# MAID REFERRAL ENHANCEMENT: Improving the Processes in Medical Assistance in Dying

#### Physician Lead: Dr. Diane Wallis

Location: Nanaimo Specialty: MAiD Practitioner

#### **Background:**

Legislation governing Medical Assistance in Dying (MAID)was passed by Canadian Federal Parliament June 17, 2016

- Physician lead has been a Nanaimo MAID prescriber since May 2017
- Noted poor coordination between local providers
- Recognized high proportion of patients assessed with no prior paperwork completed
- Listened to patients describe their struggle To get MAID

#### **Problem:**

- Isolation of MAID practitioners risks burnout
- Lack of coordination increases difficulty of arranging assessments for patients
- Lack of paperwork implies lack of knowledge and information for public and physicians

#### Aim of Project:

- To develop a clear process for referral of patients requesting MAID, easily accessed by GPs and patients in Nanaimo.
- Information to be accessible to physicians and public.
- To Increase the percentage of patients seen for assessment with correctly completed request form to 80% by September 2018.

#### Change Idea:

- Patient presentation with completed forms used as a marker of knowledge
- Provide accessible local information to improve the referral process for patients

#### Patient Voice:

"It has taken me 6 months to get to see you for this assessment"

#### PDSA Cycle:

Survey Design

- Plan: Survey of GPs for educational need
- Do: Collaborate with Nanaimo Division if Family Practice (NDFP)
- Study: GPs want MAiD info from NDFP
- Act: Work with NDFP to add info to website

#### **Process Map Diagrams:**





#### **Conclusions:**

The local MAID practitioners are now in regular communication with each other and have decided how best to manage referrals for MAID assessment or provision. By working with Island Health and the NDFP there is opportunity to build on the project and disseminate information to physicians and patients. There is a need to continue to encourage new MAID practitioners to join the existing team and add sustainability to the local service. Three independent witnesses have been recruited and have completed training to support patients by witnessing their requests. Development of a local information sheet for physicians and a website which can be linked to Island Health and Nanaimo Division of Family Practice resources will be an asset for the public and professionals alike.



# Implementing Surgical Early Pregnancy Loss Management in the Emergency Department

#### Physician Lead: Dr. Regina Renner

Location: Nanaimo

Specialty: OB/GYN

#### Background:

- At NRGH 80 women per year undergo a uterine aspiration for early pregnancy loss (EPL)
- These are scheduled on the emergency slate

#### **Problem:**

- Lack of timely access to surgical management of EPL in the operating room
- Long emergency operating room waiting list
- Wait time, multiple visits and uncertainty about timing is an emotional and logistical burden for women
- Wait time might take up extra resources and costs of hospital

# Aim of Project:

#### Primary Aim:

Decrease the time from ED presentation for EPL to discharge after a uterine aspiration from 26hrs (Oct 2016-Apr2017) to less than 5hrs by July 2018

#### Secondary Aims:

- Decrease wait times from OR booking to OR start time
- Improve patient and provider satisfaction
- Decrease cost

#### Change Idea:

Offer women with an EPL up to 12+6 weeks gestation:

- Uterine aspiration with local anaesthesia (provided by gynaecologist)
- Under IV sedation (provider by the proceduralist) in the ED

#### PDSA Cycle:

Small Test of Change:

- Retrospective data collection
- Survey development
- Staff education
- Implementation with prospective data collection
- Discharge instructions

• Supply cart for ED

#### Patient Voice:

"The wait time and not knowing when the procedure was going to happen was extremely difficult and I felt alone"

- patient (who had procedure in the OR)

"I was happy with my choice of a D&C in the ED and would do it again!"

- patient (who had procedure in the ED)





#### Findings:

- 1. Almost 50% of E3 and E4 procedures exceed their set time limit
- 2. 95% women are satisfied with the overall service, but only 64% are with wait times
- 3. Physicians are especially not satisfied with the wait time
- 4. One procedure done in the ED (2hr wait time); patient satisfied; review with staff identifies need for more education on gynecology procedures
- 5. At least 5 other procedures declined by the ED due to staff and resource shortage
- 6. Prelim cost analysis showed ED procedure to be significantly less expensive than OR procedure (210,- vs 2014,- CAD)

# Conclusion:

- Women and physicians are dissatisfied with the long wait time for a uterine aspiration procedure for early pregnancy loss.
- Almost 50% of E3 and E4 procedures are not completed within their time goals
- Implementing the procedure in the ED requires more staff resources and education to increase comfort and ease for staff.



# Woman-Centered Care for Early Pregnancy Loss

#### Physician Lead: Dr. Maki Ikemura

#### Location: Duncan Specialty: Maternity Care

#### Background:

- 25% of women will experience miscarriage in their lifetime
- After a pregnancy loss:
  - o 60% of women experience depression
  - o most women report increased anxiety in future pregnancies
- Threatened miscarriage:
  - vaginal bleeding +/- cramping in the first 20 wks of pregnancy
  - o can be a stressful experience, especially for a woman who has already had a loss

#### Problem:

- Women are going to ER for bleeding in pregnancy
- Difficult in ER setting to provide privacy, emotional support, continuity of care for pregnancy loss
- Family doctors/maternity providers lack familiarity with care algorithms
- Common misperception that urgent ultrasounds can only be ordered through ER

#### Aim Statement:

A woman-centered approach to early pregnancy loss (EPL) and early pregnancy bleeding (threatened miscarriage) for patients attached to the Cowichan Maternity Clinic with:

- urgent access to appointments, diagnostic labs and ultrasounds
- unlimited access to follow up visits and phone calls
- emotional support and monitoring for medical complications will lead to better continuity of care and decreased ER utilization.

We aim to have 90% of women receiving "standard of care" by July 2018.

## Patient Voice:

Before project initiation:

- "Miscarriage is a very traumatic experience it colours the rest of your life."
- "I had to wait for a long time in ER and I was separated from my supports...I knew I wasn't considered a medical emergency but for me it was an emotional emergency."
- "My doctor wouldn't see me when I was bleeding."

After project initiation:

- "The Welcome Visit is a great idea-women can know where to go when they have concerns."
- "I appreciated how the Maternity Clinic got me in to see a doctor and organized an ultrasound for me right away."
- "In a bad situation it feels better if you have choices, I liked being offered follow up by phone or in person at the clinic."



# Change Ideas:

- Any provider can arrange urgent ultrasound and lab BCGuidelines.ca: Ultrasound prioritization, May 30, 2018
- Women with early pregnancy concerns seen with same day appointments
- Women offered as much follow up as needed after early pregnancy loss
- Care Card sleeve with clinic stamp will prompt ER/Lab/US to Cc reports to clinic
- Early "Welcome Visit" with clinic dietician orientation and info package
- Algorithm will standardize care
- New Cowichan Maternity Clinic (CMC) brochure outlines what to do when bleeding in early pregnancy
- Radiology to automatically rebook follow up scans when needed

# Data Analysis:



## Findings:

- More women have been seen for early pregnancy loss and threatened miscarriage over time
- There have been more encounters (visits and phone calls) per person over time
- 92% of women received "standard of care" in the last quarter

#### **Project Spread:**

- Spread care algorithm and EMR templates to other maternity providers and GPs in community
- Collaborate with ER to improve transfers in care

## Conclusions:

- Early Pregnancy Loss and threatened miscarriages are emotional emergencies
- Women deserve urgent access to diagnosis and follow up through any care provider they choose to see



# Improving Preterm Labour Testing: An Evidence-Based & Data Driven Approach

#### Physician Lead: Dr. Michael Chen

Location: Victoria

Specialty: Laboratory Medicine

#### Background:

- Preterm delivery (PTD) is defined as birth before 37 weeks of gestation. In Canada, PTD occurs in ~ 8% of all pregnancies.
- PTD is also the leading cause of neonatal mortality and morbidity. However, only 20% of women presenting with suspected preterm labour (PTL) would deliver preterm.
- Early detection of PTL and accurate prediction of PTD are crucial because they enable the use of effective treatment, targeted referrals and avoid unnecessary interventions.
- Two biochemical tests, fetal fibronectin (fFN) and Actim Partus, are available to exclude delivery within 7 days.
- Island Health has offered both tests from 2008-2017 to all patients presenting with suspected PTL.

#### Problem:

- The ability to determine the risk of imminent delivery in symptomatic women requires a combination of clinical assessment and biochemical testing, which remains a longstanding diagnostic challenge.
- Recommendations from clinical practice guidelines are inconsistent. No specific algorithms exist at this time.
- fFN is significantly more expensive than Actim Partus (100\$ vs 25\$).
- Direct comparison of the test performances with adequate sample sizes are currently lacking.
- BC Obstetric Guidelines (Preterm Labour), published in 2005, did not assess clinical utility of Actim Partus.

## Aim of Project:

- To assess the diagnostic accuracy of the phIGFBP-1 (Actim Partus) test and the fFN test for spontaneous preterm birth in symptomatic women on Vancouver Island.
- To optimize the diagnostic workup to improve quality of care and cost effectiveness
- To make recommendations to BC Lab Agency Utilization Management Committee (UMC) to update the 2005 provincial guideline for preterm labour testing.

Study Design:





#### **Findings:**

(n=4374)	Negative Predictive Value (delivery <7 days)	Negative Predictive Value (delivery <14 days)			
fFN	99%	97%			
Actim Partus	98%	96%			
Both tests	99%	97%			

#### **Project Spread:**

- 1. Results dissemination through various educational activities
- 2. Recommendation will be made to BC Lab Agency UMC to improve test utilization
- 3. Recommendation will be made to update BC PTL guideline
- 4. Manuscript will be prepared for publication

## Conclusion:

- Negative predictive values (NPVs) of fFN and Actim Partus has been reported to be >90% and >95% respectively.

- Based on VIHA outcome data, NPVs of these two tests are very high and comparable. A combination of both tests did not offer significant diagnostic advantage, and therefore, it is not cost-effective.

- Actim Partus is significantly less expensive and should be considered as the test of choice in the management of PTL. It can also be offered as a point-of-care test, which would be clinically appropriate in remote communities.

- It is important to note that results generated from this database will need to be externally validated.



# Improving MINS Monitoring:

# Better Screening for Myocardial Injury after Non-cardiac Surgery

#### Physician Lead: Dr. Kevin Yee

Location: Victoria Specialty: Anesthesia

#### **Background:**

- 1:20 patients coming undergoing noncardiac surgery experiences either myocardial injury, myocardial infarction, or cardiac death perioperatively
- Perioperative cardiac complications are responsible for 1/3 of perioperative deaths
- Patients older than 65 years of age or those that have at least one risk factor for perioperative myocardial infarction should be screened with NT-proBNP preoperatively

#### Problem:

- Patients that should be monitored as per the latest Canadian Cardiovascular Society Guidelines are being missed
- The process for anesthesiologists to ensure patients are being monitored may be too difficult

#### Aim Statement:

- What Increase preoperative screening for Myocardial Injury after Non-cardiac Surgery (MINS)
- For whom Surgical patients 65 years or older that stay in hospital for at least 24 h ours
- By when April 2018
- How much Increase by 50%

#### Change Idea:

- Facilitate MINS monitoring by introduction of streamlined order sets and tracking forms
- Increase awareness of MINS protocol via presentations at rounds
- Development of MINS protocol infographic to display for staff

#### Data Analysis:

- **Patient Group**: All patients 65 years of age or older having elective surgery with planned overnight admission at Royal Jubilee Hospital were captured on a monthly basis
- Data Collection: Patients were analyzed via the Cerner clinical database to determine if they received an NT-proBNP test before their surgery
- Data Analysis: Percentage of patients receiving NT-proBNP were plotted on Run Chart
- Anesthesiologist Survey: regarding awareness and usefulness of MINS protocol





# Project Spread:

- Ensure department leaders of groups involved are notified
- Outreach via visiting presentations, emails to groups, and creation of posters to increase awareness

#### Patient Voice:

- "I never know a heart attack could be silent"
- "Thank you for making sure that my surgery and recovery goes smoothly"

#### **Findings:**

- Effective change is difficult from one intervention alone; multiple opportunities for PDSA cycles will occur from feedback
- Outreach and promotion of changes is extremely important
- Project now awaiting results of second PDSA

#### Conclusion:

- Postoperative myocardial injury after noncardiac surgery is an ever expanding area of research interest. Despite growing body of evidence that the presence of MINS causes at least a 3-fold increase in morbidity and mortality, many patients are still not being adequate captured for closer monitoring.
- With continued data collection and monitoring, regular education directed at involved medical staff groups, and potential automation of patient screening and monitoring will be key interventions in ensuring that high risk patients are adequately monitored for cardiac complications.



# Capturing Cannabis: Improving Cannabis Disclosure on Hospital Admission

# Physician Lead: Dr. Matthew Moher

Location: Victoria Specialty: Hospitalist

#### Background:

- In October 2018 Canada is set to become only the third country in the world to legalize recreational cannabis use
- Canada legalized medicinal cannabis years ago, yet it is rarely documented in a patient's medical record
- High proportion of patients use cannabis in one form or another
- Unanswered questions surrounding drug interactions and withdrawal syndromes

#### Problem:

Even though more and more patients are using cannabis in its many forms they don't routinely disclose it. At the same time health care staff are not capturing it patient documentation consistently

#### Change Idea:

- Improve capturing cannabis use in 'Social History' of patient record
- Improve documentation of cannabis use, including documentation of non-users
- Improve documentation of dose & formulation
- Culturally acknowledge cannabis use similarities / differences to alcohol or nicotine

## Patient Voice:

Why didn't they disclose?

- Not asked
- Not perceived as "medicine", more as food
- Stigma judged by practitioners in past, concerned could affect quality of care
- Legal implications

#### Aim Statement:

#### Improve cannabis disclosure

- Improve capture of use on admission to Hospitalist service at RJH by 75% in 8 months
- Better understand patient perspective
- Address educational gaps
- Drive sustainability of the improvement



# PDSA Cycle:

- PDSA 1: Survey of staff culture associated with patient cannabis use
- PDSA 2: Admission History vs Targeted Interviews
- PDSA 3: Hospitalist Department Rounds multiple presentations of project findings
- **PDSA 4:** Continuing Medical Education (CME) engagement presentation of existing literature on evidence based medical cannabis uses
- PDSA 5: Ongoing communication with colleagues during project duration

# Data Analysis:



Percent of power chart histories that have cannabis use documented (including non-use indicated), before and after presenting project at Department Rounds



Percent of survey respondents willingness to prescribe hospital formulary cannabis derivative before an after CME on evidence based cannabis medicinal uses

% Willingness Post

% Willingness Pre

0

# Findings:

- Cannabis disclosure was improved during project
- Many cannabis formulations to consider
- Physicians respond to evidence based medicine

# Conclusion:

The culture of cannabis use is changing quickly. Medical literature and understanding the health implications surrounding cannabis are evolving rapidly, along with commercial promotion and unfounded claims.

Cannabis is different from alcohol or nicotine in that it's used recreationally as well as being prescribed as a medication.

Our patients need us to listen openly and without judgment.



# Let's Talk About What Matters Most: Serious Illness Conversations in Hemodialysis Care

# Physician Lead: Dr. Christine Jones

Location: Victoria Specialty: Palliative Care

#### Background:

Patients in the final year of their life tend to receive aggressive medical care, not always consistent with their wishes. High quality patient centred conversations have been shown to improve patient and family satisfaction with care, and reduce burdensome interventions. Island Health has endorsed the use of the Serious Illness Conversations Guide, which this project aims to implement.

#### Problem:

Multidisciplinary staff are well placed to have *Serious Illness Conversations* but do not feel empowered, are fearful of destroying patient hope and require support to implement "in the moment" conversations into day to day practice.

#### Aim of Project:

This project aimed to improve the experience with serious illness conversations for patients on the RJH hemodialysis unit by 50% over a 6 month period.

## PDSA Cycle:

- PDSA 1: Focus Groups Qualitative data on current practices, barriers and opportunities
- PDSA 2: Environmental Scan On goals of care documentation
- PDSA 3: Staff Surveys Confidence in End-of-Life skills
- PDSA 4: Patient Experience Survey Patient centered perspective on End-of-Life conversations

#### Patient Voice:

"These conversations are important. I know I am going to die... I like the idea of knowing what lies ahead"

- Linnie, dialysis patient

#### Findings:

- Staff survey reveals staff feel confident in conversations, yet focus groups identified multiple barriers to implementation
- Stable hemodialysis patients are not distressed about their quality of life and express a wish to have conversations about the future
- Environmental Scan reveals little goals of care



# Tools



# Data Analysis:

#### Conversations About What Matters Most: Patient Experience (Pre-Intervention)



#### **Conversations About What Matters Most: Patient Experience (Post-Intervention)**



#### **Next Steps:**

Based on Staff and Patient feedback:

- 1. Private spaces for intimate conversations
- 2. Simulated education for staff
- 3. Debriefing to staff on:
  - a. Difficult conversations
  - b. Caring for dying patients
- 4. Structured documentation process



# Psychotherapy Prescriptions for Mental Health: Encouraging Clients to Access Mental Health Services

## Physician Lead: Dr. Michael Cooper

Location: Victoria Specialty: Psychiatry

#### **Background:**

Mental Health and Substance Use (MHSU) Access and Crisis Response Services is the central intake point for Greater Victoria. Clients referred to MHSU are thoroughly assessed by mental health clinicians. Mental Health clinicians process nearly 1,000 referrals each month. Many of these individuals would benefit from the wide range of community programs available.

#### **Problem:**

Clients are given a list of community programs that might be helpful.

However only about 10% of clients follow up.

#### Change Idea:

There is good evidence that an "exercise prescription" improves the likelihood of clients taking steps to improve their physical health. A psychotherapy prescription might help in a similar way to address mental health. This project assessed whether uptake of recommendations for mental health programs would be improved by using a "prescription" for psychotherapy.

#### **Opportunities for Improvement:**

- Overcoming stigma and resistance
- Providing helpful lifestyle strategies that have good evidence
- Provide details of community and online resources

#### Data Analysis:

#### Baseline Review of MH Intake Team Psyychiatrists:

- Conducted Jan Feb 2018
- 52 patients reviewed
- Average wait time for a psychiatrist consult was 82 days
- Many wait 3-4 months, up to 6 months
- 44% of clients had refractory disorders
- 85% of clients had full service GPs
- Most clients had seen a clinician prior to the psychiatric consultation
- Clinicians provided appropriate and detailed recommendations for community based programs



# Psychotherapy Recommendations:

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#### **Project Spread:**

- Use of information poster to communicate findings of baseline survey to colleagues
- Distribute modified *Mental Health Therapy* forms to clinicians ("Psychotherapy Recommendations" instead of prescription)
- Clinician survey regarding use of MH prescriptions
- Online client survey regarding access to MH services
- Present project findings at conferences
- Distribute information to family practitioners
- Adapt for different communities or special populations

#### **Conclusions:**

- The need for mental health services far exceeds available resources.
- Making full use of community-based programs and online resources may help clients
- to access appropriate therapy sooner.
- There are many complex factors that make accessing mental health treatment challenging.
- The psychotherapy prescription should be a helpful tool to address some of these issues



# Anesthesia Block Room: Using Parallel Processing to Improve Operating Room Efficiency

#### Physician Lead: Dr. Gus Chan

Location: Victoria Specialty: Anesthesiology

#### **Background:**

- Excessively long waiting lists for total joint replacement surgery in BC
- Public Health Crisis due to Opioid Use Disorder

#### Problem:

- Insufficient "Surgery Controlled Time"
- Bottleneck in Post Anesthesia Care Unit
- Excessive opioid use for postoperative analgesia

## Aim of Project:

- To improve efficiencies in the Operating Room (OR) and Post Anesthesia Care Unit (PACU)
- To improve quality of analgesia for post-operative pain by using regional anesthesia

#### Patient Voice:

#### About patient information pamphlets:

"This is really helpful information for patients to have and learn about before procedures. It can be scary to have some of the side effects so it's good to know in advance they might happen."

## Change Idea:

Implement an Anesthesia Block Room where regional anesthesia can be provided using a parallel processing model

## PDSA Cycle:

#### Remodelling

Plan: How can parallel processing provide efficiency?

Do: Collect Data on Anesthesia Controlled Time in OR and spinal resolution time in PACU

<u>Study:</u> Analyze Data

Act: Design model of time usage in OR/PACU with parallel processing in clock room



## Data Analysis:

- 548 TJA patients Jan-May 2017
- Surgery and Anesthesia time data from Surgical Informatics
- Determined Anesthesia controlled time
- April 2018, 153 patients
- Times for spinal resolution in PACU collected by RNs
- Determined average time to reach discharge criteria



#### Anesthesia Block Room would save:

- Save 135-180 minutes of OR time per day
- Save 5.5 hours in PACU per day
- Allow 2-3 additional cases per day



# STEP UP for First Episode Psychosis (FEP):

Medical Orders for Scope of Treatment in South Island Critical Care Units

# Physician Lead: Dr. Daniel Boston

Location: Victoria Specialty: Psychiatry

#### Background:

Psychotic conditions constitute a major health issue often first occurring in late adolescence. Antipsychotics (APs) are the main pharmacological treatment however polypharmacy is common, not evidence-based and increases the risk of side effects including metabolic abnormalities and weight gain. AP usage necessitates that physical health monitoring that is performed yet this is often inconsistently completed. These factors are partially attributable to people with severe mental illness having a 2-3 times higher mortality rate and a life expectancy 10-20 years less than the general population.

A patient's first episode of psychosis, its treatment, and their experience sets the stage for their future health outcomes and ongoing engagement with the mental health care system. This requires efforts to minimize polypharmacy and to recognize and address side effects.

#### AIM Statement:

This project focussed on admitted patients with first episode psychosis, 17 - 35 years of age, at the Royal Jubilee Hospital in Victoria, BC. Our aim was to achieve a(n): decrease in antipsychotic polypharmacy by 30%, increase baseline monitoring of glucose & lipids to 100%, and to increase baseline & discharge weights to 100% by Sept 30, 2018.

## Methods and PDSAs:

This project was supported by both PQI and the South Island Facilities Engagement Initiative. Starting September 1, 2017, we developed an evidence-based clinical order set (COS) for use on hospital admission. Several PDSA cycles were performed: Schizophrenia Spectrum Working Group, Nursing Lead Inpatient Weight Initiative, Bipolar Spectrum and PRN Working Group, Order Set Version 1 and 2. The COS is being trialed from July 1st to September 30th, 2018.

#### Change Ideas:

- Review relevant Canadian guidelines and provincial EPI standards
- Engage clinical team in improvement
- Engage patients and family in improvement
- Target cultural beliefs around medications of staff
- Develop and implement a clinical order set

#### Patient Voice:

Patient and parent focus groups were held August 22nd and 23<sup>rd</sup>, 2018. Patients described their experience with medications as turbulent due to side effects. Parents felt that medications varied by doctor and unit and were switched abruptly without adequate explanation. Concerns regarding physical health issues not being fully addressed were voiced.





# Findings:

Preliminary results from the first two months showed that although 8 patients satisfied the criteria for the project, the COS was only utilized for half of them. Comparing outcomes between patients where the COS was and was not used, there was a 59% decrease in the total number of antipsychotics used (4.25 to 2.5), baseline glucose measured increased from 50 to 100%, baseline lipids measured increased from 25 to 100% and baseline weights measured increased from 50 to 75%. Discharge weight comparisons cannot yet be calculated as not all patients have been discharged.

#### **Future Directions:**

Further PDSA cycles will be required to increase the utilization of the COS and address any concerns. Further engagement with physicians who frequently deviate from guidelines will need to be explored. If improvements are sustained, this project can be adopted permanently and spread to other Island Health sites. It is fully compatible with the future goal of a Computerized Provider Order Entry (CPOE) system. This order set may also be adapted to all admitted psychiatric patients, with EPI patients being one among several distinct modules.

