Background

- Opioid stewardship is a modern concept described as “coordinated interventions to improve, monitor and evaluate the use of opioids to support and protect human health”.
- Approximately half of hospitalized patients in Fraser Health are prescribed opioids.
- Poorly managed pain can increase complications, physiologic and psychologic stress.
- Pain management is a critical patient safety issue. From 2016 to 2018, more than 9,000 Canadians died from opioid-related harms.
- In the context of the current overdose crisis, Fraser Health Authority has taken a coordinated approach to address the entire spectrum of opioid use. While there are strategies that speak to treatment and harm reduction, the Opioid Stewardship Program (OSP) is considered an approach to prevention.
- In February 2018, Fraser Health approved funding for a novel, multipronged, hospital-based pharmacist-led OSP. This is the first of its kind in Canada.
- The OSP launched in Royal Columbian Hospital in 2018, and in Surrey Memorial Hospital in 2019.
- Experience from American institutions implementing OSPs is gradually being published, and the most effective interventions to optimize opioid prescribing are unclear.

Objectives/Goals

- Promote optimal, safe opioid prescribing in hospital and at discharge.
- Avoid opioid-related adverse outcomes without compromising pain management.

Direct Clinical Support

- The Fraser Health OSP is modelling successful antimicrobial stewardship programs where audit and feedback is a proven intervention.
- OSP pharmacists initiated prospective case reviews with consult service and screening of patients to provide real-time clinical support.

Target Patient Inclusion Criteria:

- Patients at high risk of developing opioid use disorder
- High opioid dose (morphine milligram equivalent (MME) ≥ 90 mg/day)
- Opioid use in combination with benzodiazepines/sedatives
- Escalating opioid use without apparent cause
- Persistent opioid requirements for acute pain without apparent cause
- Opioid use for chronic pain and interest to taper down dosage
- Naloxone requirement for opioid overdose
- Other concerns regarding opioid regimens

Exclusion criteria are patients followed by Acute Pain Service, Addiction Medicine, and Palliative Care.

OSP Interventions Include:

- Analgesic optimization and medication reconciliation
- Personalized opioid-tapering plan in collaboration with the prescriber
- Risk assessment for opioid misuse
- Patient education and pain counselling
- Ordering non-prescription analgesics, naloxone take-home kits, bowel care
- Phone follow-up for high risk discharged patients

Case Review Performance to Date in RCH and SMH Combined (Mar. 2019 - Jan. 2020)

<table>
<thead>
<tr>
<th>3476</th>
<th>Patients screened</th>
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<tbody>
<tr>
<td>880</td>
<td>Patients intervened upon</td>
</tr>
<tr>
<td>2045</td>
<td>Total interventions</td>
</tr>
</tbody>
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Patient referrals: 231
Acceptance rate: 91%

Top 5 Interventions:

- Adding or optimizing multimodal (non-opioid) analgesia - 467
- Stopping PRN opioid - 259
- Providing patient education - 245
- Changing from parenteral (IV/SC/IM) to oral or adding oral route - 128
- Tapering opioids - 110

Advisory Committee

- Successful implementation of the OSP requires strong executive sponsorship and shared ownership to foster cross-disciplinary collaboration.
- To leverage expertise of individuals with vested interest in opioid safety, an Opioid Stewardship Advisory Committee was created in June 2019.
- The committee meets monthly to support the OSP in implementing strategies to support safe and effective use of opioids. Members with expertise and/or interest in opioid stewardship from a variety of disciplines and practice settings collaborate to provide advisory support to guide the direction, processes and actions of the OSP.
- The committee is composed of:

  - Administrative Leaders
  - Physicians
  - Pharmacists
  - Nurses

Direct Beneficiaries

- Hospitalized adult patients, especially in medical and surgical wards.
- Healthcare providers: physicians, nurse practitioners, nurses, pharmacists.

Education and Research Initiatives

- Research in progress:
  - Evaluation of opioid prescribing before and after OSP implementation using an interrupted time series analysis
  - Prospective evaluation of clinical case review activity
- Presentations:
  - Didactic education for RCH and SMH pharmacy departments
  - Introduction of OSP to local, provincial and national groups
  - Promotion to nursing leadership group
  - Take-home naloxone kit teaching
  - Update opioid-related patient education catalogue material.

Practice Guidance

- To influence opioid prescribing systematically, the OSP was added to the Fraser Health Quality Assurance Team, which reviews all new pre-printed orders to make hospital-specific and regional recommendations.
- Create guidance documents to support evidence-based opioid prescribing, including the creation of a surgical discharge opioid prescribing guidance document.

Surveillance and Metrics

- Point-prevalence surveys at baseline and bimonthly to monitor opioid use for one year.
- Process metrics of clinical case review activity including interventions and acceptance rate.
- Consumption metrics in morphine milligram equivalents.
- Clinical outcome metrics including naloxone requirement for inpatients on opioids.

Future Steps

- System improvement initiatives to improve prescribing surveillance and patient monitoring.
- Enhance record keeping of discharge opioid prescriptions
- Collaborate in future transitional pain initiatives for pre-operative and post-operative pain management
- Create pain management guidance documents
- Create phone app to guide opioid prescribing for clinicians.
- Tracking of Opioid-Related Adverse Drug Events (ORADES).

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