Audit of Evidence Based Practice In Medication Safety

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Background

The effect of drug related errors and adverse events can range from increase length of hospital stay to increased morbidity or even mortality (Montesi and Lechi, 2009).

Medication management involves prescribing, transcribing, ordering, dispensing, supplying, administering and storing (Dilles et al.2011).
Audit

- Audit is a rigorous procedure for measuring and improving the quality of health care against an agreed standard, at local or national level (Gerrish and Lacey 2006).
- It compares actual practice against agreed, documented evidence based standards with the intention of improving patient care (Ferris, 2002).
Where Audit fits into Evidence Based Practice and Medication Safety

- Detection of error or potential error is the first crucial step in maintaining patient safety, highlighting and preventing possible patient harm.

- **Medication Safety Audits** involve comparing current practice on Medication Management to **evidence based best practice** in the form of standards.
  - This can identify strengths and also areas in need of quality improvement to meet the standards.
  - This can be achieved through a collaborative approach in clinical audit.
Role of facilitator:

- Facilitating audit to drive improvement in medication management is crucial.
- Louth hospital group are engaged in various quality initiatives in medication safety lead by various personnel.

What is audited

- Medication storage and custody
- Medication administration
- Medication prescription
- Guideline adherence
Audit Cycle

Stage 1 Planning for audit

Stage 2 Standard/criteria selection

Stage 3 Measuring performance

Stage 4 Making improvements

Stage 5 Sustaining

Audit involves a cyclical approach to planning, standard selection, measuring performance leading to improvement in practice and sustaining that change (HSE 2013).

Most common methodology is quantitative as Medication Management lends itself to positivist approach with clear guidelines and strict regulations.

Sample sizes vary depending on the audit.
Planning for Audit

- Keep it simple
- Share ownership, involve all stakeholders

**SMART** guidance:
- **Specific**
- **Measurable.**
- **Achievable** (of a level of acceptable performance agreed with stakeholder).
- **Relevant** (related to important aspects of care).
- **Theoretically sound or timely** (evidence based) (HSE2013)
STANDARD SELECTION

- **Standard title** summarises the area on which that standard focuses.
- **Standard statement** explains the level of performance to be achieved e.g. Metrics
  - \(90\%-100\% = \text{Green}\)
  - \(80\%-89\% = \text{Amber}\)
  - \(79\%-0\% = \text{Red}\)
Where are Standards and Evidence from?

Medication safety audits aim to identify and adhere to standards to be achieved governed by:

- **Law** e.g. Misuse of drugs act (MDA) 1977 & 1984
- **Regulatory bodies** e.g. Nursing and Midwifery Board of Ireland, Health Products Regulatory Authority, Irish Medical Council.
- **National guidelines and policies** e.g. An Bord Altranais 2007 Guidance to Nurses and Midwives on Medication Management. Standards and recommended Practices for healthcare records management, 2011.
- **Local guidelines and policies** e.g. Guidelines for the Management of Controlled Drugs in Wards & Clinical Departments 2015.
- **Clinical Guideline development organisations** e.g. NICE
MEASURING PERFORMANCE

- Step 1: data collection
- Step 2: data analysis
- Step 3: drawing conclusions
- Step 4: presentation of results

- Make data collection as easy as possible
- Electronic devices may be helpful
Making Improvements

- Change is not always easy

![Diagram showing current and desired performance with questions about what they are doing and what they should be doing to change.](image)
### Action Plan/ Quality Improvement Plan

Acknowledge areas of compliance
Risk assess HSE RISK Matrix

<table>
<thead>
<tr>
<th>Areas of non Compliance</th>
<th>Standard to be achieved</th>
<th>Target time</th>
<th>Person/s responsible</th>
<th>Review</th>
</tr>
</thead>
<tbody>
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</table>
Sustaining Improvements

- Keeping the momentum
- Repeat audit to monitor change

- The key to success is the participation and input from all stakeholders striving for a service that is safe and effective and places the patient at the very centre.
<table>
<thead>
<tr>
<th>Interventions</th>
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</thead>
<tbody>
<tr>
<td>New prescription format</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 15 (Pharmacists)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction training</td>
<td></td>
<td></td>
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<tr>
<td>Governance meetings</td>
<td></td>
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<tr>
<td>Metrics forum/ practice development forum</td>
<td></td>
<td></td>
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<tr>
<td>Audit multimethod/continuous monitoring</td>
<td></td>
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<tr>
<td>Other hospitals</td>
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Results

Results are disseminated through the following:

- Medication safety committee
- Drugs and Therapeutics Committee,
- Metrics Group
- Practice Development Innovation Group
- Governance Groups.

Issues are discussed at conferences and compared with other hospitals.
Strengths

- Medication storage and custody.
- Start date recorded for each medication.

Weaknesses

- All prescriptions must have legible prescriber’s signature.
- Generic name must be used for all medication prescribed (acceptable if medical council number is listed as additional identifier)
- Min dose interval and/or 24 hour maximum dose must be specified for ‘as required’ or PRN drugs

This is echoed in other hospitals throughout the country despite concerted efforts through education, discussion at governance groups, elevation if issue to national groups and regulatory bodies.
# Improved Layout of Prescription

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Dose</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Start Date</td>
<td></td>
</tr>
<tr>
<td>Prescribed by</td>
<td>MCRN</td>
<td></td>
</tr>
<tr>
<td>Pharmacist</td>
<td>Bleep No.</td>
<td></td>
</tr>
<tr>
<td>Stop Date</td>
<td>Cancelled by</td>
<td></td>
</tr>
<tr>
<td>Prescribed by</td>
<td>MCRN</td>
<td></td>
</tr>
<tr>
<td>Pharmacist</td>
<td>Bleep No.</td>
<td></td>
</tr>
<tr>
<td>Stop Date</td>
<td>Cancelled by</td>
<td></td>
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<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>22:00</td>
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<tr>
<td>24:00</td>
</tr>
</tbody>
</table>
Improvement in documentation for cancelled medication

‘Stop’ Date and signature of prescriber.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Dose</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enoxaparin</td>
<td>40mg</td>
<td>SC</td>
</tr>
</tbody>
</table>

| Start Date | 22/03/16 |

<table>
<thead>
<tr>
<th>Prescribed by</th>
<th>MCRN</th>
<th>Bleep No</th>
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<tr>
<td>Pharmacist</td>
<td></td>
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<table>
<thead>
<tr>
<th>Cancelled by</th>
<th>Stop Date</th>
</tr>
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<td>22/03/16</td>
</tr>
</tbody>
</table>

Identifying features removed
Areas in need of improvement

Maximum dose in 24 hours nor recorded
How to Drive Improvement

Can’t do this alone

Nursing & Midwifery
Regulatory bodies
Patient
Pharmacy
Clinical Governance
Management
Prescribers
We can work collaboratively

“In a gentle way, you can shake the world.”  Mahatma Gandhi
Otherwise

![Image: NOT MY JOB](https://www.motivatedphotos.com)

\(\text{\(o/\) MotivatedPhotos.com}\)
Conclusion

- In order to drive quality in medication management a collaborative approach is needed from a very senior level locally, nationally and internationally.
REFERENCES

- Health Service Executive HSE 2015, *Guidelines for the Management of Controlled Drugs in Wards & Clinical Departments of the Louth Hospital Group (& Our Lady’s Hospital, Navan)*