



**Health  
Information  
and Quality  
Authority**

An tÚdarás Um Fhaisnéis  
agus Cáilíocht Sláinte

# **Report of the unannounced inspection at St James's Hospital, Dublin.**

Monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services

Date of on-site inspection: 21 March 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 engaging with the Minister for Children and Youth Affairs, HIQA has statutory responsibility for:

- **Setting Standards for Health and Social Services**— Developing person-centred standards, based on evidence and best international practice, for health and social care services in Ireland.
- **Regulation** — Registering and inspecting designated centres.
- **Monitoring Children's Services** — Monitoring and inspecting children's social services.
- **Monitoring Healthcare Safety and Quality** — Monitoring the safety and quality of health services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** — Providing advice that enables the best outcome for people who use our health service and the best use of resources by evaluating the clinical effectiveness and cost-effectiveness of drugs, equipment, diagnostic techniques and health promotion and protection activities.
- **Health Information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.



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## 1.0 Introduction

HIQA monitors the implementation of the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*<sup>1</sup> in public acute hospitals in Ireland to determine if hospitals have effective arrangements in place to protect patients from acquiring healthcare-associated infection. The *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* will be referred to as the National Standards in this report.<sup>1</sup>

The National Standards were updated in 2017 and therefore supersede the previous version. Hospitals should work towards implementing these revised National Standards.

In 2017, HIQA commenced a revised monitoring programme against the National Standards. The aim of this revised monitoring programme is to assess aspects of the governance, management and implementation of designated programmes to prevent and control healthcare-associated infections in hospitals.

### Phase One

All public acute hospitals were requested to complete and return a self-assessment tool to HIQA during April and May 2017.

### Phase Two

Using the revised assessment methodology HIQA commenced a programme of unannounced inspections against the National Standards in public acute hospitals in May 2017. The lines of enquiry which are aligned to the National Standards are included in this report in Appendix 1.

Further information can be found in the *Guide to the monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections*<sup>2</sup> which was published in May 2017 and is available on HIQA's website: [www.hiqa.ie](http://www.hiqa.ie)

In October 2017, the Minister for Health activated a Public Health Emergency Plan<sup>\*</sup> and convened a National Public Health Emergency Team as a public health response

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<sup>\*</sup> A National Public Health Emergency Plan was activated on 25 October 2017 by the Minister for Health in response to the increase and spread of Carbapenemase Producing *Enterobacteriaceae* (CPE) in Ireland. As a result a National Public Health Emergency Team was convened and they have been meeting on a weekly basis since 02 November 2017. Please refer to the Department of Health webpage for further details: <http://health.gov.ie/national-patient-safety-office/patient-safety-surveillance/antimicrobial-resistance-amr-2/public-health-emergency-plan-to-tackle-cpe/nphet-press-releases-minutes-of-meetings/>

to the increase of Carbapenemase Producing *Enterobacteriales* (CPE)<sup>†</sup> in Ireland. In light of the on-going national public health emergency the focus of inspections in 2018 will be on systems to detect, prevent and respond to healthcare-associated infections and multidrug-resistant organisms in line with national guidelines.

### **Phase Three**

Phase Three of this monitoring programme will focus on the reprocessing of reusable medical devices and HIQA will commence onsite inspections in this regard in 2018.

### **Information about this inspection**

This inspection report was completed following an unannounced inspection carried out at St James's Hospital by Authorised Persons from HIQA; Kathryn Hanly, Noreen Flannelly Kinsella and Kay Sugrue. The inspection was carried out on 21 March 2018 between 10:00hrs and 16:30hrs.

During this inspection inspectors spoke with hospital managers and staff, and members of the Infection Prevention and Control Team. Inspectors requested and reviewed documentation and data and observed practice within the clinical environment in a small sample of clinical areas which included:

- Donal Hollywood Unit (Haematology/Oncology)
- Patrick Kavanagh Ward (Medicine for Elderly, Acute and Rehabilitation)
- St John's Ward (Surgical).

HIQA would like to acknowledge the cooperation of the hospital management team and all staff who facilitated and contributed to this unannounced inspection.

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<sup>†</sup> Carbapenemase Producing *Enterobacteriales* (CPE), are Gram-negative bacteria that have acquired resistance to nearly all of the antibiotics that would have historically worked against them. They are therefore much more difficult to treat.



## **2.0 Findings at St James's Hospital**

The following section of this report outlines the main findings of this inspection. The report is structured as follows:

- section 2.1 outlines the risk identified during this unannounced inspection
- section 2.2 to 2.5 present the general findings of this unannounced inspection which are aligned to monitoring lines of enquiry.

### **2.1 Risk identified during this unannounced inspection**

During an unannounced inspection by HIQA on 21 March 2018, a risk was identified at St James's Hospital in relation to non-compliance with national screening guidelines<sup>3</sup> in relation to CPE.

In light of the limited treatment options and substantial mortality associated with infections caused by CPE, prevention and control measures are of the utmost importance. Screening for CPE is considered an essential infection prevention and control strategy.

The inspection team noted that the hospital had identified this issue as an area of concern through their weekly monitoring programme of compliance against the majority of the screening recommendations in the CPE national screening guidelines. These audits identified a failure to fully implement screening of all patients who have been inpatients in any hospital in Ireland or elsewhere any time in the previous twelve months. The hospital also acknowledged that they had not yet implemented a structured screening programme for renal dialysis patients and cancer chemotherapy patients in line with the updated the CPE national screening guidelines. However, to monitor the burden of CPE carriage the hospital had implemented a programme of proactive weekly ward-based CPE screening. All patients in one selected ward were screened for CPE carriage each week.

It was reported at interview that the hospital did not currently have the necessary resources to fully and consistently implement all national screening guidelines.<sup>3,4,5</sup> A business case to address the resource requirements including the laboratory, infection prevention and control and antimicrobial stewardship requirements to manage the increasing prevalence of CPE and other multidrug-resistant organisms had been submitted to hospital management and the HSE. Hospital management explained to inspectors that requests for additional resources from the HSE at national level had not resulted in the provision of the required extra staff needed to ensure compliance with national guidelines at the time of this inspection.

Considering this in the context of the activation of the National Public Health Emergency Plan<sup>‡</sup> to address CPE in our health system, HIQA sought further assurance regarding arrangements that were in place to ensure compliance with the national guidelines<sup>§</sup> on screening<sup>§</sup> for CPE at St James's Hospital.

In response, the Chief Executive Officer (CEO) provided written assurance of arrangements that are currently in place and a comprehensive time bound assurance and action plan to ensure full compliance with the national policy on screening for CPE at the hospital. HIQA reviewed this and was assured that the hospital has demonstrated a commitment to compliance with the national guidelines on screening for CPE. Specifically these key actions included:

- implementation of the electronic patient healthcare record (EPR) scheduled for October 2018 to enable automated monitoring of the rate and timeliness of screening and inform process assurance and improvement
- review of admission processes in ward settings and the emergency department triage from an infection prevention and control screening perspective, to ensure that CPE and other infection prevention and control screening processes are efficient, effective and quality assured
- revision of the hospital's policy for Multi-Drug Resistant Organisms Prevention & Control Policy (which includes CPE) to reflect the national CPE screening guidance of February 2018
- implementation of patient cohort-specific screening programmes including:
  - Renal dialysis patients
  - Cancer chemotherapy patients
- enhancing processes and supports for emergency department contact tracking and isolation
- reviewing assurance and audit processes for infection prevention and control screening, including CPE
- utilising and aligning the hospital's learning management system and other Information and Communication Technology (ICT) approaches to provide assurance on educational programme uptake.

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<sup>‡</sup>A public health emergency is described as any serious or unexpected event, due to an infectious disease, which causes, or threatens to cause, death or serious illness to large sections of the population, an individual region or a specific cohort of individuals and which will have a major impact on the normal functioning of the health system and on society in general.

<sup>§</sup> Performing active surveillance cultures, active screening tests or contact screening of at-risk patients to detect colonisation with Carbapenemase Producing *Enterobacteriaceae*.

A copy of the letter issued to the CEO of St James's Hospital to seek further assurance regarding the risk identified and a copy of the response and associated assurance and action plan received from the CEO of St James's Hospital are shown in Appendices 2 and 3 respectively.

## **2.2 Governance and Risk Management**

Inspectors found that there were clear lines of accountability and responsibility in St James's Hospital in relation to governance and management arrangements for the prevention and control of healthcare-associated infection. Corporate responsibility for infection prevention and control lay with the CEO with devolved responsibility to the Chief Operations Officer (COO) and the Infection Prevention and Control (PCHCAI) Steering Committee.

An organisational diagram reviewed by inspectors showed that the infection prevention and control service was overseen by a multidisciplinary Infection Prevention and Control Team who formally reported into PCHCAI Steering Committee. The PCHCAI Steering Committee reported to the Hospital's Safety Committee which in turn reported directly to the Executive Management Group and Hospital Board.

The PCHCAI Steering Committee was responsible for the governance oversight of the infection prevention and control programme within the hospital. The committee was chaired by a consultant microbiologist who was the clinical lead for the infection prevention and control service. Membership of the PCHCAI Steering Committee included both corporate and clinical representation. The committee met every six to eight weeks and a review of the minutes of committee meetings confirmed that these meetings were well attended with a structured agenda and schedule.

It was apparent that St James's Hospital had actively endeavoured to address the issues previously identified in the unannounced HIQA inspection carried out on 06 May 2014. The hospital had worked effectively to review and improve the hospital's hygiene monitoring and assessment process and processes for reporting identified repair and refurbishment works. In addition, control measures to prevent healthcare-associated invasive aspergillosis during hospital construction and renovation works had been implemented prior to the construction of the National Children's Hospital in line with national guidelines.<sup>7</sup>

The PCHCAI Steering Committee approved the infection prevention and control annual plan and ratified hospital infection prevention and control policies, procedures and guidelines. Documentation reviewed by inspectors showed that the review cycle for St James's Hospital policies, procedures and guidelines was every three years. However, inspectors found that a number of infection prevention and control policies

including the outbreak management and restricted antimicrobial prescribing guideline were due for review at the time of inspection.

The Infection Prevention and Control Team advised on all aspects of infection prevention and control, performed surveillance of alert organisms and delivered education to all grades of staff. Inspectors were informed that the team met formally on a weekly basis and circulated infection prevention and control assurance reports for each Directorate on a quarterly basis.

Inspectors were informed that four out of five staff employed as infection prevention and control nurses had completed formal post-graduate training in this field.

The organisational diagram also indicated that the Hygiene Services Operational Group also reported to the PCHCAI Steering Committee. This group was chaired by the Director of Facilities Management with the Director of Nursing as vice chairperson. Membership included senior management and infection prevention and control team members. This group also provided a forum for the management, monitoring and review of the internal hygiene audit system.

The hospital had an antimicrobial stewardship programme in place which was coordinated by a multidisciplinary antimicrobial stewardship team. The Hospital's Antimicrobial Stewardship Committee was chaired by a consultant in infectious disease, a consultant microbiologist was the lead for the Hospital's Antimicrobial Stewardship Operational programme. Antimicrobial stewardship was a standing item on the PCHCAI Steering Committee meeting agenda.

### Risk management

The infection prevention and control service used multiple-outcome measures to support the evaluation of the effectiveness of infection prevention and control best practice including:

- surveillance data
- key performance indicator data
- audit findings
- outbreak control learning points
- patient safety incident reports.

Infection prevention and control risk related incidents were categorised and incidents were reviewed by the Infection Prevention and Control Team. There were 109 reported infection prevention and control incidents reported through the hospital's risk incident reporting mechanism in 2017. The majority of incidents reported were related to the demand for single isolation rooms exceeding availability.

Risks identified in clinical areas were addressed at clinical area level or were documented and escalated to directorate level or higher as required. St. James's

Hospital had in place a single risk register that included clinical and corporate risks. It was explained to HIQA that the new electronic quality management system had the capability to generate trend reports at local level and improve accountability for reviewing incidents.

The Infection Prevention and Control Team contributed to the risk register as part of LabMed Directorate. A total of 70 risks which had the potential to impact infection prevention and control had been added to the infection prevention and control risk register. Where corrective actions could not be addressed at clinical area level the risks were escalated through the appropriate governance structures and upwards to the hospital board as appropriate.

Inspectors were informed that significant risks identified in relation to infection prevention and control risks had been escalated to the corporate risk register for oversight. High level infection prevention and control risks included:

- Hospital acquired infection risks such as CPE, MRSA and *Clostridium difficile* infection; these were amalgamated into one overarching risk.
- Infrastructure, design and configuration including inadequate bed space sizing and inadequate single/isolation room facilities.

#### Infection prevention and control education

Infection prevention and control training was provided to staff at induction and periodically thereafter. An infection prevention and control E-learning module formed part of the corporate induction programme. However regular infection prevention and control refresher training was not mandatory for all staff.

The Infection Prevention and Control Team provided a broad range of educational sessions to personnel on St James's infection prevention and control programme, procedures and practices. These included both formal and informal lectures, ward and department based education sessions and hands-on training, and encompassed multiple specialties and grades of staff. Documentation reviewed by inspectors indicated that additional training and education was also provided in response to identified training needs during outbreaks of infection. In total, 1,754 staff attended infection prevention and control education in 2017. Topics included:

- Hand hygiene
- CRE
- Aspergillus
- Transmission based precautions
- Influenza
- Donning and doffing personal protective equipment.

## 2.3 Infection Surveillance

In compliance with the National Standards,<sup>1</sup> the infection prevention and control service had an extensive infection surveillance programme which included surveillance of:

- 'alert' organisms and 'alert' conditions<sup>\*\*</sup>
- multidrug-resistant organisms
- catheter-related blood-stream infection (CRBSI)<sup>††</sup> and Ventilator Assisted Pneumonia (VAP) in Critical Care areas
- surgical site infections
- bloodstream infections.

Arrangements were in place to measure and report on the service's overall performance in infection prevention and control, using a comprehensive set of performance indicators. In 2017 hospital management monitored and regularly reviewed performance indicators in relation to the prevention and control of healthcare-associated infection in line with HSE national reporting requirements<sup>8</sup> and the HSE's Business Information Unit<sup>9</sup>

The surveillance scientist produced comprehensive and detailed surveillance reports on a quarterly basis. Surveillance data was fed back locally to the Quality and Safety Improvement Directorate, Hospital Executive Management Group, the PCHCAI Steering Committee and to directorate management teams via quarterly infection prevention and control assurance reports for each directorate.

### *Staphylococcus aureus* blood stream infection

An increase in the incidence of Methicillin-sensitive *Staphylococcus aureus* blood stream infection was noted during Quarter 3 2017. This increase was investigated and attributed to the potential non-adherence to aseptic technique for the management of central and peripheral venous devices. Safety notices to raise awareness were circulated by Quality and Safety Improvement Directorate (QSID). Education was provided at ward level and at grand rounds<sup>‡‡</sup>.

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<sup>\*\*</sup> Alert conditions include physical symptoms such as skin rashes, vomiting, diarrhoea, respiratory illness that could be due to an infectious illness

<sup>††</sup> Catheter-related bloodstream infection (CRBSI) is defined as the presence of bacteraemia originating from an intravenous catheter.

<sup>‡‡</sup> Grand Rounds describes a formalised meeting system to facilitate the presentation and discussion of clinical cases to hospital consultants and their teams. These meetings focus on patient outcomes, promote collaboration between different medical specialities and act as a training tool and means to educate junior doctors.

### *Clostridium difficile*

Despite numerous interventions, the incidence of *Clostridium difficile* infection in St James's Hospital has fluctuated above both the national average and the desirable Health Service Executive (HSE) key performance indicator target rate since 2008.<sup>8</sup> Findings in regard to the management of will be *Clostridium difficile* infection presented in section 2.4 of this report.

### Surveillance surgical site infection

Surgical site infection surveillance represents good practice and demonstrates a commitment to monitoring the quality of patient care and is an important patient safety and quality assurance initiative.

The surveillance team included a surveillance nurse, a surveillance scientist and a consultant microbiologist in conjunction with clinical teams. During 2017, the surveillance nurse post had remained vacant however inspectors were informed that recent recruitment efforts had been successful. In the interim, surveillance continued through the support of the surveillance scientist, microbiologist and infection prevention and control nurses.

The hospital has developed targeted surgical site infection surveillance programmes for:

- cardiac surgery
- breast surgery
- thoracic surgery
- upper gastrointestinal surgery
- lower gastrointestinal surgery.

Inspectors were informed that infection rates were monitored and trended over time. Surgical site infections rates were used for benchmarking with international surgical site infections rates where available.

### Invasive Device Surveillance

National guidelines recommend healthcare-associated infection surveillance in relation to central venous access device related infection, urinary catheter-associated urinary tract infection and ventilator-associated pneumonia for high risk groups including patients admitted to intensive care.<sup>10,11,12</sup>

On-going surveillance of central venous access device blood-stream infections was carried out in the intensive care unit (ICU), the Keith Shaw ICU and high dependency unit (HDU) using standard Centre for Disease Control (CDC) case definitions. The annual rate displayed normal levels of variation over the seven years of surveillance. This surveillance programme allowed on-going evaluation of

initiatives, aimed at the reduction of catheter-related blood-stream infection incidence.

Ventilator Associated Pneumonia surveillance had also recently commenced in the Intensive Care Unit. However catheter-associated urinary tract related infection rates were not actively monitored.

### Invasive Device Care Plans and Care Bundles

A review of documentation showed that all essential evidenced-based care bundle components were included in care plans. Inspectors looked at documentation and spoke with staff relating to care plans for peripheral vascular catheters, urinary catheters and central venous access devices in the areas inspected. The management of invasive devices were audited on a quarterly basis as part of nursing metric audits. Compliance was variable and demonstrated that there was scope for improvement in the management and documentation of invasive device management.

St James's Hospital had established a programme of audit, feedback and quality improvement plans in relation to peripheral vascular catheter and urinary catheter infection prevention care plans at the hospital.

Ventilator-associated pneumonia care bundles had been implemented in the ICU. Documentation viewed demonstrated consistent good practice in recording VAP care bundle interventions.

### Antimicrobial Stewardship Key Performance Indicators

The identification and monitoring of antimicrobial stewardship key performance indicators was a component of the hospital's antimicrobial stewardship strategy and improvement plan. Key performance indicators measured during the antimicrobial stewardship rounds included;

- median total antibiotic consumption
- switch over from intravenous to oral therapy
- the appropriateness of antimicrobial choice
- rate of microbiological culture sampling
- documentation of indication
- uptake of antimicrobial stewardship team recommendations.

Documentation reviewed indicated that antimicrobial stewardship team rounds in some clinical areas had ceased for a three month period in April 2017 due to staffing deficiencies. Rounds were recommenced in August 2017 however it was reported that continued resource limitations resulted in only two rounds been undertaken each week.



In addition dispensing figures for liposomal amphotericin, pip-tazobactam, meropenem, linezolid and daptomycin were monitored and reviewed by the Antimicrobial Stewardship Committee. A consumption reduction target was set at 10% reduction in 2017. The target was achieved in reducing consumption of liposomal amphotericin, which given the level of construction work on-going, may suggest that aspergillus control measures were effective. Pip-tazobactam consumption also decreased significantly in Quarters 3 and 4 due to a global shortage. However, meropenem use increased in the context of the pip-tazobactam shortage. Linezolid and daptomycin consumption fluctuated and did not consistently meet the 10% reduction target.

## 2.4 Prevention and control of healthcare-associated infections and multidrug-resistant organisms

Inspectors looked at hospital-wide systems and processes in place at the hospital to prevent and control healthcare-associated infections and multidrug-resistant organisms.

### Surveillance of antimicrobial-resistant bacteria

Identification of patients who had been in contact with or previously diagnosed with a transmissible microorganism on readmission to the hospital is important, because transfer of colonised patients has been identified as a major risk factor for the introduction and spread of multidrug-resistant organisms including CPE. The hospital had a computerised system that alerted staff in situations when at risk patients were readmitted to the hospital.

Identifying patients that are vulnerable to infection is also a critical step during admission, discharge or transfers within or between healthcare services to ensure seamless integrated care. The patient assessment sheet only included a prompt in relation to screening for Methicillin-Resistant *Staphylococcus aureus* (MRSA). Senior management informed the inspection team that this would be addressed in 2018 through the introduction of the electronic patient healthcare record (EPR) which would incorporate a full microbiological screening risk assessment.

Screening of patients for colonisation or infection with MRSA and vancomycin-resistant enterococci (VRE) was performed in line with national guidelines.<sup>4,13</sup> However, screening for CPE and Extended Spectrum Beta Lactamases (ESBL) did not occur in line with national guidelines.<sup>6,13</sup>

### Patient Placement

Patients colonised or infected with multidrug-resistant organisms should be placed in individual single rooms with *en-suite* toilet facilities. On the day of the inspection, the hospital had 267 single rooms, 180 of which had ensuite facilities. However, this current number of single rooms was insufficient to manage the ever-increasing number of patients requiring isolation for infection prevention and control reasons. These deficiencies had been identified by the hospital and were reflected in the hospital's risk register.

The infection prevention and control service had devised a hierarchy of isolation prioritisation policy for management of patients with transmissible infection as a quick reference guide in relation to screening and isolation requirements. Patient placement decisions were based on risk assessment which considered the route of organism transmission alongside patient factors and symptoms that increase the risk of spreading infection.<sup>14</sup> The infection prevention and control service liaised with bed

management each morning regarding the optimal placement of patients with transmissible infections. Compliance with the Isolation, Standard and Transmission Based Policy was audited and reported to directorate management teams via quarterly infection prevention and control assurance reports.

On the day of the inspection all patients colonised and or infected with multidrug-resistant organisms were risk assessed and isolated in single rooms or cohorted in the multi-occupancy rooms as appropriate. All patients colonised with CPE on the wards inspected were accommodated in single rooms on the day of inspection. However, these patients were not cared for by dedicated teams of cohorted staff as recommended by national guidelines.

Inspectors observed that the door to a number of single isolation rooms accommodating patients requiring transmission-based precautions were ajar during the ward based inspections. Doors to rooms of patients requiring contact precautions should be kept closed at all times. If a risk assessment indicates a requirement to leave the door open for safety reasons this deviation from established contact precaution etiquette should be clearly documented and communicated to staff and relevant visitors to the ward.<sup>13</sup>

In addition, disposable gloves and alcohol gel to facilitate effective transmission based precautions on entering isolation rooms were not available outside all isolation rooms on Patrick Kavanagh Ward. National guidelines<sup>13</sup> recommend that personal protective equipment should be put on before entering the patient's room and hand hygiene should always be performed before putting on and after removal of gloves.

Treatment of patients in close proximity to each other increases the risk of spread of many infections including those caused by multidrug-resistant organisms. To mitigate this risk, bed numbers in the four multi-occupancy rooms on Donal Hollywood Unit had been reduced from six to four beds. The hospital should be commended on its prioritisation of patient safety in the background of the competing challenges posed by the on-going capacity issues faced by Irish acute hospitals.

In contrast, the configuration and design of the Patrick Kavanagh Ward, located at the new purpose-built Mercer's Institute for Successful Ageing (MISA) facility, was built to a modern specification with surfaces, finishes and fittings that readily facilitated cleaning, infection prevention and control practices and management of patients with transmissible infections. The ward comprised 20 spacious single rooms and three three-bedded rooms all with en-suite toilet and shower facilities with an additional clinical hand wash sink for staff. The ward had appropriate ancillary facilities which were designed and finished to a high specification.

## Outbreak Management

Documentation reviewed by inspectors showed that there had been a number of possible outbreaks of infection at the hospital in 2017.

Management oversight of confirmed and suspected outbreaks of infection occurred through the Infection Outbreak Preparedness Committee. This Committee was chaired by the deputy CEO/chief operations officer, and reported upwards through relevant committees to senior management. Reporting lines ensured that relevant information including outbreak reports and recommendations in respect of outbreaks of infection were communicated at appropriate levels within the hospital in line with national guidelines.<sup>15,16</sup>

### *Clostridium Difficile* Infection

The incidence of *Clostridium difficile* infection at St James's Hospital has fluctuated above both the national average and the desirable HSE key performance indicator target rate since 2008. There were 122 episodes of *Clostridium difficile* infection at St James's Hospital in 2017, of which 87 cases were hospital acquired. One clinically severe case of infection (which was not hospital acquired) had occurred in 2017.

Inspectors were informed that ribotyping<sup>§§</sup> of samples taken from patients who acquired *Clostridium difficile* infection in the hospital did not identify strains common between the samples taken. However, antimicrobial consumption data for 2017 showed high consumption of broad spectrum antimicrobials such as cephalosporins and fluoroquinolones antibiotics with both of these antibiotics considered to put patients at greater risk of acquiring *Clostridium difficile* infection. It was reported that the high consumption of broad spectrum antibiotics such as cephalosporins and fluoroquinolones was attributed to the global shortage of piperacillin/tazobactam.

This would indicate that cross infection between patients was unlikely and the increased incidence may reflect a background of increasingly susceptible patients and the pattern and volume of broad spectrum antibiotic use. However, inspectors were informed that systems analysis were not routinely performed to identify potential precipitating factors and systems required to reduce the risk of recurrence in line with national guidelines.<sup>16</sup> Such analysis is important from a learning and improvement perspective.

In light of the on-going high rates of *Clostridium difficile* infection the hospital had worked to implement a number of core antimicrobial stewardship interventions to mitigate the risk posed by *Clostridium difficile* infection. For example, the

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<sup>§§</sup>Ribotyping is a molecular technique that takes advantage of unique DNA sequences to differentiate strains of bacteria

Antimicrobial Stewardship Team, in collaboration with the Infection Prevention and Control Team, commenced twice weekly targeted *Clostridium difficile* infection care bundle rounds in Quarter 4 2017. Adherence to infection prevention and control standards and antimicrobial use were reviewed. Direct feedback was given to the staff and the clinical teams.

Notwithstanding this, the hospital had been slow to revise and strengthen local antimicrobial stewardship arrangements since the antimicrobial stewardship inspection carried out by HIQA in 2016. The Antimicrobial Stewardship Committee had identified and reported insufficient resource capacity to support an effective hospital wide antimicrobial stewardship programme including the implementation of a restricted antimicrobial policy using a pre-prescription authorisation approach as recommended in the National Policy on Restricted Antimicrobial Agents.<sup>17</sup>

However, despite numerous interventions, the incidence of *Clostridium difficile* infection has remained high. The Infection prevention and Control Team produced a *Clostridium difficile* infection report in January 2018. This report included a quality improvement plan which outlined antimicrobial stewardship and infection control measures that would be implemented to ensure *Clostridium difficile* infection rates would be reduced. Specifically this plan included:

- the implementation of *Clostridium difficile* systems analysis
- introduction of *Clostridium difficile* care bundles and trigger tools
- improving staff awareness
- expanding on antimicrobial stewardship rounds.

In light of persistent problems being experienced, the hospital needs to fully investigate its approach to infection prevention and control and antimicrobial stewardship including the introduction and enforcing of antimicrobial restriction policies to avoid unnecessary use of broad-spectrum agents.

### Hand hygiene

The infection prevention and control service monitored the following;

- mandatory hand hygiene training uptake by current healthcare staff who interact with patients in the rolling 24 month period
- percentage compliance of hospital staff with the World Health Organisation 5 moments of hand hygiene
- alcohol hand rub consumption (litres per 1,000 bed days).

Inspectors reviewed hand hygiene training records for relevant staff across the hospital and staff in the clinical areas inspected. Documentation indicated that 89% of all hospital staff had attended within the previous two years.<sup>18</sup> A breakdown of hand hygiene training attended by each staff group was viewed. The figures showed

that 90% of nursing staff, 85% of healthcare assistants, 76% of consultants, 94% Non Consultant Hospital Doctors, 96% support services staff, 93% of paramedical staff, and 94% clerical staff in St James's Hospital had attended training in the previous two years.

Hospital wide local hand hygiene audits were carried out on a monthly basis. Multidisciplinary hand hygiene audit teams were in place. Overall, hand hygiene compliance scores for 16 of 27 areas audited in 2017 did not achieve the hospital's desirable target of 90% compliance or over. Areas that did not achieve the 90% target were re-audited and quality improvement plans were implemented. The hospital reached the HSE's national target of 90% in October/December 2017. Results were circulated to hospital management, directorates and departments and to the PCHCAI Steering Committee.

### Environmental Hygiene

Overall, the ward environment in the areas inspected were generally clean with some exceptions. Inspectors found that some improvements were required in the maintenance of the general ward environment. Cleaning specifications were in place which clearly identified environmental surfaces and fixtures to be cleaned, the required frequency of cleaning and the staff discipline responsible in line with national cleaning guidelines.<sup>19</sup>

Environmental and patient equipment hygiene was continually monitored throughout the hospital. An unannounced weekly executive management hygiene walkabout audit schedule was in place that assessed hand hygiene facilities, hand hygiene compliance, isolation compliance and standard precautions compliance. Non-compliances were risk-rated and a completion date in relation to the addressing non-compliances identified was also documented. The hospital had developed and introduced a Rapid Response Team (RRT) that promptly undertook minor repairs identified in clinical area assessments.

Members of the Infection Prevention and Control Team also participated in the weekly executive management hygiene walkabout audits. Findings were fed back to the specific areas immediately and to Directorates via quarterly infection prevention and control reports.

In addition, staff monitored hygiene in clinical areas using a "ward assessment tool" on a monthly basis. This tool was revised following the 2014 HIQA inspection. Audit results were trended for each clinical area and quality improvement plans were developed in response to deficiencies identified. However, at the time of inspection, it was noted that staff in one of the clinical areas inspected could not freely access local hygiene audit results.

Clinical areas where desirable standards were not achieved were re-audited to identify issues requiring improvement. Patient equipment and environmental hygiene audits results were trended and clearly presented to hospital management in overview reports, which is good practice and facilitates the identification of areas for improvement. Additionally, decisions made were communicated appropriately, and actions were implemented within defined timelines. The high levels of compliance achieved in local environmental hygiene audits were also reflected on the day of inspection.

Standardised and effective auditing systems are essential to provide assurance that the system for measuring cleanliness levels is consistent and the required cleanliness levels are achieved. Inspectors were informed that the Hygiene Services Operational Group were reviewing the "ward assessment tool" to ensure it mirrored the methodology and scope of the unannounced executive management hygiene walkabout audits.

#### Patient Equipment

Staff informed inspectors that dedicated equipment was not always allocated to patients in isolation. This risk was reflected in the infection prevention and control risk register and in the Infection Prevention and Control annual report. The hospital should ensure that dedicated patient equipment for which transmission-based precautions were indicated is available so as to avoid transmission of multidrug-resistant organisms and *Clostridium difficile* infection.

Some issues were identified on the wards inspected relating to the cleanliness of patient equipment which needed to be addressed on the day.

Inspectors were unable to identify if patient equipment had been cleaned prior to storage as there was no clearly defined system in place. The hospital demonstrated an awareness of many of the inherent weaknesses in existing systems and inspectors were informed that equipment cleaning schedule were being reviewed to allocate defined equipment cleaning responsibilities.

Inspectors were informed that the dated plumbing systems in some wards necessitated that the contents of bedpans be emptied into the sluice hopper and bedpans manually rinsed prior to being placed in the washer disinfectant. This practice increases the risk of contaminating clean supplies with faecal or other microorganisms and could increase the risk of spreading infection including CPE and *Clostridium difficile* infection. Senior management reported the hospital was reviewing alternative solutions to mitigate the identified risks. HIQA recommends that current issues should be addressed with the input from the Infection Prevention and Control Team.

## **2.5 Prevention of invasive aspergillosis during construction work**

Significant construction works were evident on the hospital site on the day of the inspection. There is potential risk to people with impaired immune systems of acquiring invasive aspergillosis<sup>\*\*\*</sup> during construction or renovation activities in hospitals, therefore specific controls need to be put in place to prevent such occurrences.

Documentation reviewed showed that control measures had been clearly identified and recorded. Air quality was monitored during the work. The hospital policy for the prevention of aspergillosis during construction activities was updated in 2017. The Infection Prevention and Control Team were satisfied that recommended environmental controls were in place in line with national guidelines.<sup>20</sup>

The Infection Prevention and Control Team communicated with hospital staff throughout these projects and provided education for hospital staff and external contractors in relation to aspergillosis prevention.

There was a clear focus on aspergillosis prevention evident in the wards visited on the day of the inspection. For example all the windows were sealed and entrance doors closed. High-efficiency particulate air filters (HEPA) were in place to improve air quality.

Inspectors were informed that immunocompromised patients temporarily leaving controlled ward areas were advised to apply appropriate protection such as facemasks. Signage on aspergillosis prevention during construction projects was observed on the wall on entering the Donal Hollywood Unit. To further enhance the already implemented measures, improvements with respect to the dissemination of patient information leaflets and additional targeted training of staff should be explored.

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<sup>\*\*\*</sup>Healthcare-associated invasive aspergillosis is an infection that can be potentially life threatening in patients with impaired immune systems. It is caused by fungal spores that may be transmitted in dust created by excavation and building work.



## 4.0 Conclusion

A National Public Health Emergency Plan was activated on 25 October 2017 by the Minister for Health in response to the increase and spread of CPE in Ireland. Identification of colonised patients by screening patients who meet the criteria in the national screening guidelines on entry to hospital is a critical measure required to identify those patients who are colonised with CPE. Early identification can prevent further transmission to other patients. The Health Service Executive updated screening guidelines for the acute hospital sector in February 2018.<sup>6</sup>

Overall, St James's Hospital had implemented a high level of compliance with the multi-drug resistant organisms screening guidelines. However, inspectors found that St James's Hospital had not successfully ensured that screening patients for CPE was fully embedded in the hospital. In light of the current national public health emergency, HIQA considered this to be a high risk that required escalation to hospital management following this inspection. The hospital provided a prompt and comprehensive response which provided a commitment to compliance with the national policy on screening for CPE.

HIQA found that St James's Hospital was endeavouring to fully implement the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services. Effective leadership, governance and management arrangements were evident around the prevention and control of healthcare-associated infection. It was apparent that St James's Hospital had actively endeavoured to address the issues previously identified in the unannounced HIQA inspection carried out in 2014.

St James's Hospital had an established infection surveillance programme. Clear oversight of performance across all clinical areas in relation to infection prevention and control was facilitated by on-going surveillance, monitoring and audit programmes led by the Infection Prevention and Control Team with well-presented surveillance reports compiled by the surveillance scientist. In the absence of a nationally coordinated programme, the hospital had established a local system of surgical site infection surveillance.

On the background of a hospital with persistently high patient activity levels, an increasingly susceptible patient population, increased antimicrobial consumption and limited isolation facilities, it is essential that on-going high rates of *Clostridium difficile* infection are proactively prevented and controlled in hospitals through antimicrobial stewardship and effective infection prevention and control measures. The hospital should also review current processes related to the cleaning and disposal of bedpans to ensure they do not increase the risk of spreading infection including CPE and *Clostridium difficile* infection.

The hospital had worked to implement a number of core antimicrobial stewardship interventions. However, it is recommended that the hospital review the current approach to restrictive prescribing rights.<sup>17</sup> If hospital rates of *Clostridium difficile* infection are to be effectively reduced the stewardship programme requires the full support of the Executive Management Group and hospital consultants in order to succeed and expand.

HIQA has found that overall, St James's hospital had seen improvement in national hand hygiene compliance audit results in recent years and had demonstrated commitment to improving hand hygiene awareness and practices.

This inspection identified a high level of commitment demonstrated to ensure that essential controls were in place to protect patients from the risk of acquiring invasive aspergillosis. The hospital should continue to revise and strengthen preventative measures including education of relevant personnel and the provision of patient information leaflets on the control of invasive aspergillosis, in accordance with the national guidelines and best practice.<sup>20</sup>

In conclusion, the patient environment in three areas inspected was found to be generally clean. Significant improvements had been made in relation to hospital infrastructure with the building of the new MISA facility which officially opened in December 2016. Inspectors found that while many processes were in place for the continuous monitoring and quality assurance of hygiene within the hospital, the findings in this report highlight that improvements are required in the management and maintenance of patient equipment in the three wards assessed.

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## 6.0 Appendices

### Appendix 1: Lines of enquiry for the monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services

Number	Line of enquiry	Relevant National Standard
1.1	The hospital has formalised governance arrangements with clear lines of accountability and responsibility around the prevention and control of healthcare-associated infections.	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 5.2, 5.3, 5.4, 6.1, 7.1
1.2	Risks in relation to the prevention and control of infection are identified and managed.	2.1, 2.3, 2.5, 3.1, 3.6, 3.7, 3.8
2	The hospital has policies, procedures and guidelines in relation to the prevention and control of infection and hospital hygiene.	2.1, 2.5, 3.1, 3.6, 3.8, 5.4, 7.2
3	Hospital personnel are trained and in relation to the prevention and control of healthcare-associated infection	2.1, 2.8, 3.1, 3.2, 3.3, 3.6, 6.1, 6.2
4.1	The hospital has implemented evidence-based best practice to prevent intravascular device-related infection and urinary catheter-associated infection, ventilator-associated pneumonia and surgical site infection.	1.1, 2.1, 2.3, 3.5
4.2	The hospital has systems in place to detect, prevent, and respond to healthcare-associated infections and multidrug-resistant organisms in line with national guidelines.	2.1, 2.3, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8,

## Appendix 2: Copy of the letter issued to St. James's Hospital, Dublin regarding the high risk identified during HIQA's inspection at St James's Hospital



Lorcan Birthistle  
CEO  
St James's Hospital  
James's Street  
Dublin 8  
[ceopa@stjames.ie](mailto:ceopa@stjames.ie)

23 March 2018

Ref: PCHCAI 2018/18

Dear Lorcan

### **National Standards for the prevention and control of healthcare-associated infections in acute healthcare services - monitoring programme**

The Health Information and Quality Authority (HIQA) carried out an unannounced inspection at St James's Hospital, Dublin against the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* on 21 March 2018.

During the course of the inspection inspectors identified that the hospital had not ensured the full and consistent implementation of the national screening guidelines in relation to carbapenemase producing *Enterobacteriales*<sup>1</sup>(CPE).

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<sup>1</sup> Health Service Executive. Requirements for screening of Patients for Carbapenemase Producing *Enterobacteriales* (CPE) in the Acute Hospital Sector. February 2018. Available online from: <http://www.hpsc.ie/a-z/microbiology/antimicrobialresistance/strategyforthecontrolofantimicrobialresistanceinirelandsari/carbapenemresistantenterobacteriaceaeacre/guidanceandpublications/>

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We consider this to be a high risk in light of the ongoing National Public Health Emergency Plan to address CPE in our health system which was activated by the Minister for Health on 25 October 2018.

Please outline how the hospital intends to address this high risk following this inspection. Details of the risk identified, and proposed mitigating actions will be included in the report of this inspection.

Please provide this information to HIQA by close of business on **30 March 2018** to [qualityandsafety@higa.ie](mailto:qualityandsafety@higa.ie). Should you have any queries, please do not hesitate to contact me at [qualityandsafety@higa.ie](mailto:qualityandsafety@higa.ie).

Yours sincerely



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**KATHRYN HANLY**  
**Authorised Person**

CC: Mary Dunnion, Director of Regulation, Health Information and Quality Authority  
Trevor O' Callaghan, CEO, Dublin Midlands Hospitals Group  
Liam Woods, National Director of Acute Services, Health Service Executive



**Appendix 3: Copy of reponse letter and associated action plan received from St. James's Hospital, Dublin regarding the high risk identified during HIQA's inspection at St. James's Hospital.**



OSPIDÉAL NAOMH SÉAMAS  
ST. JAMES'S HOSPITAL



Ospidéal Naomh Séamas, Sráid Shéamais, Baile Átha Cliath 8.  
St. James's Hospital, James's Street, Dublin 8.  
+353 1 410 3000 www.stjames.ie

Ms. Kathryn Hanly,  
Authorised Person,  
Health Information and Quality Authority,  
Unit 1301, City Gate,  
Mahon,  
Co. Cork.

30 March 2018

Your Ref: PCHCAI 2018/18

Dear Ms. Hanly,

I write in response to your letter of 23 March 2018 in relation to the HIQA unannounced inspection at St. James's Hospital against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services on 21 March 2018 and your identification of a high risk in relation to the hospital's failure to ensure the full and consistent implementation of the national screening guidelines in relation to carbapenemase producing *Enterobacteriales* (CPE) in our health system.

I wish to assure HIQA, the Hospital Group and the National Director of Acute Services that the hospital is committed to effectively managing the patient safety risks associated with CPE and comply with national guidance. The hospital endeavours to manage these risks on a daily basis in the context of significant infrastructural and resource constraints. I enclose an action plan outlining current and planned actions to mitigate the CPE risks in St. James's Hospital.

Yours sincerely,

Lorcan Birthistle,  
Chief Executive.

c.c. Ms. Mary Dunnion, Director of Regulation, HIQA  
Mr. Trevor O'Callaghan, CEO, Dublin Midlands Hospital Group  
Mr. Liam Woods, National Director of Acute Services, HSE.

## Outline of Assurance and Action Plan

<b>Hospital Name:</b>	St James's Hospital
<b>Inspection:</b>	Unannounced inspection against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services.
<b>Date of inspection:</b>	21st March 2018
<b>Date of response:</b>	30 <sup>th</sup> March 2018

### Background

This document sets out the intentions of St James's Hospital to address the high risk identified by the inspectors described as "the Hospital had not ensured the full and consistent implementation of the national screening guidelines in relation to carbapenemase producing Enterobacteriales (CPE)". The guidelines referred to are the *HSE HPSC Requirements for Screening of Patients for Carbapenemase-Producing Enterobacteriales (CPE) in the Acute Hospital Sector* developed by the CPE Expert Group and published on the 16<sup>th</sup> February 2018.

<b>Guideline: Patients who must be screened</b>
National Standards for PCHCAI Theme: Safe care and support
<b>Action required:</b>
<b>The following patients must be screened for CPE in acute hospitals:</b>
<b>a. All contacts of a patient with CPE. Where such contacts have been discharged prior to their identification as a contact, their record should be marked to ensure screening on next admission.</b>
Compliant: The Hospital isolates and screens all contacts of patients with CPE weekly for 4 weeks post contact. In addition, the hospital has a programme of proactive weekly ward-based CPE screening. Each week, since March 2017, all patients in a particular ward are screened for CPE carriage. This gives assurance that the hospital does not have a high burden of CPE carriage. All contacts are flagged on the electronic Patient Administration System (PAS).
<b>b. All admissions to critical care areas (Intensive Care Units, High Dependency Units, Neonatal Intensive Care Units), on admission and weekly thereafter.</b>
Compliant: SJH screens all patients admitted to ICU and weekly thereafter. Assurance: Whereas the hospital has documented that the majority of patients in critical care are screened weekly, there is a need for continued reinforcement of this practice which occurs on the daily Critical Care ward rounds between microbiology medical staff and ITU medical and nursing staff.

<b>c. All admissions to haematology and transplant wards on admission and weekly thereafter.</b>
Compliant: The Hospital has instigated screening of Haematology and Oncology patients on admission and weekly thereafter in accordance with this guideline. The Infection Prevention and Control Team (IPCT) have a weekly monitoring process in place. In addition, the hospital plans to perform monthly audits of compliance.
<b>d. All patients who have received cancer chemotherapy in the previous 12 months on admission.</b>
Not fully compliant: The majority of these patients are screened as they will be admitted to Haematology and Oncology wards but the hospital recognises the difficulty in identifying some of these patients who are not admitted to these wards. The Hospital will review triage and screening procedures to attempt to identify this patient group. Implementation of the EPR and Medical Oncology Clinical Information System (MOCIS) information systems will facilitate this screening.
<b>e. All patients who were transferred from any other hospital in Ireland or elsewhere</b>
The hospital is compliant with this guideline and has a daily monitoring system in place.
<b>f. All patients who have been inpatients in any hospital in Ireland or elsewhere any time in the previous twelve months. Any hospital includes previous admissions to the hospital to which they are now being admitted.</b>
Not fully compliant. The Hospital's audit of CPE screening demonstrated deficits in screening practice for this at risk group. This will be addressed through process improvement, behavioural interventions, education & training, ICT and assurance processes, as outlined below. The hospital will review triage procedures to attempt to identify this patient group.
<b>g. Renal dialysis patients at first dialysis in a unit, periodically during dialysis treatment (at intervals of not less than six months), and on return from dialysis elsewhere.</b>
Not compliant: The Hospital has not, as yet, implemented a structured screening programme for this specific patient cohort, but has liaised with the renal team to plan this work (28 <sup>th</sup> March 2018).
<b>h. All patients who normally reside in a long term care facility</b>
The Hospital is compliant with this guideline and has a daily monitoring system in place.

<b>Guideline: Screening contacts in ED and AMU</b>
National Standards for PCHCAI Theme: Safe care and support
<b>Action required:</b>
<b>For the purposes of this policy, a patient contact is a person who</b>
<ol style="list-style-type: none"> <li>1. Has shared a multi-bed area and/or shared toilet facilities with a person identified as colonised or infected with CPE. This includes time spent in the Emergency Department (ED) and Acute Medical Assessment Units (AMAU).</li> <li>2. Has been cared for in an inpatient area (including ED and AMAU) by nursing staff who were simultaneously caring for one or more patients colonised with CPE in the absence of Contact Precautions. This might arise in relation to a patient who was not known to be colonised with CPE at the time in question.</li> </ol>

<b>Assurance:</b>
Not fully compliant: The IPC team endeavours to trace contacts in all cases. Current ED infrastructure, with limited insulation capacity and episodes of crowding contribute to increased risk of infectious disease transmission. Although the ED Whiteboard ICT system enables patient cubicle location to be tracked, enhanced ICT and systems integration are required to enable effective and efficient contact tracing.

<b>Guideline: Flagging Records</b>
National Standards for PCHCAI Theme: Safe care and support
<b>Action required:</b>
Each acute hospital should develop a process to ensure, in so far as possible, the flagging of records of all contact patients so that they are readily identifiable for screening and contact precautions if and when they come back into hospital.
<b>Assurance:</b>
SJH is fully compliant with this guidance using a flag on the PAS & EPR ICT systems.

<b>Guideline: Samples should be sent to NRLS</b>
National Standards for PCHCAI Theme: Safe care and support
<b>Action required:</b>
The first isolate of any bacterial species or CPE genetic type from a patient should be sent to the National Reference Laboratory Service. It is acknowledged no isolate is available for sending in the event that CPE is detected by molecular methods but not confirmed by culture.
<b>Assurance:</b>
SJH is fully compliant with this guidance.

<b>Assurance:</b>
<b>Governance:</b> Management oversight including measurement of compliance with national guidance occurs through the Infection Outbreak Preparedness Committee, chaired by the Deputy CEO/Chief Operations Officer, and is reported to the PCHCAI Quality and Safety Governance Committee to the EMG and the Quality, Safety and Risk Committee of the Board.
<b>Additional CPE Monitoring Programme:</b> The Hospital has a programme of weekly CPE screening on a ward by ward basis to monitor the levels of carriage in its inpatient population. All patients in a ward area are screened. This level of screening occurs over and above that required by the national guidelines. All ward areas were assessed since March 2017 and a second phase of screening commenced.



**CPE Event Reviews:**

Case reviews for CPE events are completed by the IPC team and reported to the Infection Outbreak Prevention Committee.

**Audit:**

There is a weekly monitoring programme of compliance against the majority of the screening recommendations in the CPE national screening guidelines (as detailed above). In addition, intermittent audits of some aspects have been completed. Hospital audit of compliance against the CPE national screening guidelines occurs monthly, most recently on the XX DATE. The audits identified the main deficit to be failure to fully implement screening of all patients who have been inpatients in any hospital in Ireland or elsewhere any time in the previous twelve months. The audit programme will be reviewed to ensure its effectiveness and efficiency and to prepare for the implementation of the EPR.

**Education and training:**

The table below outlines training provided. Assurance on participation requires further development.

Education Provided	Completed/ scheduled
<b>Medical staff:</b>	
i) Induction to all new staff	July 2017 and Jan 2018
i) Presentation at Grand Rounds	October 2017
i) Presentation at Surgical Rounds	December 2017
i) Presentation at Medical Update	October 2017
ii) Presentation at intern educational sessions	October 2017 and Jan 2018
iii) Presentation at Cardiothoracic Morbidity Meeting	planned for April 2018
iv) Presentation to Haematology/Oncology	planned for April 11th
<b>Nursing staff:</b>	
Awareness education at local level at IPCT refresher sessions	On-going continual programme

**Communication for staff safety awareness:**

The Hospital has circulated memos to staff outlining CPE screening guidance.

**Patient and family communication:**

Patient information leaflets are made available to patients at the time of discharge.

**Actions planned to take:**

1. Monitoring and assurance of screening on admission  
Implementation of the Electronic Patient Healthcare Record (EPR) scheduled for October 2018 will enable automated monitoring of the rate and timeliness of screening and will inform process assurance and improvement.  
The EPR will also enable microbiological screening assessment, review and diagnostic results to be available at the point of decision-making, integrated within nurses' daily task plans, shared on whiteboards used for clinical handover and included in discharge communication. (PCHCAI Standards 2.5.2 & 2.5.9)

Manual audits of screening compliance will be undertaken every 4-8 weeks on an interim basis pending EPR implementation.

Owners: PCHCAI governance committee; NPDU, Quality & Safety Improvement Directorate (QSID).

2. The Hospital will review its admission processes in ward settings and ED triage and admission processes from an IPC screening perspective to ensure that CPE and other IPC screening processes are efficient, effective and quality assured.

Owner: Director of Nursing.

3. The Hospital's policy for Multi-Drug Resistant Organisms Prevention & Control Policy SJH: IPC: 010 (which includes CPE) will be revised to reflect the national CPE screening guidance of February 2018.

Owner: Clinical Director LabMed; IPC lead.

4. Patient cohort-specific screening programmes:

- a. Renal dialysis patients – the IPC team will work with the Renal Service team to implement a programme focussed on this patient group and this will be incorporated into the planned audit programme.

Owners: Renal Service, MED Directorate & IPC.

- b. Cancer chemotherapy patients – progress interface between MOCIS and SJH EPR to enable identification of patients who received cancer chemotherapy within 12 months.

Owners: HOPE Directorate, IMS Directorate & IPC.

5. Enhance processes and supports for ED contact tracking and isolation.

This is a complex issue dependent on ICT developments, patient flows and infrastructure in the ED. It will be considered in the planning of future ED ICT and infrastructural development and has significant external dependencies.

Owner: Clinical Director MED; Director IMS; COO.

6. Review assurance and audit processes for IPC screening, including CPE.

The Hospital will review its overarching monitoring, audit and assurance approach to ensure that audits are effective, efficient and risk-based.

Owner: Clinical Director LabMed/IPC lead, QSID.

7. Assurance on educational programme uptake.

The Hospital's learning management system and other ICT approaches will be utilised and aligned to provide assurance on CPE guideline training and to make this information available to front-line managers, professional-, directorate- and corporate-leads.

Owners: Human Resources Directorate & IPC.

**Proposed Timescale: Ongoing**

1. (a) EPR implementation - October 2018  
(b) Implementation PCHCAI screening reporting function within EPR – Q1 2019
2. Review ED and ward admission processes – Q3 2018
3. Policy update: 13<sup>th</sup> April 2018
4. Patient cohort-specific screening
  - (a) Renal service – Q3 2018
  - (b) Chemotherapy patients – external dependency on MOCIS implementation.
5. Enhance ED contact tracking and isolation practices – external dependencies on funding for ICT and infrastructure and national unscheduled care initiatives.
6. Review audit and assurance processes - Q3 2018
7. Monitoring and assurance on educational programmes – Q4 2018

**On-going risks and escalation**

Internal

A. Infrastructure:

*National Standards for the prevention and control of healthcare-associated infections in acute healthcare services Standard 2.5.6: Arrangements are in place to facilitate isolation of patients with suspected or confirmed communicable disease, including healthcare-associated infection and colonisation with a multidrug-resistant micro-organism. This includes appropriate placement in a suitable and clearly identifiable isolation room, single room or cohort area, in line with best practice. The expertise of the infection prevention and control team is sought regarding isolation prioritisation whenever suitable rooms are not readily available.*

Access to single patient rooms cannot be assured for all admissions to be isolated until screening results are negative. Infrastructure constraints also negatively impact IPC in the ED setting. This risk is reflected in the Hospital's risk register.

B. The level of increased demand on laboratory services from increased CPE screening activity and potential risks are yet to be determined and will need to be managed within the context of other screening and IPC service demands.

C. Increased workload and associated potential risks associated with increased nursing workload due to CPE screening processes in ward and ED settings are yet to be quantified.

External

- I. There is no clear pathway for discharged patients who are contact risks to be cleared in the community prior to re-admission to this or another healthcare facility. This has been highlighted to the HCAI National Lead.

- II. The reliability of processes for the identification of patients who were admitted to a another healthcare facility within the previous 12 months is compromised because of a dependence on the reported patient history, in the absence of ICT systems and the unique healthcare identifier that would provide more reliable information on which to base screening practice.
- III. The effectiveness of the risk management of IPC transmission in the ED setting is impacted by ED occupancy levels that are influenced by hospital-level management of patient flow and broader health system demand and capacity management for unscheduled care.
- IV. The guidelines state that "Hospital groups and hospitals must resource all relevant areas on the ward, in the laboratory and the infection prevention and control (IPC) service to achieve this level of screening for CPE." The Hospital is under-resourced to fully and consistently implement the screening guidelines in terms of
  - a. IPC team staffing
  - b. Anti-Microbial Stewardship resources
  - c. Laboratory infrastructure and staffing
  - d. Ward infrastructure
  - e. ED infrastructure for patient isolation, nurse staffing for more comprehensive triage IPC screening and ICT systems to enable contact tracking in the ED.
  - f. Staffing for systems analytics, quality assurance reporting and systems improvement.





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