Ensuring your hospital is safe and clean

Healthcare Improvement Scotland is committed to equality. We have assessed the inspection function for likely impact on equality protected characteristics as defined by age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation (Equality Act 2010). You can request a copy of the equality impact assessment report from the Healthcare Improvement Scotland Equality and Diversity Officer on 0141 225 6999 or email contactpublicinvolvement.his@nhs.net
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1 Background

The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake inspections of all acute hospitals across NHSScotland. In addition to the acute hospitals, the NHS National Waiting Times Centre (Golden Jubilee National Hospital, Clydebank), the Scottish Ambulance Service and the State Hospitals Board for Scotland (State Hospital, Carstairs) will also be inspected.

Our focus is to improve the standards of care for patients through a rigorous inspection framework. Specifically we will focus on:

- providing public assurance and protection, to restore public trust and confidence
- ensuring care is delivered in an environment which is safe and clean, and
- contributing to the broader quality improvement agenda across NHSScotland.

In keeping with our philosophy, we will use an open and transparent method for inspecting hospitals, using published processes and documentation.

Our philosophy

We will:

- work to ensure that patients are at the heart of everything we do
- measure things that are important to patients
- be firm, but fair
- have members of the public on our inspection teams
- ensure our staff are trained properly
- tell people what we are doing and explain why we are doing it
- treat everyone fairly and equally, respecting their rights
- take action when there are serious risks to people using the hospitals we inspect
- if necessary, inspect hospitals again after we have reported the findings
- check to make sure our work is making hospitals cleaner and safer
- publish reports on our inspection findings which are available to the public in a range of formats on request, and
- listen to the concerns of patients and the public and use them to inform our inspections.

We will not:

- assess the fitness to practise or performance of staff
- investigate complaints, and
- investigate the cause of outbreaks of infection.

More information about our inspection process can be found in Appendix 2.
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 hospital or NHS board by letter, telephone or email.

Our contact details are:

**Healthcare Environment Inspectorate**
Gyle Square
1 South Gyle Crescent
Edinburgh
EH12 9EB

**Telephone:** 0131 623 4300

**Email:** [hcis.chiefinspector@nhs.net](mailto:hcis.chiefinspector@nhs.net)
2 Summary of inspection

The Royal Infirmary of Edinburgh serves the Lothian region. It contains 911 staffed beds and has a full range of medical and surgical services. Some services, including cleaning, maintenance and catering, are provided under a separate arrangement with a private contractor, referred to in this report as the ‘hospital service provider’.

We previously inspected the Royal Infirmary of Edinburgh in August 2011. That inspection resulted in nine requirements and two recommendations. The inspection report is available on the Healthcare Improvement Scotland website [http://www.healthcareimprovementscotland.org/HEI.aspx](http://www.healthcareimprovementscotland.org/HEI.aspx).

We carried out an unannounced inspection to the Royal Infirmary of Edinburgh on Tuesday 30 April and Wednesday 1 May 2013.

We assessed the hospital against the NHS Quality Improvement Scotland (NHS QIS) healthcare associated infection (HAI) standards and inspected the following areas:

- acute medical unit
- pregnancy support unit
- ward 106 (general/vascular surgery)
- ward 107 (general/vascular surgery)
- ward 204 (respiratory)
- ward 205 (gastrointestinal/liver)
- ward 206 (renal), and
- ward 209 (orthopaedics – elective).

The inspection team was made up of three inspectors and a public partner, with support from a project officer. One inspector led the team and was responsible for guiding them and ensuring the team members were in agreement about the findings reached. A key part of the role of the public partner is to talk to patients and listen to what is important to them. Membership of the inspection team visiting the Royal Infirmary of Edinburgh can be found in Appendix 4.

During our inspection, we carried out patient interviews and used patient questionnaires. We spoke with 12 patients during the inspection. We received completed questionnaires from 62 patients.

Overall, we found evidence that NHS Lothian is complying with the majority of NHS QIS HAI standards to protect patients, staff and visitors from the risk of acquiring an infection. In particular:

- senior charge nurses were empowered in their role to influence and direct prevention and control of infection activities within their ward environment
- senior charge nurses spoken with reported that communication with the hospital service provider was good, and
- the infection prevention and control team provides cover over the weekend as well as during the week.
However, we did find that further improvement is required in the following areas:

- the policy for care and management of mattresses must be effectively implemented on all wards and departments
- staff must comply with standard infection control precautions for linen and sharps, and
- cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider must meet the specific needs of the acute medical unit.

**What action we expect NHS boards to take after our inspection**

This inspection resulted in five requirements. The requirements are linked to compliance with the NHS QIS HAI standards. A full list of the requirements can be found in Appendix 1.

NHS Lothian must address the requirements and the necessary improvements made, as a matter of priority.

An action plan for areas of improvement has been developed by the NHS board and is available to view on the Healthcare Improvement Scotland website [http://www.healthcareimprovementscotland.org/HEI.aspx](http://www.healthcareimprovementscotland.org/HEI.aspx).

We would like to thank NHS Lothian and in particular all staff at the Royal Infirmary of Edinburgh for their assistance during the inspection.
3  Key findings

3.1 Governance and compliance

Roles and responsibilities
Following the previous inspection in August 2011, NHS Lothian was required to ensure that senior charge nurses were empowered in their role in order to influence and direct prevention and control of infection activities within their ward environment. During this inspection, we saw work had been done to ensure senior charge nurses feel empowered in their role to influence and direct infection prevention and control activities. This was demonstrated through discussions with staff. In addition, staff told us there had been improvements in communication between different staff groups, including domestic services and estates staff.

Ward staff told us that they felt able to contact the infection prevention and control team for advice and support when needed. They also described the team attending wards when patients were identified as having an infection as well as on an ad hoc basis. To help communication further, the infection prevention and control team has introduced a single point of contact phone number. This allows staff to contact the infection prevention and control team without having to try to contact a named person. Through this single number, the infection prevention and control team also provides cover over the weekend as well as during the week. The service has been rolled out across acute and community sites, including care homes within the NHS board area.

Audit and surveillance
A number of audits are carried out in the Royal Infirmary of Edinburgh. At ward level, ward staff carry out infection control audits that are split into sections and take place at different intervals throughout a 12-month period. These include:

- hand hygiene (monthly)
- sharps management (twice a year)
- environment (twice a year)
- management of patient equipment (every 3 months)
- use of personal protective equipment (every 3 months)
- handling and disposal of linen (every 3 months), and
- waste handling and disposal (every 3 months).

We were told that, following ward level infection control audits, any areas for improvement should be identified and action plans should be developed.

The infection prevention and control team also carries out walkabouts to provide an additional level of assurance that infection control standards are being maintained. We were told that when a member of the infection control team audits a ward, they should review outstanding action plans to ensure that actions are being implemented. Depending on the outcome of the audit this may trigger a revisit or additional support. They also assess trends from information gathered through the Scottish Patient Safety Programme and the root cause analysis of *Staphylococcus aureus* bacteraemia (SAB) infections.
A system of patient experience quality indicator (PQI) audits is in place in NHS Lothian. These audits cover a wide range of topics, including infection control, and are carried out at two levels: core and local. The local PQI audits involve infection control nurses, staff from estates and domestic services, and clinical nurse managers. The core audits involve senior managers and a public representative. Core and local audits take place in alternate years. As senior charge nurses and infection control nurses join the audit process on different wards and areas, learning can be shared throughout the hospital. Feedback from PQI audits is given to ward staff at the end of an audit. All actions are to be placed within the generic ward management action plan.

During the inspection, we spoke with staff about audits and the process for developing action plans following audits. The majority of wards we looked at had completed action plans to accompany audits. In ward 205, the senior charge nurse told us they had invited the infection prevention and control team to carry out additional quality assurance audits on the ward. This was to ensure infection control standards were being consistently maintained on the ward.

**Policies and procedures**

The NHS Lothian infection control manual is available online and the first chapter reflects the national infection prevention and control manual.

Following the previous inspection in August 2011, NHS Lothian was required to ensure that all staff comply at all times with national guidance relating to dress code. During this inspection, we observed good compliance with the national dress code amongst all staff groups.

During the inspection we assessed compliance with standard infection control precautions. This included hand hygiene, waste management, sharps management and the use of personal protective equipment (such as gloves and aprons). We found compliance with these precautions varied throughout the hospital.

- Hand hygiene practice was generally good with staff washing or gelling their hands when treating patients.
- Linen management was satisfactory in the majority of the hospital. However, linen management in the pregnancy support unit did not meet the standards set out in the national infection prevention and control manual. Clean linen was stored in toilets in the treatment and scan rooms. Dirty linen was also stored in the scan room toilet and shower room (see Image 1). Clean linen must be stored in a clean designated area, preferably an enclosed cupboard or covered with an impervious covering, and dirty linen must be stored in a safe designated area.
- Compliance with sharps management varied throughout the hospital. When a sharps bin is not in use, a temporary closure mechanism should be used to reduce the risk of injury and infection to staff and patients. In some areas, compliance was good and temporary closure mechanisms were routinely used, while in other areas compliance was poor and temporary closure mechanisms were infrequently used (see Image 2).
Ensuring your hospital is safe and clean

HEI Unannounced Inspection Report (Royal Infirmary of Edinburgh, NHS Lothian) – 30 April and 1 May 2013

Image 1: linen stored in the toilet and shower room in the pregnancy support centre

Image 2: examples of temporary closures not in use (ward 107) and in use (ward 206)

- **Requirement 1:** NHS Lothian must ensure that staff comply with standard infection control precautions relating to sharps and linen management. This will reduce the risk of infection to patients.

Following the previous inspection in August 2011, we recommended that NHS Lothian ensured that its policy for care and management of mattresses was fully implemented, and compliance was monitored. During this inspection, we asked staff about the policy for the care and management of mattresses. Staff were able to describe the policy and stated they would check mattresses either weekly or at patient discharge. As part of our inspection, we checked 10 mattresses on four wards. We found that six of these mattresses were stained (see Image 3). We also noted that there was an inconsistent approach to recording mattress checks. While some wards were using a bed space checklist to record checks, others were...
keeping records at the nurses’ station. Some records had gaps and, as such, we could not be assured that the policy was being fully implemented throughout the hospital.

**Image 3:** dirty mattresses in wards 107 and 209

- **Requirement 2:** NHS Lothian must ensure that the policy for care and management of mattresses is effectively implemented on all wards and departments. This will reduce the risk of cross infection to patients and provide a greater degree of assurance.

**Risk assessment and patient management**

Staff were aware of isolation procedures for patients with known infections and were able to describe the placement of patients with known infections. When patients are identified as having an infection, a number of precautions should be followed, including doors to isolation rooms remaining closed, unless a risk assessment states otherwise. We observed a number of occasions where doors to isolation rooms were left open with no written risk assessments having been carried out.

- **Requirement 3:** NHS Lothian must ensure that risk assessments, leading to the decision to leave isolation room doors open, are documented in patient healthcare records. This will provide assurance that consideration is given to infection prevention and control issues.

Peripheral vascular catheter (PVC) care bundles are used to reduce the risk of device-related blood stream infections and are included in the patient risk assessment bundle. During this inspection, we reviewed PVC care bundles on the majority of wards. We found that a template care bundle has been developed and introduced.

We found there was an inconsistent approach to the completion of the care bundle. Staff should document each time a PVC is inserted, checked or removed. In some cases, we found staff were confused about where this information should be recorded, with some staff recording the information in care rounding documentation. We also found an instance of a patient having a PVC inserted, but nothing was recorded in the patient’s healthcare record. This was rectified when raised with the nurse.

Following the previous inspection in August 2011, NHS Lothian was required to implement a consistent approach to PVC insertion and maintenance. Although standard documentation had been developed, its implementation was not consistent.
Requirement 4: NHS Lothian must implement a consistent approach to PVC insertion and maintenance, and ensure staff are aware of the local policy when completing the accompanying care bundle. This will reduce the risk of device-related blood stream infections.

During the inspection, we asked ward staff about some of the controls in place in the hospital for managing legionella bacteria in the water supply. We also spoke with senior managers from the hospital service provider, who are responsible for managing the water system at the hospital. Ward staff were unsure about who was responsible for flushing water outlets, how often this should be done and how to identify when a water outlet becomes infrequently used. Senior managers told us that a new process is currently being trialled in NHS Lothian that gives responsibility for flushing water outlets to domestic staff. This should provide clarity and greater assurance regarding outlet flushing. We were told that if this trial is successful, this new process will be made policy. We will monitor progress at future inspections.

Cleaning

During this unannounced inspection, we found that cleaning in the hospital was satisfactory, with further attention to detail required in some areas. We found environmental cleaning in ward 206 could also be improved. The senior charge nurse and clinical nurse manager had already escalated this to the hospital service provider and were monitoring the standard of cleaning as they had previously identified areas for improvement. On the day of inspection, a number of areas were not cleaned to the expected standard, including behind doors and floor to wall junctions on corridors. The senior charge nurse was able to demonstrate that they were empowered to take issues to the hospital service provider to seek a resolution. We also found there could be further attention to detail in the cleaning of the underside of beds in ward 107.

Following the previous inspection in August 2011, NHS Lothian was required to ensure that cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider meet the specific needs of different patient and ward environments. During this inspection, we looked at cleaning schedules on some of the wards and found they had been adapted to meet the needs of each ward.

The standard of environmental cleaning in the acute medical unit did not meet the same standards found elsewhere in the hospital. We discussed this with the senior charge nurse and the clinical nurse manager. They told us that the busy nature of the ward could potentially cause access problems for domestic staff. We were also advised that the domestic services supervisor had carried out a spot check that morning, but no issues were raised with nursing staff. The environmental audit carried out at ward level had identified cleaning as an issue, but it was not clear what action had been taken to address this.

Requirement 5: NHS Lothian must ensure that cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider meet the specific needs of the acute medical unit. This will ensure satisfactory standards of cleanliness and reduce any risk of infection to patients.

We inspected a variety of patient equipment and found the majority to be clean. This included beds, bedside tables, chairs, footstools, commodes, raised toilet seats, and drip stands. Where we found dirty equipment, this was raised with staff at the time.
3.2 Communication and public involvement

Communication with staff

Following the previous inspection in August 2011, NHS Lothian was required to review and improve the existing relationship between staff contracted through the hospital service provider (domestic and facilities staff), senior charge nurses and the infection control team. During this inspection, we noted that a lot of work had been done to address this. Senior charge nurses spoken with reported that communication with the hospital service provider was good. They also felt able to raise any issues they had with the hospital service provider.

Nurses in charge are now responsible for signing off domestic cleaning schedules at the end of each day. Both senior charge nurses and domestic staff told us that this had led to improved communication. Senior charge nurses also described the system for reporting estates jobs. These are reported to a help desk and the job number is recorded in a log book. When estates complete a job, the contractor will normally advise a member of staff that it is complete. Senior charge nurses felt they were well informed, including when there were any delays to work being carried out.

Communication with the public

During the inspection, we spoke with 12 patients across four wards. Patients commented that the wards were clean and there had been improvements since previous admissions. A patient commented that they were impressed with how staff cleaned the ward.

Patient information relating to HAIs and infection prevention and control was visible on all wards.

- Information and signs were displayed at the entrance to wards reminding patients and visitors to use alcohol hand gel on entering wards.
- Posters were displayed on isolation room doors encouraging visitors to speak to staff before entering.
- Information leaflets were available in racks on wards and HAI-specific leaflets were available for those with known infections if needed. Leaflets were also available in other languages.
Appendix 1 – Requirements and recommendations

The actions the HEI 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 the HEI are concerned about the impact this has on patients using the hospital or service. The HEI expects that all requirements are addressed and the necessary improvements are implemented.

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

**Prioritisation of requirements:**
All requirements have been priority rated (see table below). Compliance is expected within the highlighted timescale.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Timescale</th>
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<tbody>
<tr>
<td>MINOR</td>
<td>9 months</td>
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<tr>
<td>LOW</td>
<td>6 months</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>3 months</td>
</tr>
<tr>
<td>HIGH</td>
<td>1 month</td>
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**Governance and compliance**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>HAI standard criterion</th>
<th>Priority</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ensure that staff comply with standard infection control precautions relating to hand hygiene, sharps and linen management. This will reduce the risk of infection to patients (see page 10).</td>
<td>3a.3</td>
<td>High</td>
<td>1 month</td>
</tr>
<tr>
<td>2 ensure that the policy for care and management of mattresses is effectively implemented on all wards and departments. This will reduce the risk of cross infection to patients and provide a greater degree of assurance (see page 11).</td>
<td>1a.2</td>
<td>High</td>
<td>1 month</td>
</tr>
<tr>
<td>3 ensure that risk assessments, leading to the decision to leave isolation room doors open, are documented in patient healthcare records. This will provide assurance that consideration is given to infection prevention and control issues (see page 11).</td>
<td>3a.3</td>
<td>Medium</td>
<td>3 months</td>
</tr>
</tbody>
</table>
### Recommendations

None

### Communication and public involvement

<table>
<thead>
<tr>
<th>Requirements</th>
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<tbody>
<tr>
<td>None</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
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Appendix 2 – Inspection process

Inspection is a process which starts with local self-assessment, includes at least one inspection to a hospital and ends with the publication of the inspection report and improvement action plan.

First, each NHS board assesses its own performance against the Standards for Healthcare Associated Infection (HAI), published by NHS Quality Improvement Scotland (NHS QIS) in March 2008, by completing an online self-assessment and providing supporting evidence. The self-assessment focuses on three key areas:

- governance/compliance
- communication/public involvement, and
- education and development.

We assess performance both by considering the self-assessment data and inspecting acute hospitals within the NHS board area to validate this information and discuss related issues. We use audit tools to assist in the assessment of the physical environment and practices by noting compliance against a further nine areas:

- environment and facilities
- handling and disposal of linen
- departmental waste handling and disposal
- safe handling and disposal of sharps
- patient equipment
- hand hygiene
- ward/department kitchen
- clinical practice, and
- antimicrobial prescribing.

The complete inspection process is described in the flow chart in Appendix 3.

Types of inspections

Inspections may be announced or unannounced and will involve the physical inspection of the clinical areas, interviews with staff and patients on the wards, interviews with key staff and a discussion session with senior members of staff from the NHS board and hospital. We will publish a written report 6 weeks after the inspection.

- **Announced inspection:** the NHS board and hospital will be given **at least 4 weeks’ notice** of the inspection by letter or email.
- **Unannounced inspection:** the NHS board and hospital will **not be given any advance warning** of the inspection.
Follow-up activity

The inspection team will follow up on the progress made by the NHS board in relation to their improvement action plan. This will take place no later than 16 weeks after the inspection. The exact timing will depend on the severity of the issues highlighted by the inspection and the impact on patient care.

The follow-up activity will be determined by the risk presented and may involve one or more of the following:

- an announced or unannounced inspection
- a targeted announced or unannounced inspection looking at specific areas of concern
- an on-site meeting
- a meeting by video conference
- a written submission by the NHS board on progress with supporting documented evidence, or
- another intervention deemed appropriate by the inspection team based on the findings of an inspection.

Depending on the format and findings of the follow-up activity, we may publish a written report.

More information about the HEI, our inspections, methodology and inspection tools can be found at http://www.healthcareimprovementscotland.org/HEI.aspx.
Appendix 3 – Inspection process flow chart

Prior to Inspection

- Online self-assessment framework finalised and issued
- NHS board undertakes self-assessment exercise and submits outcomes to HEI
- HEI reviews self-assessment submission to inform and prepare onsite inspections

During Inspection

- Arrive at hospital
- Inspections of selected wards and departments
- Individual discussions with senior staff and/or operational staff and patients
- Group discussions with NHS board and senior hospital staff
- Feedback with NHS board and senior hospital staff
- Further inspection of hospital if areas of significant concern identified

After Inspection

- Report and improvement action plan published
- Follow-up activity to ensure improvement actions are completed
Appendix 4 – Details of inspection

The inspection to Royal Infirmary of Edinburgh, NHS Lothian was conducted on Tuesday 30 April and Wednesday 1 May 2013.

The inspection team was made up of the following members:

Alastair McGown
Regional Inspector

Anna Brown
Associate Inspector

Aidan McCrory
Associate Inspector

Penny Leggat
Public partner

Supported by:

Sara Jones
Project Officer

Observed by:

Pamela Campbell
Project Officer
### Appendix 5 – Glossary of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>HAI</td>
<td>healthcare associated infection</td>
</tr>
<tr>
<td>HDL</td>
<td>Health Department Letter</td>
</tr>
<tr>
<td>HEI</td>
<td>Healthcare Environment Inspectorate</td>
</tr>
<tr>
<td>NHS QIS</td>
<td>NHS Quality Improvement Scotland</td>
</tr>
<tr>
<td>PQI</td>
<td>patient experience quality indicator</td>
</tr>
<tr>
<td>PVC</td>
<td>peripheral vascular catheter</td>
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<tr>
<td>SAB</td>
<td><em>Staphylococcus aureus</em> bacteraemia</td>
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HEI Healthcare Environment Inspectorate
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www.healthcareimprovementscotland.org

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Telephone 0141 225 6999

The Healthcare Environment Inspectorate is a part of Healthcare Improvement Scotland.