The Healthcare Environment Inspectorate (HEI) as part of NHS Quality Improvement Scotland (NHS QIS) is committed to equality and diversity. We have assessed the inspection function for likely impact on the six equality groups defined by age, disability, gender, race, religion/belief and sexual orientation. For this equality and diversity impact assessment, please see our website (www.nhshealthquality.org). The full report in electronic or paper form is available on request from the NHS QIS Equality and Diversity Officer.

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HEI Inspection Report (Royal Infirmary of Edinburgh, NHS Lothian) – 18 and 19 January 2010 and 2 February 2010
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1 Background

The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake announced and unannounced inspections to each acute hospital in NHSScotland at least once every 3 years.

Our focus is to reduce the healthcare associated infection (HAI) risk to patients through a rigorous inspection framework. Specifically we will focus on:

- providing public assurance and protection, to restore public trust and confidence
- contributing to the prevention and control of HAI
- contributing to improvement in infection control and the broader quality improvement agenda across NHSScotland.

In keeping with our philosophy, we will use an open and transparent method for inspecting hospitals, using standardised 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, check hospitals again after we have reported the findings
- check to make sure our work is making hospitals cleaner and safer. If it is not, we will change it, and
- publish reports on our inspection findings which will be available to the public in a range of formats on request.
2 Methodology

The inspection process has two key parts: local self-assessment followed by external on-site inspection. 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.

The inspection team assesses performance both by considering the self-assessment data and visiting acute hospitals within the NHS board to validate this information and discuss related issues. The inspection team uses audit tools to assist in the assessment of the physical environment by noting compliance against a further eight 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, and
- clinical practice.

The complete inspection process is described in detail in the flow chart in Appendix 2.

Each inspection team is led by an experienced inspector, who is responsible for guiding the team and ensuring that team members are in agreement about the assessment reached. Membership of the inspection teams visiting the Royal Infirmary of Edinburgh can be found in Appendix 3.

Further information about HEI, its inspection visits, and methodology and audit tools used can be found at http://www.nhshealthquality.org/nhsqis/6710.140.1366.html.
3 Key findings

Inspection visit to Royal Infirmary of Edinburgh, NHS Lothian

The Royal Infirmary of Edinburgh serves the Lothian region. It contains 906 staffed beds and has a full range of healthcare specialties.

The HEI carried out an announced inspection visit to the Royal Infirmary of Edinburgh on Monday 18 January and Tuesday 19 January. Due to an administrative error in which three of the wards knew in advance of the inspection, an unannounced visit to a further four wards was carried out on Tuesday 2 February 2010 to check on levels of cleanliness, hygiene and infection control.

The following areas were visited;

Monday 18 January 2010 and Tuesday 19 January 2010 (announced inspection)

- outpatients department
- ward 107
- ward 202
- ward 205
- ward 210

Tuesday 2 February 2010 (unannounced inspection)

- ward 101
- ward 105
- ward 201
- ward 208

Our findings are set out below. Areas of strengths as well as areas for further improvement, including requirements and recommendations for action are highlighted.

The four requirements and six recommendations in this report are linked to compliance with the NHS QIS HAI standards.

It is expected that all requirements and recommendations are addressed 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 NHS QIS website http://www.nhshealthquality.org/nhsqis/7428.html.

Governance/Compliance

Roles and responsibilities

The infection control team is well defined within a single system approach which is present across NHS Lothian. The head of services for infection control fulfils the role of the infection control manager as set out in Health Department Letter HDL(2005)8. The head of services for infection control reports to the chief operating officer and to
the director of public health who is the executive lead for HAI thereby holding responsibility for prevention and control of infection. The infection control team reports to the Lothian infection control advisory committee, currently chaired by the director of public health. The Lothian infection control advisory committee reports directly to the NHS board, where HAI is a standing agenda item, and via the healthcare governance and risk management committee.

Audit and surveillance

The inspection team noted that national audit surveillance was being carried out throughout the hospital site. On a number of wards, results of audits undertaken in relation to the Scottish Patient Safety Programme (SPSP) are clearly displayed in public areas for staff, patients and visitors to see in an open and transparent manner. These audit results included, amongst others, the number of *Clostridium difficile* infections (CDIs) and meticillin resistant *Staphylococcus aureus* (MRSA).

There was evidence that environmental audits are being conducted at The Royal Infirmary of Edinburgh. These are carried out annually by ward staff, two yearly by the Patient Experience Action Team (PEAT) and three yearly by the infection control staff. The inspection team considers that the three year frequency of carrying out environmental audits by infection control staff is inadequate to meet local needs. In addition, there is no mechanism of quality assuring the ward staff audit process by the infection control team. It is recommended that NHS Lothian reviews the frequency of its environmental audits carried out by the infection control staff and the quality assurance mechanism of ward staff auditing to ensure a consistent approach.

The inspection team noted, while speaking to a number of staff on wards, that there were inconsistencies in the awareness of the results from environmental audits. NHS Lothian is required to ensure there is effective communication, so that all ward staff are fully aware of the environmental audit results. This will ensure that the NHS board is compliant with criterion 1a.7 of the NHS QIS HAI standards.

Policies and procedures

NHS Lothian has developed a comprehensive infection control manual. The manual is readily available to clinical staff via the NHS board’s intranet site, however, at the time of the inspection it was observed on the wards that out-of-date paper copies were present. The electronic infection control manual is maintained and updated by the infection control team. It was reported to the inspection team that domestic staff have access to a restricted paper copy of the infection control manual. NHS Lothian is required to ensure that all staff are able to fully access the infection control manual in compliance with criterion 3a.1 of the NHS QIS HAI standards. The inspection team was informed by the chief operating officer that regular 6-monthly meetings with ward managers take place where the issue of out-of-date paper copies of the infection control manual being available in ward areas will be addressed.

The NHS board submitted the Lothian infection control advisory committee annual programme for 2009 – 2010 in draft format. The annual programme is based on priorities identified from the national HAI agenda and local priorities. It is recommended that NHS Lothian reviews the current draft of the Lothian infection control advisory committee annual programme with a view to making this document final.

NHS Lothian reported that policies and procedures are developed with key stakeholders, and are implemented through existing organisational management.
structures. The inspection team noted that the policies and procedures in place focus on local and national needs. Staff awareness of these policies and procedures is achieved through mandatory training events.

**Antimicrobial prescribing**

NHS Lothian has policies in place relating to antimicrobial prescribing within both primary and secondary care settings. The policies are available to all staff through the NHS board’s intranet site, which all staff are able to access. New antimicrobial prescribing guidelines were released by NHS Lothian in December 2009. The inspection team noted that prescribers also had access to paper copies of the antimicrobial prescribing guidelines, with a mixture of new and old guidelines in circulation. NHS Lothian was unable to demonstrate a clear line of responsibility and accountability in relation to the dissemination of new antimicrobial guidelines. In addition, the inspection team found that no assurance system was in place to confirm that prescribers had begun using the new antimicrobial prescribing guidelines.

NHS Lothian uses the Institute for Healthcare Improvement (IHI) methodology, auditing 20 patient case notes each month in the combined assessment unit. Feedback from these audits is provided to the clinical teams and pharmacy staff in the department. It is recommended that NHS Lothian disseminates the feedback gained from audits to all prescribers, in addition to those in the combined assessment unit.

It was reported to the inspection team that the audits conducted have highlighted some variation from the guidelines. NHS Lothian stated that action plans are compiled by the clinical teams based on the findings from the audits conducted. The inspection team noted that there was a lack of clarity in relation to the roles and responsibilities for the development, implementation and monitoring of these action plans. The inspection team recommends that NHS Lothian reviews the process of developing, implementing and monitoring antimicrobial prescribing audit action plans to ensure clear lines of reporting and accountability.

**Risk assessment and patient management**

There was evidence throughout the hospital site that risk assessment formed part of the day to day running and management of ward areas. Staff were observed wearing personal protective equipment when caring for patients. The inspection team observed that in the areas inspected, patients were correctly isolated in single rooms with signage on the isolation room door to indicate that infection control procedures should be followed. The inspection team noted the presence of written notices on isolation room doors and recommends that NHS Lothian conducts a review into the use of pictorial notices in addition to written signage to ensure that the information is accessible to all members of staff, patients and visitors. It was noted that in the outpatients department, there were insufficient alcohol hand gel dispensers for public use.

The NHS board confirmed that pre-planned admission patients in high risk areas are screened for MRSA on admission. The inspection team noted that currently NHS Lothian does not have a patient tracking system in place in relation to the risk assessment of patients. Senior staff members informed the inspection team that NHS Lothian is currently working with the Scottish Government to trial a computer-based patient tracking system. This system will contain an HAI alert on patient records.
Cleaning

Prior to and during the inspection, NHS Lothian stated that the domestic services work schedules provide cleaning to the frequencies and standards as stated in the *NHSScotland Cleaning Services Specification* (2009).

The inspection team considered that overall, the standard of cleanliness in the areas inspected within the Royal Infirmary of Edinburgh was of a satisfactory standard. Some general observations were that some dust was found both at high level (top of curtain rails) and low level (skirting boards and floor corners). Overall, the inspection team found that attention to detail in hard to reach areas, in relation to cleaning, could be better. Additionally, there was evidence of rust and/or blistering on the underside of some waste bins.

There were some signs of wear and tear, for example small areas of paint peeling on walls, worn edges on bedroom furniture (lockers) used by patients and sticky residue marks from old notices on the walls at the head of beds.

The majority of patients spoken to by the inspection team spoke positively regarding the cleanliness of ward areas.

The inspection team noted that, in the areas inspected, there was an inconsistent approach to the recording of cleaning tasks. NHS Lothian is required to review its cleaning schedules to ensure consistency across all wards and departments in terms of compliance with criterion 4a.1 of the NHS QIS HAI standards.

During discussions with portering staff, several examples of overfilled, overflowing and unlocked clinical waste wheelie bins in the waste storage area were observed.

![Overflowing clinical waste bin.](image)

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This can result in potential infection control risks for portering and other staff and measures should be put in place to ensure the safe and secure disposal of clinical waste at all times. Additionally, communication issues were identified between portering and ward staff on the cleaning of obsolete or unused equipment prior to removal from the ward areas. It was reported that a revised decontamination policy, including decontamination certificates, had recently been approved and would be disseminated and made available to staff via the NHS board’s intranet site. It is recommended that NHS Lothian monitors the implementation of the local waste management policy to ensure that clinical waste is appropriately managed, specifically in relation to large waste disposal bins.

**Procurement**

The inspection team was assured that the infection control team in NHS Lothian is involved in the procurement process, and that infection prevention and control issues are considered at all stages of the process.

**Requirements:**

1. **Criterion 1a.7 of the NHS QIS HAI standards**
   NHS Lothian must ensure that there is effective communication to all ward staff.
   
   This will ensure that staff are fully aware of environmental audit results.

2. **Criterion 3a.1 of the NHS QIS HAI standards**
   NHS Lothian must review staff access to the infection control manual.
   
   This will ensure that all staff have access to the most up-to-date information and guidance on HAI and infection control issues.

3. **Criterion 4a.1 of the NHS QIS HAI standards**
   NHS Lothian must review its written cleaning schedules to ensure consistency in the recording of cleaning activities across all wards and departments.
   
   This will ensure that all wards and departments record cleaning activities using a consistent approach.

**Recommendations:**

4. It is recommended that NHS Lothian reviews the frequency of its environmental audits carried out by the infection control staff and the quality assurance mechanism of ward staff auditing to ensure a consistent approach.

5. It is recommended that NHS Lothian reviews the process of developing and implementing antimicrobial prescribing audit action plans to ensure clear lines of reporting and responsibility are in place and that the feedback gained from antimicrobial prescribing audits is disseminated to all prescribers.

6. It is recommended that NHS Lothian reviews the use of pictorial notices in addition to written signage on isolation room doors to ensure that the information is accessible to all members of staff, patients and visitors.
It is recommended that NHS Lothian monitors the implementation of the local waste management policy to ensure that clinical waste is appropriately managed, specifically in relation to large waste disposal bins.

Communication/Public involvement

Effective communication
The inspection team was provided with the NHS board’s communication strategy as evidence prior to the inspection. The strategy document highlights how the NHS board aims to communicate with both staff and the wider community. The strategy confirms that patients, public and staff should be at the centre of the NHS board’s communication plans. The strategy provides a framework to ensure communication is central to activities at all levels, both internally and externally.

Public representatives spoken to confirmed that members of the public are involved in infection control activities across NHS Lothian. The inspection team was informed by the public representatives that the information presented to them was not always clear including acronyms being used but not fully explained.

HAI information
In general, it was observed that a large selection of leaflets and posters were available on HAIs and other topics within the Royal Infirmary of Edinburgh. The NHS board uses Health Protection Scotland (HPS) leaflets and locally developed HAI information leaflets. The inspection team noted that in the outpatients department, there was a lack of information on HAIs readily available to patients and visitors. It was also observed that a number of posters in the outpatient department were ripped and peeling from the walls. The inspection team recommends that NHS Lothian reviews the placement and maintenance of HAI information within the outpatients department.

A consistent theme found by the inspection team during patient interviews was that the majority of patients did not recall receiving information regarding infection control and HAIs prior to or during their stay on the ward. NHS Lothian is required to review its procedure for the dissemination of patient leaflets to ensure that patients are receiving appropriate information regarding infection control and HAIs. This will ensure that the NHS board is compliant with criterion 2a.2 of the NHS QIS HAI standards.

Information regarding hand washing was present above the sinks in the patient bed bays inspected. However, the inspection team noted that the placement of hand hygiene posters was inconsistent at ward entrances and within ward corridors. The inspection team recommends that NHS Lothian conducts a review of the placement of its hand hygiene information on wards to increase the visibility for patients, staff and visitors.

Involving the public in infection prevention and control activities
The NHS board confirmed that it has a strong public involvement programme. Public representatives are involved in infection prevention and control activities with a lay member from the patient focus public involvement group present on the Lothian infection control advisory committee.
Patient representatives are present during cleanliness monitoring audits and hand hygiene audits. The patient representatives spoken to reported that representatives were involved in the review and development of HAI information and leaflets designed for patients and the public.

Overall, the inspection team considered that the NHS board is committed to involving members of the public in infection prevention and control activities and encourages it to continue this important work.

**Requirement:**

8 **Criterion 2a.2 of the NHS QIS HAI standards**
NHS Lothian must review its procedure for the dissemination of patient leaflets.

This will ensure that patients are receiving appropriate information regarding infection control and HAIs.

**Recommendations:**

9 It is recommended that NHS Lothian reviews the placement and maintenance of HAI information within the outpatients department to ensure that the information is easily accessible.

10 It is recommended that NHS Lothian conducts a review of the placement of hand hygiene information in wards and departments to increase visibility for patients, staff and visitors.

**Education and development**

**Strategy**

The inspection team noted that there was a very high focus on education in the prevention and control of infection for new staff joining the hospital. NHS Lothian reported that every member of staff is required to attend mandatory infection control training on commencing employment. All clinical and non-clinical staff must attend mandatory infection control update training every 18 months and the inspection team commends NHS Lothian for this approach. NHS Lothian currently uses a web-based human resources (HR) system to monitor training records.

NHS Lothian encourages staff to undertake the cleanliness champions programme and, at the time of the inspection, over 200 staff members within the Royal Infirmary of Edinburgh had completed the programme. Senior staff informed the inspection team that they are currently promoting the cleanliness champions programme to porters and have recently established a cleanliness champions forum which has representation from across NHS Lothian.
Assurance

All staff members within NHS Lothian must have HAI training as an objective contained within their annual personal development plan (PDP); this is in compliance with criterion 5a.1 of the NHS QIS HAI standards.

The inspection team was encouraged to note that initial and updated training for infection control was considered a mandatory education and training topic for all staff. The NHS board, however, informed the inspection team that the uptake of mandatory update training had been poor among non clinical staff. Senior staff informed the inspection team that NHS Lothian is currently conducting a review into how attendance at mandatory infection control training can be improved. The current format is primarily through computer-based learning and alternatives are being investigated.

Requirements:

None

Recommendations:

None

All requirements and recommendations in this report are linked to compliance with the NHS QIS HAI standards.

It is expected that all requirements and recommendations are addressed and the necessary improvements made as a matter of priority by NHS Lothian.

The HEI team would like to thank NHS Lothian and in particular all staff at the Royal Infirmary of Edinburgh for their assistance during the inspection visit.
### Appendix 1 – Glossary of abbreviations

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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CDI</td>
<td><em>Clostridium difficile</em> infection</td>
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<tr>
<td>HAI</td>
<td>healthcare associated infection</td>
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<td>HDL</td>
<td>Health Department Letter</td>
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<tr>
<td>HEI</td>
<td>Healthcare Environment Inspectorate</td>
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<td>HPS</td>
<td>Health Protection Scotland</td>
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<tr>
<td>HR</td>
<td>human resources</td>
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<tr>
<td>IHI</td>
<td>Institute for Healthcare Improvement</td>
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<tr>
<td>MRSA</td>
<td>meticillin resistant <em>Staphylococcus aureus</em></td>
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<tr>
<td>NHS QIS</td>
<td>NHS Quality Improvement Scotland</td>
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<tr>
<td>PDP</td>
<td>personal development plan</td>
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<td>SPSP</td>
<td>Scottish Patient Safety Programme</td>
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Appendix 2 – Inspection process

Prior to inspection visit
- 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 visit
- Arrive at hospital for walk around and general inspection
- Inspections of selected wards
- Group discussion with NHS board and senior hospital staff on key issues
- Feedback with senior team, infection control team and other relevant staff

After inspection visit
- Draft report produced and sent to inspection team for comment
- Report published
Appendix 3 – Details of inspection visits

The inspection visit to the Royal Infirmary of Edinburgh, NHS Lothian conducted on Monday 18 and Tuesday 19 January 2010.

The inspection team consisted of the following members:

**Gerry Kennedy**  
Regional Inspector

**Margo Biggs**  
Associate Inspector (Patient focus)

**Alastair McGown**  
Associate Inspector

**Ian Smith**  
Associate Inspector

Supported by:

**Caroline Ashton**  
Project Officer

Observed by:

**Anna Brown**  
Associate Inspector

**Jan Nicolson**  
Project Officer

The inspection visit to the Royal Infirmary of Edinburgh, NHS Lothian conducted on Tuesday 2 February 2010.

The inspection team consisted of the following members:

**Gerry Kennedy**  
Regional Inspector

**Suzanne Clark**  
Associate Inspector (Patient focus)

**Alastair McGown**  
Associate Inspector

**Ian Smith**  
Associate Inspector

Supported by:

**Jan Nicolson**  
Project Officer
If you have any comments about HEI inspections, please email safeandclean.qis@nhs.net

We can also provide this information:

- by email
- in large print
- on audio tape or CD
- in Braille (English only), and
- in community languages.

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The Scottish Health Council, the Scottish Intercollegiate Guidelines Network (SIGN) and the Healthcare Environment Inspectorate are also key components of our organisation.