Report of the announced inspection of medication safety at Nenagh Hospital, County Tipperary.

Date of announced inspection: 20 December 2016
Report of the announced inspection of medication safety at Nenagh Hospital
About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is an independent authority established to drive high-quality and safe care for people using our health and social care services in Ireland. HIQA’s role is to develop standards, inspect and review health and social care services and support informed decisions on how services are delivered.

HIQA aims to safeguard people and improve the safety and quality of health and social care services across its full range of functions.

HIQA’s mandate to date extends across a specified range of public, private and voluntary sector services. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, HIQA has statutory responsibility for:

Setting Standards for Health and Social Services — Developing person-centred standards, based on evidence and best international practice, for health and social care services in Ireland.

Regulation — Registering and inspecting designated centres.

Monitoring Children’s Services — Monitoring and inspecting children’s social services.

Monitoring Healthcare Safety and Quality — Monitoring the safety and quality of health services and investigating as necessary serious concerns about the health and welfare of people who use these services.

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1. Introduction

Medications are the most commonly used intervention in healthcare, and advances in medication usage continue to play a key role in improving patient treatment success. However, where medicines are used, the potential for error, such as in prescribing, administering or monitoring, also exists. While most medication errors do not result in patient harm, medication errors have, in some instances, the potential to result in catastrophic harm or death to patients.

Medication related events were the third most common type of adverse event recorded in the Irish National Adverse Events Study. Medication safety has also been identified internationally as a key focus for improvement in all healthcare settings and it is estimated that on average, at least one medication error per hospital patient occurs each day.

HIQA’s medication safety monitoring programme, which commenced in 2016, aims to examine and positively influence the adoption and implementation of evidence-based practice in public acute hospitals around medication safety. HIQA monitors medication safety against the National Standards for Safer Better Healthcare to determine if hospitals have effective arrangements in place to protect patients from harm related to medication use.

An expert advisory group was formed to assist with the development of this medication safety monitoring programme. The advisory group membership included patient representation, alongside members with relevant expertise from across the Irish health service. Specific lines of enquiry were developed to facilitate medication safety monitoring. The lines of enquiry which are aligned to HIQA’s National Standards for Safer Better Healthcare are included in Appendix 1 of this report. Further information can be found in a Guide to the Health Information and Quality Authority’s Medication Safety Monitoring Programme in Public Acute Hospitals 2016 which is available on HIQA’s website: www.hiqa.ie

An announced medication safety inspection was carried out at Nenagh Hospital by Authorised Persons from HIQA; Kathryn Hanly and Shane Grogan. The inspection was carried out on 20 December 2016 between 10.30hrs and 16.30hrs.

Interviews were held in the hospital with the following groups of managers and clinical staff:

- Group one: a medical senior house officer, a medical registrar and a pharmacist
- Group two: A member of the Drugs and Therapeutics Committee and the Safety Coordinator
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- Group three: A medical consultant (deputising for the Clinical Director), the Diagnostics Directorate Manager and the Acting Operational Director of Nursing

Inspectors visited the following clinical areas and spoke with staff and reviewed documentation:

- Medical Ward 1
- Medical Ward 2

In addition a survey was conducted among outpatients in the Outpatients department.

HIQA would like to acknowledge the cooperation of staff who facilitated and contributed to this announced inspection and the hospital outpatients who spoke with inspectors.
2. Findings at Nenagh Hospital

The following sections of this report present the general findings of this announced inspection which are aligned to the inspection lines of inquiry.

2.1 Governance and risk management

Lines of enquiry:

- Patient safety is enhanced through an effective medication safety programme underpinned by formalised governance structures and clear accountability arrangements.
- There are arrangements in place to identify report and manage risk related to medication safety throughout the hospital.

Nenagh Hospital is a Model 2 Hospital and is a member of the University of Limerick Hospitals Group. The Operational Director of Nursing and the Site Administrator manage the hospital and work with the individual Directorates within the University of Limerick Hospitals Group to provide site governance.

On the day of the announced inspection Nenagh Hospital did not have essential governance arrangements in place in relation to medication safety. The hospital did not have clear objectives, goals or plans for medication safety.

It was identified through interview that there was ambiguity over who is the accountable person with ultimate responsibility for medication safety in Nenagh Hospital. Effective leadership and clear lines of accountability are vital components of any healthcare service. The hospital must put systems in place to ensure that accountability arrangements for medication safety are clear to all staff and management.

An effective Drugs and Therapeutics Committee should have ongoing oversight of the medication management and safety system within a hospital. The Drugs and Therapeutics Committee was constituted at a group level and was a sub-committee of the University of Limerick Hospitals Quality and Patient Safety Executive Committee. The University of Limerick Hospitals Quality and Patient Safety Committee reported directly to the Executive Management Team, who in turn updated the Board of Directors. The hospital pharmacist represented Nenagh Hospital on the Drugs and Therapeutics Committee.

The Drugs and Therapeutics Committee had recently updated their terms of reference that outlined the objectives, membership, frequency of meetings and reporting relationship. There was broad representation on the committee with representatives being drawn from across the hospital group. However, there was no representation on the Drugs and Therapeutics Committee from general practitioners.
(GPs) and community pharmacists. A review of the minutes of the Drugs and Therapeutics Committee showed that attendance at meetings was variable. The hospital should revisit the membership of the committee with the aim of ensuring greater, more consistent involvement from all staff.

Inspectors were informed that the Drugs and Therapeutics Committee reviewed and approved medication management policies that were sent forward from the Directorates within the University of Limerick hospitals group.

HIQA noted the low numbers of medication related incidents reported throughout 2016, relative to other hospitals. Near misses in relation to medication related issues were not being reported. Senior management recognised that this level of reporting was not in line with internationally accepted norms and were aware of the need for improvement. As a result key medication related risks could not be understood, recorded, escalated or mitigated effectively by the organisation. Low numbers of incidents reported does not necessarily mean a low number of incidents occurring. Studies have found a positive association between increased incident reporting rates and measures of safety culture where an increase in incident reporting was indicative of a positive reporting culture within the hospital.\(^7\)

A review of the risk register showed deficits in relation to pharmacy resources. There was no agreed period during which these deficiencies would be addressed. It was acknowledged during interview that it was difficult to find locum staff to cover sudden or unexpected periods of leave. The hospital must ensure that there is a system in place to ensure that there is consistent cover to ensure the safe provision of pharmacy services in Nenagh Hospital.

2.2 Audit and evaluation

**Line of enquiry:**

- The effectiveness of medication management systems are systematically monitored and evaluated to ensure they are effective.

Elements of medication safety were audited at the hospital but these audits were not aligned to a formalised medication safety strategy.

The effectiveness of medication safety initiatives were not evaluated on an annual basis and there were no clear objectives in place to ensure continued improvement of a medication safety programme. There was no annual overview report of medication safety performance produced by the Drugs and Therapeutics Committee. The hospital had failed to identify quality improvement projects and there was no strategic plan in place to ensure that medication safety was promoted throughout the hospital.
Nursing quality care metrics* were collected on a monthly basis and had been used to promote improvement, for example, clarity of written prescriptions was a recurring issue and a quality improvement plan was put in place to remedy this.

The results of audits conducted in the hospital were available on the recently installed document management system, however there was no centralised oversight of audit. More work is required to ensure that there is a more systematic approach to audit selection and dissemination of audit findings throughout the hospital.

2.3 Medication safety support structures and initiatives

Line of enquiry:
- Hospitals develop effective processes to promote medication safety that are implemented and supported by clear and up-to-date policies, procedures and or protocols.

There was no up to date, local approved list of medications stocked in Nenagh hospital. The purpose of maintaining an approved list of medications used in the hospital is to ensure that appropriate governance exists around what is approved for use, and that in doing so, a proper safety evaluation occurs before medications are introduced into practice at the hospital. In addition, the hospital did not have a process to formally evaluate the quality and safety of new medicines before introducing them for use.6

The pharmacy service within the hospital was almost entirely restricted to dispensing. While efforts were extended by the pharmacist to support staff in safe medicines usage, the hospital was not sufficiently resourced to provide a clinical pharmacy service. There are currently no agreed national standards outlining requirements for the provision of clinical pharmacy services in Irish hospitals. However, international studies support the role of clinical pharmacists in hospital wards in preventing adverse drug events.8,9,10,11,12,13

The hospital had one pharmacy technician who supported the pharmacist.

Inspectors were informed that formalised medication reconciliation is not routinely carried out in the hospital. Medicines reconciliation is a formal, systematic process for obtaining a current and accurate list of medicines a patient was taking when admitted to hospital, known as a best possible medication history, and reconciling this history against the patient’s medicines prescribed at admission, transfer and discharge on the medication chart.14,15,16,17 Inspectors were informed that there was

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* Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance
a process in place where patients will have their medications checked by a medical prescriber on admission. Inspectors were informed that prescriptions were also checked by two nurses prior to discharge and any changes to this prescription are explained to the patient. However, the effectiveness of this process had not been audited and no training program was in place to support staff in performing formalised medication reconciliation.

High-alert drugs are medicines that have a heightened risk of causing significant patient harm when they are not used correctly. There was a list of high-risk drugs prominently displayed in all wards and staff spoken to were aware of the increased risk to patient safety posed by these medicines. However, the policy in place to support staff in the use of these high-risk medicines was out of date.

Medication safety quality improvement initiatives were not strategically driven by learning gained from analysis of medication incidents or near misses. Nevertheless, despite this weakness, a number of good practices were identified during the inspection. For example, interruptions during medication administration rounds are thought to be a prominent causative factor of medication errors. To reduce interruptions, red “do not disturb” tabards were worn by nursing staff while administering medications. This intervention was designed to draw attention to the fact that the medication round was in progress, and that nurses should not be interrupted while administering medications.

Staff had access to email and were aware that this was one of the systems used by the pharmacist to communicate any medication safety updates, for example notices issued by regulatory bodies.

Open disclosure occurs when staff in the health and social care service communicate with patients in an open and honest manner when things go wrong with patient care. Inspectors were informed that the hospital had a process in place to inform patients when medication-related incidents occurred. Staff were familiar with the hospital’s policy on open disclosure.

### 2.4 Person centred care

**Line of enquiry:**

- Patients and/ or carers are informed about the benefits and associated risks of prescribed medications in a way that is accessible and understandable.

Nenagh Hospital had limited systems in place to support the provision of patient information and education in relation to medications. Printed patient information leaflets were available at the point of care and there was some instruction by clinical staff for patients who are prescribed medication while in hospital. Inspectors were
informed that staff would speak with patients prior to discharge about any new medication that was prescribed. Inspectors were also informed that clinical nurse specialists in respiratory care and diabetes mellitus management provided disease-specific patient education as required.

As part of this inspection, HIQA asked a small sample of hospital outpatients attending the Outpatients Department to complete an anonymised questionnaire in relation to prescribed medications. The survey was completed by three people who had been inpatients in Nenagh Hospital within the past year and who were prescribed regular medications. Of the three people surveyed:

- none said that as well as being provided with a prescription form to take to their local pharmacy or GP, they had also been given a list\(^1\) that outlined what medicines they were on in a way they could understand.
- one said that a staff member had explained the purpose of new medication in a way that they could understand.
- one said that a staff member told them about possible medication side effects to look out for following discharge home.
- one said that they received instruction on how to take their medications at home.

HIQA recognises that the number of patients who participated in the survey is a very small sample; however, the results indicate that the systems that deal with the education of patients require review to ensure that all patients are fully aware of the correct method of taking their medications and any possible side effects.

### 2.5 Policies procedures and guidelines and access to information

**Lines of enquiry:**

- Hospitals develop effective processes for medication management that are implemented and supported by clear and up to date policies, procedures and/or protocols.
- Essential information supporting the safe use of medicines is readily available in a user friendly format and is adhered to when prescribing, dispensing and administering medications.

Medication policies, procedures, protocols and guidelines were readily available to staff through the hospital’s document management system. However, inspectors found that the existing medication management policy had not been reviewed since 2013. Contrary to the revised Drugs and Therapeutics Committee terms of reference, inspectors were informed that this Committee did not review the

\(^1\) Patient-held medication lists are completed by a healthcare professional to accurately list all medications the patient is taking at time of discharge.
introduction of all prescribing strategies, guidelines, policies and decisions concerning the use of medications in the hospital. The development of medication management policies should ideally be overseen by a multidisciplinary group to reflect the fact that medicines management is the responsibility of a number of clinical professional groupings.

Staff reported that they had access to patient diagnostic results at the point of care through the hospital's computer network. Inspectors observed that prescribing support tools were available to staff in the clinical area. The most current version of the British National Formulary was available in hard copy on medication trolleys. Staff also described that they had access to online medication safety information available through the Health Products Regulatory Authority website. In addition, inspectors observed intravenous medication monographs\(^\text{‡}\) on display in clinical areas.

Inspectors were informed that the hospital pharmacist spoke to all new staff and attended ward level meetings to provide guidance and education around medication safety. Staff also reported that they had regular access to, and support from, the hospital pharmacist.

2.6 Training and education

**Line of enquiry:**

- Safe prescribing and drug administration practices are supported by mandatory and practical training on medication management for relevant staff.

Training for nursing and medical staff can be a key success factor in contributing to good, multidisciplinary engagement in medicines management. The hospital did not have a formalised education programme for clinical staff linked to an overall medication safety strategy. However, non-consultant hospital doctors reported that there was a high level of support available from senior medical staff around prescribing and advice.

Inspectors were informed that the HSELand Medication Management online training programme was available to all staff, however, on the day of the announced inspection not all staff had completed this program.\(^\text{21}\)

\(^\text{‡}\) An approved set of standardised and approved instructions for the correct preparation and administration of intravenous medication, that have been designed to reduce the risk of error, and that are specifically tailored to the intravenous medicines stocked within the hospital.
3. Conclusion

Medications represent the primary measure for treatment intervention in hospitalised patients. Error associated with medication usage constitutes one of the major causes of patient harm in hospital. Medication-related events were the third most common type of adverse event recorded in the recently published Irish National Adverse Events Study. Medication safety should therefore be a priority area for all acute hospitals as they seek to ensure a high quality and safe service for patients.

On the day of the inspection, Nenagh Hospital did not have a defined medication safety programme with clear objectives underpinned by a written strategy. Auditing of medication-related incidents was not coordinated or strategically driven. The level of reporting of medication-related incidents and near misses at Nenagh Hospital is far below international accepted norms and must improve. In order to identify risk a culture of incident reporting must be encouraged within the hospital.

The Drugs and Therapeutics Committee remit covered the University of Limerick Hospitals Group and Nenagh Hospital had a representative on this committee. Due to the group wide remit of the Drugs and Therapeutics Committee there must be meaningful, regular representation from each hospital within the University of Limerick Hospitals Group. The Drugs and Therapeutics Committee must work with Nenagh Hospital to develop a medication safety programme that is specific to Nenagh Hospital and based on clearly identified risks to the patients in Nenagh Hospital. It is important that these arrangements develop into the future so that medication safety remains a priority.

Nenagh Hospital had a process in place to check medication when a patient is admitted. However inspectors were informed that staff did not take a systematic approach to medication reconciliation. Medications reconciliation should be carried out in a structured manner by trained and competent health professionals with the necessary knowledge, skills and expertise.

Patients should be well informed about any medications they are prescribed and any possible side-effects. This is particularly relevant for those patients who are taking multiple medications. Efforts should be made to further improve communication with patients about their medications.

Following this report, the hospital must focus its efforts to address the risks and findings identified in this report, and work to ensure that the necessary arrangements are in place to protect patients from the risk of medication-related harm.
4. References§


§ All online references were accessed at the time of preparing this report. Web addresses may change over time.


## 5. Appendixes

### Appendix 1: Lines of enquiry and associated National Standard for Safer Better Healthcare

<table>
<thead>
<tr>
<th>Area to be explored</th>
<th>Line of enquiry</th>
<th>National Standards for Safer Better Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear lines of accountability and responsibility for medication safety</td>
<td>Patient safety is enhanced through an effective medication safety programme underpinned by formalised governance structures and clear accountability arrangements.</td>
<td>3.1, 5.1, 5.2, 5.4, 5.5, 5.6, 5.8, 5.9, 5.10, 7.1</td>
</tr>
<tr>
<td>Patient involvement in service delivery</td>
<td>Patients and or carers are informed about the benefits and associated risks of prescribed medicines in a way that is accessible and understandable.</td>
<td>1.4, 1.5, 1.7, 3.1, 4.1</td>
</tr>
<tr>
<td>Policies, procedures and guidelines</td>
<td>Hospitals develop effective processes to promote medication safety that are implemented and supported by clear and up-to-date policies, procedures and or protocols.</td>
<td>2.1, 3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.11, 8.1</td>
</tr>
<tr>
<td>Risk management</td>
<td>There are arrangements in place to identify, report and manage risk related to medication safety throughout the hospital.</td>
<td>3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.10, 5.11, 8.1</td>
</tr>
<tr>
<td>Audit and evaluation</td>
<td>The effectiveness of medication management systems are systematically monitored and evaluated to ensure they are effective.</td>
<td>2.8, 3.1, 5.8, 8.1</td>
</tr>
<tr>
<td>Education and training</td>
<td>Safe prescribing and drug administration practices are supported by mandatory and practical training on medication management for relevant staff.</td>
<td>6.2, 6.3</td>
</tr>
<tr>
<td>Access to information</td>
<td>Essential information of the safe use of medications is readily available in a user-friendly format and is adhered to when prescribing, dispensing and administering medications.</td>
<td>2.5, 8.1</td>
</tr>
</tbody>
</table>
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