

7.8

LOTHIAN NHS BOARD

Board Meeting
26 May 2010

Director of Public Health & Health Policy

HEALTHCARE ASSOCIATED INFECTION

1 Purpose of the Report

- 1.1 The purpose of this report is to update the Board on progress and actions to manage and reduce Healthcare Associated Infection (HAI) across NHS Lothian.
- 1.2 In addition, this report brings to Board members' awareness the revised template from the Scottish Government Health Directorate (SGHD). Appendix 1 provides the Board the opportunity to preview the SGHD's proposed format. It is anticipated notification from the Minister of a move for all Boards to use this format will be released at the end of May 2010. Actions from this report are overseen through Infection Control Committees and the Lothian Infection Control Advisory Committee (LICAC).

2 Recommendations

- 2.1 The Board is recommended to support the following activities in delivering the agenda to reduce and manage HAI:
 - The ongoing surveillance of MRSA and MSSA bacteraemia, to target resources for a sustained reduction.
 - Scottish Patient Safety Programme (SPSP) work within NHS Lothian on the development and testing of processes and practice to prevent HAI related to central venous and peripheral cannulae.
 - Antimicrobial stewardship to reduce antibiotic-associated *Clostridium difficile* infection (CDI).
 - The ongoing progression of the CDI reduction programme into other care areas using the SPSP Approach.

3 Summary of the Issues

- 3.1 *Staphylococcus aureus* Bacteraemia (SAB)
 - 3.1.1 Against a stretch target of 299 episodes of staphylococcal bacteraemia, NHS Lothian achieved a 69% reduction in MRSA and an overall reduction of 28% in staphylococcal bacteraemia. The final figure of 360 for 2009/10 includes 67 patients admitted for treatment. When these are excluded, the stretch target of 299 was met and exceeded.

- 3.1.2 During April 2010 there were 24 episodes of SAB recorded in NHS Lothian (4 MRSA, 20 MSSA). This is a decrease from February (33 episodes – 5 MRSA, 28 MSSA) and March (31 episodes – 10 MRSA, 21 MSSA). This puts NHS Lothian on trajectory for the target of 254 for 2010/11.
- 3.1.3 An action plan has been produced, which includes progressing the SPSP Peripheral Vascular Cannula (PVC) bundles. This plan is being progressed in close consultation with Infection Control, SPSP, Quality Improvement Scotland (QIS), the Infection Improvement Implementation Programme (iiiP) and clinical teams.
- 3.1.4 The biggest reduction in SABs has been seen within critical care directorate. In part this has been attributed to the SPSP introduction and compliance with the Central Venous Cannula insertion and maintenance bundle and the PVC bundle compliance. The last reported SABs within the Royal Infirmary of Edinburgh (RIE) critical care were 2 MSSA bacteraemias in January 2010; within the Western General Hospital critical care there has been 1 episode of MSSA bacteraemia in April and 1 in March. The focus of the programme over the next six months will be the implementation and compliance with the PVC bundles in the areas not already involved, to further reduce SAB rates.
- 3.2 *Clostridium difficile* infection (CDI)
- 3.2.1 NHS Lothian's HEAT target for CDI is a minimum 30% reduction. At the end of year two, NHS Lothian achieved a 51% reduction in CDI, which was 11% above the national target of 30%. The annual incidence rate in Scotland is 1.29 cases of CDI per 1000 total Occupied Bed Days (OCBDs). NHS Lothian's annual incidence is reported by Health Protection Scotland (HPS) as below the national average at 1.20 (Figure 2). During April 2010 there were 55 episodes of CDI, 36 in patients aged 65 or over. This is a decrease from March (58 episodes).
- 3.2.2 There is ongoing work with SPSP in progressing the CDI Toolkit utilisation and compliance. Antimicrobial guidelines are widely available to assist clinical teams in prudent antimicrobial prescribing. Surgical prophylaxis has been reviewed in line with SIGN 104.
- 3.2.3 The improvement in the CDI rate has been sustained due to the integrated approach of antimicrobial stewardship, environmental chlorine based cleaning and the ownership and implementation of the toolkit by the individual wards, with support from the Infection Control Team using SPSP methodology.
- 3.3 Hand Hygiene
- 3.3.1 NHS Lothian has achieved 94% compliance in the last published bi-monthly report from the National Hand Hygiene campaign. The latest figures will be due for publication at end of May and are not available at time of this report. The breakdown of compliance was: Nurses 93%;

Medical 98%; Allied Health Professionals 94%; Ancillary/Others 92% (Figure 3).

3.3.2 Hand hygiene awareness raising/training and educational initiatives continue to be undertaken by the Hand Hygiene Co-ordinators, staff and patient/public volunteers. These range from hand hygiene training sessions for staff to presentations of research findings to large groups of surgeons and anaesthetists. For World Hand Hygiene Day on 5/5/2010, all sites participated in a number of hand hygiene awareness raising events aimed at staff, patients and visitors. Patient and public volunteers staffed stands at the hospital entrances and stories and photos of local events were shared with HPS and the World Health Organisation (WHO). This month also saw the launch of NHS Lothian's own paediatric 'key moments' posters, developed by a play specialist in Royal Hospital for Sick Children (RHSC).

3.4 The Healthcare Environment Inspectorate (HEI)

3.4.1 HEI undertook an announced visit to the WGH on 12/4/2010 and 13/4/2010. Whilst the written report has not yet been released, the verbal feedback indicated cleaning was of a satisfactory standard and the inspectors acknowledged the overall maintenance of the areas inspected was of a high standard.

3.5 Domestic Services

3.5.1 The WGH and RIE domestic departments have introduced a microfibre flat mopping system for use in all clinical areas. In preparation for ISO accreditation the domestic documentation has been standardised throughout NHS Lothian. The documentation, including work schedules, a cleaning matrix and National Monitoring Framework documentation, is now located in each of the Domestic Service Rooms. This documentation is for the information of nursing and domestic staff. The roll out of the National Uniform has commenced, to be completed by December 2012. The new uniform is being issued to new starts and promoted staff

3.6 Education

3.6.1 The new NHS Lothian mandatory update programme commenced in April 2010. The Infection control component is delivered as a combination of e-learning and face to face delivery. The number of session per week has increased from four to twelve.

3.7 Antimicrobial Management Team

3.7.1 A review of surgical prophylaxis has been completed in accordance with SIGN 104. A system and process to audit compliance is being progressed as part of the actions of the HEI Inspection Action Plan.

3.8 Outbreaks

3.8.1 A point prevalence report is submitted weekly to HPS and published on their website. Within NHS Lothian, the first case of Norovirus outbreak for season 2009-2010 was recorded at the RHSC during September

2009. To date, there have been 201 incidents of gastro-enteritis investigated in NHS Lothian. Of these Norovirus has been confirmed in 171 (82%) of the incidents by the Virology laboratory. In the remaining 37 (18%) the cause was not identified.

4 Impact on Health Inequalities

- 4.1 Infection with the organisms used as markers for HAI is more common in patients with co-morbidities, diabetes and alcohol problems. All of these are socio-economically patterned, so reducing the burden of HAI will reduce the excess burden of avoidable disease in such socio-economic groups.

5 Resource Implications

- 5.1 The excess cost of each episode of SAB and CDI lies between £4,000-£15,000. This is made up of the excess length of stay and additional treatment required. In line with NHS Lothian's NRAC position, the resources deployed to address HAI are lower than those of comparable Boards. The major risk to our continued efforts in this area is the transfer of funding for HAI from recurrent to non-recurrent budgets by the Scottish Government.

Fiona Cameron
Head of Service, Infection Control
NHS Lothian
18 May 2010

List of Appendices

Appendix 1: NHS Lothian HAI Update in SGHD Template

Figure 1: NHS Lothian SAB Trajectory

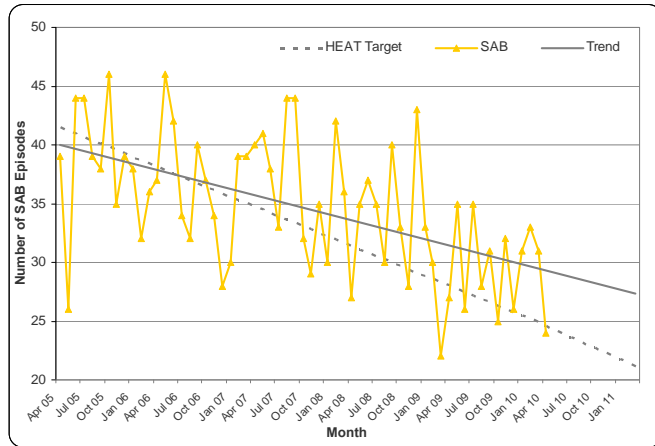


Figure 3: Hand Hygiene Staff Compliance by Group

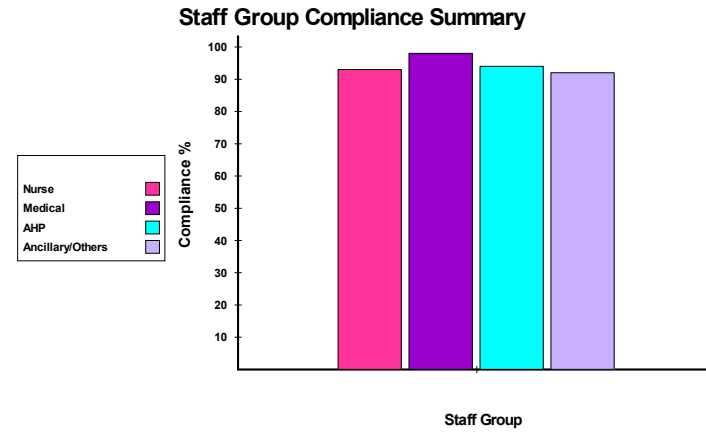


Figure 2: CDI HEAT Target Trajectory NHS Lothian (>65 years)

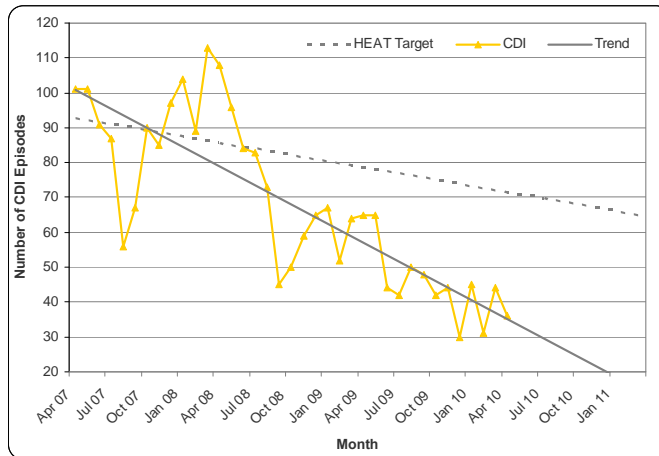


Figure 4: NHS Lothian National Monitoring Framework Cleaning, Domestic Services

