

Evaluating a Pharmacist-Led Opioid Stewardship Initiative at an Urban Teaching Hospital (MORE POSIT)



Anna Chen, B.Sc.(Pharm); Michael Legal, B.Sc.(Pharm), ACPR, PharmD, FCSHP; Stephen Shalansky B.Sc.(Pharm), ACPR, PharmD, FCSHP; Tamara Mihic, B.Sc.(Pharm), ACPR, PharmD; Victoria Su, B.Sc.(Pharm), ACPR, PharmD

Background

- St. Paul's Hospital (SPH) is a tertiary hospital located in the heart of downtown Vancouver, BC, which is a community heavily affected by the opioid crisis.
- Opioid prescribing in hospital has been shown to increase risk of future opioid use disorder and adverse events. Few opioid stewardship interventions target this setting.
- In response to the need for an opioid stewardship program at SPH, the PHC[^] pharmacy department developed the Medication and Risk Factor Review, Optimize, Refer at Risk Patients, Educate, Plan and Communicate (MORE) clinical pharmacist opioid review and optimization tool.
- The Tool was piloted in the summer of 2018 as a mandatory part of pharmacist care in clinical teaching units and general surgery wards at SPH.

Objectives

- To evaluate the impact of a pharmacist-led opioid stewardship program utilizing the MORE Tool in the care of patients at SPH.
 - To quantify the **proportion of eligible patients** receiving opioids who were assessed by the program.
 - To quantify and **characterize the recommendations and interventions** initiated by clinical pharmacists as part of the opioid stewardship program.

Methods

- Retrospective healthcare record review of patients admitted to general surgery, internal medicine, geriatric, and clinical teaching units at SPH or Mount St. Joseph Hospital (MSJ) between September 10 - December 31, 2018 who were prescribed opioids during their hospital stay.
- Inclusion: ≥19 years and receiving opioids for ≥3 days.
- Exclusion: followed by Addictions or Pain services, if only opioid prescription was opioid agonist treatment for opioid use disorder.

Figure 1: Study Flow Diagram

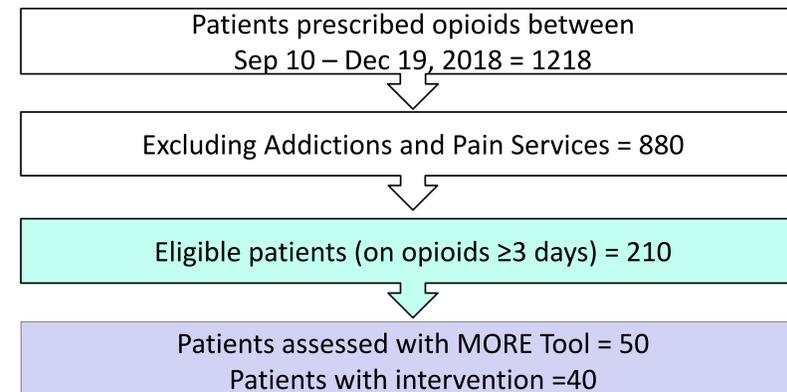


Table 1. Characteristics of Patients Assessed with MORE Tool

	All patients n=50	Medicine n=30	Surgical n=20
Age (years)	69	72	66
Female	33 (66%)	21 (70%)	12 (60%)
Comorbidities			
Any SUD* history	9 (18%)	5 (17%)	4 (20%)
Psychiatric diagnosis	17 (34%)	9 (30%)	8 (40%)
Regular opioids prior to admission			
Yes	16 (32%)	11 (37%)	5 (25%)
Average daily MME# usage			
	All patients	Medicine	Surgical
PRN & Regular	60	57	64
Regular	50	40	63

Figure 2: Average number of risk factors and interventions in Medical and Surgical Patients

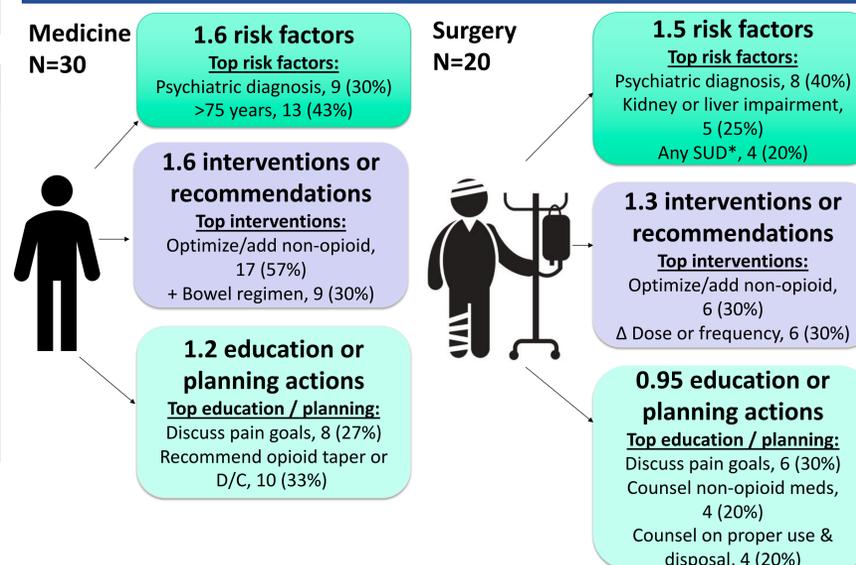
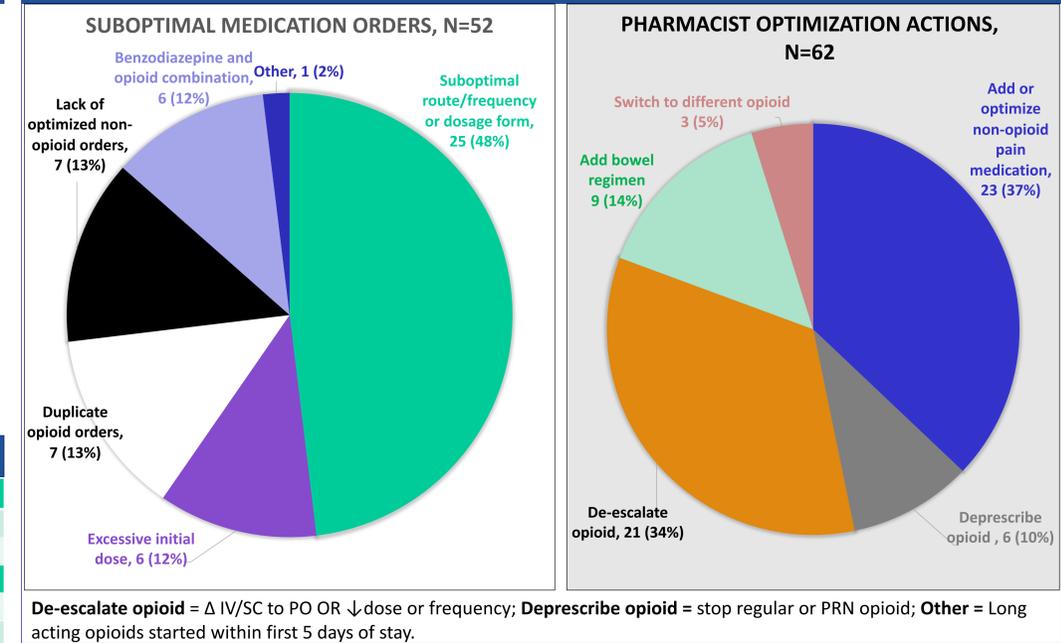


Figure 3: Details of the patients assessed with the MORE tool



- Recommendation acceptance rate: 35/50 (70%).
- Chart documentation rate: 10/50 (20%).
- Patients on opioids at discharge: 39/50 (78%).
 - 24/39 (62%) medical patients, 15/39 (38%) surgical patients.
- Patients that had an adverse reaction: 5/50 (10%).
 - 2/5 (40%) of adverse events were sedation.
 - 3/5 (60%) had "other" adverse events.
 - 1 - hallucinations & dizziness, 1 - nausea, 1 - opioid withdrawal.
- Hydromorphone accounted for 85% of all opioid orders.

Limitations

- Selection bias/professional judgement in patient selection.
- Individual pharmacist approach may have had an influence on the nature and type of interventions made.

Conclusions

- Most patients that pharmacists assessed had risk factors and/or suboptimal orders and lacked optimal non-opioid pain medications.
- The MORE Tool helped pharmacists make targeted interventions aimed at improving opioid safety.
- Main interventions that pharmacists carried out were optimizing non-opioid analgesics, optimizing or stopping opioids, and patient counselling.
- Pharmacist interventions were infrequently documented in the chart.

[^] Providence Health Care.

* Substance use disorder.

Morphine milligram equivalents.