Report of the announced inspection of medication safety at Cappagh National Orthopaedic Hospital, Dublin.

Date of announced inspection: 19 July 2017
Report of the announced inspection of medication safety at Cappagh National Orthopaedic Hospital
About the Health Information and Quality Authority

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

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

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

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

**Regulation** — Registering and inspecting designated centres.

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

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

**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. 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. The World Health Organisation (WHO) has identified Medication Safety as the theme of the next Global Patient Safety Challenge. 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, to determine if hospitals have effective arrangements in place to protect patients from harm related to medication use.

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

An announced medication safety inspection was carried out at Cappagh National Orthopaedic Hospital by Authorised Persons from HIQA; Nora O’ Mahony and Dolores Dempsey-Ryan. The inspection was carried out on 19 July 2017 between 09.30hrs and 16.20hrs. 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, a Senior Pharmacist/Medication Safety Pharmacist and the Quality Manager.
Group two: the Deputy Chief Executive Officer, the Acting Chair of the Medical Board and the Director of Nursing.

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

- St Teresa’s Ward
- St Anthony’s 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 Cappagh National Orthopaedic 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.

Cappagh National Orthopaedic Hospital is a member of the Ireland East Hospital Group. The hospital provides elective orthopaedic surgery and an acute rehabilitation service.

The hospital had a Drug and Therapeutics Committee in place. This Committee was chaired by a consultant anaesthetist and had recently updated its terms of reference, which outlined the Committee’s membership, frequency of meetings, accountability, definition of terms and operational functions. However, HIQA found that this committee was not adhering to its own terms of reference related to frequency of meetings, with only one meeting having taken place in the previous eighteen months. The hospital had formalised governance arrangements and lines of accountability for medication safety outlined, but these arrangements were dependent on the Drugs and Therapeutics Committee fulfilling its role and functions. Inspectors were informed, that informal communication between the Drugs and Therapeutics members did occur, with medication safety issues being discussed, managed and resolved outside the formal process.

Membership of the Drugs and Therapeutics Committee are required to be multidisciplinary to reflect the fact that medicines management is the responsibility of a number of clinical professional groupings. Membership of the hospital’s Drugs and Therapeutics Committee included a clinician, pharmacists, nurses, hospital management, and the Quality Manager. The Committee membership was expanded in the updated terms of reference to include multidisciplinary representation, and inspectors were informed that they planned to invite a medical representative to join the Committee. The hospital needs to actively progress this matter, to ensure appropriate committee membership to provide governance and oversight for medication safety across all areas of the hospital.

Notwithstanding the infrequency of the Drugs and Therapeutics Committee meetings, it was evident that the medication safety agenda was being actively
progressed through the hospital’s Medication Management Committee. This Committee was required to report to the Drugs and Therapeutics Committee, and in its absence, it reported to the Clinical Governance and Clinical Risk Committee. The Medication Management Committee’s terms of reference included:

- provision of support and guidance to the Chief Executive Officer and overseeing the organisation in the area of medication management
- ensuring correct system in place for medication handling, safety and security
- provision of a consultation forum to effectively address medication management issues
- development and review of polices, key performance indicators and audits
- to investigate medication errors and track medication processes to identify potential risks and errors and implement corrective actions to minimise the identified risks.
- identify and manage organisational and departmental training needs
- to promote continuous improvement and attain best practice for medication management.

Considering the number of medicines related committees outlined in the hospital organogram (Appendix 2) there may be benefit in reorganising and consolidating the current hospital committees related to medicines, to strengthen and provide appropriate governance and oversight for medication safety within the hospital.

The hospital outlined that overall clinical leadership was the responsibility of the chairperson of the medical board. HIQA inspectors were informed at interview that considering recent expansion of the hospital services, and the increasing demands on this role, the hospital would benefit from a Clinical Director position to allocate meaningful time to this role, in line with the predominant approach in other hospitals. This would support governance and oversight for all areas of the hospital through the provision of overall clinical leadership, and should be progressed following this inspection.

The Drugs and Therapeutics Committee was responsible for administering an evidence based formulary* of medications approved for use in the hospital. Decisions to add or remove medications from the formulary were guided by a policy and an application form. The applications were assessed for safety, efficacy and cost, based on high quality peer reviewed published evidence. The hospital reported that newly added medications were reviewed after 12 months, including any related incidents or adverse drug reactions.

The hospital had an established system for reporting and addressing medication errors and near misses. This system was supported by a reporting and management of medication error and near miss policy, and a medication incident form.

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* 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.
incidents and near misses were tracked and trended to assess progress, identify emergent medication safety concerns and prioritise medication safety activities. For example, the hospital had identified trends in medication safety incidents related to allergies, transcriptions†, medication prescribing and administration. Quality improvement measures to address these risks had been introduced including:

- a revision of the medication and administration record with the development of a short and long day record, including an updated allergy section
- introduction of the red ‘do not disturb’ aprons during medication administration
- development of a dose reduction guide for paracetamol to avoid liver toxicity.

The Quality Manager and Senior Pharmacist, with a remit for medication safety, 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 3). This 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 3) had a root cause analysis‡ undertaken by the Pharmacist. All reported incidents were inputted into the National Incident Management System§ (NIMS) by the Quality Manager. Issues which were considered to potentially compromise the safe administration of medication were included in the hospital’s risk register.

Minutes of meeting were reviewed by inspectors which demonstrated that medication safety incident reports were submitted to the Drugs and Therapeutics Committee, Clinical Governance and Clinical Risk Committee and the Board of Directors. Inspectors were informed of a notable increase in medicines related incidents reported in 2016 and sustained in 2017. This increase coincided with the introduction of a specific medication incident form and education provided by the Quality Manager. This reflected the emphasis placed on patient safety by the hospital and the willingness of front-line staff to report medication incidents. Higher incident reporting rates both demonstrate and promote an improved culture of safety. HIQA note that notwithstanding this positive trend in reporting, the majority of reports were submitted by nursing and pharmacy staff only.

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† Transcription: is an act by which medicinal products are written from one form of direction to administer to another.
‡ Root cause analysis is a collective term that describes a wide range of approaches, tools, and techniques used to uncover causes of problems.
§ 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).
The hospital should continue to progress its plans to promote reporting among all clinical staff and promote open disclosure, as outlined in their medication safety programme for 2017, so that safety surveillance is improved, learning is shared, and the safety culture is enhanced across the organisation.

Open disclosure occurs when staff in the health and social care service communicate with patients in an open and honest manner when things go wrong with patient care. Inspectors were informed that training on open disclosure had been provided to managers in 2015. Inspectors were also informed that patients were routinely informed when harm occurred as a result of a medication event, though this practice had not been formally audited to date. Staff outlined that there was a section in the National Incident Management System form to indicate if open disclosure had occurred, and they may consider including this in the new medication incident form to support and audit compliance. Open disclosure education for all frontline staff had yet to be rolled out within the hospital to support the culture of open disclosure.

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. The hospital used a variety of additional information sources to identify strengths and weaknesses in the hospital medication management system including, pharmacy key performance indicators, direct observation, audit, risk assessment and nursing metrics.

### 2.2 Audit and evaluation

#### Line of enquiry:

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

Elements of medication safety were evaluated through audit at the hospital. These audits were not formally aligned to a medication safety strategy or centrally coordinated, however the hospital had developed and audit plan for 2017 with monthly, quarterly and stand alone medication audits planned.

Evidence of compliance with the hospital’s audit plan was demonstrated to inspectors through review of the following medication safety audits:

- venous thromboembolism (VTE) prophylaxis
- surgical antimicrobial prophylaxis

**A prophylaxis is a medication or a treatment designed and used to prevent a disease from occurring**
- high alert medication
- allergies
- medication reconciliation
- discharge prescription
- patients own drugs (POD)
- MDA (Misuse of Drugs Act) \(^\dagger\dagger\) audit
- nursing medication metrics
- red ‘do not disturb’ apron \(^\dagger\dagger\)

In 2016, allergy recording was audited and the results demonstrated that 96% of patients records reviewed had allergy status completed. The hospital had also audited the recording of the nature of the allergy, which was recorded on 20% of records reviewed. The hospital had amended, and was piloting, its prescribing and administration record to include a section for allergy reaction to encourage compliance. A medication record audit tool and staff satisfaction questionnaire had been developed by the hospital to re-audit the new prescribing and administration record.

The risk reduction strategies in place in the hospital for high alert medications was audited, and demonstrated that labelling and storage of high alert medicines was on average 86% compliant. Patient owns high alert medicines were labelled and stored for an average of 87% of medicines reviewed. Also double signing for the administration of high alert medications had an average compliance of 98%, on the records included in the audit.

Nursing and midwifery quality care metrics \(^\dagger\dagger\) were monitored monthly across the hospital and included a review of practice around prescribing, storage and administration of medicines including schedule control drugs \(^***\) and allergy recording. Full compliance was identified in almost all areas monitored.

Monthly MDA (Misuse of Drugs Act) audits were carried out to review storage and security of medicines within the MDA cupboard, and the recorded information on the MDA registered. Results reviewed by inspectors for 2017 demonstrated between 96% to 100% compliance in all areas.

HIQA were informed that the hospital held clinical audit days twice a year at which clinical staff presented and discuss audit findings. A cross section of hospital staff

\(^{\dagger\dagger}\) Refer to drugs under the Misuse of Drugs act this act provides for the Minister for Health to make regulations scheduling drugs according to their use perceived medical usability and their risk to the public. Additionally, these regulations outline the requirements for distribution and monitoring of the listed substances

\(^{\dagger\dagger}\) A read apron with do not disturb worn by nurses during medication administration to reducing the interruption/distraction rate during medication administration.

\(^\dagger\dagger\) Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance.

\(^***\) Scheduled controlled drugs: These drugs are categorised into five schedules with different controls applicable to each category.
attended these days. Morbidity and mortality sessions were also held twice a year, attended by anaesthetist, where risks identified were reviewed and discussed.

Notwithstanding the examples of audit outlined above, the hospital should continue to progress its audit programme and provide 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.

The Medication Management Committee had developed a medication management plan for 2017. This was approved by the Drugs and Therapeutics and included the following among its priorities:

- improving patient safety with high risk medicines
- improving medication management at the transition of care
- improving recording of allergy status for all patients
- venous thromboembolism prophylaxis
- medication prescribing and administration record review
- implementation of action plan from 2016 metrics to target areas of non conformance
- medication incident reporting
  - review every two weeks
  - promote reporting among all clinical staff and promote open disclosure
  - initiate corrective and preventive action
  - carry out root cause analysis on incidents graded E and above
- medication safety education programme.

Even though progress of this annual plan had not been formally monitored by the Drugs and Therapeutics Committee, the hospital demonstrated progress with many of the 2017 medication priories.

For example, the hospital had an approved list of high alert medications which was supported by policy. This list was developed using information from international literature and the hospitals medication safety incidents. Risk reduction strategies\(^\text{11}\) were implemented to ensure that high alert medications were stored, prescribed, dispensed and administered safely and included:

- segregated storage of high alert medications
- high alert red bags, boxes and stickers
- use of premixed potassium chloride solutions.

The hospital had also revised its medication prescription and administration record. There was now a short and long stay version to support safe prescribing and administration of medications within the surgical and acute rehabilitation unit of the hospital. This record also included an updated allergy reaction section.

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.\textsuperscript{12,13,14,15} In Cappagh National Orthopaedic Hospital, the pharmacist completed a best possible medication history (BPMH)\textsuperscript{†††} within 24 hours of admission in order to identify any discrepancies and to ensure any changes were documented and communicated, thus resulting in an accurate complete list of medications.\textsuperscript{12}

The medication reconciliation service was audited from January to June 2017 in line with pharmacy key performance indicators and results demonstrated that on average, 90\% of patients received medication reconciliation from the pharmacist, and 99\% of medication reconciliation was provided within 24 hours of admission. In addition, 683 medication reconciliation interventions were also undertaken by the pharmacists within this time frame.

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.\textsuperscript{16,17,18,19,20,21} The hospital had a clinical pharmacist \textsuperscript{‡‡‡} in all inpatient clinical areas. The clinical pharmacists reviewed the prescribing and administration record and undertook appropriateness checks\textsuperscript{§§§} of prescribed medications, supported by policy on the appropriate checking procedure. The pharmacist also procured medications for the patients on admission and ensured supply throughout their hospital stay. They provided advice and guidance to staff on medicines management, and provided patient counselling on newly commenced medications. In the acute rehabilitation unit the pharmacist also endeavoured to provide patients with a medication plan on discharge, liaising with community pharmacies when required and counselling patients on discharge medications. Audit results from January to June 2017, demonstrated that 88\% of patients' had medication planners provided by pharmacists on planned discharge from the acute rehabilitation unit.

\textsuperscript{†††} BPMH is a list of all the medicines a patient is taking prior to admission (including prescribed, over the counter and complementary medicines) and obtained from interviewing the patient and/or their carer (where possible) and confirmed using a number of different sources of information.

\textsuperscript{‡‡‡} Clinical pharmacy describes the activity of pharmacy teams in ward and clinic settings.

\textsuperscript{§§§} Appropriateness check is a review of medication against a set of criteria by a person other than the prescriber.
The hospital had introduced the six Patient Safety Goals**** two of which supported medication safety: Goal 1: identify patients correctly and Goal 3: improve the safety of high alert medications. These Patient Safety Goals were displayed around the hospital and in clinical areas, and were also an addendum reminder on the end of emails circulated by the Quality Manager.

Interruptions during medication administration rounds are thought to be a prominent causative factor of medication errors. Managers told inspectors, that 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.

Patients own drugs (POD)†††† system was in operation within the hospital. This system had benefits to the patient that include, improving the accuracy of admission prescriptions, continuity of care, and reducing medication administration error particularly those due to medication unavailability. Patients own medicines were used to facilitate medication history taking and if the quality of the medicines was deemed satisfactory, the medicines were used during the inpatient stay and on discharge. The medications were stored in a secure medication locker at the patient’s bedside. Normal procedure for prescribing and administration of patients own medication applied, as per the hospital’s policy on the prescribing and administration of medications. Medication assessment to approve patient own medicines for use within the hospital, was completed by a pharmacist or a nurse with the required training. This was supported by a policy and a checklist.

The patient’s own drug system was audited to identify if the patient had brought in their own drugs, if the checklist was completed, who completed the checklist (nurse or pharmacist) and the date of same. In 2014 and 2015 non conformances related to completion of the checklist or inability to locate same was highlighted to the Drugs and Therapeutics Committee. Again areas of non conformance were identified by audits undertaken in 2017 (Fig 1). The hospital should continue to review these areas of non conformance and ensure the safety of the patients own drug using the POD system.

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**** International Patient Safety Goals (IPSG) help accredited organizations address specific areas of concern in some of the most problematic areas of patient safety. Goal 1: Identify patients correctly Goal 2: Improve effective communication Goal 3: Improve the safety of high alert medications Goal 4: Ensure safe surgery Goal 5: Reduce the risk of health care-associated infections Goal 6: Reduce the risk of patient harm resulting from falls.
†††† Patients’ own drugs (POD) are medicines that patients have obtained in the community setting and bring to the hospital when admitted.
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**Fig 1.** Percentage compliance with patient own drug system audit 2017

![Bar chart showing percentage compliance with patient own drug system audit 2017](image)

Cappagh National Orthopaedic 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.\(^{25, 26}\)

Cappagh National Orthopaedic Hospital had systems in place to support the provision of patient information and education in relation to medication usage.

Inspectors were informed that clinical pharmacists offered counselling to all patients in the orthopaedic ward on newly prescribed oral anticoagulant medication. Clinical pharmacists also provided counselling on medications to patients in the acute rehabilitation unit and provided a medication planner for patients and/or carers, prior to planned discharge. In addition, nursing staff also provided education and support to patients on medications such as analgesia and anticoagulants as required. Patient
information leaflets were available at the point of care which included advice on pain medication.

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. 18 patients who had been inpatients in Cappagh National Orthopaedic Hospital within the past year, and who were prescribed regular medications completed the questionnaire. Of the 18 patients surveyed, 17 patients had been prescribed new medicines and one patient had not been prescribed any new medicines. Of these 17 patients:

- 15 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.
- 13 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.
- 15 of the 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 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 had developed a number of multi-disciplinary medication management policies. Inspectors observed that up-to-date versions of medication policies, procedures, protocols and guidelines were available to staff in clinical areas on the hospital’s electronic document control system.

The hospital had recently developed a guide to the hospital’s approved medication information resources which were readily available for use within the hospital. These
resources were all available electronically, to ensure that the most up-to-date information was used in making decision on medication use:

- antimicrobial application (adopted from the Mater Hospital)
- medicines complete
  - British National Formulary
  - drug administration via enteral feeding tube
  - handbook on injectables
  - Martindale
  - Stockley’s drug interactions
- Stockley’s interactions checkers
- www.medicines.ie.

Other medication information available to staff involved in medication use included hard copy intravenous antimicrobial administration guidelines, perioperative drugs to be administered and stopped prior to surgery, medication dose for children and dose reduction of paracetamol to avoid liver toxicity. Inspection observed examples of these information resources on the clinical areas visited.

Structures were in place to dissemination information to staff via formal meetings, emails and newsletters.

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.\(^{27}\)

Inspectors were informed that non consultant hospital doctors\(^{+++}\) received induction training which included information on prescribing practice, high alert medicines, medication incidents reports and medication reference resources available on the hospital information system. Hospital management confirmed that additional training was also provided to non consultant hospital doctors. For example, non consultant hospital doctors

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\(^{+++}\) 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.
hospital doctors working in theatre were provided with one to one supervised training as required. Inspectors were informed that non consultant hospital doctors attended regular weekly teaching sessions and journal club presentations relevant to the acute rehabilitation unit and the orthopaedic service.

Nursing staff attended induction training on medication management which included information on medication policies, calculating drug dosages, medication administration terminology, pharmacokinetics and high alert medications. In addition, nurses also received training on the storage and administration of the patient’s own drugs (PODs).

Inspectors were informed by hospital management and ward staff, that new nurses completed an orientation booklet. Nurses, who had previously completed medication management training in other hospitals with certification, completed three supervised drug rounds and three supervised intravenous drug administration’s to meet competency requirements to administer medications.

Documentation provided to inspectors indicated that over 60% of doctors and nurses attended induction training. Inspectors noted that while over 58% of medical staff attended medication safety training within the last two years, less than a third of nursing and pharmacy staff had attended medication safety training within the last two years.

Inspectors viewed medication safety newsletters produced by the pharmacy department. The newsletters were produced to keep staff abreast of the latest development in medication management in the hospital. For example, following a number of incident relating to the administration of paracetamol inappropriate to patients weight, a newsletter was developing and circulated outlining the dose reduction of paracetamol in underweight patients to avoid liver toxicity.
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 Cappagh National Orthopaedic Hospital through the work of the Medication Management Committee. There was multidisciplinary involvement with engagement and support from senior hospital managers and clinicians working to provide medication safety across the hospital.

The Drugs and Therapeutics Committee however, did not hold the required meetings to provide the outlined governance arrangement for medication safety within the organisation. The Committee also did not have the appropriate membership related to the functions of the hospital, an issue which the hospital informed inspectors they planned to address. The hospital needs to review the current governance oversight for medication safety by the Drugs and Therapeutics Committee within the hospital as a priority.

Considering the number of medicines related committees outlined in the hospital organogram (Appendix 2), the hospital would benefit from reviewing current medicines governance arrangements, with a view to consolidating committees.

The hospital demonstrated a variety of quality improvement initiatives which had been implemented relating to medication safety, for example the hospital had developed a list of high alert medicines and associated risk reduction strategies to enable safer storing, prescribing, and administration of these high alert medicines.

Important lessons can be learned from analysis of medication incidents and near misses. Medicines related incidents and near misses were tracked, trended and graded, and where trends were identified, action was taken to prevent reoccurrence of such variance. The hospital should continue to progress its plans to promote reporting among all clinical staff and continue to promote open disclosure, 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, for example the pharmacy key performance indicators. The hospital should continue its work to promote quality assurance systems including auditing of medication safety aligned to a formalised medication safety
plan, and ensure that systems are in place to address non conformances identified though audit.

It is recommended that, following this inspection, this report is shared with senior managers, clinicians and other relevant staff at Cappagh National Orthopaedic 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.
4. References


### 5. Appendices

**Appendix 1: Medication Safety Monitoring Programme Phase One: Lines of Enquiry and Associated National Standard for Safer Better Healthcare**

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<th>Area to be explored</th>
<th>Line of enquiry</th>
<th>National Standards for Safer Better Healthcare</th>
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</thead>
<tbody>
<tr>
<td>Clear lines of accountability and responsibility for medication safety</td>
<td>Patient safety is enhanced through an effective medication safety programme underpinned by formalised governance structures and clear accountability arrangements.</td>
<td>3.1, 5.1, 5.2, 5.4, 5.5, 5.6, 5.8, 5.9, 5.10, 7.1</td>
</tr>
<tr>
<td>Patient involvement in service delivery</td>
<td>Patients and or carers are informed about the benefits and associated risks of prescribed medicines in a way that is accessible and understandable.</td>
<td>1.4, 1.5, 1.7, 3.1, 4.1</td>
</tr>
<tr>
<td>Policies procedures and guidelines</td>
<td>Hospitals develop effective processes to promote medication safety that are implemented and supported by clear and up-to-date policies, procedures and or protocols.</td>
<td>2.1, 3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.11, 8.1</td>
</tr>
<tr>
<td>Risk management</td>
<td>There are arrangements in place to identify, report and manage risk related to medication safety throughout the hospital.</td>
<td>3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.10, 5.11, 8.1</td>
</tr>
<tr>
<td>Audit and evaluation</td>
<td>The effectiveness of medication management systems are systematically monitored and evaluated to ensure they are effective.</td>
<td>2.8, 3.1, 5.8, 8.1</td>
</tr>
<tr>
<td>Education and training</td>
<td>Safe prescribing and drug administration practices are supported by mandatory and practical training on medication management for relevant staff.</td>
<td>6.2, 6.3</td>
</tr>
<tr>
<td>Access to information</td>
<td>Essential information of the safe use of medications is readily available in a user-friendly format and is adhered to when prescribing, dispensing and administering medications.</td>
<td>2.5, 8.1</td>
</tr>
</tbody>
</table>
Appendix 2: Hospital’s Board and Committee Organisational Chart

Subcommittees of Board

1. Clinical Ethics and Medical Research Committee – PP-COR-18
2. Patient Care Committee – IM-CNOH-40
3. Finance Committee
4. Audit Committee - (ED-COR-1)
5. Mission Committee - IM-CNOH-32
6. Clinical Governance and Clinical Risk Committee (See below) - (IM-CNOH-26)
7. Remuneration Committee
8. Group Nominations Committee - (ED-COR-4)

Board of Directors

Senior Management Executive
(IM-COR-1)

Medical Board
(IM-MMG-1)

Clinical Audit Review
(PP-QUA-16)

Nursing Management Meetings
(IM-NMG-3)

Safeguarding
(IM-CNOH-24)

Hygiene Services
(IM-HS-1)

Nutrition and Hydration
(IM-CAAT-1)

Technical Services
(IM-MT-1)

Bed Management
(IM-NMG-2)

Health, Safety and Risk Management
(IM-HS&S-30)

Quality Review
(IM-QUA-4)

Paediatric Review
(IM-PAED-1)

Department Heads
(IM-CNOH-75)

Drugs and Therapeutic
(IM-PHAR-1)

Infection Prevention and Control
(IM-ICP-1)

Medication Management
(IM-CNOH-25)

Pain Management
(IM-PM-1)

Senior Management

Executive

(IM-COR-1)

Radiation Safety - (IM-RAD-1)
Diagnostic Imaging IV Protocol Review - (IM-RAD-2)

Tissue and Transfusion - (IM-CNOH-27)
HDU Committee - (IM-HDU-1)
Healthcare Records Management – (IM-MR-1)

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 announced inspection of medication safety at
Cappagh National Orthopaedic Hospital

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