



**Health  
Information  
and Quality  
Authority**

An tÚdarás Um Fhaisnéis  
agus Cáilíocht Sláinte

# **Report of the announced inspection of medication safety at Wexford General Hospital.**

**Date of announced inspection:  
11 April 2018**



## **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.



## **Table of Contents**

1.	Introduction.....	1
2.	Findings at Wexford General Hospital .....	3
	2.1 Governance and risk management.....	3
	2.2 Audit and evaluation.....	8
	2.3 Medication safety support structures and initiatives .....	9
	2.4 Person-centred care .....	12
	2.5 Policies procedures and guidelines and access to information .....	14
	2.6 Training and education .....	15
3.	Conclusion.....	17
4.	References .....	19
5.	Appendices.....	23
	Appendix 1: Medication Safety Monitoring Programme Phase One: Lines of Enquiry and Associated National Standard for Safer Better Healthcare.....	23
	Appendix 2: Hierarchy of Effectiveness of Risk Reduction Strategies in Medication Safety.....	28

## **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.<sup>1</sup> 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.<sup>2</sup> The World Health Organisation (WHO) has identified *Medication Safety* as the theme of the next Global Patient Safety Challenge.<sup>3</sup> 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*,<sup>4</sup> 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*<sup>5</sup> which is available on HIQA's website: [www.hiqa.ie](http://www.hiqa.ie)

A national overview report of the of medication safety monitoring programme '*Medication safety monitoring programme in public acute hospitals- an overview of findings*' was published in January 2018 which presented the findings from thirty-four public acute hospitals inspected from November 2016 to October 2017 (the report is available on HIQA's website, [www.hiqa.ie](http://www.hiqa.ie)). In this report HIQA identified areas of good practice in relation to medication safety and areas that require

improvement to ensure medication safety systems were effective in protecting patients.

An announced medication safety inspection was carried out at Wexford General Hospital by Authorised Persons from HIQA; Nora O' Mahony, Aoife Lenihan and Emma Cooke. The inspection was carried out on 11 April 2018 between 09.00hrs and 15.45hrs. 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, the chief pharmacist and the clinical risk manager.
- Group two; the general manager and the director of nursing. The clinical director or a designated nominee was requested to attend but was unavailable to attend the interview on the day of inspection.

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

- Aidan's Ward
- Patrick's Ward.

HIQA would like to acknowledge the cooperation of staff that facilitated and contributed to this announced inspection.

## **2. Findings at Wexford General 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.

Wexford General Hospital is a member of the Ireland East Hospital Group. The hospital is an acute general hospital with paediatric and maternity services. The pharmacy department provided pharmacy services to Wexford General Hospital and, in addition, provided a dispensing pharmacy service to 18 outlying healthcare facilities within the Wexford region.

#### **The Drugs and Therapeutics Committee**

The hospital had formalised governance arrangements with a long established Drugs and Therapeutics Committee that reported to the hospital's Quality and Safety Executive Committee. The chairperson of the Drugs and Therapeutics Committee was responsible to the hospital's Executive for issues related to the management of drugs and therapeutics. The hospital's clinical director had overall responsibility for medication safety within the hospital.

However, inspectors were informed that the Drugs and Therapeutics Committee only formally reported to the Quality and Safety Executive Committee twice a year. This was due to the large number of committees that also reported to this Committee. Inspectors were informed that any issues that arose related to medicines management or medication safety outside of these defined times could be brought to the Clinical Governance Operational Team, which was chaired by the clinical director and met every two weeks, or issues could be brought directly to the attention of the clinical director.

The Drugs and Therapeutics Committee was chaired by a consultant and had recently updated its terms of reference. The terms of reference outlined the Committee's scope of responsibility, mission, objectives, function, membership including roles and responsibilities, meeting structures, reporting structures,



delegated powers and assessment of performance and impact. The terms of reference also had appendices which included:

- a declaration of interest form
- an annual assessment performance and impact form
- core function key performance indicators to be reported to the Quality and Safety Executive Committee twice per year.

The functions of the Drugs and Therapeutics Committee also included oversight of antimicrobial stewardship and nurse prescribing and the committee had two sub-committees; Medication Reconciliation and In-patient Prescription Review Group.

However, some of the objectives and functions of the committee outlined in the recently updated terms of reference were only at the initial stage of development. The Drugs and Therapeutics Committee needs to ensure full implementation of its objectives and functions, supported by hospital management and clinical leaders.

Membership of the Drugs and Therapeutics Committee was multidisciplinary to reflect the fact that medicines management is the responsibility of a number of clinical professional groupings.<sup>6</sup> Membership outlined included clinicians, pharmacists, nurses, hospital management, finance representative and the Quality and Risk Department. Attendance at the Drugs and Therapeutics Committee was good from some disciplines, but not all representatives identified by the hospital were attending the Drugs and Therapeutics Committee meetings. A representative from the community was recently identified and invited to join the committee. However, nominees from the following areas, as outlined in the terms of reference, were still outstanding; Women and Children's, Peri-operative, Medical and Emergency Medical Governance Groups.

The Chair of the Drugs and Therapeutics Committee informed inspectors that issues relevant to speciality disciplines would be discussed with the speciality lead outside of formal Drugs and Therapeutics Committee meetings for example, a medicines related issue had arisen within the speciality of gynaecology and had been discussed with the lead clinician for this area. HIQA would have concerns that this could potentially undermine the authority of the committee and does not assure the level of multidisciplinary oversight required. The hospital should review this practice following this inspection.

The hospital had a Medication Safety Programme Plan for 2017 to 2019 which was overseen by the Drugs and Therapeutics Committee and inspectors found evidence of good progress with implementation of elements of the plan. For example, five actions related to medicine information available to guide staff were implemented including the introduction of:

- intravenous medication administration for adult guidelines
- guidelines for the empiric use of antimicrobial in adults
- pharmacy information folders
- an anaphylaxis guide
- a quick reference guide for preparation and administration of second line infusion in paediatric resuscitation.

## **Formulary**

The hospital had a list of medicines stocked in the hospital but did not have an evidence-based formulary.\* The purpose of maintaining a formulary is to ensure that appropriate governance exists with the Drugs and Therapeutics Committee around what medicines are approved for use within the hospital and that in doing so, a proper safety evaluation occurs before medications are introduced into practice at the hospital.<sup>7</sup>

The development and implementation of a formulary system was an objective of the Drugs and Therapeutics Committee. However, it was noted in the terms of reference that the hospital did not currently have the resources to implement a medicines formulary.

The hospital had recently developed a new medicine request form to be completed by the requesting consultant and reviewed by the Drugs and Therapeutics Committee, before a new medicine was approved for use in the hospital. The decision to approve a new medicine was based on the following criteria:

- indication
- number of patients requiring the medication
- cost
- treatments the new medicines will replace
- benefits, citing evidence of efficacy and safety.

Inspectors were informed that the new medicine request form had been used by the Drugs and Therapeutics Committee to review new medicines. To build on this work, the hospital should move towards the development of a defined formulary system, to outline medicines that are approved for use in the hospital and provide information and guidance on the use of these medicines.<sup>8</sup> This work could be

---

\* Formulary: a managed list of preferred medicines that have been approved by the hospital's Drugs and Therapeutics Committee for use at the hospital. Use of a formulary ensures governance and oversight of the introduction and ongoing use of medicines in practice at the hospital, and in doing so ensures an appropriate level of management control over medicines use, in the interest of both patient safety and financial management.

supported through collaboration with other hospitals within the Ireland East Hospital Group who are more advanced in formulary development.

## **Risk Management**

There was a lack of a comprehensive clinical pharmacy service<sup>†</sup> in the hospital, and considering the size and complexity of the services provided by the hospital this constituted a risk to patient safety. The hospital had identified the lack of clinical pharmacy services as a high risk which was included in the hospital's risk register and had been escalated to the Ireland East Hospital Group. Following the submission of a business case, the hospital had received approval for an additional four basic grade pharmacist's posts which were currently awaiting advertisement. Nonetheless, while actively progressing the recruitment process for these additional posts, the hospital should work to assure itself that the current pharmacy service is utilised most appropriately to mitigate risk and promote patient safety.

Incidents<sup>‡</sup> that occurred in the hospital were reported to the State Claims Agency using the National Incident Management System<sup>§</sup> (NIMS)<sup>9</sup> and the hospital had recently introduced the national incident report forms for incident reporting. Inspectors found that reporting of medication incidents and near misses was low given the size and services delivered at the hospital, and medication incident reporting had been significantly low for the last six months as shown in figure 1.

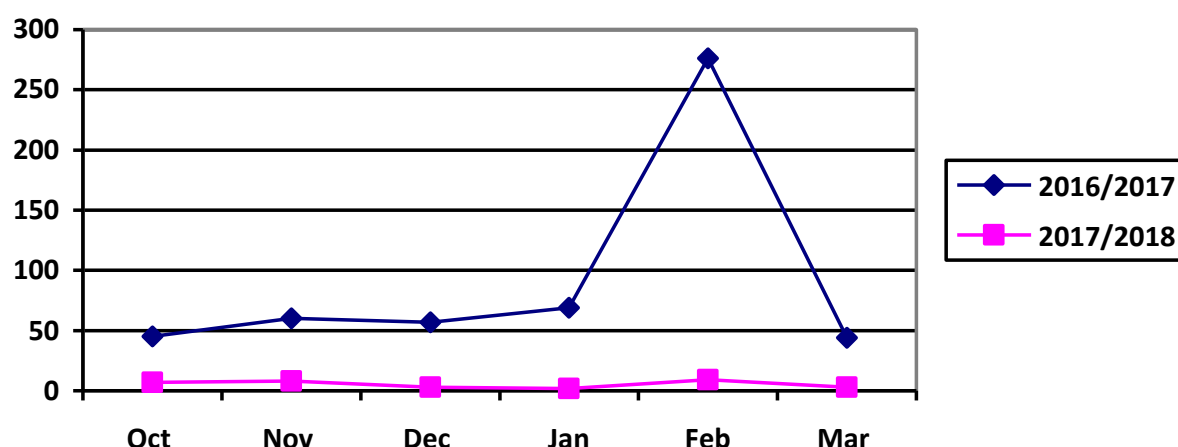
A total of 604 medication incidents were reported in 2017 but only 32 medication incidents were reported in the six month period between October 2017 and March 2018. The marked increase in medication incidents reported in February 2017 was attributed to two agency pharmacists reporting medication incidents found while undertaking medication reconciliation on the hospital's wards.

---

<sup>† †</sup> Clinical pharmacy service describes the activity of pharmacy teams in wards and clinic setting.

<sup>‡</sup> An incident is an unplanned, unexpected or uncontrolled occurrence which causes (or has the potential to cause) injury, ill-health, and /or damage. An incident can be a harmful incident (adverse event) , a no harm incident, a near miss, dangerous occurrence or complaint.

<sup>§</sup> 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).



**Figure 1: Comparison of medication incidents reported between October 2016-March 2017 and October 2017-March 2018.**

A low number of medication related incidents does not necessarily mean a low number of incidents occurring, and 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 safety culture within the hospital.<sup>10</sup> Hospital Management acknowledged the low reporting rates and informed inspectors that the low levels of medication incidents reported had also been noted by the Ireland East Hospital Group at the monthly performance meetings. The majority of medication incidents were reported by pharmacy staff (80%) with some from nursing (18%) in a 2016/2017 report viewed by inspectors.

Important lessons can be learned from analysis and trending of medication-related incidents and near misses. Data from medication incidents should be routinely analysed to identify trends or patterns in relation to risk and identify areas that need targeted improvement<sup>8</sup> with recommendations implemented and monitored.<sup>11</sup>

The quality and risk department were tracking medication incidents based on numbers, time frame, harm or no harm. Incidents were also tracked in relation to high-risk medications and incidents were graded within the NIMS system. Summary incident reports were presented at the Drugs and Therapeutics Committee and inspectors were informed that medication incident reports were also submitted to the Governance Group meetings<sup>\*\*</sup>, to the Quality and Safety Executive Committee and at the monthly Hospital Group's Performance Meetings. The summary medication incidents report for 2017 was circulated to wards and disseminated through nurse management meetings.

<sup>\*\*</sup> The hospital had governance groups in specialities such as; Women's and children, medical and emergency medical and peri-operative.

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.<sup>11</sup> The hospital used additional information sources to identify strengths and weaknesses in the hospital medication management system including, direct observation, pharmacy vigilance, risk registers, nursing metrics and key performance indicators. Issues which were considered to potentially compromise medication safety were included in the hospital's risk register, for example, the lack of clinical pharmacy services within the hospital.

The hospital had identified some incidents related safety concerns and had put measures in place to address these risks, for example, an intravenous iron preparation had been removed from the maternity unit and no longer prescribed to pregnant women. The hospital had also recently commenced the circulation of 'Medication Safety Alerts' which clearly highlighted, using pictures, an incident/near miss which occurred and the simple actions staff needed to take to reduce the risk of a reoccurrence.

Overall inspectors found that given the low number of medication incidents reported, key medication related risks could not be fully understood. As a consequence emerging trends could not be identified or reliably prioritised for mitigation.

Senior clinicians and hospital management need to provide leadership to improve the reporting of medication incidents from all clinical disciplines, in particular from medical and nursing staff, so that safety surveillance is improved, learning is shared, and patient safety is promoted and enhanced across the organisation.

## **2.2 Audit and evaluation**

### **Line of enquiry:**

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

Hospitals should have arrangements in place to ensure the effectiveness of healthcare is systematically monitored and continuously improved. The information gathered should be used to improve services, and the learning gained should be shared throughout the hospital.<sup>4</sup>

Medication safety audits were neither planned nor included in the medication safety programme for 2017 to 2019. The quality and risk department maintained a record of audits when staff undertaking an audit completed an audit form. However, inspectors found there was no formal system in place to ensure that audits were

completed or recommendations implemented, and no completed audit reports were available for inspectors to view on the day of inspection.

Dissemination of audit results is essential so that the clinical workforce is informed of the areas that need improvement, and also to motivate them to change practice and participate in improvement activities.<sup>12, 13</sup> The hospital needs to put a system in place to ensure that audits are planned based on local priorities. This should be coordinated to ensure recommendations are implemented and the required improvements achieved, driven by and with oversight from hospital management.<sup>13</sup>

The hospital had defined medication safety key performance indicators with two additional metrics identified for collection in 2018. The current key performance indicators were:

- the number of medication safety incidents reported
- the level of harm from medication safety incidents
- nursing metrics
- medication reconciliation at discharge lounge
- antimicrobial consumption report.

Nursing and midwifery quality care metrics<sup>††14</sup> were monitored every month in acute medical, surgical, midwifery and paediatric services to review practice around prescribing, storage and administration of medicines. Metric results viewed by inspectors for the month of February 2018 showed full compliance in the majority of areas measured except for recording of allergy status and some prescribing metrics such as; capital letters,<sup>††</sup> frequency, minimum dose interval, legible signatures and discontinued drugs.

In response to the low compliance in these areas a patient safety memorandum was circulated to prescribers by the clinical director, on behalf of the Quality and Safety Executive and the Drugs and Therapeutics Committees, as a reminder of the hospital's policy on prescribing medication, documenting and checking allergy status, handwriting and generic prescribing.

### **2.3 Medication safety support structures and initiatives**

#### **Line of enquiry:**

- Hospitals develop effective processes to promote medication safety that are

---

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

†† The prescription is written in capital letter. The frequency of administration is recorded and correct timings indicated. The minimum dose interval and/or 24 hour maximum dose is specified for all "as required" or PRN drugs. The prescription has a legible prescriber's signature (in ink). Discontinued drugs are crossed off, dated and signed by prescriber

implemented and supported by clear and up-to-date policies, procedures and or protocols.

There are currently no agreed national standards outlining requirements for the provision of clinical pharmacy service<sup>§§</sup> in hospitals. International studies support the role of clinical pharmacists in hospital wards in preventing adverse drug events.<sup>15,16,17,18,19,20</sup> The hospital's clinical pharmacy service was limited to an Oncology Pharmacist and a SARI<sup>\*\*\*</sup> Antimicrobial Pharmacist. The antimicrobial pharmacist also provided a formal clinical pharmacy service to the intensive care unit and in addition undertook a limited review of patient's prescribed medications in other wards. The hospital had no other clinical pharmacy service currently available for the in-patient population which constituted a risk to patient safety. This risk had been identified by the hospital and escalated to hospital group level. In response, sanction to recruit an additional four clinical pharmacists had been provided, and the hospital were in the process of initiating the recruitment process.

Medication reconciliation is a systematic process conducted by an appropriately trained individual, to obtain an accurate and complete list of all medications that a patient is taking on admission, discharge and other transitions in care.<sup>13,21,22,23</sup> Currently no medication reconciliation was undertaken for new patients on admission. However, inspectors were informed that nurses in the discharge lounge were reviewing patient's discharge prescriptions to ensure they were accurate and also reflected the relevant pre-admission medications, double checking with community pharmacist as required. Any discrepancies were communicated to the prescribing doctors for review, and amendments made as appropriate, thus resulting in an accurate list of medications for the 30-35% of the hospital's patients discharged through the discharge lounge.

The hospital had recently set up a Medication Reconciliation Committee as a sub-committee to the Drugs and Therapeutics Committee to guide the development and implementation of medication reconciliation in Wexford General Hospital. This represents a potentially very positive development, which has the potential to lower medication errors throughout the patients' hospital stay and subsequently across transition to community care or other care facilities.<sup>24, 25, 26</sup>

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

- the adaptation and implementation of intravenous medication administration for adult guidelines

---

<sup>§§</sup> Clinical pharmacy describes the activity of pharmacy teams in ward and clinic settings.

<sup>\*\*\*</sup> SARI: Strategy for the control of antimicrobial resistance in Ireland

- the implementation of the Ireland East Hospital Group's direct oral anticoagulant therapy record
- implementation of prefilled saline syringes
- the development of a draft medication prescription and administration record incorporating updated communication, oxygen, venous thromboembolism<sup>†††</sup> prophylaxis<sup>†††</sup> risk assessment tool, warfarin and antimicrobial sections
- the updating of the discharge prescription to include changes made to medication during hospital admission
- the implementation of a quick reference guide for the preparation and administration of second line emergency drug infusions in paediatric patients.

### High Risk Medicines

High-risk medicines are those that have a high risk of causing injury or harm if they are misused or used in error. The hospital had recently developed a high-risk medicines list represented by the acronym A PINCH<sup>§§§</sup> which grouped medications into categories to facilitate education and to raise awareness of high-risk medicines.<sup>27</sup> The hospital had some low, medium and high-risk reduction strategies (see Appendix 2) in place for high-risk medications as outlined in their A PINCH poster, for example:

- ready mixed potassium infusion bags and restricted access to concentrated potassium
- individual dispensing process for methotrexate with only one strength oral dose maintained in stock
- information displayed in clinical areas highlighting common avoidable errors with DOACs.<sup>\*\*\*\*</sup>

One of the wards visited by inspectors was in the planning phase of introducing the red aprons initiative.<sup>††††</sup> The ward had first undertaken baseline audits of the number and reason for interruptions occurring during medication administration

---

<sup>†††</sup> Venous thromboembolism (VTE): a blood clot consisting of deep veins thrombus (DVT) and pulmonary embolism (PE). Blood clots (thrombus) can form within deep veins (DVT) and these clots can fragment and travel to lungs leading to Pulmonary Embolism (PE).

<sup>†††</sup> Thromboprophylaxis: any preventive measure or medication that reduces the likelihood of the formation of blood clots.

<sup>§§§</sup> **A**nti-infectives, **P**otassium, **I**nsulin's, **N**arcotics, **C**hemotherapy, **H**eparin and other anticoagulants.

<sup>\*\*\*\*</sup> Direct oral anticoagulants: are medications used to treat or prevent blood clots. However, there is a potential for bleeding with their use or clotting leading to stroke with missed doses.

<sup>††††</sup> Red 'do not disturb' aprons: were worn by nurses to reduce interruptions during medicines administration as interruptions during medication administration rounds can contribute to medications errors.



before introducing the initiative using plan-do-study-act<sup>\*\*\*\*</sup> quality improvement cycles.

Wexford General Hospital had recently joined the Ireland East Hospital Group's Venous Thromboembolism (VTE) Sub-group. This group aimed to improve the rates of appropriate thromboprophylaxis for medical and surgical patients in Wexford General Hospital within 24 hours of admission in conjunction with the National VTE Collaborative. The initiative involved a number of interventions, for example, the addition of a VTE prophylaxis risk assessment tool to the hospital's medication prescribing and administration record.

The National Venous Thromboembolism (VTE) Collaborative involves multidisciplinary teams in Irish adult acute public and voluntary hospitals working together to achieve appropriate thromboprophylaxis<sup>§§§§</sup> for their hospital's inpatients, to reduce the risk of venous thromboembolism<sup>\*\*\*\*\*</sup> 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.<sup>28, 29</sup>

Inspectors were informed that clinical nurse specialists in diabetes, respiratory, stroke and heart failure provided education to patients on their medications. Clinical staff reported that doctors and nurses also provided some advice to patient on prescribed medications.

Staff informed inspectors that nurses in the discharge lounge provided education to the 30-35% of patients discharged through the discharge lounge, to ensure that patients understood their medications on discharge.

---

<sup>\*\*\*\*</sup>Plan-do-study-act: Conducting a small scale test of change by planning a change, trying it, observing the results and acting on what is learned.

<sup>§§§§</sup> Thromboprophylaxis: any preventive measure or medication that reduces the likelihood of the formation of blood clots.

<sup>\*\*\*\*\*</sup> Venous thromboembolism (VTE): a blood clot consisting of deep veins thrombus (DVT) and pulmonary embolism (PE). Blood clots (thrombus) can form within deep veins (DVT) and these clots can fragment and travel to lungs leading to Pulmonary Embolism (PE).

Pharmacists provided cardiac rehabilitation and heart failure education sessions to patients during the cardiac rehabilitation programme. They also provided counselling to patients on newly prescribed tuberculosis medication and provided limited counselling on medicines to other patients when requested by nurses or doctors. Patient information leaflets on DOAC's were available at the point of care.

The Wexford General Hospital National Patient Experience Survey<sup>++++</sup> was completed by 52% of the 649 people discharged from the hospital in May 2017.<sup>30</sup> Two questions related directly to medications and these were answered by 42% of respondents:

- **Question 45:** Did a member of staff explain the purpose of the medications you were to take at home in a way you could understand
- **Question 46:** Did a member of staff tell you about medication side effects to watch for when you went home.

The response for Question 45 received an overall score<sup>++++</sup> of 7.9 marginally above the national average score of 7.8. Question 46 received an overall score of 4.9 lower than the national average score of 5.1<sup>30</sup> (Figure 2).

	<b>Wexford General Hospital score</b>	<b>National score</b>
Question 45: Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand?	7.9	7.8
Question 46: Did a member of staff tell you about medication side effects to watch for when you went home?	4.9	5.1

**Figure 2: Wexford General Hospital results for Question 45 and 46 of the National Patient Experience Survey.**

<sup>++++</sup> The National Patient Experience Survey: was a nationwide survey which asked people for feedback about their stay in hospital. The survey was a partnership between the Health Service Executive (HSE), HIQA and the Department of Health. All adult patients discharged during May 2017 who spent 24 hours or more in a public acute hospital, and have a postal address in the Republic of Ireland were asked to complete the survey.

<sup>++++</sup> Score out of 10 was given for each question belonging to a stage of care or a stage as whole. A score of 0 indicates a very negative experience and a score of 10 indicates a very positive experience.

In response to the National Patient Experience Survey the hospital had developed quality improvement plans to address the areas needing improvement, including a plan to update the discharge prescription to include a section which outlined changes to a patient medications since admission.<sup>30</sup> The updated discharge prescription was implemented by the hospital and viewed by inspectors during the inspection.

## **2.5 Policies procedures and guidelines and access to information**

### **Lines of enquiry:**

- Hospitals develop effective processes for medication management that are implemented and supported by clear and up to date policies, procedures and/or protocols.
- Essential information supporting the safe use of medicines is readily available in a user friendly format and is adhered to when prescribing, dispensing and administering medications.

The hospital had a number of medication management policies, procedures, guidelines and protocols underpinning medication safety within the hospital. Inspectors were informed that these policies, procedures, guidelines and protocols were reviewed and approved by the Drugs and Therapeutics Committee prior to submission to the Policies, Procedures, Protocols and Guidelines Committee for final approval.

Policies, procedures, protocols and guidelines were available for staff to access via the 'Wexford Published Practice' shared folder on the hospital's computer system. This folder was managed centrally by the Quality and Risk Department.

The hospital had medicines information resources available to assist staff when prescribing or administering medicines for example:

- guidelines for the empiric use of antimicrobials in adults, which was also available as a smart phone application
- Wexford General Hospital paediatric antimicrobials flash card
- direct oral anticoagulant therapy record
- intravenous medication administration for adult guidelines
- British National Formulary for children and British National Formulary for adults
- quick reference guide for preparation and administration of second line infusion in paediatrics resuscitation.

The hospital had recently implemented a suite of locally adapted intravenous medications monographs<sup>§§§§§</sup> called *Intravenous Medication Administration for Adult Guidelines* to assist staff in the safe administration of intravenous medicines. This reference source was available at the point of medicines preparation to standardise and support best practice.

Inspectors were informed that medicines information was disseminated to staff via emails, patient safety memorandums and medication safety alerts. Examples of these were viewed by inspectors, such as, a medication safety alert was circulated in relation to DOAC's, highlighting with pictures the four DOAC's in use in the hospital and common errors related to duplication, dosing and missed doses.

The hospital had a system in place for managing safety alerts and product recall and this process was underpinned by a supporting standard operational procedure. Examples of information related to alerts circulated to staff were also reviewed by inspectors.

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 the clinical areas visited by inspectors.

## 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.<sup>31</sup> The hospital should ensure that professionals have the necessary competencies to deliver high-quality medication safety through induction and ongoing training. This should be a structured, targeted programme of education for medication safety aligned with the hospital's medication safety programme.<sup>8</sup>

---

<sup>§§§§§</sup>Intravenous medication monographs: an approved set of standardised and approved instructions for the correct preparation and administration of intravenous medication, that have been designed to reduce the risk of error, and that are specifically tailored to the intravenous medicines stocked within the hospital.

Inspectors were informed that non consultant hospital doctors<sup>\*\*\*\*\*</sup> only received a 15 minute introduction to pharmacy services during induction. Doctors also attended some education sessions provided by pharmacy on topics such as safe prescribing and medication reconciliation. Furthermore, inspectors were informed that education sessions had been provided by the antimicrobial pharmacist at grand rounds and surgical doctor's education sessions.

Nursing staff attended intravenous drug administration training and medication management sessions during induction, which included completion of the Health Service Executive medication management and anaphylaxis online training programme.<sup>32</sup> However, inspectors were informed that 66% of nurses who commenced employment in Wexford General Hospital in the past 12 months received medication education, an additional 14% of new nurses who provided certificate of evidence of having received training prior to commencing employment in Wexford General Hospital were not required to attend this education.

The pharmacy department had introduced a pharmacy folder on each ward to allow rapid access to relevant medicines related information. Inspectors were also informed that wards held daily safety pauses<sup>+++++33</sup> where any recent safety risk, trends or near misses were discussed.

---

<sup>\*\*\*\*\*</sup> 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.

<sup>+++++</sup> Safety pause is a quality initiative which put structure around actual or potential patient safety risks using 4P's: patients, professionals, processes and patterns.

### **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.

Wexford General Hospital had formalised governance arrangements and a long standing Drugs and Therapeutics Committee to oversee medication management at the hospital. The hospital had developed a medication safety programme for 2017 to 2019, and inspectors found evidence of progress with implementation of elements of the programme with oversight through the Drugs and Therapeutics Committee and supported by the pharmacy department.

Considering the size and complexity of the services provided by the hospital, the lack of a comprehensive clinical pharmacy service constituted a risk to patient safety. This risk had been highlighted by the hospital and escalated externally to the Ireland East Hospital Group, with subsequent approval for four additional pharmacists' posts being provided. Nonetheless, while actively progressing the recruitment process for these additional posts, the hospital must assure itself that the current pharmacy service is utilised most appropriately to mitigate the risk and promote patient safety.

The hospital had recently introduced a new medicines request form to be completed and reviewed before a new medicine was approved for use within the hospital. The hospital should build on this work and move toward the development of a defined formulary process to outline medicines that are approved for use in the hospital and provide information and guidance on the use of these medicines.<sup>8</sup> This work could be supported through collaboration with other hospitals within the Ireland East Hospital Group.

Inspectors found that staff and management supported a culture of open disclosure and this was promoted by staff training. However, there was a low level of medication incident reporting which was significantly low in the past six months. In addition, examples of audits undertaken by hospital staff which supported medication safety were not available for inspectors to review and inspectors found that medication safety audits were neither strategically planned nor centrally coordinated.

The hospital should ensure that the systems in place to support medication safety are monitored and evaluated so that this information can inform improvement activity. Hospital management and clinical leaders should support a culture of patient safety and incident reporting among all clinical staff, so that safety surveillance is improved, learning is shared, and the safety culture is enhanced across the organisation.

The hospital's Drugs and Therapeutic Committee had identified areas for improvement in the medication management system but engagement and support from senior hospital management and clinicians is essential to drive this change and provide assurance that medication safety is prioritised.

It is recommended that, following this inspection, this report is shared with senior managers, clinicians and other relevant staff at Wexford General 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

---

- 1 Rafter N, Hickey A, Conroy R, Condell S, O'Connor P, Vaughan D, et al. The Irish National Adverse Events Study (INAES): the frequency and nature of adverse events in Irish hospitals—a retrospective record review study. *British Medical Journal of Quality and Safety*. 2016; 26: pp111-119. Available on line from: <http://qualitysafety.bmj.com/content/26/2/111.full.pdf+html>
- 2 Kohn LT, Corrigan JM, Donaldson MS. *To Err is Human: Building a Safer Health System*. Washington: Institute of Medicine; 1999. Available online from: <https://www.nap.edu/download/9728#>
- 3 World Health Organization. *Medication Without Harm: WHO's Third Global Patient Safety Challenge*; 2017. Available online from: <http://www.who.int/patientsafety/medication-safety/en/>
- 4 Health Information and Quality Authority. *National Standards for Safer Better Healthcare*. Dublin: Health Information and Quality Authority; 2012. Available online from: <https://www.hiqa.ie/reports-and-publications/standards/national-standards-safer-better-healthcare>
- 5 Health Information and Quality Authority. *Guide to the Health Information and Quality Authority's Medication Safety Monitoring Programme in Public Acute Hospitals*. Dublin: Health Information and Quality Authority; 2016. Available online from: <https://www.hiqa.ie/reports-and-publications/guide/guide-medicationsafety-monitoring-acute-hospitals>
- 6 Council of Australian Therapeutic Advisory Groups. *Achieving effective medicines governance. Guiding Principles for the roles and responsibilities of Drugs and Therapeutics Committees in Australian public hospitals*. November 2013. Available online from: <http://www.catag.org.au/wp-content/uploads/2012/08/OKA9964-CATAG-Achieving-Effective-Medicines-Governance-final1.pdf>
- 7 National Clinical Institute for Health and Care excellence. *Developing and updating local formularies. 2014*. Available online from: <https://www.nice.org.uk/guidance/mpg1>
- 8 Health Information and Quality Authority. *Medication safety monitoring programme in public acute hospitals-An overview of findings*. Dublin: Health Information and Quality Authority; 2018. Available online from: <https://www.hiqa.ie/reports-and-publications/key-reports-and-investigations/medication-safety-monitoring-programme>



- 9 State Claims Agency. National Clinical Incidents, Claims and Costs Report 2010-2014. [Online] Available from: <http://stateclaims.ie/2017/05/national-clinical-incident-claims-and-costs-report-lessons-learned-a-five-year-review-2010-2014/>
- 10 Abstoss KM, Shaw BE, Owens TA, Juno JL, Commiskey EL, Niedner MF. Increasing medication error reporting rates while reducing harm through simultaneous cultural and system-level interventions in an intensive care unit. *BMJ Quality and Safety* 2011;20:pp914-922. [Online] Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21690249>
- 11 World Health Organisation. Reporting and learning systems for medication errors: the role of Pharmacovigilance centres. Washington: World Health Organisation; 2014. Available online from: <http://apps.who.int/medicinedocs/documents/s21625en/s21625en.pdf>
- 12 Health Service Executive. A practical guide to clinical audit; 2013. Available online from: [http://www.hse.ie/eng/about/Who/qualityandpatientsafety/Clinical\\_Audit/clinicalauditfilespdfs/practicalguideclaudit2013.pdf](http://www.hse.ie/eng/about/Who/qualityandpatientsafety/Clinical_Audit/clinicalauditfilespdfs/practicalguideclaudit2013.pdf)
- 13 Australian Commission on Safety and Quality in Health Care. *Safety and Quality Improvement Guide Standard 4: Medication Safety*. Sydney: Australian Commission on Safety and Quality in Health Care; 2012. Available online from: [https://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard4\\_Oct\\_2012\\_WEB.pdf](https://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard4_Oct_2012_WEB.pdf)
- 14 Health Service Executive. (2015) Standard Operating Procedure for Nursing and Midwifery Quality Care-Metrics Data Collection in Acute Services. [Online] Available from: [http://www.hse.ie/eng/about/Who/ONMSD/NMPDU/NMPDUDSkilwicklow/Nursing\\_and\\_Midwifery\\_Quality\\_Care\\_Metrics.html](http://www.hse.ie/eng/about/Who/ONMSD/NMPDU/NMPDUDSkilwicklow/Nursing_and_Midwifery_Quality_Care_Metrics.html)
- 15 Kaushal R, Bates DW, Abramson EL, Soukup JR, Goldmann DA. Unit-based clinical pharmacists' prevention of serious medication errors in pediatric inpatients. *American Journal of Health-System Pharmacy*; 2008. 1: 65(13): pp1254-60.
- 16 De Rijdt T, Willems L, Simoens S. Economic effects of clinical pharmacy interventions: a literature review. *American Journal of Health System Pharmacy* ;2008. 15;65(12): pp1161-72
- 17 Rivkin A, Yin H. Evaluation of the role of the critical care pharmacist in identifying and avoiding or minimizing significant drug-drug interactions in medical intensive care patients. *Journal of Critical Care*: 2011. Feb;26(1):

- pp104. Available online from:  
<http://www.sciencedirect.com/science/article/pii/S0883944110001188>
- 18 Agency for Healthcare Research and Quality. *Making Health Care Safer II: An Updated Critical Analysis of the Evidence for Patient Safety Practices. Evidence Report/Technology Assessment No. 211* Chapter 4. *Clinical Pharmacist's Role in Preventing Adverse Drug Events: Brief Update Review*. . Maryland: Agency for Healthcare Research and Quality; 2013. pp31- 40. Available online from:  
<https://archive.ahrq.gov/research/findings/evidence-based-reports/ptsafetyII-full.pdf>
- 19 Leape LL, Cullen DJ, Clapp MD, et al. Pharmacist participation on physician rounds and adverse drug events in the intensive care unit. *JAMA*; 1999 July. 282(3): pp267–70. Available online from:  
<http://jamanetwork.com/journals/jama/fullarticle/190687>
- 20 Bond CA, Rael CL. Clinical pharmacy services, pharmacy staffing, and hospital mortality rates. *Pharmacotherapy*. April 2007; 27 (4): pp481-93
- 21 Health Information and Quality Authority. *Guidance for health and social care providers. Principles of good practice in medication reconciliation*. Dublin: Health Information and Quality Authority; 2014. Available online from:  
<https://www.hiqa.ie/reports-and-publications/guides/guidance-principles-good-practice-medication-reconciliation>
- 22 World Health Organization. *The High 5s Project. Standard Operating Protocol. Assuring Medication Accuracy at Transitions in Care*. Washington: World Health Organisation; 2014. Available online from  
<http://www.who.int/patientsafety/implementation/solutions/high5s/h5s-sop.pdf>
- 23 Galvin M, Jago-Byrne MC, Fitzsimons M, Grimes, T. Clinical pharmacist's contribution to medication reconciliation on admission to hospital in Ireland. *International Journal of Clinical Pharmacists*. February 2013; 35 (1): pp14–21
- 24 Institute for Healthcare Improvement (IHI). *How-to Guide: Prevent Adverse Drug Events by Implementing Medication Reconciliation*. Cambridge, MA. 2011. [Online] Available from:  
<http://www.ihl.org/resources/Pages/Tools/HowtoGuidePreventAdverseDrugEvents.aspx>
- 25 Greenwald JL, Halasyamani L, Greene J, LaCivita C, Stucky E, Benjamin B, Reid W, Griffin FA, Vaida AJ, Williams MV. Making inpatient Medication Reconciliation Patient Centered, Clinically relevant and Implementable: A Consensus

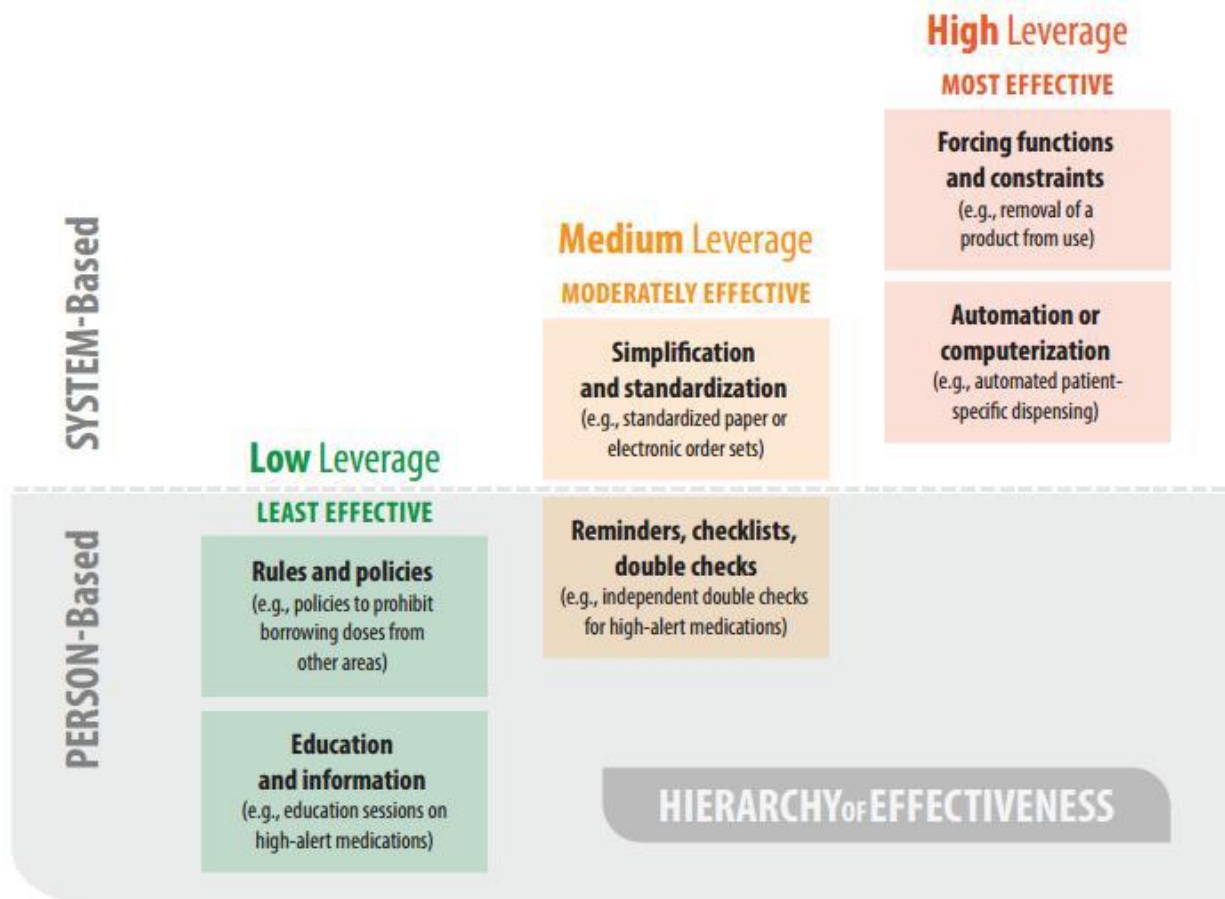
- Statement on Key Principles and Necessary First Steps. *Journal of Hospital Medicine*. 2010; (15): pp477-485.
- 26 Mekonnen AB, MacLachlan AJ, Brien JE. Effectiveness of pharmacist-led medication reconciliation programmes on clinical outcomes at hospital transitions: a systematic review and meta-analysis. *British Medical Journal* 2016; Vol 6, issue 2, pp 1-21.
- 27 The Clinical Excellence Commission. Medication Safety and Quality. High Risk Medications. Available online from: <http://www.cec.health.nsw.gov.au/patient-safety-programs/medication-safety/high-risk-medicines/A-PINCH>
- 28 Health Service Executive, Quality and Patient Safety Division. Integrated Care Guidance: A practical guide to discharge and transfer from hospital. Health Service Executive. January 2014. Available online from: <http://www.hse.ie/eng/about/Who/qualityandpatientsafety/safepatientcare/integratedcareguidance/IntegratedCareGuidancetodischargefulldoc.pdf>
- 29 National Institute for Health and Care Excellence (NICE). *Clinical Guideline 76. Medicines adherence: Involving patients in decisions about prescribed medicines and supporting adherence*. National Institute for Health and Clinical Excellence; 2009. Available at <http://guidance.nice.org.uk/CG76>
- 30 National Patient Experience Survey. Wexford General Hospital;2017. Available online from: <https://www.patientexperience.ie/hospitals/>
- 31 Institute of Safe Medication Practices (ISMP) Staff competency, education. Institute of Safe Medication Practices; 2009. Available online from: [http://pharmacytoday.org/article/S1042-0991\(15\)31825-9/pdf](http://pharmacytoday.org/article/S1042-0991(15)31825-9/pdf)
- 32 Health Service Executive. HSELandD. Available online from: <http://www.hseland.ie/tohm/default.asp?message=logout>
- 33 Quality and Patient Safety Directorate. The safety pause information sheet. Health Service Executive ;2013. Available on line from: <https://www.hse.ie/eng/about/who/qid/governancequality/resourcespublications/safety-pause.pdf>

## 5. Appendices

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

Area to be explored	Line of enquiry <sup>1</sup>	National Standards for Safer Better Healthcare
Clear lines of accountability and responsibility for medication safety	Patient safety is enhanced through an effective medication safety programme underpinned by formalised governance structures and clear accountability arrangements.	3.1, 5.1, 5.2, 5.4, 5.5, 5.6, 5.8, 5.9, 5.10, 7.1
Patient involvement in service delivery	Patients and or carers are informed about the benefits and associated risks of prescribed medicines in a way that is accessible and understandable.	1.4, 1.5, 1.7, 3.1, 4.1
Policies procedures and guidelines	Hospitals develop effective processes to promote medication safety that are implemented and supported by clear and up-to-date policies, procedures and or protocols.	2.1, 3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.11, 8.1
Risk management	There are arrangements in place to identify, report and manage risk related to medication safety throughout the hospital.	3.1, 3.2, 3.3, 3.5, 3.6, 3.7, 5.8, 5.10, 5.11, 8.1
Audit and evaluation	The effectiveness of medication management systems are systematically monitored and evaluated to ensure they are effective.	2.8, 3.1, 5.8, 8.1
Education and training	Safe prescribing and drug administration practices are supported by mandatory and practical training on medication management for relevant staff.	6.2, 6.3
Access to information	Essential information of the safe use of medications is readily available in a user-friendly format and is adhered to when prescribing, dispensing and administering medications.	2.5, 8.1

## Appendix 2: Hierarchy of Effectiveness of Risk Reduction Strategies in Medication Safety



Reprinted with permission from ISMP Canada.



**For further information please contact:**

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

**Phone: +353 (0) 1 814 7400  
Email: [qualityandsafety@hiqa.ie](mailto:qualityandsafety@hiqa.ie)  
URL: [www.hiqa.ie](http://www.hiqa.ie)**

**© Health Information and Quality Authority 2018**