Safe use of opioids collaborative
Beth Loe IMSN meeting 2015
Getting it right can reduce harm

Patient falls that result in fractures reduced by up to 30%

Surgical complications reduced by about a third

CLAB* rates reduced to fewer than one per 1000 line days

*Central line associated bacteraemia

Potentially adverse drug events reduced by a quarter
Use of opioids in NZ*

• In 2013, an average of 17/1000 people received a strong opioid.
• There was a greater than threefold variation between DHBs.
• People identifying as European/Other ethnicity were dispensed a strong opioid 2–4 times more than other ethnic groups.
• Use increased significantly with age groups.
• Fourteen percent of people receiving a strong opioid took the opioid for six or more weeks.

*Atlas of Healthcare Variation
Morphine
Why a formative collaborative?

• A new approach to reducing harm from high risk medicines

• Use an improvement method that relies on spread and adaptation of existing knowledge to multiple settings to accomplish a common aim

• No internationally agreed bundle of interventions (unlike CLAB)

• The Commission had adopted the collaborative model for improvement projects
Why opioids?

Serious adverse event reports featured opioids

For example

“68 year old woman had an elective surgical procedure. She was discharged home after 2 days on two narcotics. She had not opened her bowels prior to discharge and had no laxatives prescribed. She re-presented with bowel obstruction and died 8 days later.”
Engaging the sector-constipation harm

Constipation related harm (P Chart)
Definition: Patients bowel not open for greater than 72 hours from day opioids are prescribed which contributed to or resulted in temporary harm to the patient and required intervention.

Percent of patients with constipation

Weeks

CL 42.33%
Collaborative Methodology

Select Topic

Expert Meetings

Identify Change Concepts

Pre work

Collaborative Teams

LS 0 → LS 1 → LS 2 → LS 3 → Implement

Supports: emails/ visits/ reports/ sponsors / meetings/ assessments / conference calls

The Breakthrough Series: IHIs Collaborative Model for Achieving Breakthrough Improvement

LS – Learning Session

Supports: emails/ visits/ reports/ sponsors / meetings/ assessments / conference calls
Opioid related harm

- Over prescribing
- Under prescribing
- Lack of monitoring
- Adverse drug reactions
Expert faculty identified harm

- opioid related ventilatory impairment
- sedation
- constipation
- nausea and vomiting
- uncontrolled pain
- confusion/delirium
- falls
- itch
Collaborative aim

To reduce opioid-related harm nationally by 25% across participating areas of District Health Board hospitals by April 2016.
The individual DHB teams will be supported by the:

- National Collaborative Clinical Lead
- National Medication Safety Clinical Lead
- National Project Manager
- National Improvement Advisor

Local DHB Teams

- Local Clinical Lead
- Local Improvement Advisor (if available)
- Project lead
- Consumer

DHB Staff

- Medical
- Nursing
- Pharmacy
- Anaesthesia
- Palliative Care
- Pain Management
- Other staff as appropriate

National Team

- Support, Learning, Implementation, Measurement
<table>
<thead>
<tr>
<th>District health board</th>
<th>Primary harm</th>
<th>Secondary harm</th>
<th>Tertiary harm</th>
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<td>MidCentral</td>
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<td>Capital and Coast</td>
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<td>Waikato</td>
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<td>Bay of Plenty</td>
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<td>Lakes</td>
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<td>Taranaki</td>
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<td>Discharge</td>
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<td>Counties Manukau</td>
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<td>West Coast</td>
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<td>Nelson Marlborough</td>
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<td>Hawkes Bay</td>
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<td>Southern</td>
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<tr>
<td>Auckland</td>
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<td>Northland</td>
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<tr>
<td>Mercy Ascot (private)</td>
<td>Respiratory depression</td>
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<td>Waitemata</td>
<td>Uncontrolled pain</td>
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<td>Patient experience</td>
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<td>Canterbury</td>
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<tr>
<td>Whanganui</td>
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<td>South Canterbury</td>
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<td>Tairawhiti</td>
<td>Engaged but no PDSA</td>
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<td>Hutt &amp; Wairarapa</td>
<td>Engaged but no PDSA</td>
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We aim to reduce the harm related to opioid use nationally by 25% in all the participating areas of District Health Board hospitals by April 2016.

**Primary Driver**
- Constipation
- Respiratory Depression & Over Sedation
- Uncontrolled pain
- Nausea & Vomiting

**Secondary Driver**
- Patient management
- Documentation
- Knowledge & Awareness
- Prescribing
- Monitoring
- Administration
- Communication
- Opioid usage

**Tertiary Driver**
- Diet
- Mobility
- Daily bowel monitoring
- Staff education
- Patient, whanau education
- Co-prescribing & co-administration laxatives
- Other medicines
- Prescriber buy in
- Escalation of patient care
- Other medicines
- Prescriber buy in
- Escalation of patient care

**Change ideas**
- Kiwicrush, prunes, water
- Stool charts
- Ward bowel champion
- Information leaflets
- e learning
- Annual competency
- Algorithms, flow charts
- Laxative stickers
- New observation chart
- Patient pain management plan
- Protocols, guidelines
- Ice cubes
Share and learn from each other and strengthen networks

Gain a deeper understanding of quality improvement methodologies and tools

Discuss and learn about measurement, data collection and reporting related to opioid safety

Develop a strategy and a plan for action period two

Learn methods to accelerate testing of changes and improvements

Develop change ideas to reduce harm associated with opioids and learn how to apply them practically

Learning session 2 objectives
Constipation run chart (one DHB)
**Objective for this PDSA Cycle:**
To test whether Ondansetron contributes significantly to constipation by changing its ranking from 1st line anti-emetic to third line (rescue).
Change the order of anti-emetic use to: first line Prochlorperazine 3-6mg buccal 12hrly, second line Cyclizine 12.5-25mg po/iv 8 hrly, third line Ondansetron 4-8mg po/iv 8hrly;
Place a sticker on drug chart with pre-printed ranked anti-emetic choices and doses for doctors to date and sign as appropriate for patients.

**What question(s) do we want to answer on this PDSA cycle?**

1. Does the reduced use of Ondansetron will reduce the constipation rate in orthopaedic patients receiving opioids?
2. Does the sticker placed on drug chart as part of antiemetic prescription introduce further risks?
3. Does the use of a sticker with antiemetic ranking reduce the use of Ondansetron?
4. Will the change in antiemetic use lead to an increase in Nausea & Vomiting

This PDSA will be used to: ☑ Collect Data ☐ Develop a Change ☑ Test a Change ☐ Implement a Change

**Plan:** Fill the sections below as part of planning

**Change Idea:** Briefly describe the specific change you plan to test. Use the prompts below where applicable.

What are we going to do?
Place the stickers in all the Orthopaedic patient drug charts.
Ondansetron prescribing
Ondansetron administration
Next steps......

For the DHB teams
- Testing interventions
- Keep collecting data
- Developing evidence base for the bundle

For the national team
- Reviewing the work DHBs are doing and challenging their thinking
- Looking forward to identify interventions for the bundle
- Scoping the use of ICD coding as an ongoing measure of opioid-related harm
Progress towards the bundle

Number of DHB reported interventions ready to be included in the opioid bundle of care
(based on data provided by DHB in monthly report)

Count

Participating district health boards
Aim: To evaluate the effectiveness of the collaborative methodology as an approach to reducing harm related to opioid use.
Outcome measures

• Collaborative effectiveness in reducing opioid related-harm
• Bundle of care with evidence-based interventions for reducing opioid-related harm
• Changes in improvement science capabilities
• Strength of clinical network
• Effectiveness of the measurement system to demonstrate change and support improvement at national and DHB level
The goal