS options and any perceived barriers to providing regular PNS counselling.

**Results:** This project has received Ethical approval by the Human Research Ethics Authority. The survey is being disseminated to the aforementioned eligible participants in the coming weeks. Providers who actively provide prenatal care will be eligible to participate in this survey.

**Conclusion:** This information will help guide the creation of a learning module to empower community prenatal care providers to provide comprehensive, up-to-date PNS counselling.

## **THE IMPACT OF COVID-19 RESTRICTIONS ON PREGNANT AND POST-PARTUM WOMEN: A MIXED METHODS STUDY**

Gill S, Wong K, Cook C

Memorial University, Department of Obstetrics and Gynecology

**Objective:** To explore pregnant individual's experiences of obstetrical care during the COVID-19 pandemic, including their well-being, self-described psychological health, perception of the pandemic regulations and their plans for future pregnancy.

**Methods:** This is a mixed-methods study with quantitative questionnaire and qualitative semi-structured interview. Pregnant and post-partum people  $\geq 16$  years old were recruited in prenatal and obstetricians' offices in St. John's Newfoundland Canada. They completed a questionnaire and were invited to participate in a follow-up semi-structured interview. Descriptive statistics were used to summarize patient characteristics and questionnaire data. Interviews were transcribed, and subsequently coded by two researchers using a grounded-theory approach for theme development.

**Results:** There were 162 completed questionnaires: 71% were antepartum and 29% were postpartum. About 62% of respondents were worried about contracting COVID-19 in the community during their pregnancy, while 45% were worried about contracting it at the hospital. Most participants (75%) stated that COVID-19 had impacted their plans for future pregnancies. There were 17 completed semi-structured interviews. The following themes were identified in the semi-structured interviews: increased stress and anxiety during pre-natal care due to regulations restricting the presence of partners which also contributed to the partner feeling like they missed out on the pregnancy experience, anxiety regarding the impact of restrictions on the intrapartum experience such as the possibility of having no support people during labour and birth, and concerns about the lack of post-partum support and in person resources for mental health and breastfeeding.

**Conclusion:** This research brings attention to the difficulties that women who have been pregnant and given birth during the COVID-19 pandemic have faced. We hope this research will help guide future policy and restrictions during the ongoing pandemic and for future health care planning.

# THE IMPACT OF GESTATIONAL AGE ON THE DEVELOPMENT OF NEONATAL ABSTINENCE SYNDROME: A RETROSPECTIVE COHORT STUDY

Ryan E, Allen V, Brothers S, Brown M, Woolcott C  
Dalhousie University, Department of Obstetrics and Gynecology

**Introduction:** Some evidence suggests that, among infants exposed to opioids during pregnancy, those born at earlier gestational ages have a decreased risk for Neonatal Abstinence Syndrome (NAS). The objective of this study was to investigate the association between gestational age at delivery and the development of NAS requiring pharmacotherapy.

**Methods:** This retrospective cohort study included pregnancies to Nova Scotia residents complicated by prescribed and illicit opioid use in the third trimester, from 2003 to 2016. Stillbirth, early neonatal death, and infants with gestational age <34 weeks were excluded. Data from the Nova Scotia Atlee Perinatal Database were supplemented by chart reviews. The adjusted relative risk (RR) of NAS requiring pharmacotherapy in infants born at 34-<37 and 37-<39 weeks' gestation compared to 39+ weeks with 95% confidence intervals (CI) were estimated using robust Poisson regression. Multiple imputation was used to accommodate missing data.

**Results:** Of 430 infants exposed to maternal opioid use in the third trimester, 71% were managed with opioid agonist therapy (OAT). 32%, 16%, and 52% were delivered at 34-<37, 37-<39, and 39+ weeks, respectively; within these categories of gestational age, 51%, 42%, and 40% were affected by NAS. Relative to infants delivered at 39+ weeks, those delivered at 34-<37 weeks were 40% (CI 3, 89%) more likely and those delivered at 37-<39 weeks were 15% (CI -12, 50%) more likely to be affected by NAS. No association was observed among the subgroup of infants exposed in utero to OAT for management of opioid use disorder.

**Conclusion:** The association between gestational age and NAS remains unclear. As this information is important for clinical obstetrical and newborn management and the identification of relevant clinical resources, further work is recommended.

# POSTER PRESENTATIONS

## **EXPLORATION OF THE OPTIMAL MODEL OF SYSTEMATIC FAMILY MEMBER OUTREACH IN HIGH-RISK FAMILIES ACROSS CANADA**

Burke K, Etchegary H, Hodgkinson K, Dawson L

Memorial University, Department of Community Health and Humanities

**Objective:** To explore and describe preferences for various methods of family member outreach among BRCA1/2 and Lynch syndrome mutation carriers and their at-risk relatives.

**Methods:** The current research is a cross-sectional online survey study. The study targeted participants within Canada above the age of 18 years. The inclusion criteria were: carriers of BRCA1/2 pathogenic variants or other mutations causing HBOC, carriers of Lynch syndrome pathogenic variants, previous history or no previous history of cancer, having at least one relative at increased risk of genetic cancer who is eligible for genetic counselling, being a member of a family with an identified BRCA1/2 mutation or other HBOC mutation who was informed of the family's risk by a proband, being a member of a family with a Lynch causing mutation who was informed about the family's inherent risk by a proband or carrier, having the ability to or willingness to provide informed consent and having the ability to understand English Language.

**Results:** Pending

**Conclusion:** Pending

## **THE UPTAKE OF OPPORTUNISTIC SALPINGECTOMY AS A BENIGN GYNECOLOGIC SURGERY IN GENERAL POPULATION OF NEWFOUNDLAND AND LABRADOR**

Zadabedini T, Wilson B, Etchegary H, Hodgkinson K, Dawson L  
Memorial University, Department of Community Health and Humanities

**Objective:** Review of the current evidence regarding ovarian cancer risk reduction with the implementation of opportunistic salpingectomy. Determine the uptake of opportunistic salpingectomy (OS) in ovarian cancer prevention in NL by describing the current use of OS in the NL population of women. Evaluate the percentage of hysterectomies and tubal ligation (with ovarian preservation) that are now being done that incorporate OS in the province of NL

Track trends in the uptake of opportunistic salpingectomy and tubal ligation over time

**Methods:** We have requested secondary data from Cancer care registry and Newfoundland and Labrador Centre for Health Information (NLCHI). The study population is women in eastern health region who underwent gynecologic surgeries for benign reasons between 2009 and 2019. Canadian Classification for Health Intervention codes will be used to identify patients who underwent the surgical procedures of interest. We have requested demographic information, reproductive history (gravidity, parity, oral contraceptive use, and hormone therapy), and medical and surgical history. Upon receipt of the variables, descriptive statistics, as well as prevalence, will be analyzed. If possible, inferential analysis will also be performed to show the potential association between opportunistic salpingectomy and the incidence of ovarian cancer.

**Results:** Review of previous research that have been done in other jurisdictions showed the benefit of opportunistic salpingectomy as a risk reduction procedure for ovarian cancer. To date, this has not been evaluated in the province of NL. We are also waiting for NLCHI to deliver the dataset with the requested variable, so there are no results for this study yet.

**Conclusion:** Pending

## VULVAR SQUAMOUS CELL CARCINOMA METASTASIZES TO LUNG PLEURA: A CASE REPORT

Gill S, Neveu J

Memorial University, Department of Obstetrics and Gynecology

**Introduction:** Vulvar cancer is the fourth most common gynecological malignancy with squamous cell carcinoma (SCC) being the most common histological subtype. Majority of vulvar cancers are diagnosed at early stages and those diagnosed in advanced stages rarely have finding of distant metastases. Metastatic vulvar disease has a poor prognosis with limited proven treatment options.

**Case:** A 66-year-old female with a 4-year history of vulvar HSIL, presented with increasing vulvar pain. A biopsy confirmed SCC of the vulva. She was surgically managed with a modified radical vulvectomy and bilateral sentinel groin lymph node resection. Pathology confirmed Stage 1B SCC of the vulva. Follow-up CT questioned a right groin seroma, with no clinical signs of local recurrence. This area was biopsied, and pathology confirmed metastatic SCC. She underwent a whole-body PET scan that demonstrated significant FDG uptake with right-sided pleural thickening. Given the rarity of this presentation and her history of Wagner's Disease, she underwent a CT guided lung-biopsy that confirmed metastatic SCC of the vulva to the lung pleura. The patient proceeded to have one round of palliative carboplatin and paclitaxel, however given the severity of her disease died shortly after this treatment.

**Comments:** This is an extremely rare presentation of metastatic SCC of the vulva to the lung pleura. This case highlights the difficulty in treating advanced metastatic SCC of the vulva and the lethality of this disease.

## THE IMPACT OF FEEDBACK ON LAPAROSCOPIC SKILLS FOR SURGICAL RESIDENTS DURING COVID-19

Harris C, Thorburn C, Smith C, Kennedy R, Skanes C  
Memorial University, Department of Obstetrics and Gynecology

**Objective:** Determine how real-time feedback compares to delayed written feedback on junior resident performance of laparoscopic skills using at-home laparoscopic training boxes.

**Methods:** Surgical residents were randomized into 3 groups: control group (Group A), delayed feedback group (Group B), and live feedback group (Group C). Data collection occurred over 5 months, during which participants practiced a set of prescribed laparoscopic skills. Intervention groups (Group B and C) received delayed or live feedback on their practice.

**Results:** Twelve residents were recruited; one was lost to follow up. The average number of pegs transferred correctly increased by 2.8 +/- 1.7 for Group A, 3.0 +/- 2.6 for Group B, and 2.0 +/- 1.4 for Group C. Post hoc testing resulted in Group B outperforming Group A and Group C. For the intracorporeal knot tying task, Group A had no change in overall performance. Groups B and C both improved, however, no significant difference was noted between groups. All groups improved in number of throws completed, however, there was no significant difference between groups. All groups reported an increase in confidence at the end of the study. Live feedback was preferred by participants based on qualitative data.

**Conclusion:** Access to box trainers allowed residents to practice at home, leading to improved skill and confidence. Participants receiving delayed feedback showed a significant improvement in peg transfer. Further studies with larger sample sizes should be conducted on how feedback, live versus delayed, can affect resident outcomes in laparoscopic surgery skills.

## **A CONSTELLATION OF RARE GYNECOLOGICAL MALIGNANCIES AND FAMILIAL ADENOMATOUS POLYPOSIS GASTROINTESTINAL ADENOCARCINOMA: A CASE REPORT**

Gill S, Pirzada A, Power P, Neveu J

Memorial University, Department of Obstetrics and Gynecology

**Introduction:** Ovarian microcystic stromal tumors (MST) are a rare subtype of sex-cord stromal tumors. MST has been associated with familial adenomatous polyposis (FAP), and it is accepted that MST occurring with FAP is the result of the same chromosomal germline mutation. Unrelated, uterine tumor resembling ovarian sex cord tumor (UTROSCT) is a subtype of uterine sarcoma, whose cellular origin is still undefined and to our knowledge there has not been a published case of an association between UTROSCT and FAP.

**Case:** This is a case of MST that is associated with a known adenomatous polyposis coli (APC) gene positive FAP that had progressed to adenocarcinoma of the colon. During the patient's workup of an ampullary adenoma associated with her FAP, an incidental pelvic mass was identified and was described as an enlarged uterus with a thickened endometrium. Subsequent imaging identified heterogenous bulky ovaries. This patient underwent surgical resection including a total abdominal hysterectomy, bilateral salpingo-oophorectomy, omentectomy, bilateral pelvic sentinel lymph node biopsy during her planned total proctocolectomy and transduodenal ampullectomy. Extensive histological and immunohistochemical investigations were completed and the final pathology report revealed a unique compilation of FIGO Stage II, grade 1 endometrioid endometrial adenocarcinoma, FIGO stage IB ovarian microcystic stromal tumor, a UTROSCT, two distinct adenocarcinomas of the colon (T2N0 and T1N0) and tubular adenoma of the ampulla. The pathology confirmed the MST and UTROSCT both stained positive for beta-catenin. The patient completed brachytherapy and no chemotherapy was offered due to the low malignant potential.

**Comments:** To our knowledge this is the first reported case of uterine tumor resembling ovarian sex cord presenting with bilateral MST and APC gene positive FAP colon adenocarcinoma.

## **RAD51C: PROPOSED PATHOGENIC FOUNDER MUTATION CAUSING BREAST & OVARIAN CANCER IN NEWFOUNDLAND**

Smith KN, Dawson LM, Puddester R, Gill S, Werdyani S, Hansford SE, Ndikumana R, Benteau T, Young TL, O’Rielly DD

Memorial University, Department of Obstetrics and Gynecology

Ovarian cancer is the most lethal gynecologic cancer in Canada, with over 3000 women diagnosed annually and a five-year survival rate of 44%

1. One quarter of hereditary breast and ovarian cancer (HBOC) families carry germline mutations in the homologous recombination (HR) genes BRCA 1 and 2 and benefit from well-established risk-reduction guidelines.
2. Amongst the most important HBOC genes is RAD51C, a HR gene correlated with elevated risks of ovarian and triple-negative breast cancer.
3. The island of Newfoundland (NL), Canada has a high burden of breast cancer relative to the rest of Canada (136.6 versus 126.8 per 100,000) as well as a slightly elevated incidence of ovarian cancer. NL is a genetic isolate, subject to the effects of founder mutations leading to dominant disorders.
4. With the benefit of a population-based publicly funded health care system, a centralized cancer registry, large kindreds and a cohesive oncologic medical community, NL represents an ideal locale for the study of hereditary disease. Researchers at Memorial University study rare genes and phenotypes with the goal that future genotype-phenotype correlation, variant classification, and risk stratification will reduce the burden of disease and improve prevention in mutation carriers worldwide.

## EXPLORING POTENTIAL FOUNDER MUTATIONS IN FANCONI ANEMIA CASES IN NEWFOUNDLAND

Jarvis K, Turner L (M.D), Smith K (Ph.D), Dawson L (M.D)

Memorial University, Department of Obstetrics and Gynecology

**Objective:** The primary objective of this study is to determine if founder mutations exist in known Fanconi Anemia (FA) cases in NL. Further, we will evaluate the clinical profile, phenotype and genotype of known cases of FA in Newfoundland.

**Methods:** We will review previously collected data from known FA cases that have presented at the Janeway Children's Hospital in St. John's, Newfoundland. In an effort to better characterize the current knowledge of FA in Newfoundland we will query Provincial Medical Genetics Program (PGMP) data base SHIRE as well as paper records as it relates to the diagnostic reference to Fanconi Anemia. Further, we will review medical records from Meditech in Eastern Health to summarize the clinical profile, phenotype and genetic testing results.

We will analyze and compare data from each FA patient to determine if there are correlations existing in phenotype and genotype presentations of FA and determine if it is probable that a founder mutation exists within FA cases in Newfoundland.

**Results:** This project is still pending approval from HREB, hence we do not have any results yet. Ethics approval is expected by this summer, data collection and analysis are scheduled to begin in September 2022 and continue until June 2023. At this point knowledge translation and reporting the findings will begin.

**Conclusion:** With the absence of results a conclusion cannot be drawn. The direction of further research cannot be determined at this time either.

## **COMPARING SELF-SWAB OR HEALTH CARE PROVIDER SWAB FOR IDENTIFYING GROUP B STREPTOCOCCUS COLONIZATION IN PREGNANCY: A SYSTEMATIC REVIEW AND META-ANALYSIS**

Litt M, Gill S, Carson K, Crane J

Memorial University, Department of Obstetrics and Gynecology

**Objective:** The primary outcome is to determine the diagnostic accuracy of rectovaginal swabs collected by patients and to compare the sensitivity and specificity between patient self-collected rectovaginal swabs, versus health care provider collected rectovaginal swabs, in detecting GBS colonization. The secondary outcome will be assessing patient preference.

**Methods:** A protocol is currently in development. Once complete, this systematic review will be registered with the International Prospective Register of Systematic Reviews (PROSPERO). A computerized search using MEDLINE, EMBASE, CINAHL, and Cochrane Library databases will be conducted. All eligible articles will be included, and a meta-analysis will be completed for all studies that determine sensitivity and specificity of both self-collected and healthcare collected GBS swabs with physician acquired swabs being the gold standard. This process will be tracked using the PRISMA protocol and the reviewing of articles will be done using Covidence software™. The Quality Assessment of Diagnostic Accuracy Studies version 2 (QUADAS-2) will be used for the risk of bias and applicability assessment.

**Results:** Pending

**Conclusion:** Pending

# **PROLONGED EXOGENOUS TESTOSTERONE IN TRANSGENDER MALE WITH DIAGNOSIS OF ENDOMETRIAL ADENOCARCINOMA: A CASE REPORT**

Gill S, Anderson M, Neveu J

Memorial University, Department of Obstetrics and Gynecology

**Introduction:** A transmasculine person is an individual who was assigned female gender at birth but has a masculine-spectrum gender identity. It has been well established that the primary treatment for gender affirmation consists of hormone replacement therapy (HRT), with optional gender confirmation surgery. To our knowledge there is a small number of cases of endometrial cancer reported in transmasculine persons following testosterone therapy.

**Case:** A 33-year-old transgender male, assigned female at birth, presented with a six-month history of pelvic pain, pressure, abnormal uterine bleeding, bloating, urinary incontinence and incomplete voiding. As part of his transition, he was taking exogenous testosterone therapy for nine years. MRI revealed a heterogeneously enhancing centrally necrotic malignant pelvic mass appearing to arise from the uterine fundus. A staging CT identified pathologic lymphadenopathy in the chest and pulmonary nodules. Based on imaging alone the patient was considered to have stage 4 disease. Surgical resection was performed for symptom control, not curative intent. He had a laparotomy, total abdominal hysterectomy, bilateral salpingectomy, right oophorectomy, omentectomy and pelvic washings. The left ovary appeared normal and was left in situ as the patient asked for fertility preservation. The final diagnosis was Stage IV endometrioid endometrial carcinoma with squamous differentiation. He received palliative chemotherapy consisting of six cycles of carboplatin and paclitaxel. The tumor was androgen receptor negative, and after a discussion of the risks and benefits, he chose to restart his testosterone therapy.

**Comments:** This case report brings awareness to the potential link between prolonged exogenous testosterone use in the transmasculine population and the development of pro-estrogen cancers. We feel there will be an increase in the prevalence of cases as the transmasculine population grows and barriers to health care are overcome. Finally, with more evidence to support this link we may be able to improve transgender care by having more evidence for prophylactic hysterectomies and development of evidence-based cancer screening.

## **ENHANCED RECOVERY AFTER SURGERY (ERAS): HOW DOES AN EDUCATIONAL SESSION IMPACT THE PERCEPTION OF ERAS PRINCIPLES AMONG PERIOPERATIVE CARE STAFF**

Roche T, Hsieh A, Neveu J

Memorial University, Department of Obstetrics and Gynecology

**Objective:** The objective of this study is to assess the effectiveness of a one-hour ERAS educational session, which will be administered as part of the ERAS protocol implementation.

**Methods:** Potential participants (all staff involved in the perioperative care pathway) will be asked to attend a one-hour educational session as part of the ERAS protocol implementation. An anonymous questionnaire will be distributed to all potential participants to be completed prior to the education session. The same questionnaire will again be distributed to all eligible participants following the education session. Multiple one-hour sessions will be offered to accommodate all staff. Data collection will begin prior to the first session and continue until the last session is complete.

**Results:** Pending

**Conclusion:** Pending

## **CANADIAN MANAGEMENT OF SEROUS TUBAL INTRAEPITHELIAL CARCINOMA (CAN-STIC) - MEMORIAL UNIVERSITY DIVISION**

Hsieh A, Power P

Memorial University, Department of Obstetrics and Gynecology

**Objective:** To determine the management and epidemiological characteristics of Serous Tubal Intraepithelial Carcinoma (STIC) in the Canadian setting.

**Methods:** This is a multi-centre national initiative involving a retrospective chart review. Anticipated national cases for review will be approximately 150. Chart review will include collection of clinical data to determine the incidence and type of adjuvant treatment in addition to the rate of recurrence in women with STIC. Epidemiological data will also be collected for national database. Pathology results and data will be collected to undergo a central pathology review at Mount Sinai Hospital Pathology department. Each centre's data will then be centralized to compile into a national database in order to further determine the management within Canada for STIC.

**Results:** From January 1, 1998, to December 31, 2018, there was a total of 8 isolated STIC lesions found within Eastern Health. An additional 13 cases had concurrent STIC lesions with ovarian malignancies. Among those with isolated STIC lesions, the average age at time of diagnosis was 57.5 years with an average BMI of 31.79 kg/m<sup>2</sup>. Half were known BRCA carriers who underwent prophylactic surgery. Five patients underwent completion surgery following the diagnosis, 2 continued with surveillance, and 1 with chemotherapy. There was an average time of follow up of 38.75 months. Of the 8 patients, one developed ovarian cancer within 5 months of the initial STIC diagnosis.

**Conclusion:** STIC lesions is an emerging pathology that is still poorly understood when found in isolation. It is more diagnosed in the past decade with more recognition within the last few years. Within Eastern Health, there has been 8 isolated STIC cases with 1 recurrence with ovarian cancer. A national database is an important tool to provide management guidance and epidemiological data.

# PART 2: LUNCH AND GUEST SPEAKER



## OPPORTUNISTIC SALPINGECTOMY FOR OVARIAN CANCER PREVENTION

**DR. GILLIAN HANLEY, PHD**  
**Assistant Professor, University of British Columbia**  
**Department of Obstetrics and Gynecology**

Dr. Gillian Hanley, PhD, is an Assistant Professor in the department of Obstetrics & Gynaecology at the University of British Columbia. She is a Canada Research Chair in Population-based Gynecologic and Perinatal outcomes, a CIHR New Investigator, a Michael Smith Foundation Scholar and a Janet D. Cottrelle foundation scholar. Her research focus combines her substantive interest in women's health with her training in economics, health services research, and epidemiology to answer questions related to gynecologic cancer, primarily ovarian cancer prevention and survivorship, and perinatal mental health, including how best to treat depression and anxiety during pregnancy.

# PART 3: ORAL PRESENTATIONS

## WHEN SHOULD PREGNANT RESIDENTS DISCONTINUE ON-CALL? A MIXED-METHODS STUDY

Litt M, Fowler E

Memorial University, Department of Obstetrics and Gynecology

**Objective & Methods:** Currently, being refined. The primary outcome is to determine when pregnant residents should discontinue overnight call. A national survey will be distributed determining resident satisfaction rates and pregnancy complications. Second, participants will be recruited through the survey to conduct individual or focus group interviews.

**Results:** Pending

**Conclusion:** Pending

## **EARLIER DETECTION OF LYNCH SYNDROME: COULD WE DETECT WOMEN WITH LYNCH SYNDROME PRIOR TO THEIR FIRST CANCER?**

Neveu J, Dawson L

Memorial University, Department of Obstetrics and Gynecology

**Objective:** To determine the incidence of abnormal protein expression in women with endometrial intraepithelial neoplasia

**Methods:** This will be a prospective two years study evaluating routine MLH1, PMS2, MSH2, MSH6 IHC on all cases of EIN on endometrial biopsy or hysterectomy within EH. We will identify the percentage of women with EIN who have LS and determine if this would add value for the health systems and the patients.

**Results:** Pending

**Conclusion:** Pending

## **A POLICY PROPOSAL FOR A DEDICATED HEREDITARY BREAST AND OVARIAN CANCER SYNDROME FOLLOW UP AND NAVIGATION PROGRAM**

Puddester R, Maddigan J

Memorial University, Department of Obstetrics and Gynecology

**Objective:** Individuals who carry certain inherited pathogenic genetic variants (PVs) have an increased lifetime risk of developing hereditary breast and ovarian cancer (HBOC). Despite the effectiveness of risk reduction modalities, many PV carriers in Newfoundland and Labrador (NL) are unidentified. Moreover, for known PV carriers in the province, there is no systemic support available to them in their long-term risk management. Therefore, these high-risk individuals and families are not receiving the information and support needed to live a long, healthy life vis-à-vis their carrier status. The purpose of this practicum is to provide a rationale and recommendations for a prospective nurse navigation and follow-up program for HBOC PV carriers in NL.

**Methods:** A literature review, key informant consultations, and an environmental scan were conducted and used to inform a policy proposal for a novel program.

**Results:** Significant systemic barriers exist for PV carriers; many HBOC PV carriers and families have unmet information and psychosocial needs in the current primary care provider-dependent follow-up processes. A need exists for a novel follow-up and navigation and program. The literature review, consultations, and environmental scan were used to inform the five sub recommendations for the follow-up program including: a 1) carrier registry, 2) a nurse-led navigation program for PV carriers, 3) a multidisciplinary approach, 4) a person and family-centered approach, and 5) virtual and electronic delivery methods.

**Conclusion:** There is an unrivaled, cost-effective opportunity to improve outcomes in NL HBOC PV carriers through the proposed follow-up and navigation program.

## **PERCEPTION OF BIRTH VERSUS LIVED EXPERIENCE: THE ROLE OF SOCIAL MEDIA**

Roy C, Murphy S

Memorial University, Department of Obstetrics and Gynecology

**Objective:** To understand the use and impact of social media on first-time mother's expectations and experience of labour and delivery

**Methods:** The study is a qualitative analysis using semi-structured open-ended face-to-face interviews. First-time mothers seeking prenatal care will be recruited by their care provider to participate in two interviews; to triangulate data, the study is formatted to include an "entry" interview and an "exit" interview. The semi-structured interview format will consist of 5 primary questions, with follow-up probes to allow for exploration of themes. Analysis of the interviews will be completed by developing a codebook using inductive thematic analysis, beginning with open coding to code concepts found in the data. Once codes have been created, categories will be developed to identify themes. Two researchers will participate in the development of the codebook. The objective is to identify themes in how first-time mothers utilize social media, and how this might affect their expectations for labour and delivery. This may assist in identifying ways in which to support first-time mothers in the labour and delivery experience, by identifying gaps in knowledge and/or creating educational material for social media.

**Results:** Pending

**Conclusion:** Pending

We are grateful to our research day judges for their contribution to a successful Resident Research Day

Dr. Deanna Murphy  
Dr. Joannie Neveu  
Dr. Patti Power  
Dr. Claire Elliott  
Dr. Joan Crane

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*Thank you for joining us for our  
33<sup>rd</sup> Annual Resident Research Day*

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