Report of the announced inspection of medication safety at Our Lady of Lourdes Hospital, Drogheda.

Date of announced inspection:

31 August 2017

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.

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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.[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] The World Health Organisation (WHO) has identified *Medication Safety* as the theme of the next Global Patient Safety Challenge.[3] This global safety initiative, launched in March 2017, aims to address the weaknesses in health systems that lead to medication errors and the severe harm that result.

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*,[4] 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*[5] which is available on HIQA's website: www.hiqa.ie

An announced medication safety inspection was carried out at Our Lady of Lourdes Hospital by Authorised Persons from HIQA; Nora O' Mahony, Dolores Dempsey-Ryan and Kathryn Hanley. The inspection was carried out on 31 August 2017 between 09.30hrs and 16.30hrs. Interviews were held in the hospital with the following groups of managers and clinical staff:

- Group one: the Chairperson of the Drugs and Therapeutics Committee (current and previous), the Chief Pharmacist and the Quality and Risk Manager.
- Group two: the General Manager, the Clinical Director, the Clinical Director for Maternity Services, the Director of Nursing, and the Director of Midwifery.

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

- The ground floor east medical ward
- The third floor orthopaedic ward.

In addition, a survey was conducted among outpatients in the Outpatient Department.

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

2. Findings at Our Lady of Lourdes Hospital

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 of Lourdes Hospital is a member of the Louth Hospital Group[*] within the Royal College of Surgeons of Ireland Group. The hospital is an acute general hospital delivering medical, surgical, maternity, neonatal intensive care and paediatric services.

The hospital had formalised governance arrangements and organisational structures with clear lines of accountability in place to support the safe use of medications. It was outlined to inspectors that the hospital's Drug and Therapeutics Committee had provided governance and oversight of the medication management system across the Louth Hospital Group and Our lady's Hospital Navan and reported to the Our Lady of Lourdes Hospital's Senior Management Team. However, in correspondence received following the inspection, HIQA were informed that Our Lady's Hospital Navan had now established a local Drugs and Therapeutic Committee and would no longer form part of the Our Lady's Hospital Drugs and Therapeutic Committee. HIQA identified on the day of inspection that prior to this new arrangement, the three hospitals had actively collaborated in order to progress a shared working approach to improving medication safety, for example, in the development of a joint medication prescription and administration record. Medication safety could be further strengthened through collaboration with other hospitals within the Royal College of Surgeons of Ireland Group.

The Committee was chaired by a consultant anaesthetist and had recently updated its terms of reference, which outlined the Committee's purpose, reporting structure, membership, training, operational processes, agenda items, role and function.

Membership of the Drugs and Therapeutics Committee was multidisciplinary to reflect the fact that medicines management is the responsibility of a number of

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[*] Our Lady of Lourdes Hospital and Louth County Hospital

clinical professional groupings.[6] Membership included clinicians, pharmacists, nurses, midwives, hospital management, finance representative and the Quality and Risk Manager. Attendance at the Drugs and Therapeutics Committee was good with representation from the majority of the multidisciplinary members. Inspectors were informed that a primary care pharmacist had been recently invited to join the committee and medication issues relevant to General Practice (GP) would be addressed though the recently formed GP liaison group.

The Drugs and Therapeutics Committee had four subcommittees; Two Medication Management Subgroups from Our Lady of Lourdes Hospital and the Louth County Hospital, an Antimicrobial Stewardship Committee, and a recently formed Medication Safety Subgroup. Feedback from the medication management subgroups and the Antimicrobial Stewardship Committee was a standing agenda item at Drugs and Therapeutics Committee meetings.

The Our Lady of Lourdes Medication Management Subgroup was set up with an operational focus and was described within its terms of reference as the two way communication channel between the Drugs and Therapeutics Committee and the staff of the hospital on all matters related to medication management. This subgroup had within its scope to effectively communicate and implement policies, procedure, protocols, guidelines, activities and decision of the Drugs and Therapeutics Committee, as well as working together on initiatives to improve all aspects of medication management. The terms of reference of the committee was to be reviewed annually, however, the terms of reference reviewed by inspectors was approved in 2011.

The hospital had recently set up a Medication Safety Subgroup which inspectors were informed had a strategic focus, and was set up for an initial twelve month period after which the terms of reference and membership would be reviewed. The purpose of the Subgroup was to develop a medication safety programme for 2017/2018 and a three year medication safety strategy for the Louth Hospital Group. The responsibilities of the Subgroup included the review of the Institute for Safe Medicines Practice (ISMP) medication safety assessment†, and the review of medication incident reports from the previous twelve months. This Committee reported to the General Manager and the Drugs and Therapeutics Committee. On reviewing this Committee after the initial time period, the hospital should consider the most efficient and effective use of staff resources going forward, while still maintaining the strategic focus to drive sustainable improvement for patient safety.

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† The ISMP tool contained ten key elements with core characteristics that significantly influence safe medication use. Each core characteristic contained individual self-assessment items which the hospital reviewed and evaluated their current success with implementing on a scale from; no implementation, considered but not implemented, partially implemented, fully implemented in some areas to fully implement in all areas.

In August 2017 the hospital finalised the medication safety programme for 2017/2018. This medication safety programme was informed and guided by priorities identified through the hospital's completion of the Institute for Safe Medicines Practice (ISMP) medication safety self assessment and subsequent medication safety gap analysis[‡].

A multidisciplinary team, comprising of senior management, the Chief Pharmacist, senior nursing and midwifery including practice development and pharmacy staff, completed the ISMP medication safety self assessment which provided a structured and evidence based process for the hospital to undertake a medication safety gap analysis to identify and prioritise areas for improvement. The hospital reviewed each item that was self assessed against the weighted score[§] assigned by the ISMP. This process, monitored through the Drugs and Therapeutics Committee, was supported and strengthened though discussion with an ISMP representative and colleagues in another hospital with experience of the process. The undertaking of the ISMP self assessment and the development of the medication safety programme demonstrated staff and management's commitment to promoting medication safety within the hospital.

The Drugs and Therapeutics Committee had responsibility for oversight of the annual medication safety programme within its terms of reference. It is essential that this programme is effectively governed, structured, resourced, implemented and evaluated so that the substantial work done to date results in tangible gains for medication safety for patients.

The hospital did not have an evidence based formulary[**] but had a list of all medicines stocked in the hospital. The hospital had a formal process in place for the approval of new medicines whereby new medicines applications were assessed by the Drugs and Therapeutics Committee for safety, cost and effectiveness, based on the information and evidence provided by the requesting consultant.

The hospital had recently introduced the National Incident Management System (NIMS)[††] for the management of incident reports. However, while the hospital had a policy of reporting incidents such as medication errors, the actual reporting of them was sporadic. Senior management recognised that this level of reporting was not in

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[‡] A gap analysis involves the comparison of actual performance with potential or desired performance.

[§] To determine the weight of each self assessment item ISMP independently evaluated each item to determine its impact on patient safety and its ability to sustain improvement

[**] A formulary is a hospital's approved list of medicines that staff can use as a reference document to ensure safe and cost-effective prescribing.

[††] 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).

line with internationally accepted norms and were aware of the need for improvement. As a result of low reporting key medication related risks could not be understood, recorded, escalated or mitigated effectively by the organisation.

To address this issue, the hospital had provided education on incident reporting during the launch of the NIMS. The hospital should continue to promote incident reporting among all clinical staff within a just culture[‡‡][7] to strengthen reporting of medication incidents within the hospital so that safety surveillance is improved, learning is shared, and safety culture is promoted and enhanced across the organisation.

Nonetheless, the hospital had identified some incident related safety concerns and had put measures in place to address these risks, for example, the revision of the medication and administration record, the introduction of prefilled syringes containing emergency anaesthetic drugs and the development of an adult insulin prescription and blood glucose monitoring chart, currently being piloted.

Important lessons can be learned from analysis and trending of medication-related incidents and near misses. Reporting of incidents is of little value unless the data collected is analysed and recommendations are disseminated, implemented and monitored.[8] The hospital did acknowledge that identification of emerging trends to prioritise medication safety activities was difficult due to the low numbers of medications related incidents reported. The quality and risk department were tracking medication incidents based on location, time frame, process and type. Incidents were graded within the NIMS system. The Drugs and Therapeutics Committee minutes reviewed by inspectors had limited evidence of discussion related to medication incidents, however, medication incident reports were submitted to; the specialist governance meetings[§§], the Senior Hospital Team, the monthly Hospital Performance Meetings and were also discussed at the recently formed Medication Safety Subgroup.

Medication related incident reporting facilitates the identification of risk and opportunities for improvement. However, on its own it does not provide a complete picture of all potential sources of risk and patient harm.[8] The hospital used a variety of additional information sources to identify strengths and weaknesses in the hospital medication management system including, audit, direct observation, risk assessment and nursing and midwifery metrics.

[‡‡] The framework of a just culture ensures balanced accountability for both individuals and the organisation responsible for designing and improving systems in the workplace. Engineering principles and human factors analysis influence the design of these systems so they are safe and reliable.
[§§] The hospital had nine specialist groups: surgery, medicine, emergency department, paediatrics, anaesthetic and critical care, pathology, radiology, orthopaedics and women's and children.

Issues which were considered to potentially compromise the safe administration of medication were included in the hospital's corporate risk register, for example, the absence of clinical pharmacists in clinical specialist areas within the hospital.

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.[4,9] Management and staff reported that there was a culture of open disclosure within the hospital and patients were informed when a medication incident occurred. Training on open disclosure had been provided for some staff, including senior managers, to support the hospital's culture of open disclosure.

2.2 Audit and evaluation

Line of enquiry:

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

While elements of medication safety were audited in both the general and maternity services, these audits were not aligned to a formalised medication safety strategy and were only centrally coordinated within nursing and midwifery. However, the hospital had identified key audits to be undertaken within the next year and these were outlined in the recently developed medication safety programme.

The inspection team were provided with examples of medication related audit activities which included, for example:

- insulin and potassium storage on wards
- nurse prescribing of medicinal products
- oxytocin versus ergometrine maleate/oxytocin [***] intramuscularly for management of third stage labour
- adherence to local guidelines on administration and appropriate removal of dinoprostone[†††] pessaries
- medication safety in oncology in accordance with National Cancer Care Programme standards
- opioid prescribing in palliative care patients
- antimicrobial audits
- thromboprophylaxis[‡‡‡] prescribing

[***] Medicine which makes the muscles of the uterus (womb) contract. It is used in child birth and to control bleeding after delivery of the baby.
[†††] Dinoprostone is used to prepare the cervix for the induction of labour in pregnant women who are at or near term.

The pharmacy department and nurse practice development team completed a medication safety audit in 2014 to monitor compliance with five elements of medication safety: use of only one chart at a time, allergy status completed, legibility of prescription, and accurate coding of non administered medicines. Opportunity for improvements were identified in all elements audited, and strategies were put in place to improve compliance. A re-audit carried out in 2016 demonstrated improvement with elements audited, for example, compliance with allergy section completed by doctors had improved from 76% to 91% and legibility of prescription had improved from 71% to 84%.

The nurse practice development unit had also audited nurses and midwives knowledge and adherence to the guidelines for the management of controlled drugs. The audit identified areas of non compliance and recommendations for improvement were outlined and inspectors were informed that findings were presented to relevant stakeholders at department, management and committee level. However, a re-audit date was not outlined to measure any improvements achieved.

Nursing and midwifery quality care metrics[§§§] were monitored monthly across the hospital in acute, midwifery and paediatric services to review practice around prescribing, storage and administration of medicines. Metric results viewed by inspectors, over the past 6 months, identified compliance of over 95% in most areas, with the exception of the prescribing metrics. At the hospital's Nursing and Midwifery Metric Meetings metric results were reviewed and action plans developed for improvement. For example, a presentation on metrics results was delivered to speciality governance groups in 2016 followed by some incremental improvement in prescribing metrics but with still room for further improvement.

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. [10,21] Inspectors were shown examples of presentations of audit findings and informed that these were delivered to staff at ward level, at committee meetings and circulated via email. The hospital also held a multidisciplinary annual research day at which staff presented on clinical audit activity.

The maternity unit had set up a multidisciplinary audit committee in July 2017 to develop a coordinated programme for clinical audit and had commenced a maternity unit audit inventory.

[‡‡‡] Any measure taken to prevent a blood clot.
[§§§] Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance.

The hospital had identified the need for improvement of audit practice within the hospital, and to address this gap planned to introduce a Director of Clinical Audit to establish a clinical audit programme within the hospital. The hospital should continue to progress its audit programme, to formally align it with a medication safety strategy, and provide greater assurance to the senior hospital management team that all opportunities for improvement are being implemented and evaluated for effectiveness.

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.

During the course of the inspection the hospital identified quality improvement initiatives to support medication safety, for example:

- prefilled syringes for emergency anaesthetic drugs
- revised drug administration and prescribing record incorporating gentamicin, vancomycin and thromboprophylaxis prescribing sections and a venous thromboembolism assessment
- discharge prescription including medications amended, withheld or discontinued and reason for this
- heparin infusion prescription for variable dosing on general wards
- syringe pump underpinned by policy and education
- ENFit**** compliant devices

The pharmacy department had introduced a 'lean†††† medicine management project' on selected wards to enhance patient care by ensuring the correct medicines were available with minimum effort, reducing staff time being spent on stock control and releasing staff time for patient care. Following analysis of dispensing data, key interventions were introduced including revision of the wards; medicine storage, medicines stock list, top up system and ordering process.

**** The use of ENFit connectors to standardise the connection between all enteral devices, helping to ensure that enteral connectors will fit only with each other, and not with other connector types to reduce medical tubing misconnections and improve patient safety .

†††† The goal of a lean project is to maximise value while minimising waste

The interventions resulted in significant improvement in efficiency with a 44% reduction in stock items being ordered, 40% reduction in nurses' time being spent requesting stock items, a 38% reduction in pharmacy technician time being spent on medicine stock top up and 56% reduction in medicines required from pharmacy out of hours. Following the success of this project the pharmacy department planned to monitor and maintain progress on the current wards and extend the project hospital wide.

High risk medicines are those that have a high risk of causing injury or harm if they are misused or used in error. The hospital had recently developed a high alert medication list represented by the acronym APINCH which replaced the hospital's Medication Never Event List[‡‡‡‡][11] . The hospital had some low, medium, and high risk reduction strategies in place for high risk medication (Appendix 2) as outlined in their APINCH poster, for example:

- ready mixed potassium infusion bags and restricted access to concentrated potassium
- pilot of an adult insulin prescription and blood glucose monitoring chart
- polices, procedure guidelines or protocols to guide safe use of oral methotrexate, midazolam, concentrated potassium, heparin and direct oral anticoagulants (DOAC[§§§§]).

There are currently no agreed national standards outlining requirements for the provision of clinical pharmacy service [*****] in hospitals. International studies support the role of clinical pharmacists in hospital wards in preventing adverse drug events.[12,13,14,15,16,17] The hospital had a clinical pharmacy service in the Emergency Department, the Acute Medical Assessment Unit, some medical wards and a surgical ward. Inspectors were informed that these areas were the main points of entry for patients into the hospital and therefore prioritised for clinical pharmacy services. The clinical pharmacist provided advice and guidance to staff on medicines management, and provided patient counselling on newly commenced warfarin and DOACs or on other medicines when requested by nurses or doctors. The hospital had identified the lack of clinical pharmacists in specialist areas as a high risk. This risk was included on both departmental and hospital risk registers, and escalated to hospital group level through submissions for additional clinical pharmacy staff. Having identified this risk, the hospital should both work to address this identified deficit, and assure itself that the current clinical pharmacist service is utilised most appropriately to mitigate the risk and promote patient safety.

[‡‡‡‡]Never events are serious incidents which have the potential to cause serious patient harm or death, have occurred before and are deemed preventable where guidance or safety recommendations that provide strong systemic protective barriers are implemented.
[§§§§] Medication used in the management of venous thromboembolism, which is when a blood clot forms in a vein.
[*****] Clinical pharmacy describes the activity of pharmacy teams in ward and clinic settings.

The pharmacy department had undertaken three projects on the impact of pharmacist screening discharge prescription for older persons, harm reduction and cost avoidance in the emergency department through clinical pharmacist interventions and the evaluation of clinical pharmacist interventions in surgical patients. The results obtained concurred with literature findings in support of clinical pharmacists.

Medication reconciliation at the 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.[18,19,20,21] Clinical pharmacists completed medication reconciliation for new patients in the areas to which they were assigned using two information sources to verify the correct medication. Any discrepancies were communicated to the prescribing doctors for review, and amendment made as appropriate, thus resulting in an accurate complete list of medications.[18]

Our Lady of Lourdes Hospital was also participating in the Health Service Executive (HSE) Quality Improvement Division venous thromboembolism (VTE) quality improvement collaborative. This is a collaborative among multidisciplinary teams in Irish adult acute public and voluntary hospitals who are working together to achieve appropriate thromboprophylaxis for their hospital's inpatients, to reduce the risk of venous thromboembolism and to minimise harm and expenditure associated with unnecessary thromboprophylaxis.

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] Clinical pharmacists offered counselling to all patients on newly prescribed oral anticoagulant medication on their assigned wards, and clinical pharmacists also provided counselling on medications to patients in the other areas of the hospital when requested by nurses or doctors. Nurses, doctors and clinical nurse specialists also provided education to patients on medications. Patient information leaflets were available at the point of care.

As part of the HIQA inspection, HIQA requested that a small sample of hospital outpatients attending the Outpatient Department complete an anonymised

questionnaire in relation to prescribed medications. 20 patients who had been inpatients in Our Lady of Lourdes Hospital within the past year, and who were prescribed regular medications completed the questionnaire. Of the 20 patients surveyed, 17 patients had been prescribed new medicines. Of these 17 patients:

- seven of the patients said that while in hospital, a staff member had explained the purpose of new medication in a way that they could completely understand.
- three of the patients said that prior to discharge from hospital, a staff member told them about all possible medication side effects to look out for following discharge home, four patients indicated that they did not need any explanation about possible side effects.
- eleven of the patients said that they received complete instruction on how to take their medications at home, while two patients indicated that they did not need an explanation on how to take newly prescribed medication.

It is acknowledged that the sample size of patients who completed the anonymised questionnaire was small, and therefore was not representative of all recently discharged patients taking prescribed medication. However, patient education is an integral component of the safe, effective and cost-effective use of medications. This patient questionnaire did provide some baseline information about outpatient's understanding of medications and may be used as a focus for further improvement.

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.

The hospital had a number of multidisciplinary medication management policies, procedures, guidelines and protocols underpinning medication safety within the hospital. Inspectors were informed that these policies, procedures, guidelines and protocols were reviewed and approved by the relevant specialist group[†††††] prior to submission to the Drugs and Therapeutics Committee for final approval. Speciality

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[†††††] The hospital had nine specialist groups: surgery, medicine, emergency department, paediatrics, anaesthetic and critical care, pathology, radiology, orthopaedics and women's and children.

consultants were also invited to attend the Drugs and Therapeutics Committee meetings to discuss relevant documents. For example, the haematology consultant had attended the Drugs and Therapeutics Committee meeting to discuss the direct oral anticoagulant policy.

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. The hospital acknowledged that some of the hospital medication management policies, procedures, guidelines and protocols were due for review, and outlined that the hospital hoped to implement an electronic document control system to support this.

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

- British National Formulary for Children and British National Formulary (also available in hard copy)
- Health Product Regulatory Authority for summary product characterises and patient information leaflets.
- antimicrobial prescribers guide- also available as a smart phone application
- therapeutic drug monitoring guide

The hospital did not have a suite of locally developed or adapted intravenous drug administration monographs to assist staff in the safe administration of intravenous medicines available at the point of medicines preparation. The Medusa injectable medicines administration guide which contains intravenous monographs on the administration of injectable drugs was 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 considered by the hospital and could be achieved through sharing and collaboration with other hospitals within the hospital group.

Inspectors were informed that medicines information was dissemination to staff via emails, memos and newsletters and examples of these were reviewed by inspectors, for example, a sound alike look alike insulin preparations memo. Some staff who spoke with inspectors where 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 the frontline so that the required improvement for patient safety can be achieved.

The hospital had a system in place for managing safety alerts and product recall and this process was underpinned by a supporting policy.

Healthcare staff required 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 ready access to patients' diagnostic results on computers in clinical areas across the hospital.

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.[24]

Inspectors were informed that non consultant hospital doctors[‡‡‡‡‡] received induction training which included medication management. Further medication safety training was received at medical team meetings and grand rounds.

Nursing staff attended intravenous drug administration training and medication management session during induction training. Intern nurses attend a mandatory medication safety education day, completed a medication management assessment and also completed the online HSeLanD[§§§§§] medication management module.

In the absence of a specific medication safety programme nurses received education as required on topics to promote medication safety such as, the newly introduced syringe pump[******] and the newly introduced incident reporting system.

Nurse training records were reviewed by an inspector on a specially designed excel spread sheet. From this spread sheet managers could identify who had, and who had not completed the required training programme and automatically indicated through colour coding when updates were required. The system was updated by each manager when staff completed an education session.

[‡‡‡‡‡] 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.
[§§§§§] The health service elearning and development service
[******] A battery operated pump which gives medicines in a steady rate over 24 or 48 hours.

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 hospitals. Medication safety should therefore be a priority area for all hospitals as they seek to ensure a high quality and safe service for patients.

HIQA found that the medication safety agenda was being actively progressed at Our Lady of Lourdes Hospital through the work of the Drugs and Therapeutics Committee supported by the Medication Management Subgroup. There was multidisciplinary involvement with engagement and support from senior hospital managers and clinicians working to provide medication safety across the hospital.

Notwithstanding the work done to date by the hospital to effectively manage medication safety, HIQA found, and the hospital had itself identified, that the medication management system needed to be strengthened to enhance medication safety across the organisation. To address this, the hospital had recently established a strategic Medication Safety Subgroup with senior management and clinical involvement; however, it is essential that the focus placed on medication safety through the development of this Committee is sustained and strengthened going forward, and not a short term reaction to regulatory monitoring.

It is also vital that the recently approved medication safety programme for 2017 /2018 be effectively governed, implemented and monitored so that the work done to date results in tangible gains for medication safety for patients.

In addition inspectors found that the hospital did not have a medication formulary, locally adapted intravenous monographs or clinical pharmacists in specialist clinical areas and the hospital should look to address these deficits in sustainable way following this inspection.

Important lessons can be learned from analysis of medication incidents and near misses.[9] The hospital identified low medication incident reporting rates and had taken steps to address this through the introduction of the National Incident management system, augmented by education sessions. The hospital should continue to promote reporting among all clinical staff, within a just culture, so that safety surveillance is improved, learning is shared, and the safety culture is enhanced across the organisation.

Audit represents a key component of all effective clinical governance programmes. Examples of audits undertaken by hospital staff which supported medication safety were reviewed by inspectors. Audits were only centrally coordination within nursing but the maternity unit had recently developed an audit committee to develop a

coordinated programme for clinical audit within maternity service. The hospital should continue its plan to promote quality assurance systems across the hospital including audit of medication safety, aligned to a formalised medication safety plan.

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

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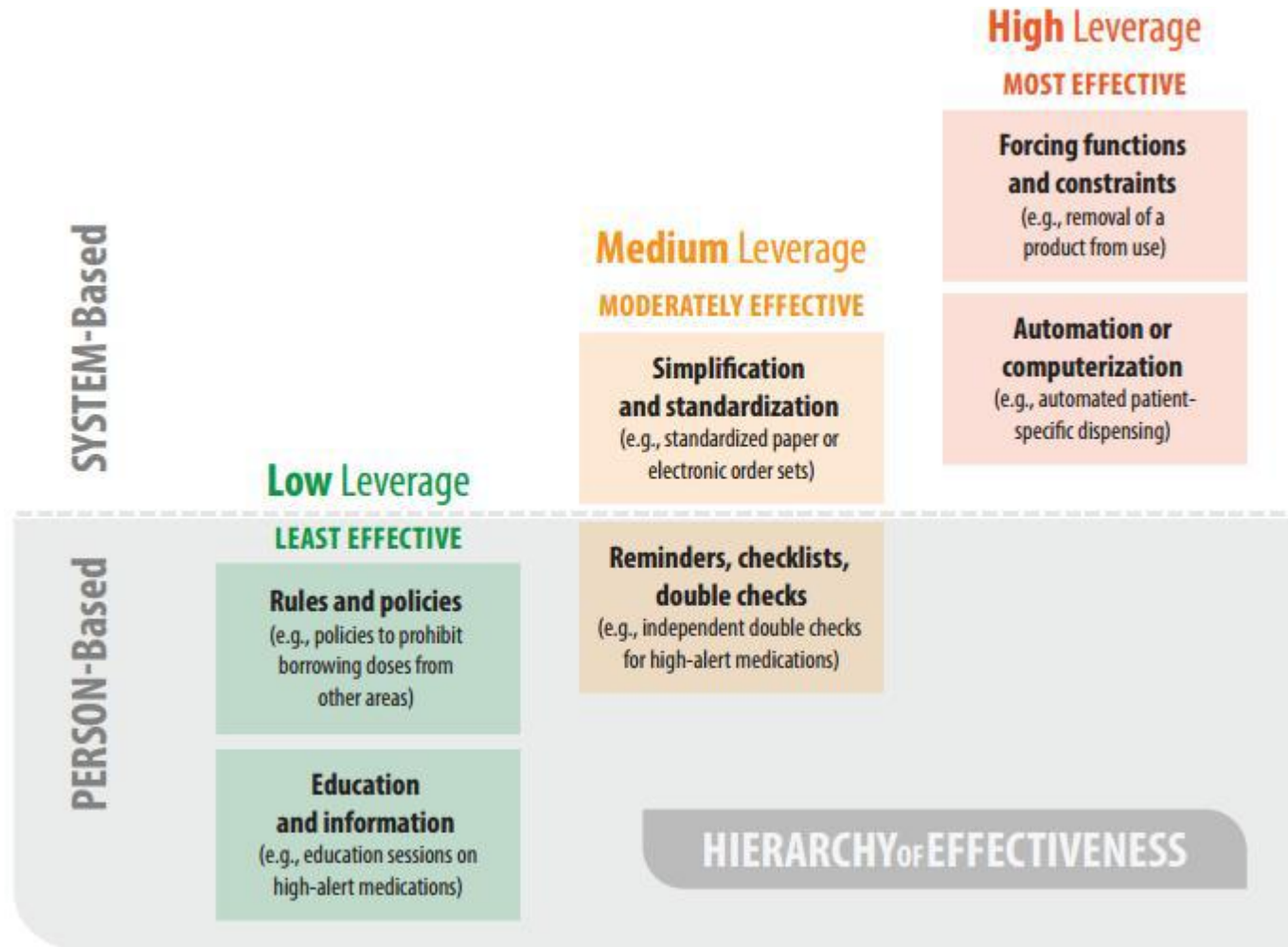
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5. Appendices

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 enquiry[1]	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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