Report of the announced inspection of medication safety at the University Hospital Limerick.

Date of announced inspection:
18 May 2017
About the Health Information and Quality Authority

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

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

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

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

Regulation — Registering and inspecting designated centres.

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

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

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

Health Information — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland’s health and social care services.
Report of the announced inspection of medication safety at the University Hospital Limerick
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Report of the announced inspection of medication safety at the University Hospital Limerick
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 in 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.

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 includes 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 University Hospital Limerick by Authorised Persons from HIQA; Kay Sugrue, Kathryn Hanly, Noelle Neville and Nora O’ Mahony. The inspection was carried out on 18 May 2017 between 09:00hrs and 16:00hrs. Interviews were held at the University Hospital Limerick with the following groups of managers and clinical staff:

- Group one: the Chairperson of the Drugs and Therapeutics Committee, the Chief Pharmacist, the Group Quality and Risk Manager and the Quality and Patient Safety Manager of the Diagnostics and Medicine Directorate.
- Group two: the General Manager of the Diagnostics Directorate, a designate Clinical Director of the Medicine Directorate and the Operational Director of Nursing UL Hospitals Group.
Inspectors visited the following clinical areas and spoke with staff and reviewed documentation:

- Rainbow Ward
- 3B

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 patients in the hospital’s Outpatient Department who completed an anonymised questionnaire in relation to prescribed medications.
2. Findings at University Hospital Limerick

The following sections of this report outline the main findings of the inspection. The report is structured as follows:

- **Section 2.1** outlines risks identified during this announced inspection.
- **Sections 2.2 to 2.7** present the general findings of this announced inspection which are aligned to the lines of enquiry.

### 2.1 Risks identified

During this announced inspection by HIQA on 18 May 2017, a composite of medication safety related risks were identified in University Hospital Limerick. The collective nature of the risks identified presented potential risks to patients, and needed to be addressed by the hospital.

Specifically, the inspection identified that:

- Governance arrangements relating to medication safety at hospital and group level were fragmented in approach and underdeveloped. This has resulted in the relative lack of effective systems in place to ensure minimum standards of safety and quality are met relating to medication safety.

In addition, inspectors found inherent weaknesses in the existing medication safety systems and processes at the hospital at the time of this inspection. Overall, many elements required to improve the safety and quality of medicines use in a hospital setting were either in the very early stages of development or not in place. HIQA found risks concerning the following:

- inadequate arrangements in place to identify, report and manage risks associated with medication use resulting in poor awareness and underreporting of medication errors and near misses
- a lack of a cohesive approach to governance and oversight of the provision of pharmacy services to the five sites within the group
- poor compliance by the hospital Drugs and Therapeutic Committee with its own terms of reference
- the absence of strategic medication safety operational plans detailing the development, implementation and maintenance of hospital wide medication safety systems
- a relative lack of current policies, protocols, and guidelines to support relevant clinical staff in safe prescribing and administration of medications at ward level
- the degree of clinical review and prescriber feedback by Clinical Pharmacists was limited due to the clinical pharmacy resources available at the hospital
lack of a formalised medication reconciliation process
\[\text{an absence of an evidence based local formulary of medications accepted for use in the organisation.}\]

Details of these risks were communicated to hospital management at the time of this inspection, and in writing following this inspection. A copy of the letter issued to the hospital regarding the risks identified during the inspection on 23 May 2017 and a copy of the response received from the hospital on 6 June 2017 are shown in Appendices 2 and 3 respectively.

In response, hospital management provided HIQA with an quality improvement plan to address the risks identified which is shown in Appendix 6. However, it is of note that there are no timelines associated with the completion of this quality improvement plan. The hospital needs to ensure that defined and appropriate timelines are in place to address the risks identified by HIQA as a matter of priority.

HIQA also notes that the hospital had endeavoured to strengthen governance arrangements in recent months. Inspectors viewed draft plans to review and reconfigure the Drugs and Therapeutics Committee and implement an effective supporting infrastructure through the addition of relevant sub committees, see Appendices 4 and 5.

Following this inspection, HIQA determined that in order to assess progress with the implementation of necessary action across the hospital group, a follow-up inspection within six months will be necessary, to determine progress made in addressing risks identified during this inspection. This plan for re-inspection was communicated in writing to the Hospital Group CEO following this inspection.

2.2 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.

2.2.1 Introduction

The University Hospital Limerick (UHL) is a Model four\(^5\) acute hospital and is one of six hospitals comprising the University of Limerick Hospitals Group (UL hospitals) established in January 2012. This hospital is a busy acute hospital providing complex
and specialist clinical care to the Mid-Western region of Ireland. Inspectors were informed at the commencement of this inspection that St John’s hospital in Limerick, did not come under the existing overarching medication safety governance arrangements which were applicable to the remaining five hospitals within the Group (Nenagh, Croom, University Maternity Hospital Limerick and Ennis).

2.2.2 Medication Safety Announced Inspection

HIQA found that the governance arrangements relating to medication safety in place in University Hospital Limerick at the time of this inspection did not deliver sufficiently effective quality assurance or quality improvement mechanisms in line with international best practice. A strategic, planned approach to managing medication safety outlining clear objectives, goals or plans was not in place at the hospital at the time of this inspection. It was of concern that a tertiary hospital providing complex clinical care did not have a sufficiently defined medication safety programme in place. Moreover, it was not apparent that medication safety was adequately supported at executive management level at the hospital.

However, the hospital demonstrated awareness of many of the inherent weaknesses in the existing medication safety systems and had recently acted to address some of the deficiencies identified. There was evidence that progress had been made in developing medication safety at the hospital towards the latter end of 2016 and early 2017. By way of example, inspectors were informed by senior managers that recruitment for a new medication safety co-ordinator post was in progress. It was planned that the newly appointed medication safety co-ordinator will have a remit for five of the six hospitals within the ULH Group. It was anticipated that the successful applicant for this position would be in place by the end of quarter two of 2017. However, it was of concern to HIQA, that many of the planned interventions to improve patient safety were largely dependent on the appointment of a medication safety co-ordinator, rather than being focused on a multidisciplinary approach to improving existing systems, processes and senior leadership oversight.

In addition, a new chair of the Drugs and Therapeutics Committee had been appointed in March 2017. The new chair was a recently appointed Consultant at University Hospital Limerick with an interest in pharmacology. It was explained to inspectors through interview that the Drugs and Therapeutic Committee was more operational than strategic in its approach. Proposed plans to enhance the organisational structure of the Drugs and Therapeutic Committee and address the deficiencies identified by the hospital were viewed by inspectors. The draft organogram as shown in Appendix 5 showed that it was intended that seven committees and two subcommittees representing different elements of medication safety will report to the Drugs and Therapeutic Committee if and when it is implemented. Inspectors were informed that it is anticipated that this revised
structure should be in place by the end of July 2017. In implementing such a complex structure, it is recommended that the hospital group fully evaluates the sustainability of this planned arrangement of multiple committees, to ensure efficient use of staff time, and clarity around accountability and lines of reporting.

**Group Clinical Governance Structure**

New overarching governance structures were established when the new UL Hospitals Group was formed in 2012. At that time, significant reconfiguration occurred and a directorate structure was introduced. Four clinical directorates with responsibility for daily operations relating to specific specialities across the six sites are now in place. The Pharmacy Department of University Hospital Limerick reports to the General Manager of the Diagnostics Directorate in addition to the Drugs and Therapeutic Committee. It was also reported by hospital management that medication safety governance arrangements were evolving within this new configuration.

An effective Drugs and Therapeutics Committee should have ongoing oversight of the medication management and safety system within a hospital. The Drugs and Therapeutics Committee was one of six clinical committees that reported to the Quality and Safety Executive Committee. Directorate management teams also reported to the Quality and Safety Executive Committee and upwards to the Executive Management Team. The Antimicrobial Stewardship Committee reported into the Drugs and Therapeutic Committee. Antimicrobial stewardship and medication safety were regular agenda items of the Drugs and Therapeutics Committee.

The Chief Pharmacist had oversight of pharmacy services in University Hospital Limerick, Croom Hospital and UL Maternity Hospital. The latter two are specialist hospitals. The General Manager of the Diagnostics Directorate was accountable for all pharmacy services within the group of five hospitals. HIQA found that there was a fragmented approach to medication governance across the group with the Chief Pharmacist based at University of Limerick Hospital in Dooradoyle, only having oversight of three of the five hospitals within the group. While risks were documented and reported by the Chief Pharmacist in relation to the three hospitals under their remit, a cohesive coordinated approach to the management of identified risks was lacking.

The Drugs and Therapeutics Committee had updated its terms of reference outlining the objectives, membership, frequency of meetings and reporting relationship in November 2016. However, poor compliance with the functions and objectives

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*Nenagh and Ennis hospitals had standalone Pharmacy Departments. Ennis’s Pharmacy Department was overseen by superintendent pharmacist, and Nenagh’s Pharmacy Department was overseen by a pharmacist in charge.*
outlined in these terms of reference was identified by HIQA during this inspection. The Drugs and Therapeutics Committee should be multidisciplinary to reflect the fact that medicines management is the responsibility of a number of clinical professional groupings. HIQA was informed that Committee membership had recently expanded in an effort to achieve a broader representation from across the hospital. However, this expanded membership was not reflected in the current terms of reference viewed by HIQA. Inspectors found that more work needed to be done with regard to this to ensure greater and more consistent representation from required key stakeholders such as Paediatrics, Obstetrics, Intensivists and Primary and Community Care. The terms of reference did not define the overarching governance remit of the Committee’s role relating to medication safety across the five sites within the group.

In addition, terms of reference from the Medication Safety Committee at Ennis Hospital stated that the accountable reporting line was to the overarching University Hospitals Limerick Medication Safety Committee (a sub-committee of the UL Drugs and Therapeutics Committee). However, neither of these two committees referred to were included in the UL Drugs and Therapeutics Committee terms of reference. It was HIQA understands that the University Hospitals Limerick Medication Safety Committee was not yet established at the time of this inspection. Drugs and Therapeutics Committee terms of reference should clearly define its functions and objectives to avoid any ambiguity and clearly articulate its position within a hospital and in this case within the group. Senior managers told inspectors that it is planned to review the terms of reference in line with the new Drugs and Therapeutics revised structures once in place.

A process for assessing and evaluating requests for the supply of new medications was in place. There was evidence to support that new medications were regularly discussed at the Drugs and Therapeutics Committee. However, this process was not formalised. An up-to-date local approved medication formulary did not exist in the hospital at the time of this inspection. A formulary system should be established to manage risk and ensure efficiency in the use of medicines used in hospitals. Inspectors were informed that the British National Formulary was available as a reference point in each clinical area and an inventory of medications stocked in the hospital was kept in the Pharmacy Department. While HIQA acknowledges that the development of a local formulary is a considerable undertaking, arrangements as identified during this inspection have been slow to progress.

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1 HIQA requested additional documentation to view on the day of inspection including the terms of reference from the Medication Safety Committee at Ennis Hospital.
2 A formulary is a hospital’s preferred list of medicines that staff can use as a reference document to ensure safe and cost-effective prescribing.
Higher incident reporting rates both demonstrate and promote an improved culture of safety.\textsuperscript{8} The hospital reported 138 medication related incidents and near misses during 2016. HIQA noted the low numbers of medication related incidents reported throughout 2016, relative to other hospitals inspected so far through this monitoring programme. Near misses in relation to medication related issues were not being reported. As a result key medication related risks could not be understood, recorded, escalated or mitigated effectively by the organisation. Low numbers of incidents reported does not necessarily mean a low number of incidents occurring. Studies have found a positive association between increased incident reporting rates and measures of safety culture where an increase in incident reporting was indicative of a positive reporting culture within the hospital. Senior management recognised that this level of reporting was not in line with internationally accepted norms and were aware of the need for improvement. It was explained that the current culture was one of ‘correction’ rather than reporting where errors and near misses were corrected when identified but not necessarily reported. Promoting transparency is key to building a strong safety culture. This was a focus for improvement within the hospital and across the UL hospitals for 2017. However, HIQA viewed evidence of medication incidents and near misses reported to date for 2017 and noted that there was a lack of notable improvement in reporting rates.

Hospital management had endeavoured to progress a medication safety agenda at University Hospital Limerick although progress to date had been relatively slow. Efforts to strengthen governance arrangements were in the early stages of development at the time of this inspection. However, the programme remains significantly underdeveloped and it will take time, effort and further resources to bring this programme in line with the operational norm achieved elsewhere in the majority of Irish acute hospitals.

It was reported that risks relating to pharmacy services deficiencies at University Hospital Limerick and across the group had been escalated in line with reporting structures outlined in the organisational structure. It was unclear if these ongoing risks were escalated beyond the group to national level at the time of the inspection\textsuperscript{5}.

HIQA acknowledges that it will be challenging for the hospital to assure the quality and safety of patient care in relation to the risks identified in this report until these issues are resolved. Greater coordination and leadership at group level is required to effectively address these issues as a priority.

\textsuperscript{5} During the due process phase of writing this report, the Hospital advised that a submission for additional clinical pharmacy staff to be included in funding estimates for the group for 2018 had been made to the HSE nationally, and that recruitment would occur subject to additional funds being made available.
2.3 Audit and evaluation

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

It was not apparent that available sources of information in relation to medication safety were regularly evaluated to identify risk and monitor the impact of interventions. The Pharmacy Department and the Medicines and Peri-Operative Directorates had individual programmes of audits relating to medication safety. However, these programmes were not aligned to a formalised medication safety strategy and not conducted in all hospitals across the group. Inspectors viewed a cross directorate audit plan. Audits relating to medication management and safety outlined in the plan were limited and strongly weighted towards antimicrobial stewardship. A key feature in clinical audit is the completion of the clinical audit cycle. Many of the audits reviewed by inspectors did not complete the audit cycle.**

Nursing quality care-metrics†† were monitored across the hospital to review practice around some aspects of medication storage and administration. Inspectors viewed the nursing quality care-metrics findings for one ward over a 16 month period and noted that the results relating to medication storage, custody and administration were generally good. However, more improvement was required with regard to medication prescribing metrics; an issue also highlighted through a prescribing audit undertaken by pharmacy in November 2016.

Even though inspectors were informed that audit findings were disseminated at grand rounds‡, monthly team talks, via directorates and senior nurse managers meetings improvements were needed to disseminate the results to clinical staff at ward level.

2.4 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.

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** Aspects of the structure, processes, and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team, or service level, and further monitoring is used to confirm improvement in healthcare delivery.

†† Metrics are parameters or measures of quantitative assessment used for measurement and comparison or to track performance.
Medication safety quality improvement initiatives were not strategically driven by learning gained from analysis of medication incidents or near misses. Nevertheless, despite this weakness, inspectors saw some examples of quality improvement initiatives that had been implemented in the hospital. Completed initiatives included:

- introduction of a ‘Get It On Time’ initiative for patients with Parkinson’s Disease
- implementation of safety alerts in relation to insulin, concentrated potassium chloride, IV paracetamol and oxycodone
- distribution of learning notices
- development of a summary antibiotic guideline pocket guide
- introduction of a new drug kardex
- introduction of a correct prescribing business card
- development of a stress ulcer prophylaxis protocol
- double check algorithm in the Paediatric Unit.

Practices to enhance medication safety in the Paediatric Unit were identified during the inspection. Collective local ownership, accountability and responsibility relating to medication safety was strongly evident on the Paediatric Unit visited by inspectors. A medication management quality assurance project was in progress across the Paediatric Unit. The aim of this project was to address identified gaps relating to medication safety. There were eight areas outlined in the project with a projected completion timeframe by the end of July 2017. A multidisciplinary team was responsible for completing this project. Medication incident management and review was a key focus of improvement. A breakdown and review of each medication error reported was reviewed locally and addressed through the implementation of quality improvement initiatives. Inspectors were informed that a zero tolerance approach to poor prescribing in the form of illegible or unclear prescriptions was adopted by the unit and medications were not administered until illegible or unclear prescriptions were rewritten. Many of the initiatives viewed by HIQA could potentially be rolled out in other clinical areas within the hospital.

High-alert drugs are medicines that have a heightened risk of causing significant patient harm when they are not used correctly. The hospital maintained a list of high alert medications that presented a heightened risk of causing significant patient harm if not used correctly.

Inspectors were told that clinical pharmacists provided cover to 50 percent of beds in the hospital at the time of the inspection. A business case for clinical pharmacy

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‡‡ The ‘Get It On Time’ campaign aims to make sure that people with Parkinson’s Disease in hospitals and care homes get their medication on time – every time. Staff at University Limerick Hospital carried timers which alarm when it is time for a patient with Parkinson’s Disease under their care to receive their medication.
had been developed and submitted for approval of funding. Inspectors were informed that limited additional clinical pharmacists resources were recently appointed to the Paediatric Unit and the Emergency Department. While this is a positive step, provision of clinical pharmacy services was not universally available in all wards and clinical departments. It is recommended that the hospital reviews its current provision for clinical pharmacy services, in the interest of optimising medication safety in the hospital.

The aim of medication reconciliation is to ensure the accuracy of a patient’s medication information at transitions of care to ensure continuity of medication management. A significant proportion of medication errors occurring in hospitals are estimated to occur either on patient admission, patient discharge or transfer between units or facilities. Inspectors were informed that not all patients received medication reconciliation on admission and this service was prioritised due to clinical pharmacy resource constraints. Inspectors were told that of the 50 percent of beds with a clinical pharmacy service, not all of these patients had medication reconciliation carried out. Hospital managers informed inspectors that medication reconciliation was not conducted at the time of patient discharge with the exception of some patients with renal issues.

The hospital’s ‘Medication History Taking Policy’ stated that clinical pharmacists are responsible for carrying out a medication check for patients. However, ambiguity was evident during interview with staff as to who was responsible for carrying out medication reconciliation in the hospital. In addition, the effectiveness of the current medication reconciliation process had not been audited.

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. Staff spoken with reported that it was practice to inform patients if an error was made in relation their medication, in line with best practice.

2.5 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.
University Hospital Limerick had systems in place to support the provision of patient information and education in relation to medication usage. Patient information leaflets were available to patients. Senior managers told inspectors that there was a multidisciplinary approach to patient information and education. Inspectors were informed that pharmacists offered counselling to some patients prescribed oral anticoagulant medication before discharge. In addition, clinical nurse specialists provided education and support to patients, for example, around the management of respiratory disease and the use of anticoagulants.

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. The questionnaire was completed by 18 patients who had been inpatients in University Hospital Limerick within the past year and who were prescribed regular medications. Of the 18 patients surveyed, two patients had not been prescribed any new medicines and 16 patients had been prescribed new medicines. Of these 16 patients:

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

It is acknowledged that this was a small sample of patients who completed the anonymised questionnaire in relation to prescribed medications at the hospital’s Outpatient Department, and therefore was not representative of all recently discharged patients taking prescribed medication. The information did however, provide some information about outpatient’s understanding of medications and could be expanded upon and used to identify opportunities for improvement.

### 2.6 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 of the safe use of medicines is readily available in a user friendly format and is adhered to when prescribing, dispensing and administering medications.
Some medication policies, procedures, protocols and guidelines were available to staff through the hospital’s document management system, while others were in the process of being updated.

While the hospital did not have a defined hospital medicines formulary or preferred prescribing guide, generalised prescribing supports were available to clinical staff. Hard copies of the most current version of the ‘British National Formulary’ were available in the clinical areas visited.

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

- British National Formulary in print and in electronic formats.
- British National Formulary for Children’s in print and in electronic formats.
- Intravenous drug monographs for the general wards.

**2.7 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.

Training for nursing and medical staff can be a key success factor in contributing to good, multidisciplinary engagement in medicines management. The hospital did not have a formalised education programme for clinical staff linked to an overarching medication safety strategy.

Hospital managers told inspectors that medication safety education was included in non-consultant hospital doctor’s induction training. Medical interns coming from a local university also completed a prescribing safety assessment prior to commencing employment at the hospital. Training on medication safety issues and prescribing was provided to clinicians during ‘Grand Rounds’***. An intern handbook had been developed for medical staff which contained information in relation to prescribing. Inspectors were told that pharmacy staff received training on all aspects of medication safety during their induction programme.

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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.

*** 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.
Inspectors were informed that the HSElanD Medication Management online training programme was available to staff. However, on the day of the announced inspection not all staff had completed this programme as it was not mandatory. Hospital managers reported that one ward in the hospital had achieved 100% compliance with this training as a result of a medication incident that occurred.

Inspectors were told that not all nurses had received training in relation to intravenous medication administration and anaphylaxis management. The hospital must assure itself that appropriate arrangements are in place to support national policy regarding risk factors including anaphylaxis management.

Hospital managers had completed a gap analysis on training for staff in relation to incident reporting. Members of the quality, patient safety and risk team had attempted to raise awareness in relation to incident reporting in a number of ways including speaking at Grand Rounds and surgical rounds, having an information stand in the staff canteen and fortnightly talks to promote engagement and visibility in relation to incident reporting. However, a multidisciplinary, coordinated and strategic effort was required to raise awareness amongst all hospital staff in relation to medication incident and near miss reporting in the hospital.
3. Conclusion

Medications represent the primary measure for treatment intervention in hospitalised patients. Error associated with medication usage constitutes one of the major causes of patient harm in hospital. Medication safety should therefore be a priority area for all acute hospitals as they seek to ensure a high quality and safe service for patients.

During the announced inspection of University Hospital Limerick, a composite of medication safety related risks were identified and communicated to hospital management in writing following the inspection. In particular, it was identified that governance arrangements relating to medication safety at hospital and group level were fragmented in approach and underdeveloped. This has resulted in the relative lack of effective systems in place to ensure minimum standards of safety and quality are met relating to medication safety. In addition, inspectors found inherent weaknesses in the existing medication systems and processes at the hospital at the time of the inspection. Overall, many elements required to improve the safety and quality of medicines use in a hospital setting were either in the very early stages of development or not in place.

The hospital formulated a quality improvement plan in response to the identified risks. However, it is also of note that there are no timelines associated with the completion of the hospital’s quality improvement plan. University Hospital Limerick needs to assure itself that defined and appropriate timelines are in place to address the risks identified by HIQA as a matter of priority.

Following this inspection, the hospital must focus its efforts to address the risks and findings identified in this report, and work to ensure that the necessary arrangements are in place to protect patients from the risk of medication-related harm. HIQA determined that in order to assess progress with the implementation of necessary action across the hospital group, a follow-up inspection within six months will be necessary, to determine progress made in addressing risks identified during this inspection.
4. References


13. Health Service Executive. HSELaND. Available online from: http://www.hseland.ie/dash/Account/Login

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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</tr>
<tr>
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<tr>
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<tr>
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Appendix 2: Copy of the letter sent from HIQA to University Hospital Limerick

Colette Cowan  
Group Chief Executive Officer  
University Hospital Limerick  
Dooradoyle  
Limerick  
CEOUHLospitals@hse.ie

23 May 2017

Ref: MS/079

Medication Safety Monitoring Programme in Public Acute Hospitals

Dear Colette

During the course of the announced Medication Safety inspection conducted at University Hospital Limerick on 18 May 2017, Authorized Persons\textsuperscript{10} identified a composite of medication safety related risks at the hospital that need to be collectively and comprehensively addressed.

The inspection identified an underdeveloped approach to medication safety at the hospital, and an apparent ongoing fragmented approach to leadership, governance and management of medication related risk across the group through the group Drugs and Therapeutics Committee. The risks concerned include;

\textsuperscript{10} Authorized Persons of the Health Information and Quality Authority (HIQA) under Section 70 of the Health Act 2007 (the Act) are authorized for the purpose of monitoring against the National Standards for Safer Better Healthcare pursuant to Section 8(1)(c) of the Act.
- inadequate arrangements in place to identify, report and manage risks associated with medication use - this results in poor awareness and underreporting of medication errors and near misses
- a lack of a cohesive approach to governance and oversight on the provision of pharmacy services to the five sites within the group
- poor compliance by the hospital Drugs and Therapeutic Committee with its own terms of reference
- the absence of an overarching strategy for medication safety, and associated operational plans detailing the development, implementation and maintenance of hospital wide medication safety systems.
- a relative lack of current policies, procedures, protocols and guidelines to support relevant clinical staff in safe prescribing and administration of medications at ward level.
- limited Clinical Pharmacy services, and the lack of formalised medication reconciliation process
- the absence of an evidence based local formulary of medications accepted for use in the organization.

Notwithstanding these identified areas in need of improvement, Authorized Persons also identified more recent efforts to try to reconfigure the role and functioning of the Drugs and Therapeutics Committee, including new leadership of this committee. Moreover, HIQA acknowledge the intention to try to harmonize medication safety efforts through a group approach to governance.

In light of these findings, I am writing to you to firstly seek assurance that identified risks as outlined above will be systematically addressed following this inspection in a timely manner. I would be grateful if you could reply to this letter by 29 May 2017 to qualityandsafety@hiqa.ie, outlining planned measures to address the risk issues outlined above.

In addition, I am also writing to inform you that HIQA intend to carry out a follow-up inspection within six months to determine progress made in addressing risks identified by HIQA during this inspection. This follow-up inspection may necessitate combined fieldwork at the University of Limerick Hospital in Dooradoyle, and one or more of the other hospitals in the group. Full details of our proposed inspection plan will be included in the announcement letter sent 10 working days in advance of inspection.

In the interim, HIQA will proceed to finalise and publish a written report related to our most recent inspection, in the standard way. Should you have any further queries in relation to this, please do not hesitate to contact me via the above email address.
Yours sincerely

____________________
SEAN EGAN
Acting Head of Healthcare Regulation

CC: Mary Dunnion, Director of Regulation, Health Information and Quality Authority
    Liam Woods, National Director of Acute Hospitals, Health Service Executive
Appendix 3: Copy of the response received by HIQA from University Hospital Limerick

Mr Sean Egan  
Acting Head of Healthcare Regulation  
Health Information and Quality Authority  
Unit 1301, City Gate,  
Mahon,  
Cork.

Re: Your Reference: M5/079

Dear Sean,

Thank you for your letter of 23rd May inst. on the findings of the recent medication safety inspection at University Hospital Limerick, and for kindly extending deadline for UL Hospitals response.

I acknowledge the medication safety related risks identified in your letter and assure you of our commitment to addressing these.

We have taken a number of immediate actions in response to your letter including;

a. Communicating the risks identified to the Executive, including Clinical Directors, Directors of Nursing and Directorate Managers;
b. Communicating through the directorate line management structures, the risks identified to staff with responsibility at any stage of the medication use process;
c. Communicating the risks identified to the D & T committee members;
d. Finalising the governance structure pertinent to the D & T which will be presented for approval at the Hospital Group Executive Quality and Safety Meeting on 15th June.
e. Review of the Terms of Reference for the D & T based on draft structure.
f. A new organisational structure has been developed for the D & T to expand the multidisciplinary input into the committee. In addition to increasing acute hospital membership within the UL Hospitals Group, a local GP and Community Pharmacist will join the D&T committee.
g. Request from Chair of D & T to all Directorate Teams to ensure Medication Safety is included as a standing agenda item at Directorate Quality and Safety Meetings.
h. Developing a communications campaign on medication safety, focusing significantly on reporting of medication safety incidents and/or near misses for the hospital group to commence in June.

Additional mechanisms to record education/training in medication safety for Consultant and NCHD staff will be explored.
I attach the Quality Improvement Plan developed following the University Hospital Limerick inspection which aligns with both the UL Hospital Group’s Quality Improvement Plan prepared following the Nenagh medication safety inspection and the overall vision developed by the D & T for medicines management and medication safety across the Group.

It is important to identify for you the significant challenges posed by the lack of resources in particular in the area of manpower within the Pharmacy Service. Nonetheless we have identified a number of key roles including a Group Medication Safety Officer (shortlisted) to be supported by Medication Safety Facilitators. The appointment to these posts will enable the organisation, to support the work being undertaken by the D & T, Pharmacy staff and Clinical staff. Additional Clinical Pharmacists have also been included in the 2018 estimates process, and on approval the organisation will, based on clinical risks, prioritise their allocation to ward areas to facilitate in particular the development of a formal medicines reconciliation process.

During 2016 the Office of the Chief Clinical Director engaged in a number of initiatives to improve working relations with our junior doctors. An outcome of this engagement has been the inclusion now of a representative from the Junior Doctors to sit on the D & T Committee. Over the coming months, further representation of NCHDs on our Clinical Audit and Quality Improvement Committee will expand the ability of the organisation to include the junior doctor cohort in matters such as medicine management and medication safety and enhance the overall safety culture.

A new e-discharge project will require medicines reconciliation by junior doctors preparing discharge documentation to communicate a complete and accurate list of a patient’s current medication, and to identify and resolve unintentional discrepancies between patients medication lists across the transition of care back to their GP. In particular where patient prescriptions have changed from admission, documentation of the rationale for same will be required. This will not only improve our communication with GPs in particular who continue care for discharged patients in the community setting, but will also increase awareness of medication safety and improve the safety culture of our junior doctors. This project is currently being trialled and is expected to go live on a phased basis in June 2017. It is anticipated this new technology will facilitate audits, including medicines reconciliation. Work is ongoing to develop same.

Finally, it has come to my attention that there was an error in the record of the January D & T meeting relating to reporting of medication safety incidents/near misses. I attach for the attention of the audit team the correct record of same in advance of the report on the audit findings being prepared.

I trust the action plan outlined is satisfactory. I look forward to providing you with updates on our progress into the future.

Yours Sincerely

Colette Cowan
Chief Executive Officer
UL Hospitals Group
Offic an Phríomhhoilliúr Feachtmhach,
Grúpa Ospidéal OL, Ospidéal na hOifíseach, Luimneach,
Sóthar Naomh Neasán, Tuar an Dáil, Luimneach V94 F358
Tel: 061 482590 Email: ceoulhospitals@hse.ie

Office of the Chief Executive Officer,
UL Hospitals Group, University Hospital Limerick,
St. Nessan’s Road, Dooradoyle, Limerick V94 F358
Tel: 061 482598 Email: ceoulhospitals@hse.ie

Cc: Ms Mary Dunnion, Director of Regulation, HIQA
    Mr Liam Woods, National Director of Acute Hospitals Division, HSE
    Mr Paul Burke Chief Clinical Director ULHG
    Ms Noreen Spillane Chief Operational Officer ULHG
Appendix 4: Draft Communication for Medication Safety Governance ULHG 2017

Draft Version 0.0.315.17

Communication for Medication Safety Governance ULHG 2017

Executive Management Team

Qualsec

Drugs and Therapeutics Committee

Medication Safety Committee

Medication Safety Committee

Department of Pharmacy

Chief Pharmacist 1 (Medication Safety Officer [Strategic])

Chief Pharmacist 1 (Medication Safety Officer [Operational])

QIP Mechanism Operations

Directorate Management Team Meeting

Chief Nurse Managers

Consultants

QPS Department

AHP

QPS Coordinators

Nursing Grades

Ospidéal OL UL Hospitals

Governance Office UL Hospitals Group
Appendix 5: Draft Drugs and Therapeutics Committee Structure ULHG

Drugs and Therapeutics Committee Structure ULHG

31/5/17

Ospidéil OL UL Hospitals
Governance 2017
### Medication Safety Quality Improvement Plan - University Hospital Limerick

<table>
<thead>
<tr>
<th>Medication Safety Area</th>
<th>Medication Related Risk issues identified by HIQA</th>
<th>Planned measures to systematically address the identified risk issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medication</td>
<td>Inadequate arrangements in place to identify, report and manage risks associated with medication use - this results in</td>
<td>This risk has been communicated across the organization through the Executive, discipline and Directorate structures.</td>
</tr>
<tr>
<td>Risk Identification</td>
<td>• Poor awareness and</td>
<td>A communications campaign on medication safety, focusing significantly on reporting of medication safety incidents and/or near misses for the hospital group to commence in June.</td>
</tr>
<tr>
<td>Reporting</td>
<td>• Underreporting of medication errors and near misses</td>
<td>At each Directorate Performance meeting and D&amp;T meeting the level of medication incident reporting will be monitored. The substance of reported incidents will also be discussed and progressed.</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td>The current plans for restructuring of the D&amp;T as per organogram (see attached) reflects the prioritisation of medication safety at UL Hospitals. The organogram provides an appropriate governance structure for a strategic plan to formalise and support the medication safety process within the UHL group.</td>
</tr>
</tbody>
</table>

**Quality Improvement Plan – Medication Safety UHL**

**Version 0**

**Date:** 2/6/17
Medication Safety Quality Improvement Plan - University Hospital Limerick

<table>
<thead>
<tr>
<th>2. Governance re Pharmacy for group</th>
<th>A lack of a cohesive approach to governance and oversight on the provision of pharmacy services to the five sites within the group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D&amp;T have made recommendation that a Group Chief Pharmacist be appointed to provide overarching governance and support for the pharmacy service. This reflects the governance arrangements for other services across the hospital group. This is being progressed in line with National Review of Pharmacy.</td>
</tr>
<tr>
<td></td>
<td>D &amp; T has requested that each Directorate includes Medication Safety as a standing agenda item at Directorate Meetings. This mirrors the directorate governance structure in place at UL Hospitals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. TOR D&amp;T</th>
<th>Poor compliance by the hospital Drugs and Therapeutic Committee with its own terms of reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Terms of Reference for D &amp; T, which were provided in advance of the HIQA inspection are now out of date with respect to the new organogram for D&amp;T (15/5/17), showing formalised governance arrangements and organisational structures which have clear lines of accountability. This structure plans to support the safe use of medications with particular emphasis on the medications safety committees.</td>
</tr>
<tr>
<td></td>
<td>While this new arrangement is developing, existing reporting</td>
</tr>
</tbody>
</table>

The MSO will underpin the development of the medication safety strategy and process for the UHL group as outlined in the structures in the attached organogram.

The remit of these subcommittees will be to put in place formal structures and processes and outcome measurements (Effectiveness monitored by audits: systematic monitoring and evaluation) with respect to medication safety risk identification, reporting and management.

Quality Improvement Plan - Medication Safety UHL
Version 0
Date: 2/6/17
Medication Safety Quality Improvement Plan - University Hospital Limerick

Lines to the Medical Executive will remain in place. New Terms of Reference will be drafted in line with the revised governance per organisational chart on approval by the D&T and in particular Med Safety which has been identified as a priority by the soon to be restructured D&T.

The roles and functions of Drugs and Therapeutics Committee will be clearly articulated in the Committee’s new terms of reference.

The committee will have oversight of the medicines management system within the hospital.

Membership of the Drug Safety Committee will be increased to reflect multidisciplinary and broad scope of medication safety within the UHL group, including GP representative and Community Pharmacist.

Strategic metrics will be defined as part of the D & T Terms of Reference. These will be monitored to ensure compliance of D&T with TOR; e.g. committee member attendance at meetings will be analysed.

Operational implementation of the medication programme will be facilitated by the Medication Safety Officer (soon to be appointed) in conjunction with the Drug Safety Committee.

The Medication Safety Committee will meet monthly and have a formal reporting relationship with the Drugs and Therapeutics Committee. Medication safety will be a standing item on the Drugs and Therapeutics Committee meeting agenda as well as...
4. **Overarching Medication Safety Strategy and Operational plans**

The absence of an overarching strategy for medication safety, and associated operational plans detailing the:

*development, 
*implementation and 
*maintenance

of hospital wide medication safety systems.

**“Medication Safety Programme Policy” is Currently being drafted for the group.**

**Operational plans:**

1. Appoint group Medication Safety Officer (MSO)
2. Appoint half time Medication Safety Facilitator (MSF) Ennis & Nenagh
3. Med Safety operations for Croom and Maternity
4. Support Safe prescribing and drug administration practices by mandatory and practical training on risk and medication management for relevant staff.
5. Scope out project to introduce technological advancements to support prescribing, dispensing and auditing of medications with a view to optimizing use of human resources.
6. Audit Plan for the year to be agreed at D & T. Audit reports along with Quality Improvement Plans to be discussed at Medication Safety Audit Committee UHL group

**Quality Improvement Plan – Medication Safety UHL**

**Version 0**

**Date:** 2/6/17
## 5. PPG’s: re
- Safer prescribing
- Administration of medication

<table>
<thead>
<tr>
<th>A relative lack of current policies, procedures, protocols and guidelines to support relevant clinical staff in safe prescribing and administration of medications at ward level.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In line with best practice, build on existing PPGs to develop medication management processes to promote safe use of medicines that are implemented and supported by up to date PPG’s. Develop an audit plan for key PPGs to establish compliance with same and identify quality improvement initiatives.</td>
</tr>
</tbody>
</table>

## 6. Clinical Pharmacy & Medication Reconciliation

<table>
<thead>
<tr>
<th>Limited Clinical Pharmacy services, and the lack of formalised medication reconciliation process</th>
</tr>
</thead>
</table>
| Expand Pharmacy service:
1. MSO UHL
2. MSF N & E
3. Clinical Pharmacy service for UHL, Maternity and Croom
4. Quality improvement initiatives

Develop a formal structured pharmacy-led medication reconciliation service:
Expand the medication reconciliation service currently provided by pharmacists, subject to additional staffing. Medication reconciliation on a phased basis with the recently appointed 0.5 WTE Senior Pharmacist assigned to ED at UHL will assist and prompt Medication Reconciliation at point of entry.

Implement new e-discharge project, which includes medicines reconciliation by junior doctors preparing discharge documentation to communicate a complete and accurate list of a patient’s current medication, and to identify and resolve unintentional discrepancies between patients medication lists across the transition of care back to their GP. |
| 7. Formulary | The absence of an evidence-based local formulary of medications accepted for use in the organization. | Currently use BNF which is readily accessible to staff. Following HQA recommendation the Chief Pharmacist at UHL will scope out project to explore development of local formulary, using web-based technology and access to BNF. | As additional resources become available expand and build on this experience to replicate this process on a phased basis throughout the hospital group. Audits to be carried out following the introduction of all new medication related services. In particular medication reconciliation will be audited in line with the World Health Organization’s guidelines for medication reconciliation. |
For further information please contact:

Health Information and Quality Authority
Dublin Regional Office
George’s Court
George’s Lane
Smithfield
Dublin 7

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Email: qualityandsafety@hiqa.ie
URL: www.hiqa.ie

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