

Unannounced Inspection Report – Safety and Cleanliness of Hospitals

Royal Hospital for Sick Children and Department
of Clinical Neurosciences, Western General
Hospital
NHS Lothian

22–24 October 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 hospitals we inspected

The Royal Hospital for Sick Children is a 136-bed paediatric hospital in Sciennes, Edinburgh. The hospital provides services including medical and surgical care, accident and emergency, haematology, oncology, day care, and critical care.

The Department of Neurosciences at the Western General Hospital, Edinburgh, has three wards, outpatient department, operating theatres and diagnostic services. The department also provides specialist services to patients across much of Scotland.

Request from the Scottish Government

In July 2019, the Royal Hospital for Sick Children and the Department of Neurosciences at the Western General Hospital were delayed moving to a new site on the Royal Infirmary of Edinburgh campus. The Cabinet Secretary for Health and Sport, requested Healthcare Improvement Scotland carry out an inspection to specifically provide assurance of patient safety with regard to infection prevention and control at the two hospital sites, given that the existing sites are now expected to remain open for the next year. Inspection findings for both hospital sites have been included in one report.

Current position

We were told by senior management and a range of staff of the immediate actions put in place following the announcement of the delayed move. Staff we spoke with told us that senior management and executive teams were visible on the wards to explain the situation and offer support and reassurance that the site would be maintained in order to provide an environment for safe patient care.

We were also told that staff engagement groups were established and were well attended. In addition, NHS Lothian has considered the necessary measures needed to continue to deliver services at both sites, until they move to the new premises. These included the following.

- Management teams met immediately, with representation from the infection prevention and control team.
- Estates, domestic, clinical and infection control team clinical walkrounds have been taking place at both sites to identify areas requiring immediate and ongoing repairs.

- Domestic and estates resources already allocated to the new hospital site have been deployed to both sites to help with immediate actions and ongoing repairs.
- Weekly executive steering group meeting takes place to discuss ongoing clinical, maintenance and domestic issues.
- Estate and domestic managers' action plans are shared at the executive steering groups and the infection control committee.
- Communication and support for staff regarding the interim arrangements and future plans.

We were also told of the plans to ensure both sites are maintained and operational during increased patient attendances over the winter months. We saw NHS Lothian's plans to re-configure wards to accommodate this.

During our inspection, we saw staff at Royal Hospital of Sick Children had moved wards to provide an extra eight single side rooms for medical admissions. We were told that increased domestic resources would support the additional activity in this area and that bed capacity at the Department of Clinical Neurosciences had been reduced to support patient safety, given the facilities available without the remedial work being carried out. We noted that once the works are completed, bed capacity will be increased.

About our inspection

We carried out an unannounced inspection from Tuesday 22 to Thursday 24 October 2019. The inspection team was made up of four inspectors and a public partner with support from a project officer. A key part of the role of the public partner is to talk with patients about their experience of staying in hospital and listen to what is important to them.

Inspection focus

- Standard 6: Infection prevention and control policies, procedures and guidance, and
- Standard 8: Decontamination.

We inspected the following areas:

Royal Hospital for Sick Children

- accident and emergency department
- theatre department
- ward 1 (respiratory)

- ward 2 (haematology and oncology)
- ward 4 (orthopaedic and spinal surgical)
- ward 5 (acute medical), and
- ward 6 (acute medical).

Department of Clinical Neurosciences

- ward 31, and
- ward 33.

Across the two hospital sites, we carried out 17 patient interviews and received 47 completed patient questionnaires.

What NHS Lothian did well

- Good level of environmental cleanliness.
- Good staff compliance with standard infection control precautions.
- Positive patient and carer feedback.

What NHS Lothian could do better

- The fabric of the built environment must be maintained to enable effective cleaning.
- All patient equipment is provided and maintained in a condition which allows effective cleaning and is stored safely to minimise the risk of cross infection.

We have reported our key findings of the ward and theatre inspections separately. Detailed findings from our ward inspection can be found on page 8, and detailed findings from the theatre inspection can be found on page 14.

What action we expect NHS Lothian to take after our inspection

The ward inspections resulted in two requirements. The theatre inspection at the Royal Hospital for Sick Children resulted in two requirements and two recommendations.

The requirements and recommendation are linked to compliance with the Healthcare Improvement Scotland HAI standards. A full list of the requirements and recommendation can be found in appendices 1 and 1.1.

Separate improvement action plans have been developed by the NHS board for the ward and theatre inspections and are available on the Healthcare Improvement Scotland website www.healthcareimprovementscotland.org/HEI.aspx

We expect NHS Lothian to carry out the actions described in its improvement action plans to address the issues we raised during the inspections.

We would like to thank NHS Lothian and, in particular, all staff and patients at both the Royal Hospital for Sick Children and the Department of Clinical Neurosciences at the Western General Hospital for their assistance during the inspections.

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 inspections

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

Health Protection Scotland's *National Infection Prevention and Control 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-contamination or infections. There are 10 standard infection control precautions, including hand hygiene, the use of personal protective equipment (aprons, 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.

Staff at both hospital sites knew how to access the national manual from the NHS Lothian intranet. Staff told us they knew how to contact the infection prevention and control team including out of hours and at weekends. Ward staff told us that they have a good working relationship with the team.

During the inspection, staff spoken with at both hospital sites had good knowledge of the management of blood and body fluid spillages. This included how to make up the correct strength of chlorine-releasing disinfectant and detergent solution for cleaning. Staff were also aware of how to deal with a sharps injury. All staff spoken with were confident to challenge colleagues if any poor infection control practices were seen.

Staff at both hospital sites were knowledgeable about standard infection control precautions including appropriate management of linen, sharps and clinical waste. They described their approach to transmission-based precautions. Staff told us they would assess patients using a risk-based approach to accommodate individual patient care needs. We saw evidence of posters displayed. These included information regarding hand hygiene, specific types of infection and the necessary precautions to be taken.

All staff we could observe were adhering to standard infection prevention and control precautions such as hand hygiene, management of linen, waste and sharps.

During our inspection, we spoke with 17 patients across both hospital sites. Feedback from these patients included the following.

- Patients told us they were aware of visual prompts about infection control and hand hygiene and of the purpose of alcohol-based hand gel dispensers.
- Most patients were confident that their visitors were using the alcohol-based hand gel when arriving on the wards.
- Patients told us wash hand basins were easily accessible though some patients said they would need assistance to use them.
- Patients told us they were confident that nursing staff always cleaned their hands before attending to them.
- Patients told us that wet wipes were sometimes available.

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.

NHS Lothian has a number of assurance systems in place, for example:

- ward level hand hygiene compliance audits
- ward level assurance audits for a number of standard infection control precautions
- infection prevention and control nurse audit programme as part of the wider assurance system
- weekly walkrounds by senior charge nurses, and
- senior management walkrounds.

Ward staff at both hospital sites carry out hand hygiene compliance audits every month and assurance audits every 3 months. We were told that the responsibility for carrying out audits is shared among staff and we found one ward in the Department of Clinical Neurosciences encourages student nurses to carry out audits.

In all wards we saw evidence of staff recording audit results onto the electronic system as required by NHS Lothian.

Senior management, including the infection prevention and control team, have oversight of this electronic system and regularly review the audit results to identify compliance trends. NHS Lothian also carries out patient quality experience indicator (PQI) audits which cover both standard infection control precautions and environmental issues. Results of these audits demonstrated good compliance. Staff told us that they get feedback on audit results at the ward daily safety briefs.

During our discussion session, senior management staff told us about the new audit programme planned to be rolled out across NHS Lothian. The aim is to reduce the existing burden on ward staff whilst continuing to provide the NHS board with the necessary assurance of staff compliance and resulting improvement works.

We were provided with evidence that shows that NHS Lothian is piloting new audit tools for hand hygiene and other standard infection control precautions. In order to reflect the different care settings there are three versions of the tools. We saw that each tool has:

- a paper form with information on what ward staff should be looking for
- a data entry form, and
- charts which self-generate when data is entered.

We were told that the aim is to pilot these audit tools in different hospitals and clinical areas across NHS Lothian between October and December 2019. The NHS board will review feedback from all the pilot wards before planning to roll-out the new audit tools across the whole of NHS Lothian.

NHS Lothian is reviewing the data from estates and domestic audits to confirm that the information aligns, ensuring that areas of highest risk are identified and addressed. NHS Lothian have revised the cleaning schedules using a risk-based approach in line with national guidelines.

The NHS board has introduced training to support staff with the proposed changes. During the inspection, we saw facilities management audit scores action plans and rectification logs showing how works were being prioritised.

We recognise the amount of work being undertaken by NHS Lothian around its audits and we look forward to reviewing the progress of this audit programme at future inspections.

NHS boards are required to monitor water safety to reduce the risks associated with waterborne infections such as Legionella. To reduce the risk of Legionella, there should be regular flushing of unused or less frequently used water outlets.

All staff are aware of who is responsible for the running of water outlets, such as taps and showers every day. We found that domestic staff have responsibility across both hospital sites to carry this out and were completing a daily recording sheet. In the Department of Clinical Neurosciences, some taps have a filter and domestic staff have been shown the correct way to clean the filter and sink.

Standard 8: Decontamination

Almost all patients across both hospital sites thought that medical equipment and furniture were clean and in good repair. All patients spoken with thought that toilets and showers were kept very clean and that the standard of cleaning was high.

Patients we spoke with said:

Department of Clinical Neurosciences

- 'The cleaning is pretty good, and it is a busy ward.'
- 'The domestics are always in cleaning.'
- 'Fantastic. Very high standard.'
- 'Everything is spotless. Very good.'
- 'I have never seen such a clean hospital.'
- 'Really good. There is always somebody cleaning something.'
- 'Very high standard of cleaning.'

Royal Hospital for Sick Children

- 'The standard of cleaning is very high.'
- 'Domestics do their very best.'
- 'I am quite impressed by the cleaning. I didn't realise they did so much.'
- 'The cleaning is quite good, even though it is an older building.'
- 'Cleaning is of a high standard.'
- 'The domestics are really good.'

During our inspection, we saw a high standard of environmental cleanliness throughout the two hospital sites. Domestic staff were able to describe the correct products for cleaning sanitary fittings. They told us they had a good supply of cleaning materials. They described a good working relationship with the nursing staff and felt part of the overall ward team. Senior charge nurses told us they were happy with the level of domestic cleaning and felt able to raise any concerns with domestic staff or the domestic supervisors. The two hospital sites can contact a rapid response team if extra domestic cleaning is required. We saw a sign off sheet in each ward that had the senior charge nurse and domestic supervisor sign-off weekly. We saw that wards had various cleaning schedules, which included mattresses and commodes.

In the Royal Hospital for Sick Children, we saw that the children's toys and playrooms were clean and ready for use. We were told that play specialists use schedules and risk assessments for cleaning the toys, art work, fibre optics, paints and removable

covers. Staff told us that toys and play equipment will be thrown away if they cannot be effectively cleaned.

We were provided with information for the maintenance and cleaning of ventilation systems throughout the wards. During the inspection we saw that vents were clean.

During our discussion session, senior management staff told us that despite the delayed move to the new hospital site, planned preventive maintenance programmes were still in place at the Royal Hospital for Sick Children and the Department of Clinical Neurosciences. During our inspection, we saw evidence of estates jobs that had been allocated and some of these had been actioned.

During the inspection, we saw how estate issues are reported for replacement. Staff report estates issues by telephone or an online reporting system. Some wards also keep a folder to record reported estate issues. When staff telephone to report an issue, it automatically goes onto the intranet reporting system. We were told that this allows the senior charge nurse to keep track of the progress of any outstanding jobs. However, we found that there is not always a completion date for estates work. We were told that when an estates job is complete, this is signed off on the electronic system.

Staff at both sites told us estates issues are dealt with promptly. Staff spoken with said they were happy with the reporting system and response times from the estates team.

Across the two hospital sites we saw a number of estates issues including damage to flooring, walls and paintwork. We saw damage to ceiling tiles in wards at the Department of Clinical Neurosciences. In the Royal Hospital for Sick Children we also found exposed wood panelling and peeling of sealant around shower trays.

- **Requirement 1:** NHS Lothian must continue to ensure the fabric of the buildings at the Department of Clinical Neurosciences and Royal Hospital for Sick Children is maintained to allow effective cleaning and to minimise the risks of cross infection.

In the accident and emergency department at the Royal Hospital for Sick Children, we spoke with staff about the limited storage facilities. We saw items were stored in plastic containers so that they could be moved for cleaning. Storage areas were clean, tidy and dust free.

Following the decision to delay the move to the new hospital site, improvement works were being carried out at the three wards at the Department of Clinical Neurosciences. The work is prioritised based on level of risk to the patients. We saw

that there was work taking place to convert a bathroom into a wet room and refurbishing a bay in order to create additional bed capacity. We saw evidence of daily checks of the work site and the control measures in place to reduce risk to patients and staff in the environment for the duration of the works.

Across both hospital sites, NHS Lothian has estates and domestic assurance and monitoring systems in place. We found the NHS board's monitoring scores were consistent with what we found during our inspection. Staff told us they regularly report estates issues and that the estates team deal with them in a timely fashion. During our inspection, we saw that many repairs had already been done and or that issues identified had been reported. We saw that some areas of the Royal Hospital for Sick Children had recently been redecorated.

We inspected a variety of patient equipment at both sites including patient monitoring equipment, bedframes and mattresses, commodes, dressing trolleys and patient chairs and lockers. The majority of equipment was clean and ready for use. We also saw staff decontaminating equipment, such as blood pressure machines, in-between patients. However, we found that some equipment was damaged. For example, at the Royal Hospital for Sick Children we saw some cot frames with rust and damage making it difficult to effectively clean them.

At the Department of Clinical Neurosciences, we saw that one ward had lockers in use that were rusty and so cannot be effectively cleaned. In the high dependency unit, we also found a table, used for nursing charts, that was rusty on the bottom part of the frame. We were told that the items had been condemned and that the replacement equipment had been delivered to the new build. Staff were waiting for the equipment to be transferred to the Western General Hospital.

- **Requirement 2:** NHS Lothian must ensure that patient equipment at both sites can be effectively cleaned.

Key findings - theatre inspection

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

NHS boards are required to measure staff compliance with standard infection control precautions. The frequency of this compliance monitoring is determined by the individual NHS Boards. We saw that theatre staff record their audit results onto an electronic system. We also saw a rolling programme where staff submit monthly hand hygiene data and quarterly audits including standard infection control precaution audits.

The theatre department has several assurance systems in place, for example weekly senior charge nurse walkrounds, clinical nurse manager walkrounds and infection prevention and control walk rounds. The results and any necessary actions from the walkrounds are recorded on an electronic rolling action plan. We were told that the infection prevention and control team and senior management have oversight of the results and progress of this rolling action plan. The action plans are discussed at theatre department team meetings to share the findings and ensure that action is taken by the team and theatre management.

Theatre staff spoken with described a supportive working relationship with both management and the infection prevention and control team. All staff knew how to access the national manual.

Due to theatre activity and workload, we had limited opportunities to discuss and observe staff practices. Staff we could observe appropriately removed and disposed of gloves, aprons and masks. Those staff spoken with had a good knowledge of standard infection control precautions. All staff could describe the correct strength of chlorine-releasing disinfectant and detergent solution for cleaning blood and body fluid spillages.

We were told there was a system in place for safely removing used instruments from the operating theatre for decontamination. We saw that staff bag and label trays and they are appropriately stored prior to collection.

We noted that storage facilities in the theatre department are extremely limited and we saw that corridors were mainly clear from equipment.

We saw the sterile instrument storage room was clean and well organised. However, we found the sterile instrument trays were stacked on top of each other creating a risk that the packaging may become damaged or torn. Damaged sterile packaging

could create a potential risk of contamination of the sterile instruments. We noted that while NHS Lothian is aware of the limited storage facilities and the potential risks, staff continue to stack multiple, heavy instrument trays where there could be potential damage to the integrity of the packaging.

- **Recommendation a:** NHS Lothian should continue to review the storage of sterile trays in line with Health Facilities Scotland's *Management of Reusable Surgical Instruments during Transportation Storage and After Clinical Use*.

Standard 8: Decontamination

During the inspection, we inspected all areas of the theatre department, including corridors, store rooms and the operating theatres we could access. We saw that the operating theatres were well maintained, clean, dust free and ready for use. NHS Lothian has a rolling programme of theatre department maintenance repairs, and access to the department is discussed and agreed with a clinical lead.

We observed theatre staff cleaning the theatre departments after procedures. We saw that the majority of staff followed best practice for cleaning the environment and all staff were following the practice of top-down centre-out cleaning.

During our discussion session, we were told by estates management that all water outlets are run every day to avoid any uncertainty with infrequently used water outlets. Staff could clearly tell us they run taps daily. We saw evidence of this on sign-off sheets held in the theatre department. Domestic Managers assured us that they will reinforce the daily sign off with staff. Domestic staff told us that they use chlorine-releasing products to clean all sanitary fittings including sinks.

The domestic manager told us that following previous inspections, domestic resource had been increased to provide additional weekend resources. This extra provision is to allow domestic staff to access areas where equipment is stored. Domestic staff told us that it can be difficult to access areas due to activity and the multiple pieces of equipment in storage areas. Theatre staff we spoke with did not know about this extra domestic provision.

- **Recommendation b:** NHS Lothian should ensure that theatre staff are aware of the extra provision of domestic resources for the theatre department in the Royal Hospital for Sick Children. This will ensure that domestic staff can access all areas that require cleaning.

During the theatre inspection, we saw some equipment stored in an area with large amounts of dust on the floor. We raised this at the time of our inspection and during

our discussion session. Senior management assured us that communication between the two groups of staff would be improved, so that arrangements are made for theatre staff to clear storage areas to allow domestic staff access to effectively clean these areas. We will review this at future inspections.

- **Requirement 3:** NHS Lothian must ensure that all equipment is stored safely in a well maintained environment in the theatre department to minimise the risk of cross infection.

We looked at positioning pieces, theatre mattress pieces and pressure relieving mattresses, used to support patients during operating procedures. These items are stored in cupboards outside the operating theatres. Storage is limited and multiple pieces of equipment are stored in cupboards which increased the risk of damage to this equipment. We saw multiple pieces of positioning equipment that had tape residue present. This makes it difficult to effectively clean this equipment.

- **Requirement 4:** NHS Lothian must ensure that all positioning pieces are free from tape and tape residue and can be effectively cleaned.

Appendix 1: Requirements and recommendations - ward inspections

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.
- **Recommendation:** A recommendation relates to national guidance and best practice which we consider a hospital or service should follow to improve standards of care.

Standard 8: Decontamination	
Requirements	HAI standard criterion
1 NHS Lothian must continue to ensure the fabric of the buildings at the Department of Clinical Neurosciences and Royal Hospital for Sick Children is maintained to allow effective cleaning and to minimise the risks of cross infection (see page 12).	8.1
2 NHS Lothian must ensure that patient equipment at both sites can be effectively cleaned (see page 13).	8.1
Recommendation	
None	

Appendix 1.1: Requirements and recommendations - theatre inspection

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.
- **Recommendation:** A recommendation relates to national guidance and best practice which we consider a hospital or service should follow to improve standards of care.

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

Requirement	HAI standard criterion
None	
Recommendations	
a	NHS Lothian should continue to review the storage of sterile trays in line with Health Facilities Scotland's <i>Management of Reusable Surgical Instruments during Transportation Storage and After Clinical Use</i> (see page 15).

Standard 8: Decontamination

Requirements	HAI standard criterion
3	NHS Lothian must ensure that all equipment is stored safely in a well maintained environment in the theatre department to minimise the risk of cross infection (see page 16).
	8.1

Standard 8: Decontamination cont.

4 NHS Lothian must ensure that all positioning pieces are free from tape and tape residue and can be effectively cleaned (see page 16).

8.1**Recommendation**

b NHS Lothian should ensure that staff are aware of the extra provision of domestic resources for the theatre department in the Royal Hospital for Sick Children. This will ensure that domestic staff can access all areas that require cleaning (see page 15).

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

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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