



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the announced inspection of medication safety at St James's Hospital, Dublin

**Date of announced inspection:
04 July 2017**

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Dublin*

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.

1. Table of Contents

1.	Introduction.....	1
2.	Findings at St James's Hospital	3
	2.1 Governance and risk management.....	3
	2.2 Audit and evaluation.....	8
	2.3 Medication safety support structures and initiatives	9
	2.4 Person-centred care	13
	2.5 Policies procedures and guidelines and access to information	15
	2.6 Training and education	16
4.	References	20
5.	Appendices	23
	Appendix 1: Medication safety monitoring programme Phase One: Lines of Enquiry and associated National Standard for Safer Better Healthcare.....	23
	Appendix 2. National Coordinating Council for Medication Error Reporting and Prevention. Index for Categorizing Medication Errors.....	24

*Report of the announced inspection of medication safety at St James's Hospital,
Dublin*

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

An announced medication safety inspection was carried out at St James's Hospital by Authorised Persons from HIQA; Kay Sugrue, Kathryn Hanly, Dolores Dempsey Ryan and Nora O'Mahony. The inspection was carried out on 4 July 2017 between 10:30hrs and 16:30hrs. Interviews were held in the hospital with the following groups of managers and clinical staff:

- Group one: the Chairperson of the Pharmacy and Therapeutics Committee, the Chief Pharmacist, the Medication Safety Facilitator and the Director of the Quality, Safety and Improvement Directorate.
- Group two: the Deputy Chief Executive Officer/Chief Operations Officer, the Clinical Director and the Assistant Director of Nursing.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

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

- Keith Shaw Ward
- Rialto Ward
- William Wilde 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 an anonymised questionnaire.

2. Findings at St James's 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.

2.1.1 Introduction

St James's Hospital is a model four⁵ acute hospital and a member of the Dublin Midlands Hospital Group. This hospital is a busy hospital providing complex and very specialist care.

2.1.2 Medication Safety Announced Inspection

St James's Hospital had formalised governance arrangements and organisational structures with clear lines of accountability in place to support the safe use of medications.⁶

The hospital had an established Pharmacy and Therapeutics Committee with responsibility for the governance of the hospital's medication management system and for ensuring its safety. Overall responsibility for medication safety within the hospital rested with the Director of the Quality, Safety and Improvement Directorate. It was evident that the organisational infrastructure in place supported a safer patient culture related to medication usage. Strong support at executive level in the hospital was also evident.

HIQA was informed that the Pharmacy and Therapeutics Committee's terms of reference were recently reviewed and updated to reflect changes to overarching governance directorate structures within the hospital and in line with evidence based best practice. These draft terms of reference outlined the roles and function of the Committee and were due to be finalised at the next Committee meeting. The Committee reported to the Hospital Executive through four channels:

- the Quality, Safety and Improvement Directorate (QSID)
- directly to the Medical Board
- to the Executive Management Group via the Clinical Directors
- directly to the Deputy Chief Executive Officer/ Chief Operations Officer.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

These lines of communication relating to medication safety were outlined in the draft Pharmacy and Therapeutics Committee governance map viewed by inspectors and were also evident at the time of inspection. The Pharmacy and Therapeutics Committee was supported in its function by four subcommittees which reported as standing agenda items on a quarterly basis and included:

- New Drug's Committee
- Antimicrobial Stewardship Committee
- Nurse Prescribing Committee
- Medication Safety Committee.

Membership of the Pharmacy and Therapeutics Committee was multidisciplinary, and representative of each directorate and clinical discipline such as medicine, nursing, pharmacy, finance and research and innovation. There was evidence of a high level of participation from Pharmacy Department staff which was reflective of the range of specialised services provided by the department. Roles and responsibilities for each member were clearly articulated in the draft terms of reference viewed with individual awareness of these roles and responsibilities evident during the inspection. However, representatives from community pharmacy or general practitioners were not listed as members. June 2017 minutes from the Pharmacy and Therapeutics Committee indicated that this issue was under review with a plan to invite representatives from the community pharmacy and from general practitioners onto the Committee.

The Pharmacy and Therapeutics Committee was ultimately responsible for the hospital formulary oversight and regulation of all drugs in use in the hospital. The New Drug's Committee was responsible for evaluating the efficacy and safety of new medications requested for use in the hospital through a formal application process. This Committee meets four times a year or more often if required. Applications for new drugs were made via an online application form and were reviewed by a pharmacist. Drugs which have significant cost implications require the applicant to submit a business case for approval by Finance in addition to the on-line 'new drugs application form' for approval by the New Drugs Committee. Drug applications requiring review outside of the timeframe of committee meetings are referred to the Chief Operating Officer and/or Chief Financial Officer for approval. In some cases, an external pharmacoeconomic* evaluation was also sought.

The functions and activities of the Pharmacy and Therapeutics Committee during 2016 were evaluated and documented in the Committee's annual report. This comprehensive report included synopsis of activities of each of the four

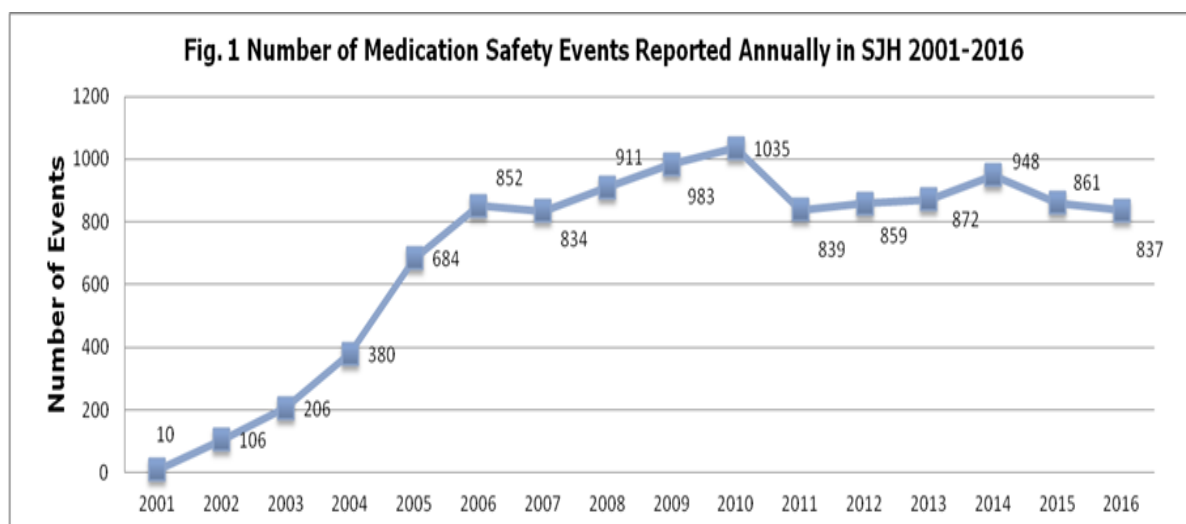
* Pharmoeconomics is a discipline of health economics. It looks at the benefits , value and costs of drug therapy to a healthcare system and helps to inform better decision making on the use of medicines

subcommittees. Other 2016 activities relating to pharmacovigilance, policy updates and development, the prescribers guide and a financial report were also included in addition to the evaluation of committee member's attendances.

Operational implementation of the medication safety programme was effectively led by a multidisciplinary Medication Safety Committee and managed by a medication safety facilitator. The main aim of this Committee was to promote best practice in medication management within the hospital. In addition to reporting to the Pharmacy and Therapeutics Committee, the Medication Safety Committee reported on medication risk related issues to the Hospital Safety Committee. The Medication Safety Facilitator also reported to the Director of Pharmacy. The Committee met four times in 2016 and produced an annual report of its activities for 2016.

The main source of data for medication errors was via a voluntary reporting system. There was an established system for reporting and addressing medication errors and near misses using electronic medication event reporting forms available hospital wide on desktop computers. Annual medication safety events reported have shown significant improvement between 2001 and 2010 (see Figure 1 below) with averages of 894 medication events being reported each year since 2006.

Figure 1: Number of medication incidents/events reported annually in St. James's University Hospital 2001- 2016.



Higher incident reporting rates both demonstrate and promote an improved culture of safety.⁷ It was acknowledged at interview with senior management that the hospital was working towards improving hospital wide reporting levels. HIQA noted that the majority of medication events were reported by nursing staff (64%) and pharmacy staff (27%) in 2016. The hospital has identified that reporting levels of other staff disciplines has the potential to improve. To this end, efforts have been

made by the Medication Safety Facilitator to build links with junior doctors to enhance awareness and improve reporting on medication safety incidents.

Medication incidents and near misses were tracked and trended to assess progress and to identify emergent medication safety concerns. Tracking and trending of medication safety events included the following:

- overall trends
- location of events
- category of staff reporting events
- type of event
- severity grading of events
- types of medication errors causing patient to harm

All medication events were graded using the National Co-ordinating Council Medication Error Reporting and Prevention (NCC MERP) classification system 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. The hospital reported that it was fully compliant with reporting all medication incidents to National Incident Management System (NIMS)[†]. Medication errors resulting in patient harm and with patient safety implications were reported to the Director of Quality, Safety and Improvement. There was evidence to indicate that events graded 'E' (appendix 2) or higher were analysed and actions taken in response to issues arising.

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 Enhancing data and information were key objectives of the hospital medication safety programme and strategy. St James's 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
- risk assessment
- patient experience survey
- complaints
- claims

[†] 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).

Report of the announced inspection of medication safety at St James's Hospital, Dublin

- patient representative group
- staff surveys.

Inspectors were informed that the hospital's risk register and the use of dashboards to display safety data were under development at the time of the inspection. Historically, the hospital risk register was department based. The hospital was working towards a single integrated (corporate and clinical) risk management system to be accessible on an electronic platform. A particular focus of this programme was to ensure the effectiveness of risk management processes within the hospital and appropriate escalation and communication of relevant risks to the Hospital Board for oversight. It was explained to HIQA that this new electronic system should generate trend reports at local level and improve individual accountability for investigating incidents. Inspectors noted that this system has yet to be rolled out across the hospital.

A new Pharmacy and Therapeutics risk register was in draft form which plans to include medication safety risks. It is anticipated that these risks will be uploaded onto the integrated risk management system and will be reviewed and rated at executive management level and upwards to the hospital Board as appropriate.

High risk medications were listed in the hospital prescribing protocol and divided into four categories based on a priority of risk. For example, chemotherapy medicines were deemed one of the highest risks and had clearly defined prescribing limits restricted to consultants and registrars. Prescribing limits were relevant to the category of risk.

Hospital managers informed inspectors that the Pharmacy and Therapeutics Committee did not have oversight of clinical trials involving medicines that were being conducted in the hospital. However, some members of the Pharmacy and Therapeutics Committee were also members of the St James's Hospital Research and Innovation Steering Group. The hospital's Pharmacy and Therapeutics Committee intended to address this anomaly by extending its remit in its 2017 draft terms of reference to formalise a direct link to the Committee relating to clinical trials involving medicines.

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.^{3,9} Inspectors were informed that the hospital had a policy in place to promptly inform patients when medication-related incidents occurred. Staff who spoke with inspectors could provide examples of when this open disclosure policy was adhered to.

2.2 Audit and evaluation

Line of enquiry:

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

Medication safety audit results and relevant data were used as the basis for decision-making, action and change. Inspectors were informed that medication audits were aligned to the medication strategy, pharmacy audit plan and centrally coordinated by the Medication Safety Facilitator. Audits were based on high risks identified, incidents, interests and concerns relating to medication safety. Results of audits were discussed at the Pharmacy and Therapeutics Committee meetings as part of the Medication Safety Committee feedback.

Senior managers explained to inspectors that a multidisciplinary Clinical Audit Committee had recently been established with responsibility for overseeing all audits conducted in the hospital. This Committee had met in April and June 2017 and was in the process of developing a hospital wide clinical audit strategy. While a facility to register audits exists within the Research and Innovation hub, it was identified that not all audits undertaken in the hospital were registered. It is intended that all audits conducted in the hospital will be registered in the future with improved coordination, clearer lines of responsibility and reporting outlined.

The inspection team saw evidence of an active medication safety audit programme resulting in the development and implementation of quality improvement initiatives. The hospital reported that nine medication audits were conducted in 2016 (including five medication metrics audits and two were completed to date in 2017). Three medication metrics audits were underway at the time of the inspection, with a further three audits to be completed by the end of 2017.

Medication safety metrics[‡] were first introduced to St James's hospital in December 2015. Data from these medication metrics were analysed by the Medication Safety Facilitator leading to the implementation of quality improvement initiatives and dissemination of learning to all staff through the hospital intranet system. A total of eight of these audits were conducted by clinical pharmacists from December 2015 to date in 2017 which monitored the following metrics:

- incorrect doses prescribed
- appropriateness of therapeutic drug monitoring

[‡] Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance.

- storage/documentation of potassium concentrates and pre-filled infusions
- prescribing/monitoring of medications for patients with renal impairment
- thromboprophylaxis in medical patients
- medications omitted at admission and detected at medication reconciliation

Data gained from these audits and other information sources including analysis of medication safety events identified risks and resulted in the implementation of quality improvement initiatives in 2016 relating to:

- the management of controlled drugs
- heparin prescribing and administration on a surgical ward
- the quality of prescribing on a medical ward
- patient experiences relating to medication safety

Locally adapted Nursing Quality Care- Metrics[§] were monitored across the hospital to review practice around aspects of medication storage and administration. These nursing metrics were regularly modified to include monitoring of additional medication safety issues. Inspectors viewed the Nursing Quality Care-Metrics findings and noted that high compliance was achieved in medication management in hospital wide audits undertaken between January 2016 and March 2017.

Evidence was submitted and reviewed by inspectors which verified that clinical audit activities at St James's Hospital had led to changes aimed at improving the delivery of clinical services. Inspectors identified that there was further potential to expand and enhance medication safety auditing capacity from a multidisciplinary perspective and through centrally planned targeted audits of identified issues.

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 hospital medication safety strategy was in place which promoted the integration of the medication safety service within Quality, Safety and Improvement Directorate. There were five elements to this plan which included data, safety culture, education and training, workforce and measurement and monitoring. A proactive and reactive

[§] 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.

approach to the implementation of this strategy was outlined which was focused on the importance of governance in addition to collaboration with healthcare professionals to achieve its goals of:

- proactively minimising patient risk
- implementing quality initiatives
- reducing avoidable harm from medication.

This strategy was focused on expanding information and intelligence relating to medication safety through use of other sources of data gathered through audit, complaints and claims to inform future quality improvement initiatives.

Inspectors saw examples of quality improvement initiatives that had been implemented and evaluated in 2016. For example, analysis of medication events identified that improvement in the processes for ordering, supply, storage and documentation of controlled medications was needed. This led to the introduction of measures resulting in changes to practice which included:

- revision of ward controlled drug registers
- introduction of secure storage bags for patients' own controlled medications
- inclusion of nurses professional identification number on controlled drug order book
- procurement of larger controlled drug cupboards (ongoing)
- update to the Medication Management Protocol in line with changes
- trials of specific syringes and adaptors to facilitate accurate measurement of liquid controlled medication.

Further initiatives were planned to be introduced to fully address this issue in 2017.

Other initiatives of note observed by inspectors during this inspection included:

- Redesign of heparin prescription charts for cardiothoracic patients to include an area to document changes in dose adjustment and rates of heparin of infusion in response to specific blood monitoring results.
- Establishment of a patient representative group which participated in a focus group for medication safety.
- Once weekly communication of 'medication safety minute' bulletins through multiple communication channels (smart phone apps, hospital computer system and grand rounds) which can be read and understood within one minute.

- The Medication Safety Facilitator presented at Grand Rounds^{**}. Inspectors viewed the contents of this presentation which included many medication safety issues such as safe prescribing, decision support tools, bulletins, alerts, medication incident trends.
- A Medication record card on discharge highlighting medication information and changes made to patient medicines while in hospital.

In addition, there was a strong emphasis on staff engagement in line with the hospital medication strategy. Multiple means of communicating with staff were employed including education, training, medication safety bulletins, medication alerts, presentations and dissemination of revised medication related protocols.

HIQA acknowledges that many of these quality improvement initiatives took place on the background of other significant challenges faced by the Pharmacy Department in 2016 which included:

- a move by the Pharmacy Department to a brand new facility
- introduction of an automated dispensing system requiring changes to existing practices
- construction of a new aseptic unit.

These challenges collectively posed additional demands on resources which were successfully met by the hospital and its staff.

Clinical Pharmacy

International studies support the role of clinical pharmacists in hospital wards for preventing adverse drug events.^{10,11,12,13,14} 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.^{6,15,16,17,18} Inspectors were informed that a structured formal medication reconciliation service was in place which was underpinned by a medication reconciliation policy. Clinical pharmacy services including medication reconciliation was available to inpatients in all but two clinical areas in the hospital. Clinical pharmacy staff were required to undergo induction training, which included undertaking a number of supervised medication reconciliations and was underpinned by a hospital clinical pharmacist orientation guideline.

Clinical pharmacy service included clinical review, medication reconciliation on admission, audit, patient counselling, medication information and staff education.

^{**} 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.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

The process of medication reconciliation was guided by, and documented on a designated page of the inpatient drug kardex.

Priority was given to:

- newly admitted patients
- a 'green card' system used by Clinical Pharmacists to identify patients on high risk medication at discharge
- patients commenced on anti-coagulant medicines
- technical counselling (oncology/palliative patients).

The inspection team was informed of a medication safety project which was ongoing in the Acute Medical Assessment Unit. This project was an initiative undertaken by the Medication Safety Facilitator and two medical consultants which aimed to improve the quality of prescribing by focusing on improving communication between prescribers and pharmacists relating to medication safety concerns. One of the quality improvement initiatives introduced and being trialled at the time of the inspection was alert stickers. Inspectors observed two different stickers on trial when visiting the Acute Medical Assessment Unit. The first sticker alerted prescribers that medication reconciliation had been completed. In addition, it highlighted that queries requiring follow-up action were documented in the communication page of the drug kardex. The second sticker was a prompt for prescribers to review and respond to medication-related queries related to inpatient treatment. It was explained to HIQA that it was too early to fully determine the impact of these alerts, but early indications were that communications and response by prescribers had improved since their introduction.

St James's Hospital has provided 24 hour, seven day a week out of hours access to on call pharmacy services since 1993.

HIQA found that the Medication Safety Facilitator played a central, vital role in the developing, progressing and implementing the medication safety programme within the hospital. However, senior management told inspectors at interview that a lack of resilience relating to dedicated resources was a potential risk to the sustainability and future progression of this programme. As a result, plans had been initiated to recruit an additional medication safety facilitator. It was explained to HIQA that this additional allocated resource was intended to increase resilience and further expand, develop and embed medication safety in the hospital.

Electronic ordering has been available at ward level since 2008. Inspectors observed an automated dispensing system^{††} in the hospital's Pharmacy Department which had

^{††} An automated dispensing system is a system controlled by a computer that stores, dispenses and tracks medications with the aim of improving efficiency and patient safety

been recently introduced. Inspectors were informed that this was a positive addition to the dispensary helping to increase efficiencies of the service and improve tracking. However, electronic ordering was not directly linked to the automated system at the time of this inspection.

In line with advances made in healthcare information technology relating to electronic prescribing, St James's Hospital had commenced work in early 2017 on a project to introduce an electronic prescribing and medicines administration record (ePMA)^{††}.

Inspectors were informed at the time of the inspection that significant progress had been made on this project. One of the deliverables of this project was that electronic prescribing would be launched in clinical areas in April/May 2018. Inspectors viewed this system which was on established in an outpatient area for a number of years. This computerised decision support system provided integration of patient clinical history, clinical review, laboratory results, diagnostics and medication history. Access to such information can potentially support prescribers in better decision making and prescribing and improve patient safety and is considered a positive step in progressing medication safety in a hospital setting.¹⁹

The hospital reported some collaboration and sharing of information with hospitals within its group and the wider Dublin hospitals. However, there was no formal platform to share collaboration with Dublin Midlands Hospital Group and other Dublin hospitals.^{§§} HIQA identified a potential to expand the sharing of knowledge and expertise gained by the hospital relating to medication safety with other hospitals within the its group and with other acute Irish hospitals

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. James's Hospital had systems in place to support the provision of patient information and education in relation to medication. As

^{††} Electronic prescribing and administration record is a computerised system which facilitates the communication of prescriptions enabling prescriptions to be reviewed, modified and generated with better oversight of medication management processes. The system supports legible and complete prescriptions and facilitates better communication, traceability, audit, improved access for prescribers and potential savings on costs and resources.

^{§§} It was reported by the hospital during due process stage of report writing that opportunities to share learning related to medication safety was facilitated through the Dublin Academic Teaching Hospital (DATHS) Medication Management Group established in quarter 3 2016.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

previously stated patient counselling was provided as identified and required by the clinical pharmacy service. Inspectors were informed that clinical pharmacists offered counselling to all patients newly prescribed oral anticoagulant medication. Patient information leaflets were available at the point of care. Nursing staff also provided education and information to patients relating to prescribed medications.

In developing St. James's Hospital Medication Strategy, it was identified by the hospital that the views and experiences of patients and their carers on medication safety issues should form an essential component of the medication strategy. A patient safety focus group session was held in March 2016 with the hospital's Patient Representative Group which was formed at the beginning of 2016. Three themes emerged relating to medication management. Action plans were developed to address identified issues and these themes were incorporated into the hospital medication strategy. They included:

- Patient control over self administration of their own medication.
- Communication between patients and healthcare professionals about medication issues.
- Unsecured medications left by patient bedside following medication administration.

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. James's Hospital within the past year and who were prescribed regular medications. Of the 20 patients surveyed, two patients had not been prescribed any new medicines and 18 patients had been prescribed new medicines. Of these 18 patients:

- 12 patients said that while in hospital, a staff member had explained the purpose of new medication in a way that they could completely understand.
- Six patients said that prior to discharge from hospital, a staff member told them about all the possible medication side effects to look out for following discharge home.
- 10 patients said that they received complete 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 Pharmacy 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. Medication-related policies, procedures and guidelines were approved by the relevant committee and readily available to staff through the hospital's controlled document management system.

A medicines information service was also provided by the hospital Pharmacy Department. This service provided ready access to expert advice in the management of medication-related queries, and was open to all staff. In addition, ward based clinical pharmacy staff provided key information about medication to medical, nursing/ midwifery and other clinical staff, as well as to patients.

Desktop ward computers provided access to a 'Prescribers Guide Intranet Capsule'. Inspectors viewed this intranet capsule when visiting wards which consisted of a number of decision support tools examples of which include (but not limited to):

- A prescriber's guideline which was regularly updated in conjunction with updates to the hospital formulary. The hospital formulary was updated on a rolling basis by Pharmacy Department in collaboration with hospital consultants.
- Specific guidelines and clinical updates relating to specialist areas of care such as
 - Antimicrobial Stewardship guidelines
 - Antimicrobial surgical prophylaxis guidelines
 - Guidelines for prescribing in specific areas such as pain management, renal impairment the management of post operative nausea and vomiting.

In addition, intravenous medication monographs were available at the point of care. Standardised treatment protocols and up-to-date medicines reference material such as the British National Formulary were also readily accessible on line at local level.

The hospital had developed a smart phone application to facilitate easy access to antimicrobial guidelines. The use of mobile technology gave prescribers easy access to the guidelines at the point of prescribing. However, not all doctors who spoke with inspectors during the ward visits had accessed this smart phone application.

Medication safety alerts were developed by the Pharmacy Department and the Medication Safety Facilitator in response to medication incidents and near misses reported locally in addition to guidance, alerts, recalls and recommendations issued by external bodies. In 2016, a total of 64 alerts were circulated to hospital staff which related to safety concerns, shortages and recalls.

In addition to the 'safety minute' medication bulletins already discussed, comprehensive and informative medication safety bulletins containing a wide range of medication safety concerns were disseminated to staff twice a year. For example, areas of concern included in the first edition of 2016 related to the introduction of high concentration insulin, insulin profiles, hypoglycaemia treatment, patient allergy status (to name a few). Links to hospital alert and more available information were also included in these bulletins. Inspectors observed communication and awareness of these alerts on wards visited.

Healthcare staff require 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 across the hospital.

There was strong evidence that an effective medication safety communication strategy was in place in St James's Hospital. This strategy endeavoured to utilise new technologies and multiple channels of communication to engage with staff and facilitate accessibility to up-to-date information on medication management. The efforts made to date in this regard are to be commended, and represent a good example for other hospitals within its group and across the acute hospital division to learn from.

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.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

Staff education can effectively augment error prevention when combined with other strategies that strengthen the medication-use system.²⁰ Staff training and education in relation to medication safety was a key issue listed in the medication safety strategy viewed by inspectors.

This was specific to staff disciplines including medical consultants, non-consultant hospital doctors, nurses and clinical pharmacists.

Induction training in medication management was mandatory for new doctors, nurses and pharmacists.

It was evident that nursing staff achieved a high level of compliance with attendance at medication safety related training, and oversight of this training was well managed at a local level. All nursing staff were required to complete the:

- St James's Hospital medication management competency programme electronic assessment
- St James's Hospital therapy management programme and competence assessment
- Anaphylaxis training to facilitate the administration of first dose antimicrobial medications.

Medication administration competencies were assessed by the ward manager as part of nurse induction. While demonstrating competence does not guarantee that medication errors will not occur, the process itself is educational and can help better prepare practitioners for safe medication practices.²⁰

Inspectors were informed that non consultant hospital doctors were provided with induction training which included medication safety, from the Medication Safety Facilitator.

Medication safety awareness at the hospital was promoted through staff communication including circulation of medication safety bulletins and medication safety alerts. It was also reported that ongoing training on medication safety was provided to medical staff at hospital grand rounds. Clinical Pharmacists had an important role in the education of nursing and medical staff. Inspectors were informed that the Medication Safety Facilitator provided medication safety updates at Nurse Executive Meetings.

The Medication Safety Facilitator delivered a medication safety presentation at the medication safety awareness day held in November 2016.

3. Conclusion

Medications represent the primary measure for treatment intervention in hospitalised patients. Errors associated with medication usage constitute one of the major causes of patient harm in hospitals. 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 James's Hospital had an established medication safety programme with effective governance arrangements, systems, processes and practices in place to support medication safety 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 Pharmacy and Therapeutics Committee and its subcommittees provided an effective framework that had not remained static but had continued to develop over time.

There was evidence of significant investment by the hospital in technology, structures, resources and supports for medication safety. The hospital medication strategy incorporated both a reactive and proactive, multifaceted approach which relied on internal and external influences to strengthen medication safety intelligence and enhance patient safety.

The hospital identified the need to build resilience into the medication programme through increasing allocation of resources to support the Medication Safety Facilitator in implementing the medication safety agenda. It is recommended that resilience in the programme continues to be improved to ensure sustainability and progress in the future.

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. Scope for improving incident reporting rates and potential to increase the degree of error reporting by certain staff disciplines was identified by the hospital. Therefore, as a next step, senior managers need to work to broaden out participation in the programme beyond the pharmacy and nursing departments, and work in particular to promote systematic incident reporting amongst other clinical staffing groups.

The analysis of medication incident reports occurring within the hospital allowed medication safety issues to be identified and corrected. Inspectors found that the hospital had implemented a number of quality improvement initiatives to reduce medication errors and had developed a number of medication policies.

Report of the announced inspection of medication safety at St James's Hospital, Dublin

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.²¹ 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. Similar to the need to improve and share medication incident reporting amongst relevant staff disciplines, scope to improve audit capacity on medication safety from a multidisciplinary perspective was also identified by HIQA.

It is recommended that this report is shared with senior managers, clinicians and other relevant staff at St James's Hospital 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.

St James's Hospital is a member of the Dublin Midlands Hospital Group. HIQA recommends that the hospital continue to collaborate within the hospital group's structure, to share good practice pertaining to medication safety and to develop and implement national policies and practices for medication management.

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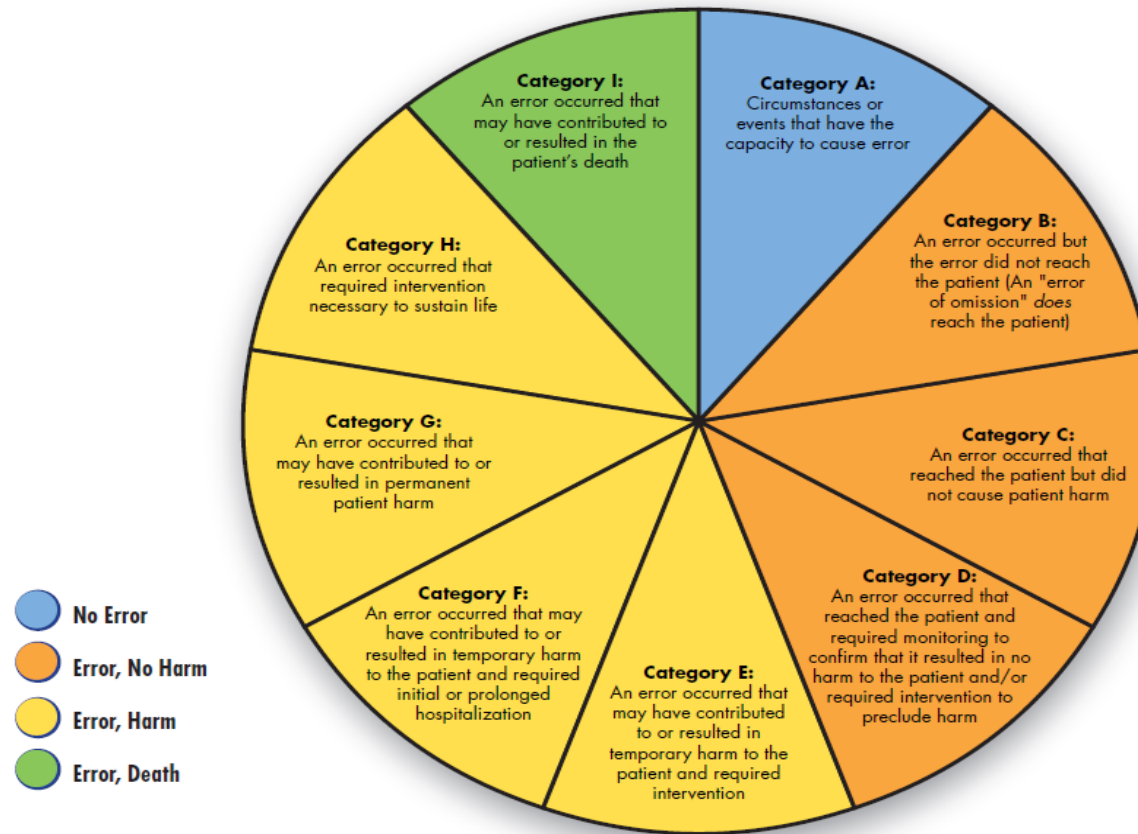
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5. Appendices

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. 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.)

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