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# Inspection Report

**Unannounced inspection to**  
The Queen Elizabeth University Hospital campus  
NHS Greater Glasgow and Clyde

7–8 and 20 June 2022

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## About our inspection

In December 2021, the Scottish Government commissioned Healthcare Improvement Scotland (HIS) to provide wider independent assurance of infection prevention and control measures at the Queen Elizabeth University Hospital campus, NHS Greater Glasgow and Clyde, following concerns raised in the Scottish Parliament about potential cases of nosocomial *Aspergillus* infection. This wider independent assurance is focused on the systems and processes in place for infection prevention and control at the Queen Elizabeth University Hospital campus, including their current implementation at the time of the inspection, and assesses if any current broader concerns require action.

We attempted to undertake an unannounced inspection of infection prevention and control measures at the Queen Elizabeth University Hospital campus on Tuesday 22 March 2022. However, as a result of the unprecedented pressures experienced throughout the hospital campus at the time of this inspection, the decision was made to postpone the more detailed inspection and revert to our safe delivery of care inspection methodology. That inspection resulted in six areas of good practice and five requirements. The inspection report is available on the Healthcare Improvement Scotland website [www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org).

We returned to the Queen Elizabeth University Hospital campus in June 2022 to undertake the infection prevention and control measures inspection.

The new Infection Prevention and Control Standards were published in May 2022. These applied to adult health and social care settings and replaced the Healthcare Associated Infection (HAI) Standards (2015). In May 2022, the chief nursing officer (CNO) contacted all NHS boards to inform them Healthcare Improvement Scotland will use these standards as a basis for inspection after a 3-month implementation period to embed the new standards. The implementation period concluded on Monday 8 August 2022. These standards were not applied to this inspection, as they were not implemented at the time of the onsite inspection work. However, where we have made requirements, we have highlighted how the improvement in line with the requirement will also demonstrate compliance with both the HAI standards (2015) and the new Infection Prevention and Control Standards (2022).

The following HAI standards (2015) form the main focus of the inspection:

- Standard 1: (Leadership in the prevention and control of infection)
- Standard 3: (Communication between organisations and with the patient or their representative)
- Standard 4: (HAI Surveillance)
- Standard 6: (Infection prevention and control policies, procedures and guidance)

- Standard 7 (Insertion and maintenance of invasive devices), and
- Standard 8: (Decontamination).

Although not within the scope of the HAI standards (2015), the inspection also considered staffing levels within the hospital campus at the time of the inspection. This is described within the summary of findings.

## Background

In recent years, there have been ongoing considerations and concerns around the systems, processes and governance for infection prevention management and control at the Queen Elizabeth University Hospital campus and the Royal Hospital for Children.

In response to this, the chief executive of NHS Scotland and director general for health and social care escalated the Queen Elizabeth University Hospital campus and Royal Hospital for Children to Stage 4 of the NHS Scotland Board Performance Escalation Framework. This stage is defined as significant risks to delivery, quality, financial performance or safety; senior-level external transformational support is required. To support NHS Greater Glasgow and Clyde with ensuring appropriate governance is in place to increase public confidence in the matters raised, and ensure the delivery of safe, accessible, high-quality, person-centred care at the Queen Elizabeth University Hospital campus and Royal Hospital for Children, an oversight board was convened in November 2019.

In January 2019, at the request of the cabinet secretary for health and sport, we carried out an unannounced inspection of the Queen Elizabeth University Hospital campus, including the Institute of Neurological Sciences and the Royal Hospital for Children. That inspection resulted in 14 requirements and one recommendation. In November 2019, a further inspection was carried out that resulted in two requirements and one recommendation. The inspection reports are available on our [website](#). This report outlines the improvement work the NHS board has implemented and has ongoing as a result of these inspections.

The chief executive of NHS Scotland and director-general for health and social care notified NHS Greater Glasgow and Clyde's chief executive that the NHS board had been de-escalated to Stage 2 on the NHS Scotland Board Performance Escalation Framework on 16 June 2022. Stage 2 is defined as some variation from the plan and possible delivery risk if there is no action. The oversight board for NHS Greater Glasgow and Clyde has now been stepped down.

This inspection does not attempt to duplicate any of the work carried out by the oversight board, or make a judgement on the systems or processes involved in this

work. It is also separate from any other ongoing investigations or legal action concerning the hospital campus.

The inspection was commissioned following concerns about *Aspergillus* at the hospital campus, but it is important to note that the purpose of this inspection is to provide independent assurance on the current wider infection prevention and control systems. Therefore, this inspection considers, but is not solely focused on, *Aspergillus*.

The NHS website ([www.nhs.uk](http://www.nhs.uk)) provides the following description of aspergillosis as a condition caused by *Aspergillus* mould. 'Aspergillosis is caused by inhaling tiny bits of mould. You cannot always prevent aspergillosis as it is almost impossible to avoid *Aspergillus* mould. This mould is found in many places such as soil, compost, rotting leaves, plants, trees, crops, dust, damp buildings and air conditioning systems. You cannot catch *Aspergillus* from someone else or from animals. Aspergillosis is rare in healthy people. Risk is increased if people have a long-term condition or a weakened immune system. For example, having chemotherapy or had an organ transplant, had tuberculosis in the past, severe flu or COVID-19 and needed artificial ventilation.'

As this inspection was commissioned in response to concerns relating to *Aspergillus*, we requested information on the number of *Aspergillus*-related outbreaks reported within Scotland. We were told from August 2021 to the end of May 2022, no new outbreaks of *Aspergillus*-related infection were reported to Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland as outlined in [Chapter 3 of the National Infection Prevention and Control Manual \(NIPCM\)](#).

## Our focus

The inspection sought assurance on the following.

- Infection prevention and control leadership.
- Communication between the organisation and the patients or representatives.
- Surveillance of alert organisms.
- Infection control practice, including the application of standard infection control precautions (SICPs) and transmission-based precautions (TBPs).
- The care environment and care equipment.
- The built environment, such as cleanliness and the management of the built environment in relation to infection prevention and control.
- Planned programmes of maintenance, including ventilation.
- Staffing levels within the hospital campus.

Our inspection methodology can be found on our website:

[www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org).

## About the hospital we inspected

The Queen Elizabeth University Hospital, Glasgow, opened in April 2015. The campus has 1,860 beds with a full range of healthcare specialities, including a major emergency department. In addition to the 14-floor hospital building, the Royal Hospital for Children is situated on the campus. The hospital campus also retains a number of other services in adjacent facilities. This includes maternity services, the Institute of Neurological Sciences, and the Langlands Building for medicine of the elderly and rehabilitation.

## About this inspection

We carried out an unannounced onsite inspection of the Queen Elizabeth University Hospital campus on Tuesday 7–Wednesday 8 June 2022, and Monday 20 June 2022.

Prior to commencing our onsite inspection, we sought expert advice on *Aspergillus* from an independent expert, Professor David Denning (see Appendix 2 for biographical details). Before and during the course of the inspection, we held several discussions with Professor Denning and sought advice on what wider infection prevention and control practices should be in place to reduce the risks of *Aspergillus* infection within the acute hospital environment. Professor Denning highlighted the lack of national guidance in infection prevention and control for addressing risks associated with *Aspergillus* and protecting patients. It was agreed that if robust infection prevention and control practices, in line with current national infection prevention and control guidance, are in place, this should reduce the risks of infection from *Aspergillus* within the acute hospital environment.

In the **Queen Elizabeth University Hospital**, we inspected the following areas:

- acute receiving general medicine (ARU2)
- emergency department
- intensive care unit
- specialist assessment treatment area (SATA)
- wards 4B, 4C, 6A, 6B, 7A, 7B, 7C, 8C, 9B, 11A, 11C, and 11D.

In the **Institute of Neurological Sciences**, we inspected the following areas:

- wards 60 and 62

In the **Langlands Building**, we inspected the following area:

- ward 56

In the **maternity unit**, we inspected the following area:

- ward 47

In the **Royal Hospital for Children**, we inspected the following areas:

- neonatal Unit Level 1
- wards 1D, 2A, 2B and 3A.

In the following areas, we inspected the insertion and care of patients' invasive devices. Our findings are reported under Standard 7.

**Queen Elizabeth University Hospital:**

- acute receiving gastroenterology (ARU 3), acute receiving medicine for the elderly (ARU 4 DME)
- high dependency units 2 and 6 (critical care)
- wards 4B, 4D, 5D, 8A, 8D, 9C and 9D.

**Maternity Unit:**

- ward 48

**Royal Hospital for Children:**

- ward 3B and 3C

We spoke with 33 patients or their representatives in the following areas:

- Queen Elizabeth University Hospital: **wards 5A, 5C, 8A and 9A.**
- Institute of Neurological Sciences: **wards 65, 68 and the Philipshill Spinal Injuries Unit.**
- Maternity Services: **ward 50.**
- Royal Hospital for Children: **wards 1C and 2C.**



During our inspection, we:

- inspected the hospital environment
- observed staff practice and interactions with patients
- spoke with ward staff and patients
- accessed patients' health records, monitoring reports, policies and procedures
- met with senior hospital clinical and management staff, and
- met with the members of the senior executive team.

As part of our inspection, we asked NHS Greater Glasgow and Clyde to provide evidence of its policies and procedures relevant to this inspection.

We held discussion sessions with NHS Greater Glasgow and Clyde to discuss the evidence provided and the inspection findings. We held discussion sessions with the following members of staff.

- HAI (Healthcare Associated Infection) executive lead. This is the executive nurse director for NHS Greater Glasgow and Clyde.
- Infection control doctors and nurses.
- Senior estates managers.
- Senior facilities managers.
- Senior management responsible for staffing levels.
- The director of infection prevention and control.
- The medical director, associate medical director and clinical governance managers.

Throughout our inspection, we met with our independent *Aspergillus* expert to seek advice on our findings. This is described within the report.

The findings detailed within this report relate to our observations of the areas we inspected at the time of this inspection, review of evidence and discussion sessions with the NHS board.

We would like to thank NHS Greater Glasgow and Clyde and, in particular, all staff at the Queen Elizabeth University Hospital campus for their assistance during our inspection. We have found the NHS board's approach to have been one of openness and transparency, including responding to large volumes of evidence requested as part of the inspection process.

## Summary of findings

Our summary findings from the inspection, areas of good practice, recommendations and any requirements identified are highlighted as follows. Detailed findings from the inspection are included in the section 'What we found during this inspection'.

At the time of this inspection, as observed during our previous safe delivery of care inspection in March 2022, the Queen Elizabeth University Hospital campus was experiencing a significant range of pressures, including increased hospital admissions, increased waiting times in emergency departments and reduced staff availability. These pressures are not isolated to this hospital campus, with similar pressures being experienced across NHS Scotland.

There was visible senior leadership across the hospital campus and clear evidence of ensuring staff felt psychologically safe to raise concerns including staffing-related concerns.

On the first day of our inspection, senior managers told us that 27 wards across the hospital campus scored a risk rating of red at the start of the day. This can result from staff numbers or the staff skill mix not being optimal. This may create a risk to patient safety, or issues affecting patient safety and requires immediate attention by the hospital team.

As observed during our March 2022 safe delivery of care inspection, we again observed lead nurses, site managers and chief nurses working together, communicating and problem-solving to try and reduce the identified risks and improve safety. However, even with attempts to mitigate the risks, many clinical areas continued to score a red risk rating. We observed in real-time, open and transparent discussions relating to workforce risks, with clear reporting and documentation of the escalations or mitigations that were put in place to promote the delivery of safe care and support staff wellbeing.

We reviewed workforce data that NHS Greater Glasgow and Clyde supplied. We could see that despite increased funding for the clinical workforce, due to the current Scotland-wide recruitment issues, vacancies remained high.

Despite the significant staff shortages across the campus, staff within the clinical areas told us they felt supported by senior leadership, and we observed clear communication throughout the inspection. We observed that most infection prevention and control practices carried out by staff working across all roles to support care delivery was generally good, and in line with infection control guidance and standards.

The patients and families we spoke with described the care they received as good. They were happy with the cleanliness of the hospital and the infection control practices of the staff caring for them.

To support this inspection, we requested a significant amount of evidence and information. We found that NHS Greater Glasgow and Clyde co-operated fully in sharing information to support the inspection process.

We saw evidence of good infection prevention and control leadership within the hospital campus, with senior managers and leaders demonstrating good knowledge of their roles and responsibilities. They promoted an open and transparent culture with good communication and supportive teamwork across the multidisciplinary team to support the infection prevention and control team. Examples of this will be described within the report.

We regularly consulted with Professor Denning throughout the inspection. The management of fungal infections such as *Aspergillus* is often complex, with diagnostic uncertainty, co-morbidity and polypharmacy characteristic of the management in typically unwell, immunocompromised patients. The team within the hospital campus appeared to demonstrate a vigilant approach towards infections related to *Aspergillus*. However, this report highlights there is limited national guidance for infection prevention and control management and response specific to *Aspergillus*. This means patient protection relies on professional opinion and interpretation of a highly expert topic which may lead to a lack of a standard approach across NHS Scotland.

Guidance on heating, ventilation and air-conditioning in intensive care, as well as guidance on refurbishment and building projects is available and contains some reference to *Aspergillus*. For example, Scottish Health Facilities Note (SHFN) 30 Part A: Manual Information for Design Teams, Construction Teams, Estates & Facilities and Infection Prevention & Control Teams. However, there is limited supplementary guidance on the infection prevention and control management and response to *Aspergillus*-related infection once an infection is identified. This may impact on potential outbreaks, relating to the healthcare environment being consistently identified. Many countries outside the UK have some level of guidance for infection control practitioners on protecting patients from *Aspergillus*-related infection. Healthcare Improvement Scotland will recommend to Scottish Government that analogous guidance to support a standard approach across NHS Scotland should be considered.

This inspection resulted in **nine areas of good practice, two recommendations and four requirements**. The scope of this inspection has been far wider than any previous inspection we have undertaken of the HAI standards (2015). This will impact on the total number of requirements, recommendations and areas of good practice identified as a result of this inspection.

We expect NHS Greater Glasgow and Clyde to address the requirements. The NHS board must prioritise the requirements to meet national standards. An improvement action plan has been developed by the NHS board and is available on our website: [www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org).

## Areas of good practice

### Standard 1

- 1** We observed an open, transparent and supportive culture in relation to infection prevention and control (**see page 19**).

### Standard 3

- 2** Patients and their representatives described good communication on infection, prevention and control considerations (**see page 23**).

### Standard 4

- 3** NHS Greater Glasgow and Clyde have a process to identify infection prevention and control alert triggers within the system and follow a clear process to act and minimise further risks (**see page 25**).

### Standard 6

- 4** NHS Greater Glasgow and Clyde developed a standard operating procedure (SOP) to identify the best place to care for patients with a specific infection that may require care areas with specialist ventilation (**see page 32**).
- 5** Good staff compliance with standard infection control precautions and transmission-based precautions (**see page 32**).

### Standard 7

- 6** Peripheral venous cannulas (PVC) devices were monitored twice a day (**see page 35**).
- 7** The Royal Hospital for Children carry out audits of peripheral venous cannulas (PVC) and central venous cannulas (CVC) daily (**see page 35**).

### Standard 8

- 8** The domestic service 10-step quality improvement planner was a good tool for improvement (**see page 44**).
- 9** The cleanliness and condition of the hospital environment was good (**see page 44**).

## Recommendations

### Standard 7

- a NHS Greater Glasgow and Clyde should consider the method of sharing information with patients about their invasive devices. This will support patients to proactively care for their devices and be aware of risks and signs and symptoms of infection (see page 36).

### Standard 8

- b NHS Greater Glasgow and Clyde should consider a review of the electronic estates reporting system, to enhance the prioritisation allocation and communication for both the estates team and staff within the clinical areas (see page 44).

## Requirements

### Standard 3

- 1 NHS Greater Glasgow and Clyde must ensure that specialist infection prevention and control advice is recorded within the ward-level patient care record to inform care planning. This will ensure that patients are well informed, including information on when their isolation period will end (see page 23).

**This is to comply with the Healthcare Associated Infection (HAI) Standards (2015) criterion 3.6. This will also comply with the new Infection Prevention and Control Standards (2022) criterion 3.1.**

### Standard 6

- 2 NHS Greater Glasgow and Clyde must ensure cleaning of tracheostomies is in line with guidance, not performed in clinical wash hand basins and staff have the correct information and support to do this safely (see page 32).

**This is to comply with the National Infection Prevention and Control Manual and Healthcare Associated Infection (HAI) Standards (2015) criterion 6.11. This will also comply with the new Infection Prevention and Control standards (2022) criterion 6.1.**

## Standard 6 (continued)

- 3 NHS Greater Glasgow and Clyde must ensure that systems and processes in place support clinical staff who are assuming a more senior role in managing a clinical area. This will include but is not limited to the senior charge nurse's responsibilities concerning infection prevention and control (see page 32).

**This is to comply with the National Infection Prevention and Control Manual and Healthcare Associated Infection (HAI) Standards (2015) criterion 6.11. This will also comply with the new Infection Prevention and Control Standards (2022) criteria 2.3.**

## Standard 8

- 4 NHS Greater Glasgow and Clyde must take steps to improve the governance and reporting of critical systems within the built environment. This should include but not be limited to:

A more robust system to ensure the infection prevention and control team is informed of ventilation performance validation reports in real-time to ensure any non-compliance that may impact infection control is identified and actioned at the earliest opportunity.

When approval is sought from committee members within the infection prevention and control governance structure, this is treated as a priority for all members with clear recorded evidence of approval or non-approval by required committee members. This will ensure clear accountability within infection prevention and control governance structures.

Ensure attendance by members of committees in the infection prevention and control governance structure, such as the NHS board water safety group, is a priority. When attendance is not possible, a deputy should attend, as recommended by the Vale of Leven Hospital Inquiry Report.

The governance water management structure is either fully applied or adapted to reflect the requirements of the reporting structure to ensure the NHS board is fully informed of any NHS board water safety group issues.

Review the system currently in place for quarterly reporting of flushing of water outlets to ensure a robust and effective process (see page 45).

**This is to comply with the National Infection Prevention and Control Manual, the Vale of Leven Hospital Inquiry Report (2014) Recommendation 59, and Healthcare Associated Infection (HAI) Standards (2015) criterion 8.4. This will also comply with the new Infection Prevention and Control Standards (2022) Criteria 4.2 and 8.2.**

# What we found during this inspection

## Standard 1

- **Leadership in the prevention and control of infection**

**We observed an open, transparent and supportive culture in relation to infection prevention and control across the hospital campus. Senior managers and the clinical team were knowledgeable about their roles and responsibilities.**

We observed open and transparent leadership from senior executive management throughout the:

- infection prevention and control service
- hospital site management
- clinical staff, and
- estates and domestic service management.

This was demonstrated through various sources, and we will aim to describe this throughout this inspection report.

There was very good co-operation throughout the inspection process, and we observed an open and responsive culture during this inspection. This is highlighted as an area of good practice for the staff and management within the NHS board, who were working under the same significant unprecedented pressures being felt across NHS Scotland. These pressures are associated with increased COVID-19 cases, increased demands for access to the hospital and inpatient beds, and high levels of staff shortages.

At the Queen Elizabeth University Hospital campus, several patient safety huddles are carried out throughout the day for the various sites/directorates. They are attended by senior managers responsible for the hospital campus, including senior clinical staff and support services such as estates and domestic service managers. We attended some of the safety huddles, where we observed good teamwork with open and transparent communication about staffing levels, environmental issues, bed numbers and patient wait times in admission areas such as the emergency department. The availability of domestic staff was also discussed to ensure prioritised cleaning in the clinical areas.

As with our previous inspection of the hospital campus in March 2022, we observed senior managers and clinical staff from across the hospital campus working together to try to reduce risks associated with the unprecedented increased pressures. However, not all of the risks could be reduced. We observed the risks, such as

staffing levels being highlighted, and 27 wards remained with a risk scoring of red even after mitigation. We observed a high level of awareness and understanding of where risks remained high. We also saw evidence of this being reported in the hospital's daily situation report, which is submitted at 11.00am each day to the Scottish Government.

The Healthcare Associated Infection (HAI) executive lead is the executive board member assigned to lead on infection prevention and control for the NHS board. This now sits under the remit of the executive nurse director for the NHS board. The new HAI executive lead explained they had, until 8 weeks prior to the inspection, been a member of the oversight board during the previous two and a half years working as the director of infection prevention and control before taking on the role of the executive nurse director and HAI executive lead. The director of infection prevention and control role is responsible for the delivery of infection prevention and control for all of NHS Greater Glasgow and Clyde. This role is now occupied by the previous interim infection prevention and control manager. We observed a good working relationship with good communication between the HAI executive lead and the director of infection prevention and control.

The HAI executive lead and director of infection prevention and control described the work that had been undertaken over the past 2 years to improve:

- communication
- the profile of infection prevention and control, and
- the relationships across the multidisciplinary teams who support the delivery of effective infection prevention and control.

During our discussion sessions with the wider infection prevention and control team, they all described the same processes, the accountability framework and communication through newly established team meetings. This provides some assurance that, at all levels, the team members who deliver the operational work are aligned with the systems and processes described by the executive-level team. There appears to be a whole system approach to infection prevention and control.

During the discussion session, the infection prevention and control team described the systems and processes in place to ensure the expertise and leadership of infection prevention and control within the hospital campus. We met with some lead infection prevention and control nurses, infection control doctors and the director of infection prevention and control. The team spoke clearly of their roles and responsibilities. They displayed a dedicated team ethos with colleagues describing a supportive and collaborative approach to infection prevention and control. This includes regular team meetings across all the disciplines involved, such as microbiology, virology, lead infection control nurses and infection control doctors, and estates colleagues.



We requested evidence to understand how the NHS board addresses local infection prevention and control issues. We were provided with the infection prevention and control accountability framework for NHS Greater Glasgow and Clyde. We saw minutes of key meetings of this working in practice. However, we noted some improvements that could be made around reporting from the NHS board water safety group to the NHS board's infection control committee (BICC), in line with the accountability framework. This is reported under Standard 8.

Staff we spoke with in the clinical environments across the hospital campus all described good contact and access to infection prevention and control advice from the team.

We also read the NHS Greater Glasgow and Clyde board papers that are available to the general public online. We saw that infection control is a standing item on the agenda from the board papers, with the HAI reporting template (HAIRT) being presented and discussed at this meeting. This is a national mandatory reporting tool all NHS boards are required to complete. We saw this was being used to provide the NHS board with oversight of the progress of HAI targets. This includes information on *clostridium difficile* infections (CDI) and *staphylococcus aureus* bacteraemia (SAB) cases, along with incidents and outbreaks and the control measures and investigations to be undertaken. The HAIRT report clearly defines what criteria are met to determine an HAI. We saw how the NHS board executive and management teams monitor infection prevention and control key performance indicators from the meeting minutes.

We saw within the HAIRT report that the Royal Hospital for Children reported an incident in the first quarter of the year. The report documented the investigations and management of the incident demonstrated through the control measures that were put in place. Communications and the actions taken concerning this incident were easy to follow within the wider evidence supplied to the inspection team. We saw procedures and processes in place to assess the problem, consider the possible reasons and put the risk management and controls in place. This provides a level of assurance that the systems and processes currently in place around incident and outbreak response, and the management and actions concerning infection control, align with a culture of openness and transparency. It was possible to see the NHS board oversight and assurance through the reporting structures within the HAIRT. We saw the initial assessment of the incident through evidence provided by the problem assessment group, comprised of senior clinical staff, senior infection prevention and control team members, estates managers, domestic managers and general managers who attend this group. This process was in line with NHS Greater Glasgow and Clyde's incident management process framework and national mandatory guidance and reporting policy.

We saw a culture of learning from incident reporting and outbreaks, with the infection prevention and control team taking the lead and assessing the situation

when an incident or outbreak is identified. We saw this completed in line with the National Infection Prevention and Control Manual (NIPCM). We also saw evidence of these incidents being reported and discussed through the Acute Infection Control Committee (AICC) and the BICC.

Throughout the inspection, we saw evidence of policies, procedures and guidance to support staff to understand that infection control is everybody's business. Senior managers and leaders within the NHS board were knowledgeable about their roles and responsibilities, demonstrating an open and inclusive culture. We observed teamwork across the different disciplines, for example domestic teams, estates teams, infection prevention and control, and clinical staff.

We were provided with evidence of the infection control risk register. This is a framework in which the identified risks can be recorded and actions detailed and instigated to reduce each risk's probability and impact. Each risk has an owner, such as the director of infection prevention and control, an infection control doctor or the HAI executive lead. These risks had review dates, and the operational and NHS board-level committees oversee these risks. This supports the recognition of infection control risks that exist when delivering safe and effective infection prevention and control. For example, NHS Greater Glasgow and Clyde have recognised that, although systems may fail, steps have been taken to reduce the likelihood or impact on the service delivery if this was to occur.

We were provided with a copy of NHS Greater Glasgow and Clyde's duty of candour policy. The duty of candour procedure is a legal duty that sets out how organisations should tell those affected that an unintended or unexpected incident appears to have caused harm or death. They must apologise and meaningfully involve them in a review of what happened.

NHS Greater Glasgow and Clyde's duty of candour policy explains the principles and the process to ensure the legal obligations of duty of candour are fulfilled. This policy highlights that a report of the duty of candour incidents will be provided to the clinical and care governance group each year for review. In some other evidence provided, we could see that where an incident had been identified, such as a healthcare associated infection, the duty of candour is discussed by the team investigating and managing the incident. We saw it was recorded within this documentation if the patient or their representatives had been informed. However, in instances where, the clinical team were to decide if there is a place for the duty of candour process, it was not clear within the incident management meeting documentation, if this had been carried out. We discussed this with the infection prevention and control team, who explained that as part of investigating an infection related incident, the team members might advise the clinical team responsible for the patient's care that they should consider the duty of candour. We saw evidence in the infection prevention and control incident management process framework that the duty of candour will be considered at the beginning and throughout incident

management. All incident management team members are required to follow NHS Greater Glasgow and Clyde's duty of candour policy. Within the policy are links to the National Education Scotland's (NES) online learning modules on the duty of candour for staff to access. We met with NHS Greater Glasgow and Clyde's medical director, who is responsible for the duty of candour for the NHS board and the clinical governance support unit. They explained the systems and processes in place to ensure the duty of candour is carried out in accordance with the policy. We were presented with information on an internal audit carried out in 2021; during this time, the duty of candour policy was under review. The audit confirmed through sample testing that appropriate specialist teams had consistently carried out the duty of candour investigations. Each investigation culminated in a summary report outlining the key issues raised and recommendations for improvement.

## Area of good practice

### Standard 1

- 1 We observed an open, transparent and supportive culture in relation to infection prevention and control.

### Standard 3

- **Communication between organisations and with the patient or their representatives**

**We observed good systems with the infection prevention and control team responding to incidents of infection, which is well documented within the infection prevention and control systems. However, this was less effective in the ward-based systems.**

**Patients and their representatives described having the required information, with some describing communication as excellent.**

We saw evidence that where infection risks to the patient are identified, appropriate actions are taken to minimise these risks. When infection control incidents were identified, we saw evidence of communication with the patient and their representatives. We saw the infection prevention and control team's electronic system, a computerised software package purchased by NHS Greater Glasgow and Clyde. This system provides real-time laboratory results to the infection prevention and control team, alerting them when a patient is identified as having an infection. This allows the infection prevention and control team to take action and advise the clinical team caring for the patient.

During our inspection, we spent time with the infection prevention and control team, and we saw that infection control nurses had allocated wards throughout the

hospital campus. They are responsible for providing specialist infection prevention and control advice to the ward, and surveillance and support to clinical staff providing ward-based care. We saw from the patient records within the electronic infection prevention and control system that the wards were visited or telephoned weekly where a patient had an identified infection that would require infection control advice. All the infection control records reviewed were current and up-to-date and documented the advice that was provided.

We observed ward-based staff communicating with the infection prevention and control team. This appeared to be good, with staff describing a good relationship with the infection prevention and control team and knowing who to contact for advice when needed.

We observed infection prevention and control nursing staff contacting the wards promptly when patients with an identified infection were admitted or transferred from other wards or hospitals. We saw from the electronic infection prevention and control system the specific advice given to the ward. During the inspection, we observed instances of this advice being carried out. This included advising staff caring for patients in isolation in single rooms to follow the correct infection prevention and control precautions. For example, putting on an apron before entering the room and performing hand hygiene during care activities. However, clinical staff providing ward-based care currently do not have access to the electronic infection prevention and control system. Although this system recorded that the patient or their representatives had been communicated with regarding their condition, it was unclear where this information was documented in the patient's record for ward-based clinical staff to review.

During our inspection, the inspection team randomly selected 20 cases of the most recent patients from the infection prevention and control system with a confirmed or suspected infection requiring isolation to follow up on their care. The majority of patients the inspection team was able to follow up on were patients with COVID-19.

We spoke with patients who had COVID-19, and they told us they had not received any specific information about their COVID-19 infection. We raised this with ward staff and the infection prevention and control nurses, who confirmed this. They explained this was due to a large number of admissions to the hospital with a COVID-19 infection. However, information leaflets were available throughout the hospital. One patient, who tested positive for COVID-19 on admission, said they had not experienced any symptoms and were unsure when their isolation period would end. The infection control nurses told us that although they did not routinely visit all patients who had a confirmed COVID-19 infection, they would telephone the ward to give advice due to the high numbers of patients. We saw evidence of their contact with the ward, and the advice they provided was recorded within the infection control electronic system. Patients who had other types of infection told us they, and

their relatives, had been given information from either an infection control nurse or a doctor.

Within the patient care records reviewed in the ward areas, the majority documented the confirmed infection and the date they had completed the test. However, there was no care plan detailing the correct precautions or any specific advice the infection prevention and control team provided. Despite this, we observed that patients with any infection or suspected infection were cared for in single rooms and appropriate infection prevention and control precautions were in place.

During our discussion session with the infection prevention and control team, they described different methods for sharing and documenting this advice within the ward-level patient care record. This included using standard stickers detailing advice and using other electronic patient record systems for patients who had been in intensive care areas. However, this was not observed during our inspection.

Although we did not see evidence of the infection prevention and control advice or care plans within the ward-level patient care records, we did observe the correct infection control precautions in place for the patients with a known or suspected infection.

The potential impact of the infection prevention and control advice not being recorded in the ward-held patient care record was observed in one area. A patient had completed their isolation period; however, their side room had not yet had a deep clean in line with national guidance and local policy. However, we were satisfied that enhanced daily cleaning had been carried out in this area, including using chlorine-based cleaning products in line with national guidance. The deep clean is an additional clean that would involve disposing of all disposable equipment and deep cleaning all the patient equipment and the environment. We raised this at the time of the inspection and ward staff arranged for the deep clean to be carried out.

To understand the patients and their representatives views of their care concerning infection prevention and control within the hospital campus, we spoke with 35 patients or their representatives across eight wards. These patients were randomly selected and did not necessarily have a known or suspected infection. The patients were receiving care within different areas of the hospital. They were asked if they would be happy to provide general feedback regarding communication, cleanliness and staff practice concerning infection prevention and control.

Within the Royal Hospital for Children, a parent shared that they found communication excellent in the hospital. They said they were always well informed by all staff groups concerning their child's care, the reasons for treatments and any possible side effects. They highlighted that some possible adverse effects caused them anxiety, but they understood that staff wanted them to have all the relevant

information. Staff would provide reassurance when they were feeling overwhelmed and anxious by the volume of information they received.

All of the other patients we spoke with said they had received clear guidance about the current infection control measures for COVID-19. They received this either by letter before a planned admission, at the point of admission to the hospital, or within the ward or department where they were being cared for. This information had been provided verbally by staff.

Patients and visitors also told us that they had been given information about coming to the hospital, the ability to visit and any precautions they were required to take. Overall, those we spoke with expressed confidence in the precautions within the hospital and the guidance they had been given by staff. Patients and visitors described the hospital buildings as having clear information and signage with access to hand gel and masks at the entrance to the hospital and within wards and departments. All patients or their representatives told us they would speak to a nursing staff member if they had concerns. None of the patients or their representatives complained about infection control practices.

In March 2022, some wards were reopened within the Royal Hospital for Children following renovation and refurbishment. We saw evidence of the NHS board communicating and engaging with the public in a detailed communication plan for reopening the wards. This included providing social media posts and letters with updates for the parents, a walk-through video of the ward with the ward staff describing the changes in the ward, talking with families directly and arranging for each family to have a tour of the ward. We could not follow up on this communication's effectiveness as this was before the onsite inspection work. However, the plan does detail key steps in informing and assuring the patients and their families on the move back to the renovated wards.

We were also provided with a joint statement from the NHS board and NHS Scotland Assure. NHS Scotland Assure was launched in June 2021 to improve the quality and management of healthcare construction and refurbishment projects across NHS Scotland. This statement was released before the reopening of the wards and detailed the work that had been carried out. It thanked those who had contributed to fundraising and described the benefits for the patients and families the renovated facilities would bring. This communication acknowledged this had been a challenging time for those patients and families who had not had access to the wards during the renovation period.

An area of communication that could be improved does not relate to communication with the patients, or their representatives, but to communication with domestic staff. Some domestic staff we spoke with highlighted that they do not have access to work email accounts. They told us they felt this would be a more effective and reliable way to share information with them. Currently, domestic staff rely on information being shared with them by the domestic supervisors, from staff on the

wards and through handover documentation. We raised this with senior managers for domestic services, who agreed that email access for this staff group would be beneficial. This had been considered, but it was not currently being progressed.

## Area of good practice

### Standard 3

- 2 Patients and their representatives described good communication on infection, prevention and control considerations.

## Requirement

### Standard 3

- 1 NHS Greater Glasgow and Clyde must ensure that specialist infection prevention and control advice is recorded within the ward-level patient care record to inform care planning. This will ensure that patients are well informed, including information on when their isolation period will end.

**This is to comply with the Healthcare Associated Infection (HAI) standards (2015) criterion 3.6. This will also comply with the new Infection Prevention and Control Standards (2022) criterion 3.1.**

### Standard 4

- HAI Surveillance

**We observed that NHS Greater Glasgow and Clyde has a surveillance system that can assure a rapid response to hospital acquired infections (HAI).**

#### Ward surveillance data

During our inspection, we observed surveillance data in 10 wards to understand if this information was displayed in a way for the patients and the public to see. Most wards displayed the number of days since the ward last had an HAI. We saw that the information displayed varied across the different areas. For example, in the critical care wards visited, we saw the area displayed the number of days since the last ventilator associated pneumonia was identified. This would only apply to areas where patients are cared for on a ventilator.

#### NHS boards' surveillance of infections

From the evidence submitted and reviewing the electronic reporting system, NHS Greater Glasgow and Clyde has an infection control surveillance programme, incorporating national mandatory guidance and local surveillance of infections and alert organisms. These are specific organisms or conditions that may require further

investigation or input and advice from the infection prevention and control team, for example *methicillin-resistant Staphylococcus aureus* (MRSA) or COVID-19. We saw evidence of this in practice when the infection prevention and control team responded to newly alerted infections reported to them through this electronic system.

We also saw evidence of NHS Greater Glasgow and Clyde's HAI reporting template report. This is prepared by the infection prevention and control team for the HAI executive lead and reported through the NHS Greater Glasgow and Clyde infection control governance structure to the NHS board. Within this report, infections are reported, including those that are government targets, for example CDI infection rates and other incidents and outbreaks.

We were provided with evidence of the triggers built into the electronic infection prevention and control system that allows prompt detection and response to a variance of normal limits. For example, when two cases of infection are identified with links to one area within a specific timeframe. We saw evidence of action taken by the infection prevention and control team through various groups, including problem assessment groups and incident management teams.

Within the evidence provided by NHS Greater Glasgow and Clyde, we identified suspected cases of *Aspergillus*-related infection discussed at the AICC. We requested further information and were provided with the evidence of a problem assessment group that had been convened by one of the infection control doctors in response to two suspected cases of *Aspergillus* infection. We saw that immediate action was taken, an assessment of the situation was made, and control measures were implemented to reduce any additional risk. This included closing the area to any other patients, assessing the area and any potential system failures or environmental concerns and checking that the ventilation had been through the correct checks. During the assessment of this incident by the infection prevention and control team, the clinical team within the hospital campus identified that there had not been two cases of *Aspergillus*-related infection. An error with processing the samples within the laboratory led to the initial concern of two positive results. The process within the laboratory is not within the scope of this inspection.

This was an example of a trigger within the system working, and the infection prevention and control team and wider multidisciplinary team responding to the trigger. We discussed the NHS board's approach to this incident with our independent *Aspergillus* expert. They agreed that the NHS board was appropriate with the actions taken, and the NHS board appeared to be taking a very vigilant view of infection related to *Aspergillus*.

This is evidence of NHS Greater Glasgow and Clyde's incident management process framework, described within Standard 1 of this report. The framework describes the process to follow when identifying an incident that may result from a trigger within the system. We saw evidence of the process within this document being followed



through the evidence we requested concerning incidents and outbreaks across the hospital campus.

## Area of good practice

### Standard 4

- 3 NHS Greater Glasgow and Clyde have a process to identify infection prevention and control alert triggers within the system and follow a clear process to act and minimise further risks.

### Standard 6

- Infection prevention and control policies, procedures and guidance

**NHS Greater Glasgow and Clyde demonstrated evidence-based infection prevention and control measures, such as implementing and adhering to the guidance within the National Infection Prevention and Control Manual (NIPCM). This includes good practice in standard infection prevention control precautions such as hand hygiene. However, this report highlights limited national guidance for infection prevention and control management and response specific to *Aspergillus*. Current reliance on professional opinion and interpretation in practice is problematic for this complex and highly expert topic and may lead to a lack of standard approach across NHS Scotland.**

The current version of the NIPCM has been adopted by the NHS board and is accessible by all staff. Staff were able to show us how they accessed this guidance.

Within the evidence supplied, NHS Greater Glasgow and Clyde provided additional guidance documents they had produced such as the incident management process framework. The infection prevention and control team developed this document that the BICC approved. It clearly describes the process the NHS board should follow in the event of infection control-related incidents or outbreaks. This supports the guidance within the NIPCM, *Chapter 3 - Healthcare Incidents, Outbreaks and Data Exceedance*. This document provides a detailed and systemic approach with clear steps for teams to follow in identifying, managing and recording incidents and outbreaks when they occur. Within further evidence provided by the NHS board, we saw this policy being followed in identifying incidents, investigations and planned actions when infection incidents occurred.

In reviewing further information on the response to infection related to *Aspergillus*, NHS Greater Glasgow and Clyde confirmed that a single case of healthcare associated *Aspergillus*-related infection would not necessarily be treated as an incident or outbreak. The reason for this is NHS Greater Glasgow and Clyde consider a single case would not meet the definition of an incident or outbreak defined in Chapter 3 of the NIPCM.

The definitions within the NIPCM are:

**An exceptional infection episode:**

- A single case of an infection that has severe outcomes for an individual patient OR has major implications for others (patients, staff and/or visitors), the organisation or wider public health, e.g., infectious diseases of high consequence such as VHF or XDR-TB, botulism, polio, rabies, diphtheria.

**A healthcare associated infection outbreak:**

- Two or more linked cases with the same infectious agent associated with the same healthcare setting over a specified time period or
- A higher than expected number of cases of HAI in a given healthcare area over a specified time period.

**A healthcare infection data exceedance**

- A greater than expected rate of infection compared with the usual background rate for the place and time where the incident has occurred.

**A healthcare infection incident should be suspected if there is:**

- A single case of an infection for which there have previously been no cases in the facility (e.g. infection with a multidrug-resistant organism (MDRO) with unusual resistance patterns or a post-procedure infection with an unusual organism).

Guidance within the NIPCM then explains that, following recognition of an incident or outbreak described above, the infection prevention and control team should undertake an initial assessment, utilising the Healthcare Infection Incident Assessment Tool (HIIAT). This should then be reported to Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland through the electronic outbreak reporting tool.

We sought advice from ARHAI Scotland who confirmed that a single case of healthcare associated *Aspergillus*-related infection would meet the definition within the national guidance and should have the HIIAT applied and then be reported through the electronic outbreak tool. This inspection highlights a divergence in the interpretation of this guidance within the NIPCM. This may require further review across NHS Scotland to understand if interpretations differ in other NHS boards. As discussed earlier in this report, no new outbreaks of *Aspergillus*-related infection were reported to ARHAI Scotland from August 2021 to May 2022. This could indicate systemic under-reporting of *Aspergillus*-related infections within Scotland but understanding if this is the case is out with the scope of this inspection.

Within the other evidence supplied by NHS Greater Glasgow and Clyde, the NHS board demonstrated oversight and awareness of *Aspergillus*-related infections across the hospital campus. This showed that, when cases were identified, the infection prevention and control team took action to understand the situation and assess for a

potential cause. This included a review of any potentially related cases of Aspergillus-related infection either 30 days before or 30 days after microbiology laboratory identification. From the information provided, we were assured that there were infection prevention and control systems and processes in place to be alert to potential triggers within the system and to take action to respond to these.

We sought advice from our external independent Aspergillus expert who acknowledged that the 30 day marker was an appropriate point to establish and review all new cases. However, he suggested that when applying the review period for any potentially linked cases, NHS Greater Glasgow and Clyde may wish to consider a commencement point of 30 days from initial signs of infection rather than 30 days from identification of infection. He believes this may be more effective in identifying possible related cases given the potential for delay in testing for aspergillosis and insensitivity of each individual diagnostic test.

This lack of clarity highlights the need for more specific national guidance for infection prevention and control management and response specific to Aspergillus infection. The current over-reliance on professional opinion and interpretation in practice for what is often a complex clinical and infection control topic is not desirable. The development of guidance to support a more standardised infection prevention and control approach across NHS Scotland is advised. Healthcare Improvement Scotland will be recommending to Scottish Government that national guidance to support a standard approach to the infection prevention and control management of Aspergillus infection across NHS Scotland should be considered and developed.

For the wider application of infection prevention and control practice, standard infection control precautions (SICPs) and transmission-based precautions (TBPs) are described within the NIPCM. There are 10 SICPs, including patient placement, hand hygiene, the use of personal protective equipment (such as aprons and gloves), management of patient care equipment and the care environment, safe management of blood and fluid spillages, linen and waste management and prevention and exposure management (such as sharps injuries). The additional TBPs should be followed by all staff at all times when caring for patients to help prevent cross-transmission of infection.

During our inspection, we observed generally good compliance with SICPs and TBPs.

In the newer parts of the hospital campus, the majority of patient rooms are single rooms. Patients in multi-bed bay areas with a confirmed or suspected infection were placed in a side room.

NHS Greater Glasgow and Clyde have also developed a standard operating procedure (SOP) to support staff in identifying the best place to care for patients with a specific infection that may require a specialist room to reduce the risk of circulating air between the room and the corridor. For example, a patient with chicken pox or

measles, or to protect patients with very low immunity. The information within the SOP details the specific rooms across NHS Greater Glasgow and Clyde, including the Queen Elizabeth University Hospital campus, which should be used when patients require specific enhanced isolation facilities. We discussed this with the infection prevention and control team, who told us that they use this SOP to help advise clinical staff on the best placement for the patient's needs.

One of the key precautions in infection prevention and control is practising good hand hygiene. At our previous safe delivery of care inspection in March 2022, we gave NHS Greater Glasgow and Clyde a requirement to ensure that all staff carry out hand hygiene at appropriate moments. Since that inspection, we saw improvement actions have been put in place. This includes training sessions for staff and staff groups, such as porter and facilities services, to carry out hand hygiene audits. Other improvement actions included raising awareness through the topic of the week sessions. At these sessions, specific topics are discussed using guidance on the correct practice, focusing on the importance of good hand hygiene. During this inspection, we saw good improvement in hand hygiene across all staff groups, with the majority of staff carrying out hand hygiene in line with guidance.

The patients we spoke with told us about mixed experiences with getting help with their own hand hygiene.

- Most areas had easily accessible hand wipes or gel within reach of patients. In some instances, we heard these items were in lockers, and patients required assistance to access them.
- All patients we spoke with described getting assistance with personal care when required.
- Patients who could not independently access hand washing facilities told us they had not been offered assistance with washing their hands before meal times. We raised this with staff and senior managers during our inspection.
- All of the patients and relatives we spoke with told us that they were aware of staff washing their hands at the correct times, such as before or after touching the patients or their surroundings.

Personal protective equipment (PPE), such as gloves and aprons, are used by staff to protect them from risks associated with the task being carried out. This will protect both staff and patients. For example, if a patient has an infection, the use of PPE will help prevent the staff member's uniform from becoming contaminated, with gloves helping to protect from physical contamination and hand hygiene carried out before putting on and on the removal of the gloves.

We observed the storage and use of PPE was good. This includes storing PPE to prevent potential environmental contamination and staff wearing gloves, aprons and face masks correctly in line with guidance. However, we observed staff wearing gloves when not required in one ward area. This may result in staff not carrying out

hand hygiene at the correct times. We raised this with the ward and managers during our inspection for immediate action.

We observed good compliance with linen and waste management.

- Clean linen was stored to prevent contamination.
- Used and infectious linen was managed appropriately, stored and handled properly, with the linen trolley buggy taken to the point of care and bagged correctly.

In the majority of instances, sharps management was good. However, some temporary closures were not in use. These prevent needles or sharps protruding from the sharps bin. This was highlighted to staff and the closures were put in place.

Staff told us they would challenge colleagues who do not adhere to the guidance in the NIPCM, and we observed this during our inspection. We saw a staff member ask their colleague to remove and replace their facemask as it was sitting under their nose. This is good practice and all staff should feel confident in reminding colleagues of the best practice guidance. This is particularly important when staff work under extreme pressure with many competing priorities.

Across several of the clinical areas inspected, we identified that multipack boxes of tongue depressors were in use. Staff told us these were being used to view the patient's palate and throat. We saw that these were stored in open shelving, or on patient equipment, with lids of the boxes open. These were large multipack boxes, meaning several staff members may access the box. We discussed options with the NHS board to reduce the risk of cross-contamination arising from people accessing the multipack boxes and touching the tongue depressors and the risk of environmental contamination from the boxes lying open on shelves for long periods of time. NHS Greater Glasgow and Clyde agreed to move to individually wrapped tongue depressors to reduce any possible risk from the multipack boxes.

At our previous inspection in March 2022, we gave NHS Greater Glasgow and Clyde a requirement to ensure clinical wash hand basins were used only for hand hygiene and not for other things, such as disposing of liquids and teeth brushing. During this inspection, the majority of areas inspected were using clinical wash hand basins for the correct purposes.

However, in one area, we observed staff cleaning respiratory equipment (tracheostomies) in the clinical wash hand basin. By doing this, there is a risk of contaminating the clinical wash hand basin. We raised this with senior managers during our inspection and they confirmed this is not the practice that the infection prevention and control team would advise. However, when we returned to the area 10 days after the initial findings, this practice continued to be in place. The senior charge nurse in the area explained that they had been sent a copy of NHS Greater Glasgow and Clyde's procedure for cleaning tracheostomies, but due to the ward being busy and staff sickness, they had not had the time to change the practice and

were not clear how it would work in this area. We raised this again with senior managers, who assured us support would be provided in this area to change this practice. During our subsequent discussion session with the infection prevention and control team, they confirmed the lead infection prevention and control nurse had visited the area to provide information on how to clean the equipment safely and confirmed this practice was now being carried out in line with the guidance supplied to the ward.

At our previous inspection in March 2022, NHS Greater Glasgow and Clyde were required to ensure the Specialist Assessment and Treatment Area (SATA) had sufficient hand hygiene facilities, appropriate storage and access to PPE and adequate placement of patients. These issues were all addressed at the time of our previous inspection. We assessed this again during this inspection and found the improvements made during the last inspection had been sustained.

The majority of the patient care equipment was clean and ready for use. However, in one ward, we found several pieces of equipment were not clean. This included equipment trolleys, intravenous stands, bed frames and a blood glucose monitoring machine with a small amount of blood contamination. We identified other issues within this ward, such as a lack of awareness of the necessary checks the nurse in charge should carry out. This included checking equipment cleanliness and running water in the less frequently used water outlets. We raised this with ward and hospital management. We were told that, due to staff sickness at a senior level within the ward, the staff team had been working to continue to provide care, however were not aware of all of the roles and tasks that would normally be carried out by the senior staff. This had been the situation for several months. We discussed this with managers responsible for this ward and the impact the lack of support can have on the ward or clinical area when a staff member is required to move into a more senior role quickly. We were assured by the senior management team that support would be provided immediately.

We returned to this area 10 days after our initial inspection. We were assured that progress had been made and staff were now receiving support. The equipment we checked was clean. There were processes in place for the nurse in charge to check the cleaning schedules, and the chief nurse for this area was providing support. This support included walk rounds of the area to check the cleanliness of patient equipment and the environment, and that systems and processes were in place. The chief nurse also provided real-time feedback to staff on their findings. Staff we spoke with described this input from the senior management team as very supportive and collaborative. In response to the issues highlighted in this area, NHS Greater Glasgow and Clyde have developed a new checklist that they are currently trialling to support other charge nurses who may have to step up quickly into a more senior role. The checklist includes roles and tasks that should be completed either daily, weekly, monthly, quarterly or 6-monthly. It also includes many other elements of the senior change nurse role that were identified within this area.

In the same clinical area, we also identified that the clinical preparation room was small and was shared with another clinical area. This resulted in a limited work surface in the preparation area. During our return visit to this area, we observed staff preparing intravenous (IV) medications within splash distance of the disposal sink used to dispose of ice. This is a risk as there can be contamination from the disposal sink to the clean area required for the aseptic preparation of IV medications. We discussed this with the nurse in charge and the infection prevention and control team who confirmed a trolley was now in place and was being used to prepare IV medications.

In another clinical area, we found chairs torn, with some contamination on the inside parts of the damaged chairs. We raised this with ward managers at the time of our inspection, and it was identified that the chairs had not been included in the ward cleaning schedule. Therefore, the chairs appeared to have been missed during cleaning and cleanliness checks. We returned to the ward 10 days after our initial visit and saw this had been addressed and the damaged chairs removed. We observed that chairs were now included in the cleaning schedules, and we found the chairs to be clean.

We observed that ward areas carry out SICPs audits every 6 months, with additional hand hygiene audits carried out each month. We saw evidence of the current audits being carried out with documented improvements. Where improvements were required, for example if any of the SICPs observed were not compliant with the national guidance, we saw evidence of action taken to improve this.

From the evidence provided by the NHS board, the oversight board recommended in 2020 that NHS Greater Glasgow and Clyde undertake a review of its programmes of audit relating to infection prevention and control, in line with the Healthcare Improvement Scotland (HIS) framework for quality planning and improvement. The aim is to ensure consistency in audit score ratings and a stronger link to a continuous culture of improvement.

The changes to the NHS Greater Glasgow and Clyde's SICPs audit programme reflect a shift in responsibility from the infection prevention and control teams to local clinical management teams, underpinned by organisational governance structures ensuring strategic oversight.

The infection prevention and control team confirmed the infection control-led audit programme will audit:

- all high-risk areas such as intensive care units annually
- 20% of wards on an annual rolling programme, and
- wards, where SICPs audits have been requested as part of actions agreed at an incident management team, align with the NHS Great Glasgow and Clyde incident process framework.

During our discussion with infection prevention and control staff, they told us about the new programme of infection control audits currently in development. They hope to implement this in October 2022.

## Areas of good practice

### Standard 6

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| <b>4</b> | NHS Greater Glasgow and Clyde developed a standard operating procedure (SOP) to identify the best place to care for patients with a specific infection that may require care areas with specialist ventilation. |
| <b>5</b> | Good staff compliance with standard infection control precautions and transmission-based precautions.   |

## Requirements

### Standard 6

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| <b>2</b> | NHS Greater Glasgow and Clyde must ensure cleaning of tracheostomies is in line with guidance, not performed in clinical wash hand basins and staff have the correct information and support to do this safely. |
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**This is to comply with the National Infection Prevention and Control Manual and the Healthcare Associated Infection (HAI) Standards (2015) criterion 6.11. This will also comply with the Infection Prevention And Control Standards (2022) criteria 6.1.**

- |          |   |
|----------|---|
| <b>3</b> | NHS Greater Glasgow and Clyde must ensure that systems and processes in place support clinical staff who are assuming a more senior role in managing a clinical area. This will include but is not limited to the senior charge nurse's responsibilities concerning infection prevention and control. |
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**This is to comply with the National Infection Prevention and Control Manual and the Healthcare Associated Infection (HAI) Standards (2015) criterion 6.11. This will also comply with the Infection Prevention And Control Standards (2022) criteria 2.3.**



## Standard 7

### • Insertion and maintenance of invasive devices

**We found good practice in the insertion and care of invasive devices observed during this inspection.**

Invasive devices are medical devices introduced into the body either through a break in the skin or an opening in the body, for example a vascular access device.

A vascular access device is a tube inserted into a main vein or artery to provide access to veins for the delivery of intravenous medications, monitoring blood pressure and collecting blood samples. Vascular access devices are significant causes of HAIs, and bloodstream infections associated with central venous device insertion are a major cause of morbidity. The risk of infection is greatly reduced by complying with all parts of the process for safe insertion and maintenance of the device and its removal as soon as it is no longer needed.

The invasive devices we reviewed as part of this inspection were peripheral venous cannulas (PVC) and central venous catheters (CVC). PVCs are designed to be used for short-term uses such as intravenous fluids and medications. A CVC or central line is a catheter with a tip that lies within large veins. When a patient has an invasive device in place, they should be informed of the signs and symptoms of the risks associated with the device.

We checked 35 PVC/CVCs across the hospital campus during our inspection. We found that two of the wards we attended to inspect invasive devices in the hospital campus had no patients with a PVC or CVC in place, demonstrating that using devices is avoided and removed when no longer needed. This is good practice.

We observed that staff follow key practice recommendations on how and when invasive devices should be used, maintained, monitored and removed. These procedures include using an aseptic technique when inserting the device, using the correct antiseptics and dressings, and removing the device as soon as it is no longer needed. From observations of the invasive device sites, care plans and discussions with staff and patients:

- PVCs were checked at least twice daily, and no PVCs were in place for longer than the recommended 72 hours.
- All CVC devices were checked daily. All of these devices had been in for less than 7 days or had had their dressing changed every 7 days, in line with best practice guidance.
- All patients had an appropriate dressing that was transparent to allow staff to observe the insertion site for any signs of infection.
- No patients with a PVC or CVC had signs of infection at the insertion site.

- In the Royal Hospital for Children, all parents or representatives of the patients told us they were well informed of the need for the invasive device. They were all aware of the risks associated with the device. They emphasised staff were very good at explaining these risks.

Documenting the date and time of insertion of a PVC is an important step to ensure it is not left in place too long. We found that the insertion date was documented for most patients with a PVC. NHS Greater Glasgow and Clyde's policy states that PVCs should be monitored twice daily. This is an area of good practice and is over and above the national guidelines for monitoring these devices once per day.

Two patients with a PVC did not have a care plan in place for the device.

- One patient's PVC had just been inserted. Nursing staff confirmed that the care plan had been put in the patient's notes but had not yet been completed.
- One patient did not have a care plan in place or any evidence of this being started. However, the patient had no obvious signs or symptoms of infection at the site of the device. Nursing staff confirmed that the patient was to have a PVC inserted later in the week. As it was not clear when the device had been inserted, this device was removed to reduce the risk of it being in for too long.

Most patients we spoke with within the adult hospital had not been informed of the risks associated with their device or could not remember if they had been informed. In some cases, they had been very unwell when it was inserted. Although information leaflets were in a patient information folder in all patient rooms, most patients were unaware of the folder and did not know the information was there.

Guidance on the insertion of a CVC states maximum precautions must be taken to ensure the healthcare worker uses sterile barrier precautions to minimise the risk of infection to the patient. These include carrying out a surgical scrub, wearing sterile protective clothing such as a gown and gloves, using a sterile drape to protect the patient, and using care plans to document the insertion procedure.

The CVC insertion documentation we reviewed stated aseptic technique had been carried out. We discussed this procedure with the vascular access service staff, clinical staff caring for the patients, the infection prevention and control team, and some patients with a CVC in place. All staff could describe the procedure followed when the CVC was inserted, and everyone we spoke with described the aseptic technique correctly. On one ward, we observed a dressing change being carried out. This was done in line with the national guidance by using an aseptic technique and cleansing the skin with the correct cleansing agent. All CVCs had a transparent dressing in place to allow staff to monitor the site for signs of infection. Within the adult hospital, all CVCs observed had a chlorhexidine-impregnated sponge dressing at the entrance site for the line. This is a practice to help reduce the risk of infection that goes above current best practice guidance.

Through our observations, review of evidence and discussions with staff, we found staff respond when there is any indication of infection risks with a commitment to improvement through appropriate investigations and actions. Staff within the vascular access service, the infection prevention and control team and the renal ward told us that, due to the increased complexity and severity of patients' illness and restrictions on services as a result of the COVID-19 restrictions, invasive devices such as CVCs had increased. As this is an invasive procedure, this carries the risk of increased infections relating to the invasive devices. A short-life working group including staff from health and safety, learning and development, nursing leads, an infectious diseases consultant and an infection prevention and control nurse had been formed to carry out a range of improvement work relating to these devices. This included education, audits and communication by adding vascular access devices to ward safety briefs and handovers.

The benefit of including the vascular access devices within the ward safety brief and staff handovers is that all staff are made aware of patients who have additional care needs due to the invasive device at the start of their shift. This reminds staff to carry out the daily review of the device, monitor for signs of infection, and consider the continued need for the device or if it can be removed.

We discussed with the infection prevention and control team what actions would be taken when an infection relating to a PVC or CVC was identified. This includes an investigation to establish the reason for the infection and determine if the infection could have been avoided. If it was an avoidable infection, it is reported. The clinical team providing care for the patient then work to identify any lessons learned from the incident. The infection control team would be included in the review process and offer support where they can. We saw evidence of this process being carried out.

Monthly PVC and CVC line care audits are carried out. However, within the Royal Hospital for Children's wards, we saw that they carry out these audits daily as an extra precaution. This is an example of staff within the area working above and beyond expectations to improve patient safety. We saw that the audit results, including those carried out by the infection prevention and control team, consistently scored 100%. This was reflective of what we observed during our inspection. We considered this exceptional practice within these areas.

## Areas of good practice

### Standard 7

**6** Peripheral venous cannulas (PVC) devices were monitored twice a day.

**7** The Royal Hospital for Children carry out audits of peripheral venous cannulas (PVC) and central venous cannulas (CVC) daily.

## Recommendation

### Standard 7

- a NHS Greater Glasgow and Clyde should consider the method of sharing information with patients about their invasive devices. This will support patients to proactively care for their devices and be aware of risks and signs and symptoms of infection.

### Standard 8

- Decontamination

**We found a good standard of cleaning, and the environment was mostly in a good state of repair. Domestic and clinical staff described good teamwork and satisfaction with the systems in place to ensure a clean and safe environment. The infection prevention and control team and estates managers told us about good working relationships between the teams, with all colleagues expressing positive working relationships across these teams. However, the robustness of governance structures and reporting relating to the built environment is an area for improvement.**

The cleanliness of the environment within the hospital campus inspected was mostly good. This reflects the work that has been carried out since 2019 at our previous infection control-related inspections within the hospital campus. Previous inspections identified issues with the systems and processes to monitor the cleanliness of the environment and the equipment available to staff for effective cleaning. We were told that the learning from previous inspections had resulted in changes in the domestic services assurance mechanism to drive improvements.

During this inspection, we identified very few exceptions to the standard of cleanliness of the environment. In one of the older buildings within the hospital campus, we saw black markings on the window seals. The estates and facilities teams were unaware of this before we raised this with them. We saw evidence that the NHS board then took action to address this by starting a programme of having the seals cleaned by a professional company with plans to replace all of the seals in that area. The date for completion had not been agreed upon due to patients needing to be removed from the area to complete the work. However, we were told this is currently being reviewed.

The domestic team, which includes domestic staff, supervisors and facilities managers, are responsible for ensuring the care environment is clean with a reactive and responsive element to these roles. We were told there is 24-hour domestic support, including a supervisor and domestic staff. This would be required if, for

example, emergency work is required to be carried out in a clinical area overnight. That area cannot be used until it has been cleaned.

During the hospital safety huddles, domestic managers were asked if all clinical areas had the appropriate domestic staffing. We spoke with the domestic staff and managers, who were knowledgeable about their roles and responsibilities. The only exception we observed was the method applied to cleaning a clinical wash hand basin. We raised this with domestic managers, who addressed this through the facilities' quality improvement programme. This is reported later in this section.

We acknowledge the hard work within the hospital campus to have maintained this good standard of cleaning under very challenging conditions, such as COVID-19, staffing pressures and increased bed pressures. These can directly impact domestic services, such as additional cleaning requirements and workload. During our discussion session with facilities managers, they told us that NHS Greater Glasgow and Clyde decided to over employ domestic staff during the pandemic to ensure the required additional cleaning duties could be achieved. We saw evidence of these additional posts within the data provided by the NHS board.

Steps are described to prevent and manage ventilation HAI incidents within the NIPCM. One of the guidance points to prevent an incident or outbreak in all settings is that ventilation systems will require maintenance and cleaning. Cleaning schedules should incorporate regular visual inspection of ventilation grilles for lint and dust accumulation. We observed the ventilation grilles in the inspected areas to monitor for dust build-up. We observed the majority of these ventilation grilles were clean. The only exception was in the emergency department, where we identified some had a build-up of dust. We raised this with the estates team, who are responsible for the programme of cleaning these grilles. We were informed that the ventilation grilles in the emergency department had been cleaned within their programmed expected frequency. However, due to the inspection findings, this frequency has increased to ensure they remain dust free in this area. This is a significant improvement from our previous inspection in 2019, where ventilation grilles were found to have a heavy build-up of dust.

Another guidance point to prevent incidents and outbreaks concerning ventilation is that high-risk areas should monitor ventilation performance annually. The technical information and the volume of reports do not fall within the inspection team's area of expertise. Therefore, to ensure ventilation monitoring within this hospital campus, we asked for the specific ventilation performance validation reports of two high-risk areas randomly selected by the inspection team.

Within one of the reports provided, we saw some maintenance actions were required to be taken to address some minor faults or damage to the fabric of the area supplied by the ventilation system. We saw that action had been taken to rectify some of these faults, except for one room area where some damage to the flooring had been identified. However, access was restricted due to patient care

needs. We were informed that the estates team are in regular contact with the clinical area to identify when this rectification work could be completed. In the other report, we saw that there had been a 15-month gap between the validation reports. However, the NHS board also provided documentation to show that they had attempted to carry this out within the year, but they could not gain access at the time due to a patient being cared for in that area who could not be moved to carry out the work.

We saw evidence that when access was not possible to carry out the ventilation performance validation, there was clear documentation signed by the staff responsible for that clinical area stating that access could not be permitted due to patient care needs. We saw that the ventilation performance validation was carried out when access to the area was possible.

We discussed how the ventilation performance validation reports are shared with the wider multidisciplinary team. We were told they will now be shared formally at the new ventilation group. The first meeting of this group was in June this year. We were provided with the terms of reference and the minutes of the first meeting. We could see the group membership had representation from the estates, clinical and infection prevention and control teams. However, prior to the establishment of this meeting, we were told sharing these ventilation reports was a more informal process, with the estates team contacting the infection prevention and control team if any failures or poor scores were reported. The infection prevention and control team also confirmed this process. Although we recognise these reports will now be included in the new ventilation group, there must be an improved formal system for sharing these reports in real-time rather than waiting to be presented at a scheduled meeting. This will ensure the infection prevention and control team are formally aware of report findings on receipt of the report. This will reduce the need to rely on estates colleagues to alert them to any potential infection control concerns that may require the immediate infection prevention control team to immediately act upon or provide advice.

In March 2022, wards 2A and 2B within the Royal Hospital for Children on the Queen Elizabeth University Hospital campus, were re-opened after refurbishment. NHS Scotland Assure provided support to NHS Greater Glasgow and Clyde throughout the refurbishment process. However, this project was not subject to a Key Stage Assurance Review as the project pre-dated this process.

The information submitted to NHS Scotland Assure by NHS Greater Glasgow and Clyde is out with the scope of this inspection or the expertise of the inspection team to interpret.

We discussed the governance processes within the NHS board for the reopening of the wards with senior managers within NHS Greater Glasgow and Clyde. We were told when information was being shared to support the reopening of the wards, an email was sent to the NHS board water safety group and the BICC members. This

provided a link to the electronic platform where the documents that were to be shared were stored, with the confirmation of approval being requested within the email. We were provided with evidence of this email trail. However, we noted only 13 of approximately 35 people responded to this email as requested.

During our discussion with senior managers, we were told that a non-reply would also be considered approval. We believe the NHS board could strengthen the governance around this process to ensure clear accountability within the governance structures.

During our onsite inspection, we observed the healthcare associated infection system for controlling risks in the built environment (HAI scribe) process being applied during our inspection and through the evidence provided by the NHS board. HAI scribe is a tool that should be used to identify infection risks when carrying out building work in the clinical environment and is used to manage and mitigate identified risks. The HAI scribe should be completed before works are carried out in clinical areas to reduce the risk of contamination from the building work affecting the clinical care environment. This ensures processes are in place to support NHS boards' compliance with the guidance within the NIPCM.

We observed work being carried out, including cleaning ventilation systems in several areas. We saw that control measures were in place to reduce the risk of contamination of the environment during the cleaning process. This included screening the area off to prevent any dust or debris from leaving and cleaning the area before reopening the clinical area. We were provided with the HAI scribe risk assessment for this process. The estates and infection prevention and control teams explained that this is one of a suite of standard HAI scribes that the NHS board have put together to allow works carried out at regular frequencies to go ahead.

We saw that the infection prevention and control and estates teams produced these HAI scribe risk assessments and that the control measures for carrying out these works were assessed and stipulated within the documents. These are then used and followed by the staff carrying out the work. Both teams described these processes well and spoke highly of the teamwork between both departments in completing these pieces of joined-up work.

The management of water systems within the healthcare environment is essential. It is recognised that water sources are a potential infection risk, especially to patients in high-risk units. NHS boards have a large volume of guidance to be followed, including a robust system and evidence of safe water management systems, a water safety group responsible for developing and maintaining a water safety plan, risk assessments and actions to mitigate risks.

We reviewed NHS Greater Glasgow and Clyde's water management policy. The policy clearly described the NHS board's roles and responsibilities for water safety.

One of the actions to reduce the risk of water sources being a potential infection risk is that water outlets, such as taps, should be flushed regularly in high-risk areas. This should be at least daily with a record kept. We found that all the areas inspected were flushing the taps daily, including the less frequently used outlets. This is a significant improvement as it was previously highlighted as a requirement from the January 2019 inspection. The only exception was in one area where staff in charge of the area were unaware that they were responsible for checking the flushing had been carried out. We were assured that domestic staff in this area were flushing and could see records of this. However, the sink in the sluice was the nursing staff's responsibility and there were no effective checks to ensure this was being carried out. We raised this during our inspection. This has been reported under Standard 6 (see requirement 3).

Another key step is the correct method of cleaning clinical wash hand basins. We observed domestic staff cleaning clinical wash hand basins and discussed the cleaning process they followed. We identified that several domestic staff were cleaning the basin incorrectly. For example, moving from inside the wash bowl to the taps. There is a risk of moving any contamination from the inside of the bowl to the tap using this method. The process of cleaning clinical wash hand basins has been raised as an area for improvement with a requirement made at the January 2019 inspection. However, the improvement actions from this previous requirement had not been successfully maintained as we identified this again as an area for improvement. We raised the incorrect cleaning processes with managers who addressed this by carrying out additional staff training. We were told a quality improvement process had been implemented as a result of the previous inspection findings. We will discuss this process in more detail later in this section.

During our inspection, we observed that several areas across the hospital campus had point-of-use water filters. These are filters attached to taps and are intended to reduce the bacterial contamination from the tap water that may occur as the water passes through the tap. We were told that senior clinical staff decided to put the filters on the taps in response to a clinical incident that had happened previous to the timeframe within the scope of this inspection. All the filters we observed were within their use-by date. Estates managers could provide evidence of the replacement regime for the filters. We saw within the BICC minutes that removing these filters is being considered, but this has not been agreed.

We were provided with evidence of risk assessments for water safety, while some of these had not been carried out for several years we were informed that risk assessments would be carried out if any significant work or water system changes were made, or in line with the NHS boards water safety policy. Estate managers told us the hospital campus was undergoing a water safety risk assessment at the time of our inspection. However, due to the size of the hospital campus, this takes approximately 6 months to complete.



Within the evidence submitted by the NHS board, we saw regular NHS board water safety group meetings had taken place. These appear to have a good representation of different staff groups, including estates managers and the infection prevention and control team. However, we did note some members of this group had not been in attendance for several meetings. We highlighted this to the NHS board. We noted that estate managers had raised the issue at the new ventilation meeting, where it requested that if people cannot attend, they must send a deputy in their place. This is in line with Vale of Leven Hospital Inquiry Report (2014), recommendation 59, which states, 'Health Boards should ensure that attendance by members of committees in the infection prevention and control structure is treated as a priority. Non-attendance should only be justified by illness or leave or if there is a risk of compromise to other clinical duties, in which event deputies should attend where practicable'.

We were provided with NHS Greater Glasgow and Clyde's governance reporting system for water management for the hospital campus. There are several layers of water safety management, with the operational aspects reporting to the NHS board water safety group. This group then reports to the infection control in the built environment group, who then report to the NHS BICC. Within the BICC minutes are formal updates from the estates and facilities team, including updates on water issues and ventilation. However, we could not see a clear formal update from either group in line with the governance reporting structure provided by NHS Greater Glasgow and Clyde within the updates or reporting within the BICC minutes. Within the estates and facilities updates in the minutes we could see evidence of estates managers highlighting reported low compliance rates with some water flushing requirements. This had been raised as a concern.

We discussed this with the estates team, who explained that emails are sent to all department managers each quarter requesting that they confirm all water outlets, including the less frequently used outlets, are flushed in line with the policy. However, the response from the department managers has been low. Estate managers explained that the low response is concerning as this is the system currently in place to monitor compliance with the flushing of water outlets that are not within the remit of domestic services to flush. This is why they had highlighted and raised it at the BICC for action. We were told that although compliance rates by returning the quarterly confirmation have improved, it remains low.

At the January 2019 inspection, a requirement was made to improve the governance arrangements for the estates and infection prevention and control teams. During this inspection, we saw evidence of governance arrangements in place, including estate issues being reported that may impact infection prevention and control within the infection prevention and control governance structures. This includes water safety issues, ventilation and general estate issues. However, a new requirement to further improve the governance and reporting structure is detailed below.

This inspection has not identified any significant concerns in the hospital campus for water management or ventilation. It would not be within the scope of the inspection or expertise of the inspection team to interpret the technical documents and scale of the work required to ensure the safety systems and processes within the hospital campus. However, our wider inspection findings are that the governance and reporting of these essential systems should be strengthened to ensure an effective and co-ordinated approach to maintaining a safe hospital environment.

We observed that the condition and fabric of the buildings on the hospital campus were generally good. This is a significant improvement from previous inspections of the hospital campus. One of the improvements is the refurbishment programme that is now in place within the Institute of Neurological Sciences. This programme of work was reported at our previous inspection in March 2022.

When a repair to the environment or work is required in the clinical areas, staff in that area use an electronic reporting system. Each ward is responsible for reporting any issues in their ward and department. All the ward staff we spoke with were familiar with the reporting system and confirmed that it is routinely used to report environmental damage that needs to be repaired or replaced. This includes broken equipment, damaged surfaces, water ingress and damaged flooring. Some ward staff informed us that they were updated on the progress of their repair requests through the reporting system.

We observed the reporting system and saw mandatory fields that must be completed, such as reporting the job as an emergency, urgent or routine and then prioritising the job. For emergency repairs, we were told it is common for the ward and department staff to phone estates supervisors' directly, requesting immediate action. These requests will also be required to be entered into the electronic system. We saw that planned preventative maintenance of the environment is also recorded in this system and allows estate supervisors to monitor progress and allocate work.

Once a repair or work has been requested, the electronic system allocates a priority which determines the suggested response time. A colour-coding system is used to indicate which jobs are overdue. A supervisor will then allocate a job to a member of the estates team. For example, to a joiner, electrician or plumber. Due to difficulties in the electronic system, including an ineffective prioritisation system and lack of access to an update to ward staff once a repair has been requested, this system relies heavily on estates supervisors understanding the system, prioritising the work and following up to ensure all works are carried out.

We were told about other difficulties with the electronic system. For example, if a repair cannot be completed by the staff attending due to requiring different expertise, such as a plumber, or they need some additional equipment. In that case, the repair is often closed off in the system and must be re-entered by the staff.

Estates managers also explained that, due to the size of the hospital campus, it could be difficult to stay on top of the reported jobs. Most staff we spoke with in clinical areas were satisfied with the reporting system and that works were carried out. However, some told us they often have to follow up on job requests as it is unclear whether these are being actioned or not.

Estates managers told us how information is shared with clinical colleagues at hospital safety huddles. Staff can raise priority concerns such as infection control or health and safety issues. We were told having members of the estates team at the huddle meant that any concerns could be actioned quickly. During the safety huddles we attended, we heard discussions about the environment. We also saw evidence of regular estates, facilities and infection prevention and control safety huddles that occur several times a week. At these huddles, issues with the built environment or cleaning are highlighted, and actions are agreed upon. Overall, staff were happy with the level of service that they received from the estates department.

We were shown a quality improvement programme the facilities team have introduced for domestic services. This is a 10-step planner that has been evolving over the past 3 years. We were told it was initially put in place in response to findings from one of our previous inspections, with a desire to make improvements to deliver the best domestic cleaning and staff practice outcomes.

The 10-step planner is a system of audits of domestic cleaning and staff knowledge, in addition to the current frequency required within the NHS national cleaning specification. It combines domestic supervisor audits and enhanced audits with a supervisor. The aim is to identify domestic cleaning issues more quickly and rectify these. For example, the national guidance followed by all NHS boards requires emergency departments to be audited every 2 weeks. As part of this improvement system, the hospital campus monitors these areas weekly as they have identified them as high-use areas.

To ensure the audit scores robustness and drive for improvement, assistant managers undertake a further mechanism of verification audits to verify the supervisor audits. This means that a verification audit is carried out to assess the same area that a domestic supervisor has recently audited to ensure a standardised approach to these audits. If either audit identifies a need for rectifications, such as the need to review staffing, development needs for staff, additional cleaning or re-auditing, this is actioned. We saw evidence of this system during our inspection when we raised concerns about the cleaning method for clinical wash hand basins that were not in line with current guidance. We saw this had been discussed with domestic staff. Education sessions were provided with another layer of assurance delivered by an independent programme of audits to verify the improvement work had been successful.

This 10-step planner programme of audits is used to plan the delivery of the audits and track the areas where verification audits are undertaken. The planner also

provides oversight on the scores achieved within different areas of responsibility and locations on the hospital site. This enhanced system is committed to delivering assurance mechanisms for domestic cleaning services above the national specification. We observed that the domestic cleaning standard was good throughout the inspected areas.

Most of the patients or their representatives we spoke with described being satisfied with the cleanliness of the wards, departments, toilets and bathroom facilities. Everyone we spoke with felt they could raise a concern about cleanliness if they had any. Within several areas we visited, patients described a noticeable team approach to the cleanliness and tidiness of the environment, where nursing staff and domestic staff worked well together to keep the environment clean and tidy. Overall, the feedback from patients and their representatives was that they had confidence in the ability of staff within the hospital campus to maintain a safe and clean environment.

### Areas of good practice

Standard 8	
8	The domestic service 10-step quality improvement planner was a good tool for improvement.
9	The cleanliness and condition of the hospital environment was good.

### Recommendation

Standard 8	
b	NHS Greater Glasgow and Clyde should consider a review of the electronic estates reporting system, to enhance the prioritisation allocation and communication for both the estates team and staff within the clinical areas.

## Requirement

### Standard 8

- 4 NHS Greater Glasgow and Clyde must take steps to improve the governance and reporting of critical systems within the built environment. This should include but not be limited to:
- A more robust system to ensure the infection prevention and control team is informed of ventilation performance validation reports in real-time to ensure any non-compliance that may impact infection control is identified and actioned at the earliest opportunity.
  - When approval is sought from committee members within the infection prevention and control governance structure, this is treated as a priority for all members with clear recorded evidence of approval or non-approval by required committee members. This will ensure clear accountability within infection prevention and control governance structures.
  - Ensure attendance by members of committees in the infection prevention and control governance structure, such as the NHS board water safety group, is a priority. When attendance is not possible, a deputy should attend, as recommended by the Vale of Leven Hospital Inquiry Report.
  - The governance water management structure is either fully applied or adapted to reflect the requirements of the reporting structure to ensure the NHS board are fully informed of any NHS board water safety group issues.
  - Review the system currently in place for quarterly reporting of flushing of water outlets to ensure a robust and effective process.

**This is to comply with the National Infection Prevention and Control Manual, the Vale of Leven Hospital Inquiry Report (2014) Recommendation 59, and Healthcare Associated Infection (HAI) Standards (2015) criterion 8.4. This will also comply with the new Infection Prevention and Control Standards (2022) Criteria 4.2 and 8.2.**

# Appendix 1 – List of national guidance

The following national standards, guidance and best practice were current at the time of this inspection. This list is not exhaustive.

- [Winter \(21/22\), Respiratory Infections in Health and Care Settings Infection Prevention and Control \(IPC\)](#) (NHS National Services Scotland, April 2022)
- [National Infection Prevention and Control Manual](#) (NHS National Services Scotland, April 2022)
- [Information for staff on Aspergillus spp. \(Health Protection Scotland 2016\)](#)
- [COVID-19: Guidance for maintaining services within health and care settings Infection prevention and control recommendations](#) (Public Health England, April 2022)
- [Guidance for Staff and Managers on Coronavirus](#) (NHS Scotland, May 2022)
- [SHFN 30 Part A: Manual Information for Design Teams, Construction Teams, Estates & Facilities and Infection Prevention & Control Teams](#) (Health Facilities Scotland 2014)
- [SHFN 30 Part B: HAI-SCRIBE Implementation strategy and assessment process](#) (Health Facilities Scotland 2014)
- [Health and Social Care Standards \(Scottish Government, June 2017\)](#)
- [Healthcare Associated Infection \(HAI\) standards](#) (Healthcare Improvement Scotland, February 2015)
- [Health Technical Memorandum 03-01 Specialised ventilation for healthcare premises Part B: The management, operation, maintenance and routine testing of existing healthcare ventilation systems](#) (NHS England 2021)
- [Infection Prevention and Control Standards](#) (Healthcare Improvement Scotland, May 2022)
- [The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives](#) (Nursing and Midwifery Council, October 2018)
- [Generic Medical Record Keeping Standards](#) (Royal College of Physicians, November 2009)
- [Allied Health Professions \(AHP\) Standards](#) (Health and Care Professionals Council Standards of Conduct, Performance and Ethics, January 2016)
- [Health and Care \(Staffing\) \(Scotland\) Act](#) (Acts of the Scottish Parliament, 2019)
- [Quality of Care Approach – The Quality Framework First Edition: September 2018](#) (Healthcare Improvement Scotland, September 2018)

## Appendix 2 – Biography (Professor David W. Denning)

Dr David Denning is Professor of Infectious Diseases and Global Health at the University of Manchester and an infectious diseases clinician with expertise in fungal diseases.

He serves as the Chief Executive of Global Action for Fungal Infections (GAFFI). Dr Denning managed the UK's National Aspergillosis Centre, Manchester from 2009-2020. He has published extensively (>700 academic papers) and has a citation H-index of 125. He has been the managing editor of the Aspergillus website since 1998 ([www.Aspergillus.org.uk](http://www.Aspergillus.org.uk)).

He leads LIFE (Leading International Fungal Education (<http://fungaleducation.org/>), which is focused on improving patient outcomes through online education and the Aspergillus Website ([www.Aspergillus.org.uk](http://www.Aspergillus.org.uk)). GAFFI ([www.GAFFI.org](http://www.GAFFI.org)) advocates for universal access to fungal diagnostics and antifungal therapies. He is also a member of the SEARO Task Force on Antimicrobial Resistance (AMR).

He led the British Society for Medical Mycology guidelines for the diagnosis of serious fungal diseases published in Lancet Infectious Diseases in 1995. He is a longstanding member of the Infectious Disease Society of America Aspergillosis Guidelines group, the European Society for Clinical Microbiology and Infectious Diseases Aspergillosis Guidelines group and recently joined the One World Guideline for Aspergillosis.

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Healthcare Improvement Scotland

Edinburgh Office  
Gyle Square  
1 South Gyle Crescent  
Edinburgh  
EH12 9EB

Glasgow Office  
Delta House  
50 West Nile Street  
Glasgow  
G1 2NP

0131 623 4300

0141 225 6999

[www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org)