



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cailíocht Sláinte

Report of the announced inspection of medication safety At St Vincent's University Hospital, Dublin.

**Date of announced inspection:
26 April 2017**

Report of the announced inspection of medication safety at St Vincent's University Hospital

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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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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 results.

H IQA'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 St Vincent's University Hospital by Authorised Persons from HIQA; Kathryn Hanly, Dolores Dempsey Ryan, Noelle Neville and Kay Sugrue. The inspection was carried out on 26 April 2017 between 09.30hrs and 16.50hrs. Interviews were held in the hospital with the following groups of managers and clinical staff:

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- Group one: the Chairperson of the Drugs and Therapeutics Committee, the Chief Pharmacist, the Medication Safety Coordinators and the Director of Quality and Patient Safety.
- Group two: the Chief Executive Officer, a Clinical Director and the Director of Nursing.

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

- Acute Medical Unit
- St Laurence's Ward (Orthopaedic Ward)

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

H IQA 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 St Vincent's University 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.

St. Vincent's University Hospital had formalised governance arrangements and organisational structures with clear lines of accountability in place to support the safe use of medications.

The Drugs and Therapeutics Committee was responsible for the governance of the hospital's medication management system and for ensuring its safety.⁶ The Committee had recently updated its terms of reference which clearly outlined the Committee's objectives, membership, frequency of meetings and reporting relationships. Membership of the Committee was multidisciplinary to reflect the fact that medicines management was the responsibility of a number of clinical professional groupings.⁶ Membership included clinicians, pharmacists, nurses, hospital management, and other healthcare professionals who participated in the medication-use process. Inspectors were informed that a general practitioner (GP) representative had been invited to join the Committee. In the absence of GP representation, inspectors were informed that relevant information was communicated with GPs through the hospital's GP Liaison Committee.

The Drugs and Therapeutics Committee was a sub-committee of the St. Vincent's University Hospital Medical Executive. There were two permanent sub-committees of the Drugs and Therapeutics Committee: the Nurse Prescribing sub-committee and the Antimicrobial Advisory sub-committee. Both sub-committees provided regular feedback on activities to the Drugs and Therapeutics Committee.

The Drugs and Therapeutics Committee was responsible for administering an evidence based formulary* of medications accepted for use in the hospital. Decisions to add or remove medications from the formulary were guided by written criteria. Documentation reviewed during the course of the inspection indicated that amendments to the formulary were considered at Drugs and Therapeutics

* 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.

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Committee meetings. Applicants were required to attend the meetings to allow for constructive discussion of formulary applications. New medicines were evaluated on the basis of efficacy, safety, quality and cost. Decisions with significant budgetary impact were additionally overseen by senior hospital management. Mechanisms were in place to communicate with healthcare professionals about all aspects of the formulary system. In addition, there was a process in place for an annual review of the formulary.

There was a clearly documented structure relating to medication safety in place in St. Vincent's University Hospital. It was evident that the medication safety agenda was being actively progressed at the hospital. Operational implementation of the medication programme was effectively facilitated by the Medication Safety Co-ordinator and supported by the Pharmacy Department, the Drugs and Therapeutics Committee, the Senior Management Team and staff at the hospital. The Drugs and Therapeutics Committee was responsible for oversight and implementation of the medication safety operational plans.

The hospital had an established system for reporting and addressing medication errors and near misses. This system was supported by a medication incident reporting policy. Medication incidents and near misses were tracked and trended to assess progress, identify emergent medication safety concerns and prioritise medication safety activities. For example, following the analysis of medication incidents, the hospital identified that a number of detected medication-related incidents related to the use of novel oral anticoagulant medications (NOACs[†]) and had introduced a number of measures to address this risk. Measures included:

- the introduction of an anticoagulant sticker on the healthcare record to highlight anticoagulant use
- a dedicated medical intern lecture on prescribing of anti-coagulants was delivered as part of the intern education programme
- the publication of pharmacy newsletter to outline practice points with novel oral anticoagulant medications
- the distribution of a staff quiz which aimed to raised staff awareness of the risks associated with novel oral anticoagulant medications.

The Medication Safety Co-ordinator reviewed and graded all medication incidents using the National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP) Medication Error Index to categorise incidents in terms of patient harm (appendix 2). The index considered factors such as whether the error reached the patient and, if the patient was harmed, to what degree. All medication incidents categorised as E or higher (Appendix 2) were reported to the Quality and

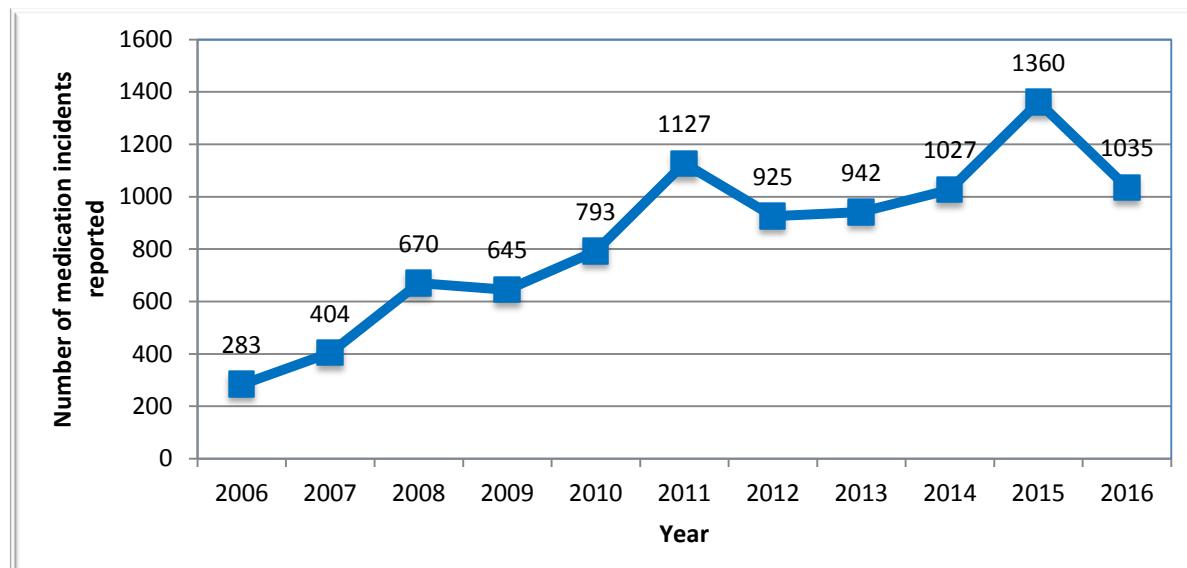
[†] Medication used in the management of venous thromboembolism, which is when a blood clot forms in a vein.

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Patient Safety Department (Risk Management function) and those incidents were inputted to the National Incident Management System (NIMS) system[‡]. Issues which were considered to potentially compromise the safe administration of medication were included on the hospital's risk register.

Monthly medication safety reports were submitted to the Drugs and Therapeutics Committee and to the Quality and Patient Safety Executive Committee. The rate of medication safety incident reporting in the hospital had increased significantly since 2006 (figure 1). This reflected the emphasis placed on patient safety by the Pharmacy Department and the willingness of front-line staff to report medication incidents. Higher incident reporting rates both demonstrate and promote an improved culture of safety.⁷ HIQA note that notwithstanding this positive trend in reporting, the majority of reports were submitted by clinical pharmacists and nursing staff with limited evidence available to suggest that medical staff were reporting medications incidents. Therefore, 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.

Figure 1: Number of medication incidents reported annually in St. Vincent's University Hospital 2006- 2016.



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.^{4,8} Inspectors were informed that the hospital had a process in place to

[‡] 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).

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promptly inform patients when medication-related incidents occurred. Examples were given of when this open disclosure policy was adhered to.

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.⁹ The hospital used a variety of additional information sources to identify strengths and weaknesses in the hospital medication management system including retrospective chart review, direct observation, audit, and risk assessment and medication management tracer audits[§].

2.2 Audit and evaluation

Line of enquiry:

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

Clinical audit was supported by, and reported through, the clinical governance structures at St. Vincent's University Hospital. The Clinical Audit Department provided oversight of clinical audit activity at the hospital. The Chief Pharmacist was a member of the Clinical Audit Committee. Audit reports were completed using a dedicated report template which identified areas of good practice and made recommendations. The Drugs and Therapeutics Committee reviewed audits related to medication management and safety.

As part of their accreditation requirement the hospital conducted an annual medication management systems review which identified how medication use was organised and managed throughout the hospital.

Inspectors saw examples of audits from many different areas of clinical practice. Audits carried out by medical teams ranged from focused audits of specific relevance to a single service such as an audit of intrathecal^{**} morphine usage in hepatobiliary^{††} surgery carried out by the Department of Anaesthesia to hospital wide audits such as the audit of antimicrobial prescriptions in medication records carried out by the Microbiology Department.

[§] The medication management system tracer explores a hospital's medication management process while focusing on sub-processes and potential risk points (such as hand over points). This tracer activity helps evaluate the continuity of medication management from the procurement of a medication through the monitoring of its effect on patients.

^{**} Intrathecal administration is a route of administration for drugs via an injection into the spinal canal.

^{††} Hepatobiliary: Having to do with the liver plus the gallbladder, bile ducts, or bile.

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The inspection team was also provided with examples of hospital-specific medication safety and medication management audits carried out by the Pharmacy Department in 2016 which included:

- medicines reconciliation and appropriateness review
- appropriateness review of prescriptions in the neurology ward
- antibiotic uses for surgical prophylaxis
- the prevalence of acceptable medication prescriptions for insulin
- Acute Medicines Unit medication requisitions
- audit of phone calls to the Pharmacy Department dispensary
- audit of phone calls and emails to and from Pharmacy Department aseptics unit.

Inspectors were informed that medication incident reports and trend analysis influenced audit practice within the hospital. For example, following discussion of medication incidents involving NOACs, the Drugs and Therapeutics Committee recommended an audit of NOAC use within the hospital.

Clinical audit activities at the hospital led to changes aimed at improving the delivery of clinical services. For example following a recently issued national HSE policy on restricted antimicrobial agents and a local audit of compliance with the Meropenem^{##} restriction policy, restricted prescribing rights^{§§} for Meropenem were fully introduced and enforced.

Nursing Quality Care- Metrics^{***} were monitored across the hospital to review practice around aspects of medication storage and administration. Inspectors viewed the Nursing Quality Care-Metrics findings and noted that the results relating to controlled drugs, medication storage, custody and administration were good.

Hospital management reported that four key performance indicators were used to evaluate medication safety at the hospital. These were:

- overall numbers of medication incident reports per month
- medication incident reports per month that caused patient harm

^{##} Meropenem: an ultra-broad spectrum antimicrobial belonging to a class of antimicrobial known as carbapenems. It may be used to treat a wide range of infection types. It is an important antimicrobial as it remains the gold standard treatment for serious infection caused by Extended-spectrum beta-lactamase (ESBL) producing Gram-negative organisms. Treatment options for Gram-negative organisms resistant to meropenem are very limited in number, generally less effective and can be more likely to cause adverse drug reactions.

^{§§} An antimicrobial stewardship initiative to restrict prescribing of specific antimicrobials to identified clinicians.

^{***} Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance.

[¥] A prophylactic is a medication or a treatment designed and used to prevent a disease from occurring.

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- concentrated potassium dispensed from the pharmacy
- antimicrobial usage.

Reporting of performance in relation to these parameters was fed back to prescribers, the Drugs and Therapeutics Committee and senior hospital management.

Overall, inspectors concluded that the hospital had conducted a number of audits relating to medication management. In order to enhance the current approach taken, the hospital would benefit from taking more structured approach to the planning of audit in the area of medication safety aligned to the hospital's formal medication safety strategy.

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.

A medication safety end of year report was prepared by the Medication Safety Coordinator for the Drugs and Therapeutics Committee and distributed throughout the organisation and presented at the biannual Medication Safety Seminar. The 2016 medication safety end of year report provided a detailed review of medication incidents reported throughout the year and outlined actions undertaken in response to medication incidents and near misses.

The hospital had developed a medication safety strategy which outlined multifaceted approaches for improving medication safety using short, medium and long term plans. It was evident that this medication safety strategy was being actively progressed. The Drugs and Therapeutics Committee was responsible for oversight and implementation of the medication safety operational plans.

Incidents and near misses were regularly reviewed to monitor for trends to identify potential focus for corrective action. Multiple interventions to address the frequency and impact of medication errors had been introduced. For example, a number of allergy-related medication incidents and near misses were reported in the Emergency Department. On analysis, lack of availability of reliable information regarding patients allergy history at the point of prescribing, administering or dispensing was identified as a contributory factor. A subsequent audit of allergy documentation in the Emergency Department found that improvements in allergy documentation were required. In response, allergy wristbands were trialled in the Emergency Department as a prompt to staff that a patient has an allergy. The

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wristbands acted as a trigger for staff to “STOP” and confirm the patient’s allergy status to ensure that the patient is not allergic to a medication, food or treatment they were about to receive.

The hospital had resourced 25 inpatient clinical areas with a designated clinical pharmacist ^{†††}. 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 in preventing adverse drug events.^{10,11,12,13,14,15} Clinical pharmacists reviewed inpatient medication prescription charts to prevent, identify, and intercept medication prescribing-related incidents. The role of clinical pharmacists was documented in the hospital’s own *Guidelines for the provision of pharmaceutical care to patients*.

Inspectors were informed that the clinical pharmacy service endeavoured to see each patient on every working day. Clinical pharmacists documented pharmaceutical care on the clinical pharmacy worksheet and the medical notes. The clinical pharmacy worksheet also formed part of the healthcare record and was retained with the medication record or filed in the healthcare record.

The hospital had established a formal structured pharmacy-led medication reconciliation service. 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.^{16,17,18,19} The hospital’s medication reconciliation service was underpinned by a medication reconciliation policy which indicated that medication reconciliation should be performed as soon as feasible after the decision to admit. Priority was given to:

- patients admitted through the Emergency Department and the Acute Medical Unit, and patients with multiple co-morbidities
- patients on multiple medications
- patients on high risk medications, including but not exclusively
 - anti-epileptic drugs
 - opiate analgesics
 - anti-coagulants
 - immunosuppressants
 - insulin
- patients who have been inpatients for more than two days but have not yet been reviewed by a pharmacist.

The process of medication reconciliation was guided by, and documented on, the clinical pharmacy worksheet. A 2016 audit showed a pharmacist intervention rate^{***}

^{†††} Clinical pharmacy describes the activity of pharmacy teams in ward and clinic settings.

^{***} The percentage of pre-admission medications that contained preventable medication errors that were detected and corrected by a pharmacist.

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of 29.5% based on medication reconciliation. A formalised medication reconciliation service was not provided at the point of patient discharge.

St. Vincent's University Hospital is accredited with the Joint Commission International (JCI). All accredited hospitals are required to meet the Joint Commission International Patient Safety Goals. The six goals highlight problematic areas in health care and described evidence and expert based consensus solutions to these problems. International Patient Safety Goal 3 aims to improve the safety of high alert medications. The Drugs and Therapeutics Committee reviewed and approved the list of high alert medications every three years or if deemed necessary at any time. Strategies to ensure that high alert medications were stored, prescribed, dispensed and administered safely included;

- limiting access to these medications
- standardising the ordering, preparation, and administration of these products
- using "high alert" labels to prompt careful checking
- use of premixed solutions
- employing independent double checks when necessary

The list of high-alert medications, included a list of sound-alike and look- alike drugs (SALADs). The existence of confused medication names is one of the most common causes of medication error and is of concern worldwide.²⁰ The SALAD list was updated based on annual review of medication incident reports and review of international evidence.²¹ The hospital took steps to prevent the erroneous administration of medications on the SALAD list. For example, a SALAD awareness week held to raise awareness of the list. The hospital also promoted awareness of SALADs through pharmacy newsletters and in service education.

High alert medications and risks associated with the use of medications were supported by policies, procedures, protocols and guidelines. The hospital promoted medication safety awareness of high alert medications through pharmacy newsletters, posters, in service education and awareness campaigns.

Inspectors saw examples of quality improvement initiatives that had been implemented and evaluated. St. Vincent's University Hospital is a member of the Ireland East Hospital Group. Inspectors were informed that a meeting had been planned to share information regarding quality improvement activities at group level.

During a visit to the Acute Medical Unit inspectors were informed that the treatment room had been redesigned to support and promote the safe preparation and administration of medications. The redesign of this room aimed to improve the physical design and organisational layout of the room, reduce interruptions and create a standard medication preparation and storage area for enhanced efficiency and patient safety. This was an example of good practice.

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Interruptions during medication administration rounds are thought to be a prominent causative factor of medication errors.²² 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.

St. Vincent’s University Hospital was also participating in the Health Service Executive (HSE) Quality Improvement Division venous thromboembolism 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.

The implementation of a hospital-wide electronic prescribing and computerised decision support system had been identified as a long-term medication safety strategic priority by the hospital. It was envisaged that the introduction of electronic prescribing would allow for improved audit, surveillance and reporting, and would significantly aid medication safety activities in the hospital. Inspectors were informed that the Drugs and Therapeutics Committee had appointed a subgroup to oversee this project. Membership included representation from the Pharmacy and Information and Communications Technology (ICT) Departments.

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. St. Vincent’s University Hospital had systems in place to support the provision of patient information and education in relation to medication. Inspectors were informed that clinical pharmacists offered counselling to all patients newly prescribed oral anticoagulant medication before discharge. Clinical pharmacists were also available to counsel patients in relation to medication issues on request from ward staff. Patient information leaflets were available at the point of care.

As part of this HIQA inspection, a small sample of patients attending the Outpatient Department completed an anonymised questionnaire in relation to prescribed medications. The questionnaire was completed by 20 patients who had been inpatients in St. Vincent’s University Hospital within the past year and who were

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prescribed regular medications. Of the 20 patients surveyed, eight patients had not been prescribed any new medicines and 12 patients had been prescribed new medicines. Of these 12 patients:

- seven patients said that a staff member had explained the purpose of new medication in a way that they could understand
- seven patients said that a staff member told them about possible medication side effects to look out for following discharge home
- ten patients said they received instruction on how to take their medications at home.

It is acknowledged that the sample size of patients who completed the anonymised questionnaire in relation to prescribed medications at the Outpatient Department 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 Pharmacy Department in conjunction with the Drugs and Therapeutics Committee and Nurse Practice Development Department had developed and implemented a suite of medication management policies, procedures, protocols and guidelines to support safe medication management systems within the hospital. All medication-related policies, procedures and guidelines were approved by the Drugs and Therapeutics Committee prior to implementation. Medication policies, procedures, protocols and guidelines were readily available to staff through the hospital's controlled document management system. The implementation of changes to hospital policies, procedures and guidelines were supported by staff education and information sessions.

Pharmacy Department newsletters were developed in response to medication incidents and near misses reported locally in addition to interactions, guidance, alerts, recalls and recommendations issued by external bodies. Efforts were also made to share learning with other hospitals nationally.

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A medicines information service was provided by the Pharmacy Department. This service provided ready access to expert advice in the management of medication-related queries, and was open to all staff. The service answered over 1000 enquiries from staff on medication annually. In addition, ward based clinical pharmacy staff provided key information about medication to medical, nursing and other clinical staff, as well as to patients.

The Pharmacy Department had established and maintained a medicines guide^{§§§} containing the hospital medication formulary^{****}. The medicines guide was accessible via all computer desktops in the hospital and as an app which could be downloaded to mobile phones or tablets. This use of mobile technology gave prescribers easy access to the guidelines at the point of prescribing.

Multiple sources of medication information were readily available to staff involved in medication use including;

- the British National Formulary in print and electronic formats,
- recently updated A-Z intravenous medication monographs***
- online evidence-based clinical decision support resources.

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 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 is an important error prevention strategy when combined with other strategies that strengthen the medication use system.^{23,24} Medication safety was included in induction programmes for all new clinical staff.

All nursing staff who have commenced employment in the hospital complete an intravenous medication workshop. The hospital had developed a competency assessment for medicines administration. Each staff nurse involved in administering

^{§§§} Prescribers' Guide: a guide that contains the agreed policies involving medications as well as the hospital medication formulary

^{****} Formulary: a listing of approved medicines for prescription and use in the healthcare organisation.

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medicines was competency assessed on induction to the clinical area. Assessments were completed on 10 separate medication administration rounds.

Inspectors were informed that non-consultant hospital doctors were provided with induction training which included medication safety, from the Pharmacy Department staff. Education sessions were delivered by the Pharmacy Department in relation to safe prescribing, analgesics, anticoagulants, controlled drugs and medication safety. It was also reported that ongoing training on medication safety was provided to medical staff at hospital grand rounds⁺⁺⁺⁺ and at morbidity and mortality meetings ^{****}. All medical students were assessed on their knowledge of safe prescribing in the University College Dublin online Prescribing Safety Assessment.

The Pharmacy Department actively contributed to national initiatives and linked in with other hospitals to share learning.

An online medication safety programme which focused on high risk medications was available to all staff. However, on the day of the announced inspection not all staff were aware of this programme.

⁺⁺⁺⁺ Grand rounds are formal meetings where physicians and other clinical support and administrative staff discuss the clinical case of one or more patients. Grand rounds originated as part of medical training.

^{****} Morbidity and mortality (M&M) meetings are attended by healthcare professionals involved in the care of patients, to retrospective peer review the care of patients who have experienced morbidity or mortality, as a potential learning and quality improvement exercise.

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.

St. Vincent's University Hospital had established governance arrangements in place with systems, processes and practices to support medication safety practices in the hospital. It was evident that this had been progressed over a significant period of time, driven by effective local leadership and executive management support and resource allocation.

The Drugs and Therapeutics Committee provided the leadership and structure to select appropriate medications for the formulary and promoted rational drug use. Evaluation of medicines, with a view to adding or deleting them from the formulary, is one of the most important functions of a Drugs and Therapeutics Committee.⁶

The hospital had a system for reporting and addressing medication errors and near misses, and promoted an open reporting culture for learning from medication-related incidents and near misses. High incident reporting rates at the hospital both demonstrate and promote an improved culture of safety. However, scope for improvement in the degree of error reporting by medical staff was identified by the hospital. The analysis of medication incident reports occurring within the hospital allowed medication safety issues to be identified and corrected.

Measurement is foundational to advancing improvement. It helps clarify goals, establish a shared sense of purpose, and confirm that organisations are heading in the right direction over time.²⁵ Evidence was submitted and reviewed which verified that clinical audit activities at the hospital led to changes aimed at improving the delivery of clinical services.

Evidence supports the use of multifaceted approaches for improving medication safety.²⁶ St. Vincent's University Hospital had successfully implemented a number of core medication safety interventions and had a good programme of clinical interaction in place to promote best practice around medication usage for patients. The hospital had developed a list of all high-alert medications, including sound-alike and look-alike drugs, from hospital-specific data and international evidence. The hospital used this list to guide prioritisation of safety initiatives. Inspectors were informed of multiple proactive measures to reduce the incidence of medication errors associated with high-alert medications. None of these strategies were meant to replace vigilance, but each can greatly augment the safety of practice.

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It is recommended that this report is shared with senior managers, clinicians and other relevant staff at St. Vincent's University Hospital and with the Ireland East Hospitals Group 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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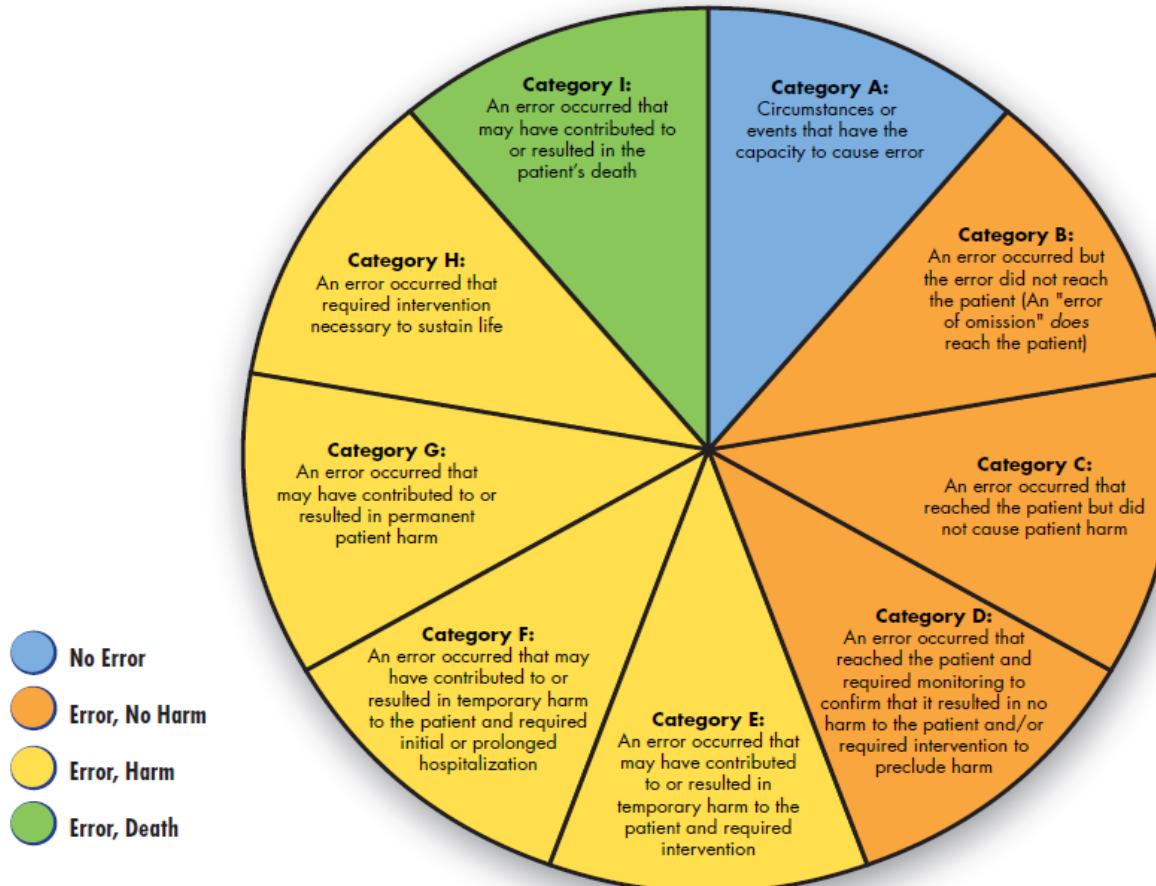
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5. Appendices

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. National Coordinating Council for Medication Error Reporting and Prevention. Index for Categorizing Medication Errors.



Definitions

Harm

Impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting there from.

Monitoring

To observe or record relevant physiological or psychological signs.

Intervention

May include change in therapy or active medical/surgical treatment.

Intervention Necessary to Sustain Life

Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

Report of the unannounced inspection of medication safety at St Vincent's University Hospital

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