



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the announced inspection of medication safety at Our Lady's Hospital, Navan.

Date of announced inspection:

09 May 2018

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.

Health Technology Assessment — Providing advice that enables the best outcome for people who use our health service and the best use of resources by evaluating the clinical effectiveness and cost effectiveness of drugs, equipment, diagnostic techniques and health promotion and protection activities.

Health Information — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

Table of Contents

1. Introduction.....	1
2. Findings at Our Lady's Hospital, Navan.....	3
2.1 Governance and risk management.....	3
2.2 Audit and evaluation.....	9
2.3 Medication safety support structures and initiatives	11
2.4 Person-centred care	12
2.5 Policies procedures and guidelines and access to information	14
2.6 Training and education	15
3. Conclusion.....	18
4. References	20
5. Appendices.....	24
Appendix 1: Medication safety monitoring programme Phase One: Lines of Enquiry and associated National Standard for Safer Better Healthcare.....	24
Appendix 2: Hierarchy of Effectiveness of Risk Reduction Strategies in Medication Safety.....	25

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.¹ 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.²

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*³ 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*⁴ which is available on HIQA's website: www.hiqa.ie

A national overview report of the of medication safety monitoring programme '*Medication safety monitoring programme in public acute hospitals- an overview of findings*'⁵ was published in January 2018 which presented the findings from thirty-four public acute hospitals inspected from November 2016 to October 2017 (the report is available on HIQA's website, www.hiqa.ie). In this report HIQA identified areas of good practice in relation to medication safety and areas that require improvement to ensure medication safety systems were effective in protecting patients.

An announced medication safety inspection was carried out at Our Lady's Hospital, Navan by Authorised Persons from HIQA; Emma Cooke and Nora O Mahony. The inspection was carried out on 09 May 2018 between 09:30 and 16.20 hrs. Interviews were held in the hospital with the following groups of managers and clinical staff:

- Group One: the chairperson of drugs and therapeutics committee, the chief pharmacist, and the quality and risk manager.
- Group Two: the general manager, the medical director, the director of nursing.

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

- Female medical ward
- Male medical ward

HIQA would like to acknowledge the cooperation of staff who facilitated and contributed to this announced inspection.

2. Findings at Our Lady's Hospital, Navan

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

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.

Our Lady's Hospital Navan is a Model three⁶ hospital and provides a general acute hospital service to the catchment area of Meath and a regional orthopaedic service.

In recent years, acute hospitals in Ireland have been organised into hospital groups* from an administrative basis. The Ireland East Hospital Group (IEHG) was established in January 2015 and Our Lady's Hospital Navan became a member of this group. Prior to this reconfiguration, governance and oversight of the medication management system at the hospital was under the remit of the former Louth/Meath Hospital Group Drugs and Therapeutics Committee which was a joint committee between three hospitals including Our Lady's Hospital Navan.

In order to align the hospital's reporting structures with Ireland East Hospital Group, the hospital had established a Drugs and Therapeutics Committee in October 2017. As a result, inspectors found that the medication safety programme at Our Lady's Hospital Navan was in the early stages of development.

The hospital had established formalised governance arrangements and organisational structures with clear lines of accountability in place to support the new arrangements for oversight of medication safety. An organogram provided to HIQA showed that the Drugs and Therapeutics Committee reported directly to the hospital's Quality, Safety and Risk Committee which was chaired by the clinical

*** Hospital groups: The hospitals in Ireland are organised into seven hospital groups. 1. Ireland East Hospital Group. 2. Dublin Midlands Hospital Group. 3. South/South West Hospital Group 4. Saolta Hospital Group. 5. University Limerick Hospitals Group. 6. RCSI Hospitals Group 7. National Children's Hospital Group.

director. The general manager was also a member of the Quality, Safety and Risk Committee.

As outlined in its terms of reference, the purpose of the Quality, Safety and Risk Committee was to provide the Ireland East Hospital Group with assurance that there were appropriate and effective governance structures, processes and controls in place to promote patient safety, identify and manage risk and ensure the effective and efficient use of resources at the hospital.

The general manager as the person with overall responsibility and accountability for medication safety at the hospital reported to and attended monthly performance managements meetings for the Ireland East Hospital Group.

The Drugs and Therapeutics Committee

The Drugs and Therapeutics Committee was chaired by a consultant anaesthetist. Terms of reference, approved in September 2017, outlined the committee's purpose, reporting structure, membership, organisation and decision making, agenda items and role and function.

Functions of the Drugs and Therapeutics Committee included:

- overseeing the medication safety programme at the hospital
- reviewing medication errors, reporting on trends and discussing possible improvements
- reviewing hospital policies, procedures, protocols and guidelines relating to medicines
- communicating to staff on matters relating to medication management and safety
- working on initiatives to improve all aspects of medication safety management and safety
- maintaining an effective hospital medication list
- overseeing audit of all work processes in the distribution of medicines.

Inspectors were informed that the hospital was part of the Ireland East Hospital Antimicrobial Stewardship Group and activities relating to antimicrobial stewardship at the hospital were under the remit of the Drugs and Therapeutics Committee.

Membership of the Drugs and Therapeutics Committee was multidisciplinary to reflect the fact that medicines management is the responsibility of a number of clinical professional groupings.⁷ Membership included physicians, pharmacists, nurses and nursing management, hospital management, the quality and risk Manager and a representative from finance. Inspectors were informed that a

representative from orthopaedics had been identified and was due to join at the next committee meeting.

Attendance at the Drugs and Therapeutics Committee was good with representation from the majority of the multidisciplinary members. However, the committee did not have representatives from a general practice (GP) or community pharmacy.

Terms of reference outlined that the Committee meets six times per year and inspectors were informed during interview that this equated to every eight weeks. However, through discussion with hospital management and following a review of minutes from the Drugs and Therapeutics Committee, inspectors found that the committee was not consistently meeting according to their terms of reference.

The hospital had a medication safety programme plan in place for 2017/2018 which was overseen by the Drugs and Therapeutics Committee. Inspectors found evidence of good progress with implementation of elements of the plan. For example, the need to improve the clinical pharmacy service featured on the plan and inspectors were informed that a clinical pharmacist post was due to commence the week following this inspection. Increasing incident reporting was also identified as an area of focus within the medication safety plan. Hospital management reported good progress against this action with an increase in the number of incidents reported. A number of actions remained ongoing at the time of inspection.

Overall, inspectors found that improvements in relation to medication safety were progressing at the hospital but oversight of this work and formalised reporting arrangements were not consistently taking place by the Drug and Therapeutics Committee due to the infrequency of meetings. Medication plans derived by the hospital should be kept under review and discussed at Drugs and Therapeutics meetings in order to assess progress against actions identified.

Formulary

The hospital had a list of medicines stocked in the hospital but did not have an evidence-based formulary.[†] The purpose of maintaining a formulary is to ensure that appropriate governance exists with the Drugs and Therapeutics Committee around what medicines are approved for use within the hospital and that in doing so, a

[†] Formulary: a managed list of preferred medicines that have been approved by the hospital's Drugs and Therapeutics Committee for use at the hospital. Use of a formulary ensures governance oversight of the introduction and ongoing use of medicines in practice at the hospital, and in doing so ensures an appropriate level of management control over medicines use, in the interest of both patient safety and financial management.

proper safety evaluation occurs before medications are introduced into practice at the hospital.⁸

Terms of reference outlined a number of functions that the committee were responsible for in order to maintain an effective hospital medication list. These included identification of prescribing policies and protocols pertaining to non-formulary prescribing, named-patient drug supply, automatic stop orders and generic and therapeutic substitution. However, inspectors were informed that these had yet to be progressed at the time of this inspection. The hospital should look to progress the identified work required and move towards the development of a defined formulary system, to outline medicines that are approved for use in the hospital and provide information and guidance on the use of these medicines.⁸ This work could be supported through collaboration with other hospitals within the Ireland East Hospital Group.

The hospital had a form in place for 'new medicine requests and off licensed use of a licensed medicine'. This form was completed by the requesting consultant and submitted to the chief pharmacist for discussion at the next Drugs and Therapeutics Committee. Inspectors were informed that the decision to approve a new medicine was based on numerous criteria such as; cost, therapeutic indication, clinical effectiveness and evidence based practice. Decisions regarding the use of medicines with significant budgetary impact were discussed with the finance manager and general manager. Minutes of committee meetings reviewed showed that formulary and medication selection was a standing item agenda.

Inspectors were informed that the Drug and Therapeutics Committee did not have formal oversight of clinical trials involving medicines at the hospital. However, it was reported that staff must inform the committee of their intentions to undertake clinical trials. Drugs and Therapeutics Committees should be aware of any clinical trial involving medicines occurring in their organisation and should have a role in assessing risks of clinical trials other than the ethical considerations.⁷

Risk management

HIQA found a lack of clinical pharmacy services[‡] in the hospital, and considering the services provided by the hospital this was of concern to inspectors as it could constitute a risk to patient safety. A lack of clinical pharmacy was included on the hospital's risk register and had been escalated to the Ireland East Hospital Group. Following the submission of a business case, the hospital had received approval for

[‡]Clinical pharmacy service describes the activity of pharmacy teams in wards and clinic setting.

an additional whole time equivalent (WTE)[§] pharmacist who was due to commence the week following this inspection. Inspectors were informed that the new pharmacist's role would involve the provision of clinical pharmacy duties and an antimicrobial stewardship service.

Risks in relation to medication safety at the hospital were included on the hospital's risk register. The risk register detailed the existing controls in place to mitigate against a lack of clinical pharmacy which included:

- incident reporting and tracking and trending of all near misses
- pharmacy review of specific drug orders
- posters in all clinical areas to promote awareness of high risk medications
- a review of medication safety and associated incidents as a standing item agenda at drugs and therapeutic committee meetings and quality, safety and risk meetings.

It was confirmed at interview, and verified in the documentation which was reviewed, that medication safety incidents and risk management was a standing agenda item at the Drugs and Therapeutics Committee and Quality, Safety and Risk Committee meetings.

The hospital also used other sources to identify, monitor and learn from information regarding the risks associated with medication use including incident reporting, medicines and pharmacy product risk assessment tools, audits, nursing metrics and direct observation.

Medication-related incident reporting facilitates the identification of risk and opportunities for improvement. The hospital had recently introduced the National Incident Management System^{**} for voluntarily reporting of medication-related incidents and near misses. Staff who spoke with inspectors described the hospital process for reporting medication-related incidents and outlined how individual incidents were discussed with the quality and risk Manager to review and identify any corrective actions to prevent a re-occurrence. Incidents^{††} that occurred in the hospital were reported to the State Claims Agency using the National Incident Management System (NIMS).⁹

[§] Whole-time equivalent (WTE): allows part-time workers' working hours to be standardised against those working full-time. For example, the standardised figure is 1.0, which refers to a full-time worker. 0.5 refers to an employee that works half full-time hours

^{**} The State Claims Agencies (SCA) National Incident Management System (NIMS) is a risk management system that enables hospitals to report incidents in accordance with their statutory reporting obligation to the SCA (Section 11 of the National Treasury Management Agency (Amendment) Act, 2000).

^{††} An incident is an unplanned, unexpected or uncontrolled occurrence which causes (or has the potential to cause) injury, ill-health, and /or damage. An incident can be a harmful incident (adverse event), a no harm incident, a near miss, dangerous occurrence or complaint.

Reporting of incidents is of little value unless the data collected is analysed and recommendations are disseminated and implemented. Documentation reviewed by inspectors demonstrated that a total of 134 medication incidents were reported in 2017. Medication incidents and near misses were collated by the quality and risk manager and tracked according to the stage of the medication process it related to in order to identify emergent medication safety concerns. Through this process the hospital had identified that 89 medication-related incidents in 2017 were associated with prescribing practices. In response to this finding, the hospital had proactively introduced a number of measures to address this risk including the introduction of a new medicines prescription chart and guidance for prescribers on completing discharge prescriptions. The quality and risk manager also attended weekly medical sessions to provide targeted information in response to trends identified with incidents.

However, minutes of Drugs and Therapeutic meetings from March 2018 outlined that only 16 incidents had been reported in 2018 at the time of the inspection. Higher incident reporting rates both demonstrate and promote an improved culture of safety.¹⁰ 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.

Staff informed inspectors that they received information on incidents that had occurred throughout the hospital through daily ward huddles, ward meetings, updates from pharmacy, nurse management meetings and at doctors weekly training sessions.

Hospital management reported that the introduction of the incident reporting system had impacted positively on a reporting culture. However, HIQA notes that the majority of reports were submitted by pharmacists and nursing staff. The culture of reporting medication incidents needs to be broadened out to include other healthcare staff so that safety surveillance is improved, learning is shared, and safety culture is promoted and enhanced across the organisation.

An effective Drugs and Therapeutics Committee should have ongoing oversight of the medication management and safety systems within a hospital. Overall, inspectors found that the hospital was in the process of establishing and developing risk management systems in relation to medication safety at the hospital. The hospital should address the reduced rates of medication-related incident reporting to ensure the exact nature and contributory factors leading to medication errors are understood. Such information is key to the implementation of prevention strategies developed from learning gained through trending and analysis of reported data.

2.2 Audit and evaluation

Line of enquiry:

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

Hospitals should have arrangements in place to ensure the effectiveness of healthcare is systematically monitored and continuously improved. The information gathered should be used to improve services, and the learning gained should be shared throughout the hospital.³

Elements of medication safety were audited at the hospital but these audits were not always aligned to a formalised medication safety strategy. Inspectors found that audit activity throughout the hospital was neither strategically driven nor centrally coordinated.

The inspection team were provided with examples of medication-related audits which included:

- measuring baseline adherence to empiric antibiotic guidelines in lower respiratory tract infection
- ward medication access and storage
- advanced nurse practitioner annual prescribing audit
- sepsis management
- ongoing fridge temperature monitoring.

The hospital's medication safety programme for 2017/2018 had identified three defined audits in the areas of prescription charts, antimicrobial stewardship and anticoagulant therapy. All of these audits were due for completion by September 2018 according to the hospital's medication safety plan.

Inspectors were informed some audit results were communicated throughout the organisation through various forums including senior nurse management meetings, weekly education sessions for doctors, ward meetings and through hospital staff emails. Documentation reviewed by inspectors demonstrated feedback provided to individual ward areas on pharmacy audit findings and recommendations. However, hospital management reported that audit findings and recommendations were not always communicated and disseminated between disciplines. Dissemination of audit results is essential so that the clinical workforce is informed of the areas that need improvement, and also to motivate them to change practice and participate in improvement activities.^{11, 12} The hospital should work towards implementing the necessary systems required to ensure audit findings and recommendations are

shared across all disciplines and used as the basis for decision-making, action and change.

Audit reports and plans were a standing agenda item at the Quality, Safety and Risk Committee. Minutes of meetings reviewed outlined that the hospital identified the need to develop an audit schedule for 2018 and encouraged clinicians to identify topics for the audit schedule. However, medication safety audits discussed at Drugs and Therapeutics Committee meetings were limited to antimicrobial stewardship audits only.

Nursing metrics* were monitored monthly across the hospital to review practice around prescribing, storage and administration of medicines. In one of the clinical areas visited, data in relation to medication safety identified good performance across a number of areas however there were consistently less than satisfactory findings in relation to observations around medication prescribing. Inspectors were informed that this was identified as an issue across all clinical areas and was reflected in the number of medication incidents associated with prescribing. In one of the clinical areas inspected, recommendations in response to poor performance in nursing metrics were displayed at the nurses' station and it was reported that ward managers were required to document and report progress against these recommendations.

The hospital had completed a self-assessment designed by the Institute of Safe Medication Practices (ISMP)¹³ to assess the hospital's practices and processes related to medication use. Findings from this informed the development of a separate quality improvement plan to the hospital's medication safety plan for 2017/2018 and as a result the hospital identified further medication-related improvements and audits. The self-assessment against international best practice was a positive and proactive approach and the hospital should continue to progress all actions identified through various sources and incorporate them into the existing medication safety programme and the hospital's medication safety plan.

Overall, inspectors found that systems in place to monitor and evaluate medication safety at the hospital required improvement to ensure a more systematic approach to audit selection and dissemination of audit findings throughout the hospital. This was acknowledged by Hospital management during the inspection.

Hospital management informed inspectors that the hospital had submitted an application to fund an audit facilitator post through the nursing practice development unit at the hospital. While this is being actively progressed, current arrangements for monitoring and evaluating medication safety systems at the hospital should be strengthened and formalised to provide assurance to senior hospital management team about medication safety at 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.

Inspectors were informed of and reviewed some examples of quality improvement initiatives that had been implemented at the hospital which included:

- completion of the Institute of Safe Medication Practice (ISMP) Medication Safety Self-Assessment
- launch of pharmacy medication safety newsletter
- update of inpatient drug chart to incorporate venous thromboembolism^{‡‡} risk assessment tool
- introduction of new discharge prescription
- introduction of new subcutaneous syringe driver pumps for palliative care patients.

The hospital maintained a list of high-risk medications that present a heightened risk of causing significant patient harm if not used correctly. The acronym 'A PINCH'^{§§} which grouped medications into categories was used to facilitate education and to raise awareness of high-risk medications. Inspectors observed accessible and user friendly posters displayed in clinical areas outlining high-risk medicines. The hospital promoted medication safety awareness of high-risk medications through some risk reduction strategies as outlined in their APINCH poster, for example;

- ready mixed potassium infusion bags and restricted access to concentrated potassium
- policies, procedures, guidelines or protocols to guide safe use of methotrexate, concentrated potassium, heparin and direct oral anticoagulants (DOACs^{***}).
- restricted access of concentrated potassium and restricted supply of certain antibiotics.

The hospital's general medication prescribing chart had been redesigned to include separate sections for anticoagulants, venous thromboembolism risk assessment,

^{‡‡} Venous thromboembolism (VTE): a blood clot consisting of deep veins thrombus (DVT) and pulmonary embolism (PE). Blood clots (thrombus) can form within deep veins (DVT) and these clots can fragment and travel to lungs leading to Pulmonary Embolism (PE).

^{§§} **A**nti-infectives, **P**otassium, **I**nsulin's, **N**arcotics, **C**hemotherapy, **H**eparin and other anticoagulants

^{***} Direct oral anticoagulants: are medications used to treat or prevent blood clots. However, there is a potential for bleeding with their use or clotting leading to stroke with missed doses.

antimicrobial prescriptions and intravenous fluids. The chart included provision for recording therapeutic drug monitoring levels for antimicrobials.

Compliance with risk-reduction strategies in place for high risk medicines was not routinely monitored. Inspectors were informed that the hospital would rely on direct observation from staff, incident reports and nursing metrics to identify concerns.

Clinical pharmacy service

There are currently no agreed national standards outlining requirements for the provision of clinical pharmacy services in hospitals. International studies support the role of clinical pharmacists in hospital wards for preventing adverse drug events.^{14,15,16,17,18} As outlined at the beginning of this report, there was a lack of clinical pharmacy services at the hospital. Inspectors found that the pharmacy service within the hospital was almost entirely restricted to dispensing. While efforts were made by the pharmacist to support staff in safe medicines usage, the hospital was not sufficiently resourced to provide any clinical pharmacy service. At the time of this inspection, the hospital had two pharmacists and two pharmacy technicians. A clinical pharmacist was due to commence the week following the inspection and it was reported that the new pharmacist post would provide a half time clinical pharmacy service and half time antimicrobial stewardship pharmacy role.

Medication reconciliation at time of admission is a systematic process conducted by an appropriately trained individual, to obtain an accurate and complete list of all medications that a patient was taking prior to admission.^{19, 20, 21} Inspectors were informed that a medication reconciliation service was not provided to all patients in line with recommended practice. Nursing documentation reviewed by inspectors had a designated medication reconciliation section to be completed on discharge. In the clinical areas, inspectors were informed that nurses and doctors would often contact the community pharmacist or general practitioner to verify patients' medications on admission.

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.

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.^{22,23}

Our Lady's Hospital Navan National Patient Experience Survey⁺⁺⁺ was completed by 55% of the 332 people discharged from the hospital in May 2017. Overall patients' rating of their experience at Our Lady's Hospital Navan was above the national average.²⁴

Two questions related directly to medication in the National Patient Experience Survey;

- **Question 45:** Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand?
- **Question 46:** Did a member of staff tell you about medication side effects to watch for when you went home?

	Our Lady's Hospital Score	National score
Question 45: Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand?	8.4	7.8
Question 46: Did a member of staff tell you about medication side effects to watch for when you went home?	5.6	5.1

Figure 2: Comparison between Our Lady's Hospital and national scores for the National Patient Experience Survey questions 45 and 46.

Hospital management reported that no specific quality improvement plan had been implemented in response to the medication-related questions and scores in the National Patient Experience Survey. However, inspectors were informed that initiatives aimed at improving the discharge process for patients were an ongoing

⁺⁺⁺ The National Patient Experience Survey: was a nationwide survey which asked people for feedback about their stay in hospital. The survey was a partnership between the Health Service Executive (HSE), HIQA and the Department of Health. All adult patients discharged during May 2017 who spent 24 hours or more in a public acute hospital, and have a postal address in the Republic of Ireland were asked to complete the survey.

focus at the hospital. The hospital's patient discharge information leaflet had a designated section on medication.

Inspectors were informed that patient education was provided when a patient commenced on a new medicines by the prescriber or nurse. Inspectors observed some patient information leaflets in relation to medication use from the Health Products Regulatory Agency (HPRA) in clinical areas which were provided to patients upon initiation of new medication at the point of care.

Patients who had access to a clinical nurse specialist would also receive some education. A referral process for patient education was in place for patients newly commenced on warfarin which was facilitated by clinical nurse specialists. The hospital had booklets developed by Ireland East Hospital Group for patients and doctors with advice and information on initiating and managing therapy with direct oral anticoagulants (DOAC's).

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.

On the day of inspection, HIQA found that a number of hospital policy, procedures and guidelines pertaining to medication safety from the previous Louth Meath Hospital Group structure were in operation and overdue for review.

The hospital did not have an electronic document control system, however, policies, procedures, protocols and guidelines were available to staff in a shared folder on the hospital's computer system and in hard copy format in a ward folder.

The hospital had medicines information resources available to assist staff when prescribing or administering medicines in the hospital, for example:

- antimicrobial prescribers guide
- therapeutic drug monitoring guidelines
- guidance for prescribers on completing discharge prescriptions
- British National Formulary (BNF)
- national palliative care formulary.

Antibiotic guidelines for intravenous administration developed by the Louth/Meath Hospital Group were available at the point of preparation to assist staff in the safe administration of intravenous medicines available. Inspectors found that generic web based injectable medicines guidelines were available to staff on computer desktops. Although approved for use within the hospital and printable, they were neither locally adapted nor available to staff at the point of medicines preparation. The availability of locally developed or adapted intravenous drug administration monographs to assist staff in the safe administration of intravenous medicines should be progressed by the hospital and could be achieved through sharing and collaboration with other hospitals within the hospital group.

Inspectors were informed that medicines information alerts were disseminated to staff via emails, pharmacy memorandums and medication bulletin newsletters and examples of these were reviewed by inspectors. For example, pharmacy memos had been issued outlining that all insulin pens/vials and other multi-dose vials were for single patient use only. Some staff who spoke with inspectors were not familiar with all information disseminated, for example, the medication messenger newsletter launched as a hospital quality improvement. The hospital should strengthen its communication processes to ensure that the information developed reaches the staff in frontline clinical roles so that the required improvement for patient safety can be achieved.

Hospital management acknowledged the work needed to update policies procedures and guidelines. Establishing and prioritising areas where policies, procedures and guidelines were required as well and ensuring that policies were updated and reviewed in line with review dates was featured on the hospital's medication safety programme for 2017/2018. Inspectors were informed that some work had commenced on the development of policies specific to the hospital, for example, the completion of a guideline for the administration of medication by continuous subcutaneous infusion route using a syringe pump. Inspectors were informed that all medication-related policies, procedures and guidelines were approved by the Drugs and Therapeutics Committee prior to implementation.

Healthcare requires access to complete and accurate patient information, relevant to the safe use of medications, at the point of clinical decision making to help ensure patient safety. Clinical staff had access to patient's diagnostic results on computers in clinical areas visited by inspectors.

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.

Staff education can effectively augment error prevention when combined with other strategies that strengthen the medication-use system.²⁵

The hospital did not have a formalised education programme for clinical staff linked to an overall medication safety strategy.

Medication safety training was included in induction programmes for all new clinical staff. Inspectors were informed that non consultant hospital doctors⁺⁺⁺ received induction training which included aspects of medication management. This was delivered by the pharmacist and microbiologist. However, documentation received following this inspection outlined that attendance by non consultant hospital doctors at induction training required significant improvement. Education and training in relation to medication safety must be planned to ensure that staff can attend training, for example, allocating time for frontline staff to attend in-house training.

Nurses were required to attend a separate study day on intravenous medication which also included anaphylaxis training.

Inspectors were informed that nurses were encouraged to complete the HSE Land Medication Management online training programme.²⁶ Nurses were required to submit their certificate of completion to ward management. Training records indicated that 33% of nursing staff had completed this training at the time of this inspection.

Ongoing education topics to promote medication safety were provided at the hospital for healthcare professionals. For example, a workshop titled '*Essential Practice Updates*' in December 2017 covered topics such as sound-alike look-alike drugs (SALADS)^{§§§}, venous thromboembolism risk management (VTE), risk reporting and risk management and medicine information references.

Healthcare providers should plan and devise training and education programmes for their workforce based on strategic objectives and the needs of their patient population. Hospital management informed inspectors of intentions to formulate a training and education programme on medication safety for all disciplines. This

⁺⁺⁺ Non-consultant hospital doctor (NCHD) is a term used in Ireland to describe qualified medical practitioners who work under the (direct or nominal) supervision of a consultant in a particular speciality.

^{§§§} SALADS: are 'Sound-alike look-alike drugs'. The existence of similar drug names is one of the most common causes of medication error and is of concern worldwide. With tens of thousands of drugs currently on the market, the potential for error due to confusing drug names is significant

featured on the hospital's medication safety plan for 2017/2018 and it was reported that the hospital were exploring the availability and suitability of medication safety e-learning programmes in areas such as adverse drug reactions and high-risk medicines.

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.¹ 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.

Overall HIQA found that the systems, processes and practices in place to support medication safety were in the early stages of development and implementation. The hospital had established formalised governance arrangements and organisational structures with clear lines of accountability in place to support the new reporting arrangements for medication safety within the hospital.

Inspectors found that there were a lack of clinical pharmacy services in the hospital, and considering the services provided by the hospital this was of concern to HIQA. Notwithstanding the efforts made to recruit a clinical pharmacy, the hospital must now use the additional clinical pharmacy resources effectively alongside existing resources to prioritise areas that require improvements in order to strengthen the current medication safety program and improve patient safety at the hospital.

The hospital had a medication safety programme plan in place for 2017/2018 which was overseen by the Drugs and Therapeutics Committee and inspectors found that improvements in relation to medication safety were progressing but oversight of this work and formalised reporting arrangements were not consistently taking place.

Some systems were in place to monitor the effectiveness of medication management systems at the hospital. Hospital management acknowledged that more work is required to ensure that there is a more systematic approach to audit selection and dissemination of audit findings throughout the hospital. Current arrangements for monitoring and evaluating medication safety systems at the hospital should be strengthened and formalised to provide assurance to senior hospital management about medication safety at the hospital.

The hospital should continue to progress work identified in relation to policies, procedures and guidelines and provide clinical staff with up-to-date information to guide the safe use of medicines at the point of prescribing, preparation and administration.

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.

It is recommended that this report is shared with senior managers, clinicians and other relevant staff at Our Lady's Hospital, Navan to highlight both what has been achieved by the hospital in implementing medication safety activities to date, and to foster further collective progression from this time point.

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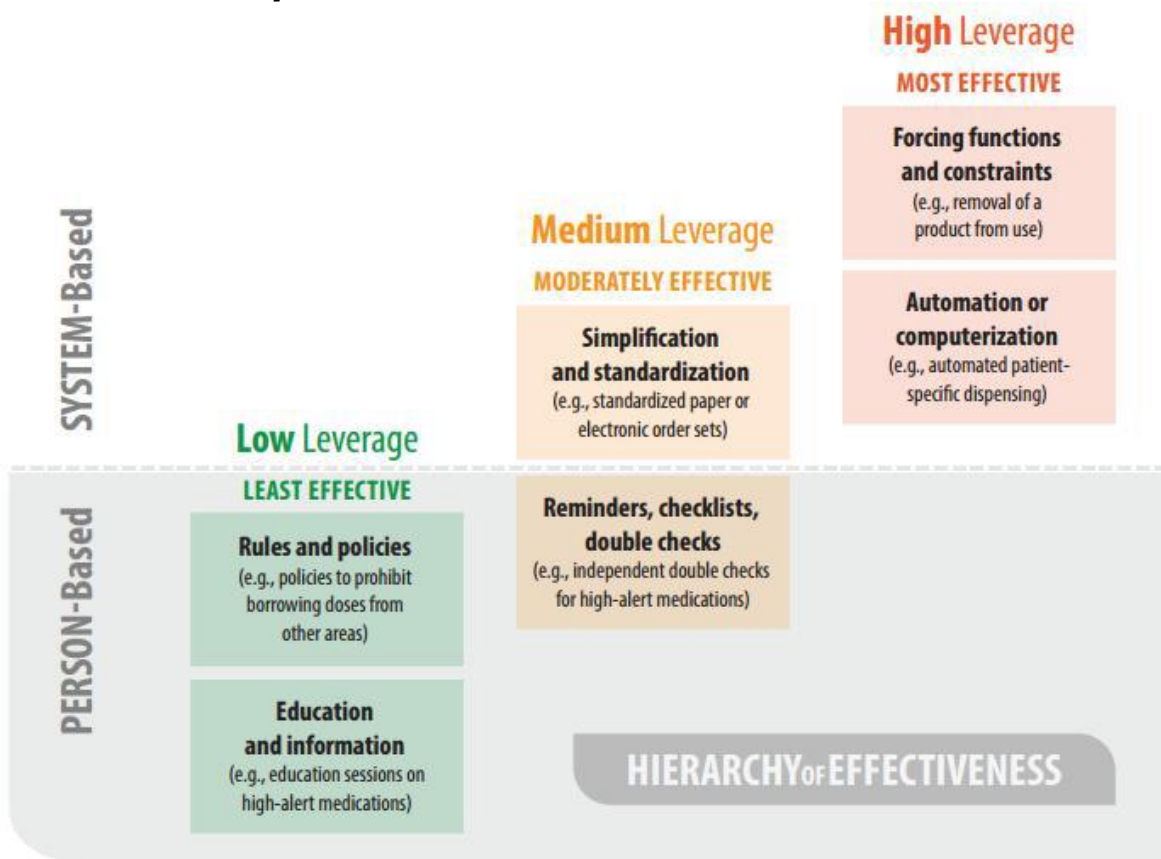
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5. Appendices

Appendix 1: Medication safety monitoring programme Phase One: Lines of Enquiry and associated National Standard for Safer Better Healthcare

Area to be explored	Line of enquiry¹	National Standards for Safer Better Healthcare
Clear lines of accountability and responsibility for medication safety	Patient safety is enhanced through an effective medication safety programme underpinned by formalised governance structures and clear accountability arrangements.	3.1, 5.1, 5.2, 5.4, 5.5, 5.6, 5.8, 5.9, 5.10, 7.1
Patient involvement in service delivery	Patients and or carers are informed about the benefits and associated risks of prescribed medicines in a way that is accessible and understandable.	1.4, 1.5, 1.7, 3.1, 4.1
Policies procedures and guidelines	Hospitals develop effective processes to promote medication safety that are implemented and supported by clear and up-to-date policies, procedures and or protocols.	2.1, 3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.11, 8.1
Risk management	There are arrangements in place to identify, report and manage risk related to medication safety throughout the hospital.	3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.10, 5.11, 8.1
Audit and evaluation	The effectiveness of medication management systems are systematically monitored and evaluated to ensure they are effective.	2.8, 3.1, 5.8, 8.1
Education and training	Safe prescribing and drug administration practices are supported by mandatory and practical training on medication management for relevant staff.	6.2, 6.3
Access to information	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.	2.5, 8.1

Appendix 2: Hierarchy of Effectiveness of Risk Reduction Strategies in Medication Safety



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