Are we safe yet?

National Trigger Tool Workshop
2015
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Are we safe yet!
Berwick Report

“Most Health care organisations at present have very little capacity to analyse, monitor, or learn from safety and quality information. This gap is costly and should be closed and that early warning signals can be valued and should be maintained and heeded” (Berwick, 2013, p26)
Partnership for Patients – reduce 9 types preventable harm

- ADEs
- CAUTI
- CLAB
- Falls
- PI
- SSI
- VTE
- VAP
- Obstetrical events

– Provonost, Bo- Lim 2012
Reflections – from commencing safe use of opioids collaborative

• How big an issue is opioid related harm?
• What data is available?
• Prediction:
  • Constipation occurs frequently
  • Rare respiratory depression events
  • Resp depression likely in older and high risk patients.
• Will we be able to assess if there is any improvement?
Available Data

- BPAC –
- Prescribing
- GTT
- Incident
- Atlas
- Chart review – unplanned ICU
- Coding data (Y450)
Data Mining

• Challenges in finding data sources indicating levels of harm.
• Reviewed incident reported data – little reported.
• GTT – identified constipation as a common issue.
• Atlas of variation- High community use of strong opioids.
• Coding data – possible source of information
Health Quality & Safety Commission Atlas of Healthcare Variation

This Atlas shows opioid use by district health board.

1. Strong opioid dispensing rates: Total by year, rate per 1,000: 2013

<table>
<thead>
<tr>
<th>District Health Board</th>
<th>Rate per 1,000</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>12.2</td>
<td>5,695</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>21</td>
<td>4,494</td>
</tr>
<tr>
<td>Canterbury</td>
<td>12.9</td>
<td>6,534</td>
</tr>
<tr>
<td>Capital and Coast</td>
<td>10.9</td>
<td>3,255</td>
</tr>
<tr>
<td>Counties Manukau</td>
<td>13</td>
<td>6,655</td>
</tr>
<tr>
<td>Hawke’s Bay</td>
<td>19.2</td>
<td>2,999</td>
</tr>
<tr>
<td>Hutt</td>
<td>17.1</td>
<td>2,476</td>
</tr>
<tr>
<td>Lakes</td>
<td>16.8</td>
<td>1,734</td>
</tr>
<tr>
<td>MidCentral</td>
<td>14.4</td>
<td>2,446</td>
</tr>
<tr>
<td>Nelson Marlborough...</td>
<td>22.8</td>
<td>3,232</td>
</tr>
<tr>
<td>Northland</td>
<td>20.2</td>
<td>3,224</td>
</tr>
<tr>
<td>South Canterbury</td>
<td>16.8</td>
<td>950</td>
</tr>
<tr>
<td>Southern</td>
<td>19.5</td>
<td>6,021</td>
</tr>
<tr>
<td>Tairawhiti</td>
<td>13.2</td>
<td>618</td>
</tr>
<tr>
<td>Taranaki</td>
<td>18.2</td>
<td>2,006</td>
</tr>
<tr>
<td>Waikato</td>
<td>14.3</td>
<td>3,307</td>
</tr>
<tr>
<td>Wairarapa</td>
<td>30.9</td>
<td>1,239</td>
</tr>
</tbody>
</table>

© Geographical data: Statistics New Zealand
Levels of Harm
Pareto Chart for Harm Category

Total = 138 Cases of Harm

<table>
<thead>
<tr>
<th>Harm Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Temporary harm to the patient and required intervention</td>
<td>80</td>
<td>58.0%</td>
</tr>
<tr>
<td>F-Temporary harm to the patient and required initial or prolonged hospitalisation</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>H-Intervention required to sustain life</td>
<td>5</td>
<td>3.7%</td>
</tr>
<tr>
<td>G-Permanent Patient Harm</td>
<td>4</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

First Do No Harm
Open for Better Care
GTT Sub Category

Pareto Chart for the Sub Category for Harm Cases
Total = 136 Cases of Harm

- Med Other: 15% (21 cases)
- Med IV: 11% (15 cases)
- Surgery Other: 11% (11 cases)
- Not Recorded: 10% (7 cases)
- Resp Inf: 4% (5 cases)
- Pneumonia: 4% (5 cases)
- Med Allergy: 3% (4 cases)
- Catheter Comp: 3% (4 cases)
- Med Bleed: 2% (4 cases)
- DVT/VTE: 2% (4 cases)
- Med Delirium: 2% (4 cases)
- CAUTI: 1% (3 cases)
- SSI: 1% (3 cases)
- Abnor Bleed: 1% (3 cases)
- Med Diarrhoea: 1% (3 cases)
- Post-op Ileus: 1% (3 cases)
- IV overload: 1% (3 cases)
- Patient Care Other: 1% (3 cases)
- Org Inj: 1% (3 cases)
- Skin Tear: 1% (3 cases)
- P13 or 4: 1% (3 cases)
- Med Glyc: 1% (3 cases)
- ICU VAP: 1% (3 cases)
- Events Related to Surgery: 1% (3 cases)
- Events Related to Hospital: 1% (3 cases)
- Med Hypotension: 1% (3 cases)
- Resp Comp: 1% (3 cases)
- Events Related to Pat: 1% (3 cases)
- PI or 2: 1% (3 cases)

1 patient from 263
Review of 124 charts with Y450 code Opioids causing adverse effects

Pareto of Opioid Harms Found
Respiratory Depression

T chart time between resp depression events

DATE OF EVENT

1/3/14  3/1/14  4/1/14  5/1/14  6/1/14  7/1/14  8/1/14  9/1/14  10/1/14  11/1/14  12/1/14

0  5  10  15  20  25  30  35  40  45  50

Ting between Events

↑ good
Readmit for Constipation

T chart for admits/ readmits for constipation

Date/Time/Period/Number
What did I learn

• There is mountains of data – what do we do with it all.
• Huge amount of time and effort – spent on looking for data -
• My prediction wrong - resp depression was an issue for us.
• Need data to motivate WILL for change
• There must be a more efficient way to identify harm.
Emerging concepts in measuring quality

• Measuring what matters
  – Balanced to meet end users:
  – Patients, regulators, accreditors, funding

• Effective use of resource
  – Measurement vs Improvement

• I. T. What measures can our systems produce – how can we use this.

  • (BMJ Qual Saf 2012;21:964-968)
Searching for preventable harm

• What we can and cannot find
  – Errors of commission – GTT
  – Errors of omission
  – Errors of context
  – Errors of communication
  – Diagnostic errors
CRAB – Copeland Risk Adjusted Barometer

- IT software
- Offers automated tracking of indications of avoidable harm. (UK GTT)
- Reports on triggers of all patients, by specialty, by physician.
- Predicts individualised clinical risk.
CRAB

• Developed by clinicians.
• Based on POSSUM (physiological and operative severity score) UK GTT
• Locally collected data (coding)
• Analysis of a patients presenting risk together with an assessment of the complexity of treatment
Discussion view to the future

- Meeting the needs of end users –
- Access to data that will drive safety and improvement efforts. (real time).
- Resources
  - Measurement and improvement
  - External stakeholders vs. local need for improvement.
When will we be safe?

• Measurement that adds value
  – Improvement vs. targets
  – Data that engages clinicians

• Ability to focus on harm reduction

• Knowledge management – learning

• Culture

• Systems thinking

• Safety 2 – what are we doing well/ reliably