A New Process for Monitoring Drug Errors and Providing Feedback in the Acute Medical Unit

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Introduction

In August 2012 several members of the Acute Medicine Team (AMT) raised concerns about multiple medicines reconciliation (MR) and prescribing errors, coinciding with the new influx of junior doctors. Patient safety was compromised, and opportunities for learning were being missed due to the rapid turnover of junior staff and random nature of error detection.

We introduced a structured process to allow timely analysis of errors, delivery of individual and group feedback, detection of doctors in difficulty, and detection of systems failures.

Results

Trend analysis of 151 reported cases in 12 months. Identifying areas of clinical risk

<table>
<thead>
<tr>
<th>Medication Error Type</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicines reconciliation</td>
<td>73</td>
</tr>
<tr>
<td>Nursing drug administration errors</td>
<td>13</td>
</tr>
<tr>
<td>Wrong dose calculation</td>
<td>4</td>
</tr>
<tr>
<td>Insulin</td>
<td>5</td>
</tr>
<tr>
<td>Warfarin</td>
<td>8</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>5</td>
</tr>
<tr>
<td>Epilepsy and Parkinson’s drugs</td>
<td>5</td>
</tr>
<tr>
<td>Near miss</td>
<td>19</td>
</tr>
<tr>
<td>Harm (low)</td>
<td>11</td>
</tr>
<tr>
<td>Harm (moderate/severe)</td>
<td>2</td>
</tr>
</tbody>
</table>

Drug administration and dose calculation errors most likely to cause severe harm or near-harm

MR confirmed as a major area of risk
Within this group specific trends identified

1. Over-reliance on electronic sources of information rather than “best source” such as patient/carer/nursing home chart.
2. Over-reliance on compliance devices (which often do not contain all medicines).
3. Transcription errors when patient moved from long-term facility to acute care.
4. Charts completed by 5th year students but not checked by qualified staff.
5. Poorest performance by senior staff overnight (medical registrar multi-tasking).

Actions taken to reduce future risk

1. Direct individual feedback given to 51 doctors and nurses where there were knowledge gaps / deviation from unit guidelines / multiple or recurrent errors.
2. 5 doctors in difficulty and 1 nurse identified and referred for increased supervision and Development.
3. MR, gentamicin, insulin, and nurse administration errors have been prioritised and highlighted at the daily safety briefs.
4. Nursing staff reflective learning exercises reviewed by charge nurse and pharmacist.
5. Prompt added to consultant ward round check list to encourage senior review of MR (Figure 1).
6. Duplicate prescriptions for Emergency Department referrals to AMU flagged as a hospital-wide risk and Risk Alert disseminated to all acute areas.

Evidence of improvement?

% Accuracy with Medicines Reconciliation Prior to Pharmacist Intervention on AMU

Consultant Ward Round

Date: Time:

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Conclusion

Medication errors is a major cause of patient harm. Monitoring this area and acting to reduce risk is, in our opinion, a key part of clinical governance.

This locally applied process of detecting and reporting drug errors is likely to improve patient safety by allowing early identification of doctors and nurses with poor prescribing / drug administration skills, and systems failures.

It should also enhance the learning experience of junior doctors on AMU. We have not formally evaluated this but the response from those receiving direct feedback has been almost uniformly positive.

A daily safety brief has raised the profile of MR and the importance of this process within an AMU with regards to getting it right at the start of the patient journey.

References


Acknowledgements

Thanks to all staff in Ninewells AMU for contributing to this project, for responding positively to feedback and for helping to create a culture of safety in our unit.