Background

- Opioid misuse has led to a crisis state in British Columbia with significant ramifications for patients and the healthcare system.
- Previous studies have shown that in-hospital prescribing of opioids is a risk factor for potential abuse and misuse.
- Few initiatives targeted at optimizing opioid prescribing in hospital have been formally implemented in British Columbia.
- Pharmacists are well positioned within the healthcare team to optimize opioid prescribing and educate patients.

Objectives

- To develop a clinical tool based on literature best practices to guide pharmacists in optimizing safe opioid prescribing for hospitalized patients.
- To gather feedback on usability, utility & feasibility of the clinical tool.
- To capture preliminary data on the frequency and type of risk factors identified as well as interventions that could be made by using the tool.

Methods

**Phase 1**

- Literature review of risk factors for opioid misuse and existing intervention programs.
- Focus group of pharmacists analyzed using the Therapeutic Domain Framework.

**Phase 2**

- Pre-pilot trial with St. Paul's Hospital pharmacists working in medicine and surgery.
- Informal feedback gathered to improve preliminary tool.

**Phase 3**

- Pilot conducted in non-critical care areas.
- Data collected on risk factor and interventions.

**Phase 4**

- Survey of pilot participants to gather opinions of MORE tool.

Results

**Table 1: Participant Counts by Phase of Study**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Participant Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 - Focus Group</td>
<td>12</td>
</tr>
<tr>
<td>Phase 2 - Pre-pilot</td>
<td>4</td>
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<tr>
<td>Phase 3 – Pilot</td>
<td>14</td>
</tr>
<tr>
<td>Phase 4 – Survey</td>
<td>9</td>
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</tbody>
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**Figure 1: Summary of Literature Review and Focus Group Data**

**Literature Review Themes**

- Both patient specific factors and suboptimal drug orders contribute to risk.
- Reassessment of opioid risk factors should be done frequently.
- Education and discharge planning are important in reducing subsequent risk.

**Focus Group Themes**

- Goal of optimizing pain management rather than limiting opioid intake.
- Pharmacists are well positioned to identify high risk patients.
- Limited resources and time are likely the largest barrier.

**Figure 2: Pilot Survey Results**

<table>
<thead>
<tr>
<th>Risk factor Identification</th>
<th>Pilot Participants</th>
<th>Survey Respondents</th>
<th>Patients Reviewed</th>
<th>Risk Factors Identified</th>
<th>Interventions</th>
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</thead>
<tbody>
<tr>
<td>Intervention</td>
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<tr>
<td>Usability</td>
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<td>Feasibility</td>
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**More Tool Categories**

- **M** Medication and Safety Review
  - Review opioid orders and risk factors.
- **O** Optimize
  - Optimize orders and treat adverse effects.
- **R** Reassess and Refer for Risk
  - Reassess pain management and refer to specialty services.
- **E** Educate, Plan and Communicate
  - Streamlined or simplified version might make it less daunting.

Limitations

- The pilot study was conducted at a single site and clinical pharmacist comfort and knowledge of opioid medication optimization may vary from site to site.
- The total number of pharmacists who piloted the tool was small.
- The pilot excluded critical care units.

Conclusions

- Our team developed a tool for clinical pharmacists to optimize the safe prescribing and use of opioid medications in an acute care hospital setting.
- The tool development process and feedback from the pilot has provided valuable insight into opioid safety issues.
- Pharmacists felt that using the tool was feasible and increased their ability to identify risk factors and potential interventions.
- Results from this study will be used in future opioid safety initiatives.