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Unannounced Inspection Report – Safety and Cleanliness of Hospitals

Queen Elizabeth University Hospital (including Institute
of Neurosciences and Royal Hospital for Children)

NHS Greater Glasgow and Clyde

29–31 January 2019

We inspect acute and community hospitals across NHSScotland. You can contact us to find out more about our inspections or to raise any concerns you have about cleanliness, hygiene or infection prevention and control in an acute or community hospital or NHS board by letter, telephone or email.

Our contact details are:

Healthcare Improvement Scotland

Gyle Square
1 South Gyle Crescent
Edinburgh
EH12 9EB

Telephone: 0131 623 4300

Email: comments.his@nhs.net

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Summary of inspection

About the hospital we inspected

1. Queen Elizabeth University Hospital, Glasgow opened in April 2015. This acute hospital has 1,677 beds with a full range of healthcare specialties, including a major emergency department. In addition to the 14-floor hospital building, the hospital site retains a number of other services in adjacent facilities. This includes maternity services, the Royal Hospital for Children, Institute of Neurosciences, and the Langlands Unit for medicine of the elderly and rehabilitation.

About our inspection

2. At the request of the Cabinet Secretary for Health and Sport, we carried out an unannounced inspection to the Queen Elizabeth University Hospital, the Institute of Neurosciences and the Royal Hospital for Children, NHS Greater Glasgow and Clyde, from Tuesday 29 to Thursday 31 January 2019.
3. We previously inspected the Queen Elizabeth University Hospital in December 2016 and, in January 2017, carried out a follow-up inspection to the emergency department, immediate assessment unit and clinical decisions unit. These two inspections resulted in 10 requirements and two recommendations. We then carried out a follow-up inspection in August 2017. That inspection resulted in one requirement from the December 2016 and January 2017 inspection being carried forward.
4. We previously inspected the Royal Hospital for Children in September 2016. This inspection resulted in two requirements.
5. The inspection reports are available on the Healthcare Improvement Scotland website www.healthcareimprovementscotland.org
6. The inspection team was made up of a senior manager from Healthcare Improvement Scotland, six inspectors, a member of staff from the Scottish Government's national workforce team, an independent clinical advisor, with support from a project officer.

Inspection focus

7. We focused on:
 - Standard 1: Leadership in the prevention and control of infection
 - Standard 6: Infection prevention and control policies, procedures and guidance, and
 - Standard 8: Decontamination.

8. In **Queen Elizabeth University Hospital**, we inspected the following areas:
 - emergency department
 - immediate assessment unit
 - ward 1C (acute stroke)
 - ward 4C (haematology and oncology)
 - ward 5D (general medicine)
 - ward 6D (cardiology)
 - ward 7D (respiratory)
 - ward 8A (medicine for the elderly)
 - ward 9A (general surgical), and
 - ward 10D (orthopaedic trauma).

9. In the **Institute of Neurosciences**, we inspected the following areas:
 - ward 60 (high dependency unit)
 - ward 61 (intensive therapy unit)
 - ward 64 (neurosurgery), and
 - ward 67 (neurology).

10. In the **Royal Hospital for Children**, we inspected the following areas:
 - neonatal intensive care unit
 - paediatric intensive care unit
 - special care baby unit, and
 - ward 2C (acute receiving).

11. We carried out observations of staff compliance with hand hygiene practices in all wards inspected. However, we also carried out hand hygiene audits in the following areas:
 - emergency department
 - immediate assessment unit
 - neonatal intensive care unit
 - paediatric intensive care unit
 - ward 6C (cardiology)
 - ward 6D (cardiology)
 - ward 8A (medicine for the elderly and general medical), and

- ward 9D (general surgical).

12. We received 63 completed patient questionnaires.

What NHS Greater Glasgow and Clyde did well

- Good staff compliance with standard infection control precautions, including hand hygiene.
- Good staff knowledge about how to manage a blood spill and also transmission-based precautions.

What NHS Greater Glasgow and Clyde could do better

- Develop a strategy that provides assurance to themselves that the cleaning of high activity areas is carried out to an appropriate standard.
- Must improve the governance around estates and facilities issues in regards to cleaning, environmental damage and water management.
- Must strengthen the governance around infection prevention and control.

13. Detailed findings from our inspection can be found on page 7.

What action we expect NHS Greater Glasgow and Clyde to take after our inspection

14. This inspection resulted in 14 requirements and one recommendation.
15. The requirements are linked to compliance with the Healthcare Improvement Scotland *Healthcare Associated Infection (HAI) Standards* (February 2015). A full list of the requirements and recommendations can be found in Appendix 1.
16. An improvement action plan has been developed by the NHS board and is available on the Healthcare Improvement Scotland website www.healthcareimprovementscotland.org
17. We expect NHS Greater Glasgow and Clyde to carry out the actions described in its improvement action plan to address the issues we raised during this inspection. These actions should be completed within the time frames given in Appendix 1.
18. We would like to thank NHS Greater Glasgow and Clyde and, in particular, all staff and patients at the Queen Elizabeth University Hospital, the Institute of Neurosciences and the Royal Hospital for Children for their assistance during the inspection.
19. The flow chart in Appendix 2 summarises our inspection process. More information about our safe and clean inspections, methodology and inspection tools can be found at www.healthcareimprovementscotland.org

Key findings - ward inspection

Standard 1: Leadership in the prevention and control of infection

20. It is vital that an NHS board has good governance to assure itself of safe patient care. This is laid out in the Scottish Government's guidance, *NHS Scotland Health Boards and Special Health Boards - Blueprint for Good Governance* (2019). Although there are formal meetings between the estates team and the infection prevention and control team, our inspection has highlighted a lack of robust communication between these teams to provide effective governance to senior hospital management. We have expanded on this in the report.

What NHS Greater Glasgow and Clyde did well

21. During the inspection, we were provided with evidence that NHS Greater Glasgow and Clyde's medical director is the executive Board member leading on infection prevention and control and is chair of the infection control committee.
22. The Scottish Government requires NHS boards to report on a range of key infection prevention and control indicators. NHS Greater Glasgow and Clyde monitors and reports on these key performance indicators such as infection rates for *Clostridium difficile* infection (*C diff*) and *Staphylococcus aureus* bacteraemias (SABs). These performance indicators are reported in the NHS board's Healthcare Associated Infection Reporting Template (HAIRT), discussed at the sector and NHS board infection control committee meetings and also at the Board meetings. Minutes of these meetings are available on NHS Greater Glasgow and Clyde's website. We reviewed the latest published quarterly data and this demonstrates that the NHS board is performing within control limits for all indicators.
23. The infection prevention and control team monitors alert organisms and we also saw that microbiologists carry out clinical surveillance. We saw systems in place that identify and communicate outbreaks. The NHS board uses the Healthcare Infection Incident Assessment Tool (HIIAT) to assess infection-related incidents and to review the actual and potential impact.
24. We saw evidence of the infection prevention and control governance structure in the NHS board papers. This governance structure provides an overview of infection prevention and control priorities across NHS Greater Glasgow and Clyde.
25. There is a clear infection prevention and control work plan with well-defined responsibilities from the Board to ward level. The work plan is approved by the NHS board's infection control committee.

26. The authorised person for ventilation at the Queen Elizabeth University Hospital spoke with members of the inspection team and shared detailed validation and planned preventative maintenance schedules. This provided assurance that all current systems in place are being managed in line with national standards.

What NHS Greater Glasgow and Clyde could do better

27. During our inspection, staff informed us about shortages of both nursing and domestic staff. We received advice from the Scottish Government workforce department and carried out an analysis of nursing establishment. We identified that nursing processes are good and, whilst sickness and maternity leave was above predicted absence, supplementary staffing has been utilised. However, we were informed that there is a 14.5% absence and 10% vacancy rate for domestic staff. Facilities Management at Queen Elizabeth University Hospital had streamlined the recruitment process for domestic staff to reduce timescales.
28. We were made aware of some challenges in the working relationships between senior staff in the infection prevention and control team and the estates department. A good working relationship is essential to ensure optimal patient care. As a result of our inspection, this was brought to the attention of the Chief Executive of NHS Greater Glasgow and Clyde for action.
29. During our inspection, we were told of examples where it was felt that senior management have not reacted to concerns regarding the environment that can have an effect on clinical care. For example:
- not reacting to the clinical concerns raised by senior charge nurses, in particular relating to the cleaning of vents that can affect patient safety, and
 - not taking on board the concerns of clinical staff during estates meetings.
30. Senior managers told us that NHS Greater Glasgow and Clyde requires additional infection control doctors to help with the assessment and mitigation of infection risks presented by the built environment. Infection control staff also told us that the infection prevention and control team at the Royal Hospital for Children would benefit from having more infection prevention and control nurses.
31. We were shown a clinicians' report from 2017 that detailed 27 issues within the Queen Elizabeth University Hospital and the Institute of Neurosciences. We raised this with NHS Greater Glasgow and Clyde's senior management. We were provided with an action plan for these issues, however we were not assured actions had been taken to resolve some of the issues. We asked for

further information to clarify what actions had been taken. However, we still have some concerns regarding:

- the use of cleaning agents, and
 - the cleaning of temperature control valves.
32. We noted that some infection control risks, such as water and ventilation, are outwith the scope of infection prevention and control. We were told that the groups responsible for managing these have infection prevention and control team input. However, NHS Greater Glasgow and Clyde acknowledged that some elements of the governance arrangements within the estates and facilities teams require to be strengthened, including the relationship with the infection prevention and control team.
33. During the inspection, we saw evidence that suggested significant gaps in maintenance and improvement of the care environment. We found a number of areas where the environment was in a poor state of repair. Estates management provided a list of at least 300 outstanding jobs without evidence of a plan to complete these. We are unsure how the facilities monitoring tool (FMT), currently used in the site, provides the NHS board with assurance of a safe and clean patient environment. For example, the facilities monitoring tool can record that an area has been cleaned, for example walls and floors. However, the tool is unable to record if the area is damaged. Where an area is damaged, this can prohibit effective cleaning.
34. The infection prevention and control teams use an audit tool in the wards. Some of the total audit results we saw were marked as high, even though individual elements in some cases were low. This may give false assurance. More detail is reported under Standard 6.
35. NHS Greater Glasgow and Clyde has strategic, operational and quality assurance systems in place. However, because of the issues with the facilities management tool, and the infection prevention and control audit tool (IPCAT) highlighted later in this report, we were not assured that these provide sufficient assurance to senior management.
36. The infection prevention and control data team reports were unvarying in format and lacked narrative. It was not easy for us to identify themes from the audit data so we were not assured that improvements would result from these audits.
37. We saw evidence of waterborne infection risks being discussed at the water safety group meeting. Within the minutes of the group, we saw evidence that domestic services staff were to carry out flushing regimes. However, as discussed later in the report, our inspection findings did not assure us that this

is being carried out. Our discussions with staff identified that there was a lack of clarity around who should be carrying this out.

38. There is no clear governance structure for ventilation at present within NHS Greater Glasgow and Clyde. However, specialised ventilation is discussed at the theatre users management group and the statutory compliance audit and risk group. Minutes of these groups were provided and we noted an action concerning critical care vents was recorded. There was no evidence provided on further action being taken.

- **Requirement 1:** NHS Greater Glasgow and Clyde must improve the governance arrangements in both estates and infection prevention control teams to assure themselves of safe patient care in line with Scottish Government's guidance, *NHS Scotland Health Boards and Special Health Boards - Blueprint for Good Governance (2019)*.

Standard 6: Infection prevention and control policies, procedures and guidance

What NHS Greater Glasgow and Clyde did well

39. NHS Greater Glasgow and Clyde has adopted the current version of Health Protection Scotland's *National Infection Prevention and Control Manual*. This manual describes standard infection control precautions and transmission-based precautions. These are the minimum precautions that healthcare staff should take when caring for patients to help prevent cross-transmission of infections. There are 10 standard infection control precautions, including hand hygiene, the use of personal protective equipment (such as aprons and gloves), how to care for patients with an infection, and the management of linen, waste and sharps. The transmission-based precautions describe how to care for patients with known or suspected infections and how to help prevent cross-transmission of infections.
40. In all of the wards inspected, staff we spoke with knew how to access the latest version of the manual and policies and procedures through the staff intranet.
41. Staff spoken with described a good working relationship with the infection prevention and control team. Some areas told us they had regular visits from the team who provide support and advice. We were told if staff contacted the team for advice they would visit the ward in a timely manner or give verbal advice over the telephone. The team is contactable by telephone during office hours. The microbiologist is available out of hours for guidance and patient-specific advice.

42. NHS boards are required to measure staff compliance with standard infection control precautions. The frequency of this compliance monitoring is determined by individual NHS boards.
43. We saw evidence of several infection control audit systems in place in all areas inspected. This was carried out by both ward level staff and the infection prevention and control team.
44. Nurses and midwives in charge of the wards inspected told us that standard infection prevention and control audits are carried out on the wards at least every 6 months by ward staff.
45. The infection prevention and control team carries out ward audits using NHS Greater Glasgow and Clyde's infection prevention and control audit tool. The tool focuses more on clinical practice rather than environmental issues. We were told that this had been introduced to help avoid duplication of findings from the facilities monitoring tool.
46. We saw evidence of the infection prevention and control team carrying out these audits. This audit is made up of four sections, including standard infection control precautions and quality improvement audits. An overall compliance score is given. Each ward and department is audited at least once every year, but done more frequently if the overall compliance score falls below 80%. The results are scored red (less than 65% compliance), amber (65–79% compliance), green (80% compliance and above) and gold (91% compliance and above). Areas with red audit results are re-audited within 3 months, amber within 6 months and green and gold within 12 months. Where non-compliances are identified during the audit, an action plan is automatically generated.
47. Wards that could access the audits showed us the report, the corresponding action plan and the completed actions. We were told that the senior charge nurse would email audit feedback to ward staff or discuss this during the safety briefing at the start of a shift. A safety briefing is used as a communication tool which focuses on patient safety issues and is one of Scottish Patient Safety Programme's 10 essentials of safety. We were told that issues and learning from the audit results and action plans are also shared at the monthly senior charge nurse meeting and the lead nurse, chief nurse, directorate and clinical governance meetings.
48. We saw infection prevention and control audit results displayed in the wards for staff, patients and visitors. The audit information displayed was easy to read. However, most information was not dated and it was therefore unclear if the audit information was up to date.
49. During the inspection, we saw generally good staff compliance with standard infection control precautions, including the management of linen, waste and

- sharps. Clean linen was stored in covered trolleys keeping them free from dust and we saw staff handling used and contaminated linen appropriately.
50. We observed generally good hand hygiene compliance as part of our inspection.
 51. We also carried out a focused hand hygiene audit in clinical areas. During the audit, of the 163 occasions where staff should have carried out hand hygiene, we saw 152 opportunities were taken. The majority of staff we observed during this audit were nursing and medical staff. We saw that staff hand hygiene technique was good.
 52. In the Royal Hospital for Children, a senior charge nurse told us that they had noticed a decrease in staff compliance with hand hygiene when new medical fellows joined the ward team. As a result, the senior charge nurse now meets with all new medical staff for a training session on the importance of hand hygiene.
 53. We saw alcohol-based hand rub available at the entrance to most wards, in patient rooms and in corridor areas. However, at the time of our inspection, we saw alcohol-based hand rub dispensers were empty at the entrance of three wards.
 54. Hand hygiene audits are carried out monthly. The hand hygiene audit results were available on an electronic data management system.
 55. All wards and departments inspected displayed posters about standard infection control precautions which staff could refer to. This included information on waste management, linen management and how to manage a blood spill.
 56. The majority of staff we spoke with had good knowledge of blood and body fluid management and what action to take in the event of a needle-stick injury.
 57. Of the 63 people who responded to our survey during our inspection, 92% stated that ward staff always wash their hands. The majority of the remaining respondents were not sure.
 58. Any non-compliances with standard infection control precautions were raised at the time of inspection and some of these issues are reported in the 'What NHS Greater Glasgow and Clyde could do better' section below.
 59. Due to the small number of patients in isolation at the time of our inspection, we had limited opportunities to observe patients being cared for in isolation. Where we could observe this, it was done well. Staff we spoke with were knowledgeable about transmission-based precautions and could describe the isolation process. The majority of staff we spoke with said the infection

prevention and control team would be involved with the management of the patient, when necessary.

What NHS Greater Glasgow and Clyde could do better

60. In the clinical areas we inspected, we reviewed their most recent infection prevention and control audits. We saw evidence of gold scores being given, but at least one section of the audit scored 33%. An overall score for this audit is aggregate for all the separate sections. We were concerned assurance would be taken from the overall high score, without recognising the low scores within the separate sections.
61. We saw evidence of ward-based standard infection control audits taking place in all areas inspected. However, in some of the areas inspected, when the senior charge nurse was not available, the nurse in charge at the time of the inspection could not always access these audit results or action plans. We were concerned this was a person-dependent system.
- **Recommendation a:** NHS Greater Glasgow and Clyde should ensure that access to audit information is not person dependent to ensure the continuity of the audit programme.
62. During our inspection, we saw some non-compliances with standard infection control precautions.
- One nurse was carrying a container with body fluids to the sluice room without wearing any personal protective equipment. We raised this with the senior charge nurse at the time of our inspection.
 - In one area there were large, lockable waste bins that were unlocked. These bins were in a corridor accessible by patients, creating a risk of unauthorised access. The bins were locked when we returned to the ward later.
 - We saw staff performing catering duties who did not carry out hand hygiene after contact with the patient or patient's surroundings. Any non-compliances with standard infection control precautions were raised with nursing staff at the time of our inspection.
 - We observed a member of medical staff preparing an intravenous infusion in an area of the clean preparation room very close to a sink. This was within splash contamination distance of this sink. We raised this with the nurse in charge and medical staff at the time of our inspection. Nursing staff we spoke with told us they would not prepare intravenous infusions in this area but would use a clean area away from potential splash contamination.

63. Senior management told us there were no functioning negative pressure isolation rooms in the hospital. These rooms are required for some infectious diseases. However, we are aware that NHS Greater Glasgow and Clyde has plans to rectify this. During our inspection, we asked for the guidance provided to staff in the event one of these rooms is required. This was not provided.
- 64.
- **Requirement 2:** NHS Greater Glasgow and Clyde must ensure functioning negative pressure isolation rooms are available in the hospital in line with Healthcare Facilities Scotland, *Scottish Health Planning Note 04*.
 - Where these are not available, staff are provided with clear guidance on how to manage a situation where a patient would require this type of isolation.
65. During the inspection, staff we spoke with were not clear about who was responsible for carrying out water flushing on the unused or less frequently used water outlets. Nursing staff told us they sometimes run the water, but there was no sign-off sheet to record this. Domestic staff told us they sometimes run showers when they had not been used by patients. However, they could not confirm what water outlets had been run or when. It was not clear from discussions with staff if the water had been run. We also found the following.
- On one ward, we saw that running unused or less frequently used water outlets was on the domestic task list. It is automatically marked as complete unless the domestic changes it manually to incomplete.
 - One ward had two unused baths that had not been identified by staff as infrequently used water outlets that would need flushing.
 - Another ward had a bath that had not been working for 3 years. Staff were unclear about how this water outlet could be flushed.
 - Staff were unaware that ensuite showers, unused because of the patient's health condition, would require regular flushing. Staff told us that they would run the shower before the patient uses it.
 - One ward had a closed patient room due to a leaking ensuite shower. Staff were unclear about how long it had been like this and if any flushing regime was in place to mitigate any potential risks.
66. The majority of staff we spoke with were unclear about their roles in the flushing regimes.
67. Throughout the inspection, there was inconsistent recording to evidence that water flushing had taken place. In the evidence provided by NHS Greater

Glasgow and Clyde, we saw that flushing regimes is a standing agenda item on the south sector water safety group meeting. Within these minutes it is stated that flushing regimes should be undertaken by domestic services staff.

68. NHS boards are required to comply with guidance to reduce the risk of *Pseudomonas aeruginosa* infection in high risk areas. This is detailed in Health Protection Scotland's *Guidance for neonatal units (NNUs) (levels 1,2 & 3), adult and paediatric intensive care units (ICUs) in Scotland to minimise the risk of Pseudomonas aeruginosa infection from water* (2014).
69. During the inspection, we spoke with ward staff in the Royal Hospital for Children about what they do with water outlets to reduce the risk of *Pseudomonas aeruginosa* infection in high risk areas. The current Health Protection Scotland guidance states that all taps must be '...flushed daily, first thing in the morning, at maximum flow rate...for a period of one minute and recorded.' We found in one high risk area that it was unclear who was responsible for carrying out the water flushing and there were no records that this was being carried out.
- **Requirement 3:** NHS Greater Glasgow and Clyde must ensure all staff involved in the running of water are clearly informed of their roles and responsibilities in this and a clear and accurate record is kept to allow early identification of any water outlets that are not being run.
70. In some wards inspected, we saw bladeless fans were being used in high risk areas to keep the air cool. In August 2018, Health Protection Scotland issued guidance to all NHS boards advising them not to use this type of bladeless fan, due to concerns about the ability to effectively clean them. We were provided with a ward-based risk assessment, which did not take into account Health Protection Scotland's advice.
- **Requirement 4:** NHS Greater Glasgow and Clyde must ensure all clinical areas across the NHS board comply with the current national guidance for the use of bladeless fans.
71. In the Royal Hospital for Children, we saw that expressed breast milk on wards was appropriately stored in designated fridges and freezers. We were shown temperature recording charts which demonstrated regular checks of the fridge and freezer temperatures. We found two wards were using temperature charts that did not state the correct safe storage temperature guidelines for expressed breast milk. However, we noted that all temperature recordings on these two wards were within the accepted temperature range. The temperature recording charts should:
- be specific for expressed breast milk

- describe the correct temperature range, and
- state the actions to be taken if the temperature falls outside this range.

72. We highlighted this issue at the time of our inspection.

- **Requirement 5:** NHS Greater Glasgow and Clyde must ensure that information on the expressed breast milk recording charts is in line with national guidance. This will ensure that the storage of expressed breast milk is managed in a way that reduces the risk to patients.

Standard 8: Decontamination

What NHS Greater Glasgow and Clyde did well

73. The standard of environmental cleaning was generally good across the wards inspected. Any exceptions to this are detailed in 'What NHS Greater Glasgow and Clyde could do better' section below. We saw domestic staff cleaning patient rooms thoroughly and those rooms that had been recently cleaned were clean and dust free.
74. We saw an improvement in the standard of cleaning in the immediate assessment unit since our inspections in 2016 and 2017. The domestic supervisor told us that since our first inspection in 2016, they have changed shift patterns so staff start earlier in the morning. The aim is to provide a thorough handover from the night shift domestic staff to the day shift domestic staff. The domestic supervisor told us they felt this system worked well in this area.
75. Ward staff told us there was a good relationship with the domestic services team and they described the escalation process they would use to raise issues to the domestic services management. The majority of areas were well organised and clutter free enabling access for cleaning.
76. Domestic staff spoken with had a good knowledge of their role and responsibilities. They told us that they use the colour-coded system for cleaning equipment. Staff also told us the precautions they would take when cleaning a patient's room being cared for with infection control precautions. We noted some variation in staff knowledge on the correct procedure to clean a wash hand basin. This is detailed in the 'What NHS Greater Glasgow and Clyde could do better' section below.
77. We inspected a variety of near-patient equipment across all wards and departments. This included intravenous stands and pumps, procedure trolleys, commodes, blood gas analysers, patient chairs, patient monitoring equipment, incubators and beds. Nursing staff have the responsibility for the cleanliness

and maintenance of patient equipment. We found the majority to be clean and well maintained, with exceptions detailed in the 'What NHS Greater Glasgow and Clyde could do better' section below.

78. We saw that ward staff have a standard operating procedure for bed space checklists and we saw the majority were completed by nursing staff daily and weekly.
79. We saw that the nurse in charge of each ward carries out a weekly cleaning assurance checklist. This is a spot check on several pieces of equipment as an assurance of the standard of equipment cleaning in the wards. This was completed on all wards.
80. Of the people who responded to our survey during our inspection:
 - 96% stated that they thought the standard of cleanliness on their wards was good, and
 - 100% stated that the equipment used by staff for their care was clean.
81. Some patients we spoke with or who responded to our survey said:
 - 'I could not fault standard of cleanliness, I had visitors in, one had been in another hospital, could not believe amount of times staff were in and out cleaning surfaces.'
 - 'The staff are always cleaning equipment, washing their hands and making sure everyone's bed is changed daily.'
 - 'Cleanliness on ward is good but corridors and other areas is terrible.'

What NHS Greater Glasgow and Clyde could do better

82. During our first day of inspection, we found issues with environmental and patient equipment cleaning in the emergency department. We found the following:
 - body fluid and grime contamination on the toilet seat hinges in the reception and patient areas
 - removable grime on panels below wash hand basins in patient toilets, patient cubicles, treatment areas and the sluice room
 - dusty and gritty floors throughout the department
 - removable grime on alcohol based hand rub dispensers
 - dust on patient monitoring equipment, sterile storage shelving and anaesthetic machines in the resuscitation department
 - contamination on the underside of dressing trolleys, and

- two patient transfer trolleys, ready for use, contaminated with what appeared to be blood.
83. We returned to the department the following day, although cleaning had been undertaken, there was no significant improvement and there were also additional issues with cleanliness in the department. Domestic management for the department told us that with the high numbers of patients in the department, it can be difficult to gain access to patient bays to carry out domestic cleaning. Nursing staff in the department told us they felt that pressures on nursing time and the number of patients coming through the department each day was the reason for the below standard level of cleaning of patient equipment. We returned on the third day of our inspection and additional cleaning was in progress.
- **Requirement 6:** NHS Greater Glasgow and Clyde must develop a strategy that ensures the environment in the emergency department is clean and patient equipment is clean and ready for us. This will ensure infection prevention and control can be maintained.
84. During the inspection, we saw issues with cleanliness in other areas of the hospital, for example:
- marked walls with removable contamination
 - dust on bumper bars and on skirting boards
 - dust in corners of patient rooms and bathrooms
 - staining on curtains and chairs
 - dust and grit in storage areas
 - dust, dirt and grime in patient-shared spaces such as day rooms
 - removable contamination under toilet roll dispensers, and
 - large amounts of dust and grime in public areas behind lockable waste bins.
85. We were told that domestic staff are responsible for the cleaning of bed frames and mattresses when a patient is discharged. Senior charge nurses told us that this has placed pressure on the domestic resource for their area. Some domestic staff told us that this cleaning task places considerable pressure on their time to do their routine cleaning duties. We were told that corridors and shared social areas would not be cleaned as a priority and that store rooms, sluice areas and toilets may not be cleaned until later in the day.

86. We noted that NHS Greater Glasgow and Clyde's standard operating procedure for the cleaning of near-patient healthcare equipment describes the cleaning of the bed base only as being the responsibility of domestic staff.
87. We found several bed frames and mattresses in wards and corridors that, although labelled as clean and ready for use, were contaminated. Staff told us it was difficult to monitor this due to beds being transferred from ward to ward as patients moved.
- **Requirement 7:** NHS Greater Glasgow and Clyde must ensure the patient environment, and patient equipment, is clean and ready for use to reduce the risk of cross infection.
88. During our inspection, a number of staff said they had concerns about the level of domestic resource provided on their wards. Senior charge nurses are expected to sign a weekly assurance checklist for works completed by domestic staff. All senior charge nurses expressed concern around this practice and felt that there was not enough staff to carry out domestic cleaning in order to sustain a high standard of environmental cleanliness. We were told that staff had raised this issue with domestic supervisors and lead nurses. Ward staff felt environmental cleanliness was better on those wards where domestic resources had been increased.
89. During the inspection, there was an inconsistent approach for the system for domestic cleaning sign-off. In some areas, we were told the domestic supervisor signs off domestic cleaning electronically from somewhere else in the hospital. Within this system there did not appear to be any requirement for the domestic supervisor to visit the ward to sign off the cleaning. We were not assured that this remote sign-off would provide assurance of the domestic supervisor's day-to-day supervision of the domestic staff.
- **Requirement 8:** NHS Greater Glasgow and Clyde must ensure that domestic supervisors sign off domestic cleaning schedules as complete with evidence and satisfaction that the domestic cleaning has been complete as detailed within the cleaning schedule.
90. The majority of domestic staff told us there were not enough mop heads for them to clean wards and departments. This issue was identified at our previous inspections in 2016 and 2017. For example, in one area that has 28 bays, domestic staff receive 14 mop heads. The domestic supervisor told us they were unaware of this problem and would encourage domestic staff to alert them if they have not received enough mop heads.
- **Requirement 9:** NHS Greater Glasgow and Clyde must ensure domestic staff have the necessary equipment to perform their cleaning duties to keep the environment clean and safe.

91. Waste water from domestic cleaning should be disposed of in the domestic services room. In one ward, we saw that this was not functioning. We were told that domestic staff were emptying dirty water into the ward's sluice room sink. There is a potential to create a risk of splash contamination. Senior staff were unaware of the condition of the domestic services room and how used water was being disposed of.
92. We saw domestic services rooms in other areas that were damaged and partially functioning. For example, exposed pipe work, no hot water supply to a sink and a waste disposal did not flush.
- **Requirement 10:** NHS Greater Glasgow and Clyde must provide staff with suitable and functioning domestic services rooms to minimise the risk of cross contamination from the disposal of soiled water after the cleaning regime.
93. During the inspection, we spoke with domestic staff and a domestic supervisor about the products used for cleaning sanitary fittings. Domestic staff told us they were using different products for cleaning wash hand basins and toilets. For example, some staff said they use:
- a chlorine-releasing disinfection and detergent on sanitary fittings during the winter months
 - a chlorine-releasing disinfectant and detergent for cleaning the toilet only, and
 - detergent on all other sanitary fittings.
94. Current guidance states that sanitary fittings, including wash hand basins, should be cleaned with 1,000 parts per million of chlorine. During the inspection, we saw NHS Greater Glasgow and Clyde's standard operating procedure for the cleaning of near-patient healthcare equipment. The procedure states that sinks and wash hand basins should be cleaned with a chlorine-based product.
95. During the inspection, we asked staff to demonstrate the order of how they would clean a hand wash basin. Some staff could demonstrate this in line with national guidance. However, in other areas, staff did not demonstrate this in the right order in line with current guidance.
- **Requirement 11:** NHS Greater Glasgow and Clyde's senior management must ensure all staff are aware of the correct method for cleaning hand wash basins, and the correct cleaning products are used to clean all sanitary fittings in line with current national guidance.

96. In some areas of the site, the fabric of the building is in a very poor state of repair and therefore cannot be effectively cleaned.
97. During our inspection, we saw a significant amount of estates issues, including:
- damage to wooden surfaces and walls
 - damaged and exposed wood in panels under sinks
 - damage to the flooring in patient rooms
 - evidence of dirty and dusty ventilation panels
 - skirting boards peeling away from walls
 - multiple chipped and damaged bed frames, and
 - water ingress above a wash hand basin and in an area where staff store clean equipment.
98. Nursing staff told us this was an ongoing issue which they reported almost daily.
99. We were provided with recent facilities monitoring tool scores for the Queen Elizabeth University Hospital and many of the areas had recorded consistently high compliance results. This was not reflective of what we found during our inspection of the condition of the hospital environment.
- **Requirement 12:** NHS Greater Glasgow and Clyde must ensure that the built environment is effectively monitored to ensure it is maintained to allow effective cleaning to ensure effective infection prevention and control.
100. Ward staff told us they report repair and maintenance jobs using the estates electronic reporting system. However, they said outstanding estates jobs can show on the system as complete or can disappear. Staff also said they often have to chase up estates jobs. We were told that delays in completing a job are often not communicated to ward staff.
101. We viewed this electronic reporting system as well as paper records kept by some staff. We saw that many estates jobs remain outstanding for long periods of time.
- **Requirement 13:** NHS Greater Glasgow and Clyde must ensure the estates reporting system is reliable and effective and acted on. Staff should also be informed of timescales for completion.
102. In some areas inspected, we saw significant levels of dust in ventilation panels. Nursing staff told us they had expressed their concern on several occasions.

We requested evidence of planned preventive maintenance for these ventilation panels, but this was not provided. In one ward's empty patient room, large pieces of dust had fallen from the vent.

- **Requirement 14:** NHS Greater Glasgow and Clyde must ensure ventilation panels are clean and free from dust.

Appendix 1: Requirements and recommendations

The actions Healthcare Improvement Scotland expects the NHS board to take are called requirements and recommendations.

- **Requirement:** A requirement sets out what action is required from an NHS board to comply with the standards published by Healthcare Improvement Scotland, or its predecessors. These are the standards which every patient has the right to expect. A requirement means the hospital or service has not met the standards and we are concerned about the impact this has on patients using the hospital or service. We expect that all requirements are addressed and the necessary improvements are made within the stated timescales.
- **Recommendation:** A recommendation relates to national guidance and best practice which we consider a hospital or service should follow to improve standards of care.

Prioritisation of requirements

All requirements are priority rated (see table below). Compliance is expected within the highlighted timescale, unless an extension has been agreed in writing with the lead inspector.

Priority	Indicative timescale
1	Within 1 week of report publication date
2	Within 1 month of report publication date
3	Within 3 months of report publication date
4	Within 6 months of report publication date

Standard 1: Leadership in the prevention and control of infection

Requirement	HAI standard criterion	Priority
<p>1 NHS Greater Glasgow and Clyde must improve the governance arrangements in both estates and infection prevention control teams to assure themselves of safe patient care in line with Scottish Government's guidance, <i>NHS Scotland Health Boards and Special Health Boards - Blueprint for Good Governance</i> (2019) (see page 11).</p>		1

Standard 6: Infection prevention and control policies, procedures and guidance

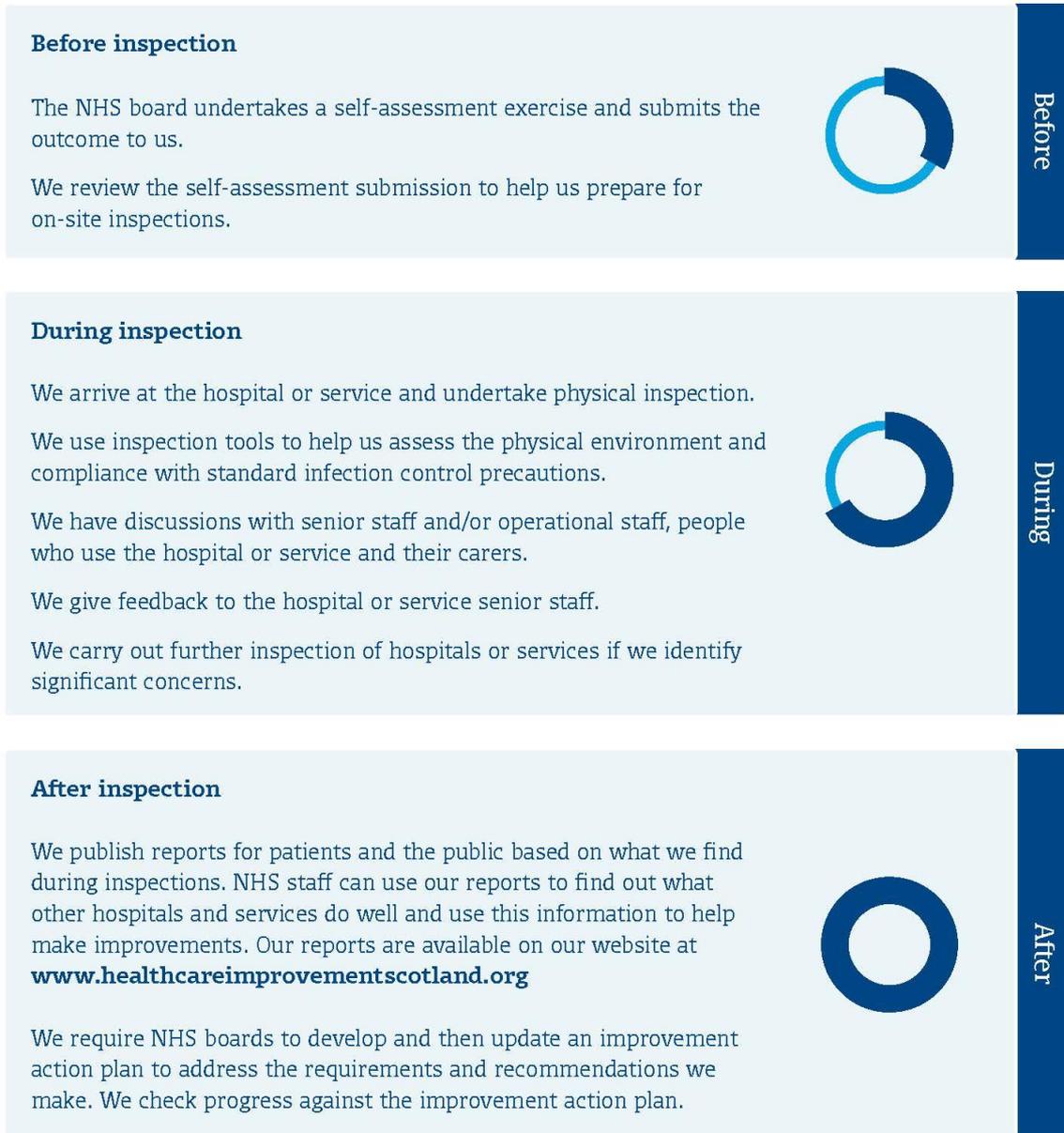
Requirements	HAI standard criterion	Priority
<p>2 NHS Greater Glasgow and Clyde must ensure functioning negative pressure isolation rooms are available in the hospital in line with Healthcare Facilities Scotland, Scottish Health Planning Note 04.</p> <ul style="list-style-type: none"> Where these are not available, staff are provided with clear guidance on how to manage a situation where a patient would require this type of isolation (see page 14). 	6.5 and 8.1	1
<p>3 NHS Greater Glasgow and Clyde must ensure all staff involved in the running of water are clearly informed of their roles and responsibilities in this and a clear and accurate record is kept to allow early identification of any water outlets that are not being run (see page 16).</p>	6.5	1
<p>4 NHS Greater Glasgow and Clyde must ensure all clinical areas across comply with the current national guidance in relation to the use of bladeless fans (see page 16).</p>	6.5	2
<p>5 NHS Greater Glasgow and Clyde must ensure that information on the expressed breast milk recording charts is in line with national guidance. This will ensure that the storage of expressed breast milk is managed in a way that reduces the risk to patients (see page 16).</p>	6.5	1
Recommendation		
<p>a NHS Greater Glasgow and Clyde should ensure that access to audit information is not person dependent to ensure the continuity of the audit programme (see page 14).</p>		

Standard 8: Decontamination		
Requirements	HAI standard criterion	Priority
6 NHS Greater Glasgow and Clyde must develop a strategy that ensures the environment in the emergency department is clean and patient equipment is clean and ready for use. This will ensure infection prevention and control can be maintained (see page 18).	8.1	1
7 NHS Greater Glasgow and Clyde must ensure the patient environment, and patient equipment, is clean and ready for use to reduce the risk of cross infection (see page 19).	8.1	1
8 NHS Greater Glasgow and Clyde must ensure that domestic supervisors sign off domestic cleaning schedules as complete with evidence and satisfaction that the domestic cleaning has been complete as detailed within the cleaning schedule (see page 20).	8.2	2
9 NHS Greater Glasgow and Clyde must ensure domestic staff have the necessary equipment to perform their cleaning duties to keep the environment clean and safe (see page 20).	8.1	1
10 NHS Greater Glasgow and Clyde must provide staff with suitable and functioning domestic services rooms to minimise the risk of cross contamination from the disposal of soiled water after the cleaning regime (see page 20).	8.1	2
11 NHS Greater Glasgow and Clyde's senior management must ensure all staff are aware of the correct method for cleaning hand wash basins, and the correct cleaning products are used to clean all sanitary fittings in line with current national guidance (see page 21).	8.1	2
12 NHS Greater Glasgow and Clyde must ensure that the built environment is effectively monitored to ensure it is maintained to allow effective cleaning to ensure effective infection prevention and control (see page 21).	8.1	1

<p>13 NHS Greater Glasgow and Clyde must ensure the estates reporting system is reliable and effective and acted on. Staff should also be informed of timescales for completion (see page 21).</p>	<p>8.4</p>	<p>2</p>
<p>14 NHS Greater Glasgow and Clyde must ensure ventilation panels are clean and free from dust (see page 22).</p>	<p>8.1</p>	<p>1</p>

Appendix 2: Inspection process flow chart

We follow a number of stages in our inspection process.



More information about our inspections, methodology and inspection tools can be found at

www.healthcareimprovementscotland.org/HEI.aspx

You can read and download this document from our website.
We are happy to consider requests for other languages or formats.
Please contact our Equality and Diversity Advisor on 0141 225 6999
or email contactpublicinvolvement.his@nhs.net

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