Cleanliness, Hygiene and Infection Control

Report by Pat Tyrrell, Lead Nurse (based on NHS Highland report by Morag Greenshields, Infection Control Manager)

The CHP Committee is asked to:
- Note the contents of this paper
- Support the actions currently underway to ensure maintenance of high standards of cleanliness, hygiene and infection control within the CHP

1. Background and Summary

This paper gives an overview of the current status and progress in Argyll and Bute and NHS Highland in meeting the standards and targets set for reducing healthcare acquired infection.

2. Main part of paper

2.1 Staph aureus bacteraemias (SAB)

Figure 1 shows trends in SAB numbers (both MRSA and MSSA) for NHS Highland. Also shown are the baseline rate and target (30% reduction in baseline rate). Figure 2 displays the data quarterly, illustrating the division between MRSA and MSSA.

Figure 2: Division between MRSA/MSSA bacteraemias – quarterly figures
- Trends have remained low and stable over the last two years. There were fewer MRSA bacteraemias in 2008 (17 vs 29), possibly reflecting the introduction of pre-admission screening for MRSA in high and medium risk areas.

Current HEAT status
- NHS Highland HEAT target for *Staph.aureus* bacteraemia reduction is 30% by 2010. Projections from HPS suggest that NHS Highland could achieve the 30% reduction required in the HEAT target by 2010. However as the target line is only just within the prediction interval, it is recommended that NHS Highland reviews its local data locally to identify areas for improvement in order to increase the chances of achieving this target.

*Figure 28: S. aureus bacteraemia per 1000 AOBDs in NHS Highland showing the HEAT target, predicted rat*
Argyll & Bute CHP Committee  
Date of Meeting: 6 March 2009  
Item No. 9.2

**National context**

- Our current MRSA bacteraemia rate is **below** the national average. This rate has remained stable within NHS Highland throughout the period 1st January 2003 to 30th June 2008 with no quarterly rates out with the control limits. Our SAB rate overall is also below the most recent national average.

- **Figures for Argyll and Bute are well below the national average and the target. No new cases have been reported since the beginning of 2009.**

**Current / new initiatives to reduce cases**

- NHS Highland is committed to reducing the numbers of Staph. aureus bacteraemia. A new SAB Action Plan has been developed in conjunction with Health Protection Scotland (HPS), focussing on the CVC and PVC management.

- Education on how to prevent SAB. Includes development of bacteraemia self teaching package. {Ongoing}

- Training on blood culture technique to avoid contamination. {Ongoing}

- Surveillance of SAB with feedback to frontline staff. {Ongoing}

- Promotion of hand hygiene including use of alcohol gel (highly effective in killing *Staph aureus*). {Ongoing}

- Implement Health Protection Scotland (HPS) central venous catheter (CVC) insertion checklist. {Commence implementation in selected clinical areas by February 2009}

- Implement Scottish Patient Safety Programme (SPSP) CVC maintenance bundle. {Commence implementation in selected clinical areas by February 2009}
• Implement SPSP peripheral venous catheter bundle. (Commence implementation in selected clinical areas by February 2009)
• Use of alcoholic 2% chlorhexidine for skin and line antisepsis. (Ongoing)
• Communications, both within and out with the organisation. (Ongoing)

2.2 C. difficile associated disease (CDAD)

Short / medium / long term trends in CDAD
• The past year has shown a significant reduction in CDAD cases from the previous year and this low level has been maintained.
• Figure 3 shows the monthly numbers of new cases of Clostridium difficile toxin detection, plus repeat episodes >28 days plotted on an SPC chart.

Figure 3

Current HEAT status
• Based on the 2007 NHS Highland Board annual total (323), the 30% target will imply a reduction of around 97 cases per year. Within NHS Highland a 42% reduction has been achieved in 2008.

National context – most recent HPS quarterly national report
• NHS Highland are currently well below the national average Clostridium difficile infection rate:
NHS Highland Cumulative Totals Since 1st April 08

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<tr>
<th>Operating Unit</th>
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Current / new initiatives to reduce cases

A multi-disciplinary group was convened in 2007 with the specific aim of reducing CDAD. The group developed and implemented a nine point action plan based on the 2004 Department of Health Guidelines for control of CDAD. The action plan covered the following areas:

- Antimicrobial prescribing, with particular emphasis on reduction of ceftriaxone prescribing. {Ongoing}
- Hand hygiene (with emphasis on importance of hand washing) {Ongoing}
- Enhanced environmental cleaning {Ongoing}
- Provision of appropriate personal protective equipment {Ongoing}
- Staff education and training {Ongoing}
- Isolation of infected patients, including returning single rooms to patient use {Ongoing}
- Surveillance including weekly feedback to all levels of the organisation {Ongoing}
- Patient/public information including new patient leaflet {Completed}
- Communication plan {Ongoing}
Pan-Board, hospital or specialty specific problems identified and solutions:

- Antimicrobial management team established and stewardship programme commenced. {Ongoing}
- New patient and public information leaflets on CDAD and laundering clothes. {Issued Nov 2008}
- Integrated care pathway for all NHS Highland hospital inpatients suffering from *Clostridium difficile* infection. {Implemented}
- Additional teaching sessions on the use of chlorine releasing disinfectants given to domestic services staff. {Nov/ Dec 2008}
- 5 additional rooms reconverted back to en-suite single rooms within Raigmore Hospital. {Completed}
- Gap analysis carried out against VOL recommendations and action plan developed

### 2.3 Hand Hygiene (HH) programme

The graph below denotes the Board's performance in the National Hand Hygiene Audits from February 2007 to November 2008. The data has been broken down to show the compliance rates between the four staff groups and the overall compliance rate.
National context – most recent HPS national report

Figure 2 is an extract from the National Hand Hygiene Audit Report.

Figure 2: Audit Results for Compliance with Hand Hygiene Opportunities by NHS Board

The last round of national audit took place across Scotland in January 2009. The overall percentage figure for NHS Highland compliance with the standards for handwashing at the correct time - i.e. opportunities - was 93%. This is above the current target of 90%.

Figures for Argyll and Bute were below the 90% target in two of the three sites audited. These areas have been targeted with further training and action plans developed to address the identified gaps in practice.

Improvement is still required in individual staff members challenging others from other disciplines when they observe poor practice. Ward managers and their staff have responsibility for ensuring patient safety within their clinical care environment. If they are aware of practice by anyone which may compromise this they must take appropriate action to address.

Each ward across the CHP is now carrying out monthly self audit which is reported centrally. Where there is below 90% compliance wards must take actions to address. Performance management system is being established in each locality to ensure that targets are met.

Figures from these audits are compiled and will be reported at future CHP management, committee and clinical governance meetings.
Current / new initiatives in promoting Hand Hygiene

- A Hand Hygiene Action Plan was implemented in November 2007 and is currently being reviewed to reflect issues identified in the course of the National Hand Hygiene Campaign.
- Two Non Executive Directors have a portfolio remit for infection control.
- Hospital / Ward Visits being conducted by Non Executive Directors, Senior Managers, Lead Nurses, Lead Nurses, Hotel Services, Infection Control and ward staff.
- Regular reports in respect of hand Hygiene submitted to a wide range of committees including the Board, Control of Infection Committee, DHS Management Committee, CHP /Raigmore Committees and local infection control committees.
- Highland wide Hand Hygiene Sub-Group established which has a multi disciplinary membership.
- Infection Control Committees established in all CHP’s / Raigmore. Hand Hygiene is a standing item on the agenda.
- Infection Control/Hand Hygiene Action plans implemented at ward level.
- Environmental Audits being conducted in all hospitals. The results of the audits are then used to identify environmental aspects which impact on Hand Hygiene and wider Infection Control practices.
- 6 Step Technique Posters in respect of hand washing and using gel implemented in all healthcare premises.
- New public signage implemented at the main entrances to all hospitals with the aim of increasing awareness amongst staff, patients and public.
- Gel stations established at the entrances to ward areas.
- Hand Hygiene Awareness Sessions being provided to all staff including Executive and Non Executive Directors. Where possible partnership agencies e.g. Care Home Staff are also invited to participate.
- Hand Hygiene included in the Mandatory Induction and local induction programmes.
- Training in the use of the national Hand Hygiene Audit Tool being provided to facilitate self audit by wards.
- A programme of monthly self audits is being introduced to every ward in Highland.
- Hand Hygiene Training / Awareness Sessions – Training Programme in place.
- A programme of audits in respect of Visitors compliance with Hand Hygiene is being developed pan Highland.

Pan-Board, hospital or staff group specific problems identified and solutions

- NHS Highland has made significant progress in raising awareness amongst staff, patients and public of the importance of good hand hygiene practice and improving clinical practice at ward level. Many wards are now achieving the 90% target and above, however maintaining the standard remains a significant challenge for the Board. The existing Action Plan, as previously stated, is now being reviewed to identify priority areas of action.
- Cascade Training is applied to both Awareness Training and use of the Audit Tool. It is essential to ensure a uniform and high standard is maintained at all times. To facilitate that, quality assurance checks will be implemented.
• Additional training is required in the application of the 6 Step Technique for both Hand Washing and the use of alcohol gel.
• Improved awareness is required regarding the use of Personal Protective Equipment (PPE).

2.4 Cleaning Services Specification Compliance

Short / medium / long term trends in compliance – number/graphical presentation

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National context – most recent HFS quarterly national report
• Our Board reporting is consistently reflecting the rigour which is applied to the monitoring process across all of the sites in Highland.
• NHS Highland’s current compliance rate is 95.3%. This compares against the national compliance rate for Scotland of 96%.
• NHS Highland, like all other Boards, was subject to an external audit of the monitoring accuracy and involvement of public representatives in the process and commended for its performance in accurately monitoring the standards of cleanliness across its sites.
Current / new initiatives in improving cleaning.

- NHS Highland has a Quality & Training Manager who leads on the monitoring of the National Cleaning Services Specification. This post provides a monitoring process that is independent of operational staff.
- Monthly monitoring reports are produced by the Quality & Training Manager which are utilised to improve standards and identify training requirements.
- Implemented the National Colour Coding Scheme for hospital cleaning materials and equipment in all premises.
- Commenced implementation of the National Education & Training Framework for Domestic Services.
- Implemented the Ultra Microfibre Vileda Mopping System at Raigmore. This has resulted in an improvement in the cleaning standard achieved, health & safety and infection control.
- Provision of Training Programme to patient / public representatives participating in the Cleaning Specification audit process.

Pan-Board, hospital or specialty specific problems identified

- Islay Hospital cleaning standards are variable. Direct management support and retraining of staff is being provided.

2.5 Compliance with HAI Task Force programme – outstanding issues

- NHS Board policy/guidance on completing death certificates. Reviewed to include documenting death associated with HAI. National Guidance is awaited.
- All healthcare workers receive appropriate level of HAI education and training in line with position, including antimicrobial prescribing and resistance. All staff to have HAI objective in annual professional development plans.

2.6 Actions required and timescales for implementation

- HAI SCRIBE – Subject to availability of national guidance, it is proposed to complete all audits of existing premises by July 2009.
- Death Certificate Completion – A policy document will be prepared to incorporate relevant national guidance, with training and awareness sessions put into place to support implementation.
- The Infection Control Education Programme requires to be reviewed in line with the Quality Assurance Framework for the Delivery of HAI education in NHS Scotland (2005) NES. Proposed completion date of the review is May 2009.
• Multi Disciplinary Personal Development Plans – All plans have to be completed by the end of March 2009 and are to incorporate an HAI related objective. Thereafter an audit will be conducted to ensure compliance.

**Acronyms**

<table>
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<th>Description</th>
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<tr>
<td>AOBED</td>
<td>Acute Occupied Bed Days</td>
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<td>CDAD</td>
<td>Clostridium difficile Associated Disease</td>
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<td>CVC</td>
<td>Central Venous Catheter</td>
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<td>HAI</td>
<td>Hospital Associated Infection</td>
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<td>HAI SCRIBE</td>
<td>Healthcare Associated Infection System for Controlling Risk in the Environment</td>
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<td>HEAT</td>
<td>Health Improvement; Efficiency; Access to Services; Treatment appropriate for patient</td>
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<td>HH</td>
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<td>HPS</td>
<td>Health Protection Scotland</td>
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<td>MRSA</td>
<td>Meticillin resistant Staphylococcus aureus</td>
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<td>MSSA</td>
<td>Meticillin Sensitive Staphylococcus aureus</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<tr>
<td>RAG</td>
<td>Red, Amber, Green</td>
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<td>SAB</td>
<td>Staphylococcus aureus bacteraemia</td>
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3. **Contribution to Board Objectives**

Addresses key HEAT targets

4. **Governance Implications**

Maintaining patient and staff safety