DIRECTOR OF INFECTION PREVENTION AND CONTROL

ANNUAL REPORT

2008/2009

Author: Vicki Parkin, Lead Infection Prevention & Control Nurse
Owner: Elizabeth McManus, Director of Infection Prevention & Control
Governance: Presented to Board of Directors
Date of Report: 27th May 09
1. Executive Summary

1.1 Effective Infection Prevention and Control (IP&C) and subsequent sustainable reduction in Healthcare Associated Infections (HCAI) is the responsibility and requires the proactive involvement of every Healthcare Worker. To succeed in reducing HCAI robust organisation wide strategies and policies and systems must be developed and implemented to provide assurance and evidence of the effectiveness of clinical processes that are monitored and enable staff to focus on improving HCAI rates and compliance. This approach must be acknowledged and embedded from ‘Board to Ward’ – the Infection Prevention and Control team (IPCT) works to achieve this.

The Chief Nurse is designated as the Director of Infection Prevention and Control (DIPC), a role outlined in the Hygiene Code 2006

This annual report provides a summary of key IP&C initiatives and activities, together with an assessment of performance against local and national targets and, compliance with the requirements of the Health Act 2006: a code of practice for the prevention and control of Healthcare Associated Infections, also known as the Hygiene Code. Implementation of the code is a legal requirement and states that effective IP&C has to be embedded into everyday clinical practice and applied consistently. Trusts are inspected by the Health Care Commission (HCC) on compliance with the Code. From April 09 this will be carried out by the Care Quality Commission (CQC) who will have wider enforcement powers when inspecting Trust against a revised Code/Regulation under the Health and Social Care Act 2008 for which the Trust will have to register compliance.

1.2 Key Issues:

2008/09 was a busy period for IP&C with a strong local and national focus on:

- Achieving and sustaining reductions in MRSA Bacteraemia and *Clostridium difficile* incidence in line with national and local trajectories
- Scoping and enhancing the IP&C resource to deliver national and local priorities
- Antimicrobial Stewardship
- Hygiene Code self assessment, compliance and action planning
- Compliance with effective Hand Hygiene and ‘Bare Below the Elbows’

The IP&C programme October 07-April 09 was driven predominantly by the requirements of the Hygiene Code which builds on good practice identified in the Saving Lives programme. In addition, the following were key elements of IP&C activity and performance:

- Audit and surveillance of HCAIs (mandatory and local)
- Audit of the implementation of key IP&C policies
- Audit of clinical practice – in particular, of the use of invasive devices
- Governance and assurance initiatives
• Mandatory training and education of all staff

All key objectives within the programme have been achieved, a summary of which is available from the IPCT. A report was provided to the Board in December 2008.

1.3 During May/June 08 the Trust experienced an increased incidence of post 48 hour cases of MRSA bacteraemia during and *Clostridium difficile* which took us over trajectory for both infections. Targeted surveillance and implementation of robust action plans resulted in significant decrease in incidence, placing now well below both trajectories.

1.4 The Hygiene Code Inspection by the Health Care Commission in December 08 found the Trust to be in breach part of duties 2 and 4. Production and subsequent publication of this report removes breach of Duty 2.

The partial breaches outlined in Duty 4 have been addressed by the following actions

All Facilities Environment Policies will make provision for liaison between the members of the Infection Control Team (ICT) and Facilities Management (Duty 4a)

All cleaning and maintenance issues have been addressed and procedures put into place to prevent recurrence. The lack of Ward storage has been addressed (Duty 4c).

Thermostatic mixing valves have been fitted to all wash hand basins and a review of the adequacy of taps and basins will follow (Duty 4e).

Procedures have been put in place to ensure the effective decontamination of equipment (Duty 4f).

1.5 Conclusion

The Board of Directors have demonstrated a commitment to the IP&C agenda. Progress has been considerable but there is still much to be made.

1.6 The Board is asked to note and comment on this report. The 09/10 action plan that forms the IP&C annual programme will be presented to the Board in July 09.

2. Infection Prevention and Control Arrangements

• IP&C is the responsibility of all Health Care Workers
• The DIPC oversees the implementation of the IP&C programme through her role as co chair of the Hospital Infection Prevention and Control Committee (HIPCC) and as a member of the Clinical Risk Group
• The IP&C team is managed by the Lead Nurse who reports directly to the DIP&C
• The DIP&C is a member of the Board and reports directly to the Chief Executive
• Through reports received at the HIPCC and Executive Board the DIP&C is able to challenge clinical practice
2.1 Role of the Director of Infection Prevention & Control

- Be responsible for the organisation’s Infection Prevention and Control Team (IPCT);
- Oversee local control of infection policies and their implementation;
- Be a full member of the IPCT and to attend regularly its infection control meetings;
- Report directly to the chief executive or equivalent (not through any other officer) and the board or other senior management committee;
- Have the authority to challenge inappropriate clinical hygiene practice and inappropriate antibiotic prescribing decisions;
- Assess the impact of all existing and new policies on HCAI and make recommendations for change;
- Be an integral member of the organisation’s clinical governance and patient safety teams and structures; and
- Produce an annual report on the state of HCAI in the organisation for which he or she is responsible and release it publicly.

2.2 Infection Prevention and Control Team (IP&CT) structure

2.3 IP&C Governance Structure
2.4 Infection Prevention and Control reporting framework

- Board of Directors
- Executive Board
- Governance Committee
- Corporate Risk Register
- Antimicrobials Stewardship Team (AST)
- Hospital Infection Prevention and Control Committee (HIP&CC)
- Infection Prevention and Control Steering Group
- Decontamination Steering Group
- Directorate Management Meetings (IP&C Performance & Assurance Dashboard)
- Infection Prevention and Control Team (IPCT)

Infection Prevention and Control Steering Group oversee:
- IP&C agenda - moving it forward
- Monitoring progress

2.5 Hospital Infection Prevention and Control Committee

2.5.1 Reporting Framework

- Board of Directors
- Governance Committee
- Hospital Infection Prevention & Control Committee
- Infection Prevention & Control Steering Group

2.5.2 Membership

- Director of Infection Prevention and Control (DPIC) – Chair (Director of Nursing & Improvement)
- Medical Director
- Director of Strategy & Facilities
- Microbiologists – one of whom is Infection Prevention and Control Doctor and Co-Chair
- Lead Infection Prevention and Control Nurse
- Clinical Directors
- Directorate Managers
- Matrons
- Chief Pharmacist and/or Antimicrobial Pharmacist
- Occupational Health Manager
- Health Protection Unit Representative
- Decontamination Lead

2.5.3 Purpose of Committee

To meet bi-monthly to deliver the Trust’s Infection Prevention & Control Strategy and Action Plan

2.5.4 Functions

- Oversee Trust compliance with the Hygiene Code 2008
- Approve and oversee implementation of the Trust IP&C Action Plan
- Approve and monitor compliance with the IPC Assurance Framework
- Observe and advise on Mandatory and local surveillance of HCAI’s in particular MRSA Bacteraemia and Clostridium difficile
- Ensure delivery of and compliance with the Saving Lives Programme 2005: a delivery programme to reduce Healthcare Associated Infections including MRSA
- Receive and comment/advise on Hand Hygiene and ‘Bare below the Elbows’ compliance data
- Approve the Trust IP&C Audit programme for:
  - Policy compliance
  - Clinical practice
  - The clinical environment
- Advise on issues of Antimicrobial Stewardship
- Advise on cleaning standards
- Advise on decontamination issues
- Provide quarterly reports to Executive Board, Board of Directors and Governance Committee

3.0 DIPC reports to the Board

3.1 Quarterly reports are submitted to Executive Board and Board of Directors to ensure information on progress and performance in relation to:

- MRSA and Clostridium difficile trajectories
- Hygiene Code compliance
- Hand Hygiene and ‘Bare Below the Elbows’
- Outcome of Root Cause Analysis for MRSA Bacteraemia and Clostridium difficile
- Antimicrobial Stewardship
- Mandatory training and education
• Environmental and Domestic issues
• Outbreaks
• Decontamination
• Other initiatives

3.2 This is the first Annual DIPC Report

4. **IP&C Operational Business Plan/Establishment:**

<table>
<thead>
<tr>
<th>08/09</th>
<th>WTE</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 8a</td>
<td>0.85</td>
<td>Lead IP&amp;CN</td>
</tr>
<tr>
<td>Band 7</td>
<td>0.80</td>
<td>Senior IP&amp;CN</td>
</tr>
<tr>
<td>Band 6/7</td>
<td>1.00</td>
<td>IP&amp;CN</td>
</tr>
<tr>
<td>Band 6</td>
<td>0.64</td>
<td>IP&amp;CN – Audit and Surveillance</td>
</tr>
<tr>
<td>Band 5</td>
<td>0.40</td>
<td>Hand Hygiene Co-ordinator</td>
</tr>
<tr>
<td>Band 2</td>
<td>1.00</td>
<td>Secretary</td>
</tr>
<tr>
<td>Non Pay</td>
<td>K5,870</td>
<td>Total = K203,067</td>
</tr>
</tbody>
</table>

Following a scoping exercise in June 2008 and to assist with the delivery of MRSA elective screening planned for April 2009 a business case was developed and approved in March/April 09 to appoint:

<table>
<thead>
<tr>
<th>WTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 6</td>
</tr>
<tr>
<td>Band 2</td>
</tr>
</tbody>
</table>

The Financial Planning Process for 09/10 requests:

<table>
<thead>
<tr>
<th>WTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 6</td>
</tr>
<tr>
<td>Band 6</td>
</tr>
<tr>
<td>Band 5</td>
</tr>
</tbody>
</table>

Total when fully constituted = 8.25 WTE required to ensure delivery of IP&C priorities within the Annual Programme.

4.1 Other Business Cases incorporating IP&C:

• A business case has been developed to support implementation of elective screening for MRSA. This was developed in March 2009 in line with national guidance. Further cases are being developed to support the impact of improved cleaning and decontamination.
A specific case within facilities is being developed to support revision of cleaning and disinfection methodologies to comply with the National Standards of cleanliness 2007, for the provision of Bioquel (Hydrogen Peroxide) disinfection following outbreaks of *Clostridium difficile* type 027 (a more pathogenic strain), enhanced chlorine disinfection during Norovirus type outbreaks and provision of mattress decontamination.

5. HCAI Statistics

5.1 MRSA Bacteraemia

In 04/05 the Department of Health imposed targets on acute Trusts aimed at reducing MRSA Bacteraemia incidence by 50% by 2009. The following data demonstrates that our policies and practice have achieved 50% reduction that we now must sustain.

However, there was an increased incidence during May 08 for which a robust action plan and reduction strategy was developed and implemented to bring us back on trajectory by June 08. 11 pre 48 hour cases and 5 post 48 hours cases were reported to the Health Protection Agency against a total target of 16.

5.2 *Clostridium difficile*
During May 08 – April 09 119 (including 14 pre admission 3 day rule cases) against a trajectory of 121 cases of Clostridium difficile Associated Diarrhoea (CDAD) were reported to the Health Protection Agency. 18 (15%) of these were type 027.

Action:

- Outbreak meetings for all cases/clusters involving Health Protection Unit (HPU).
- Prompt isolation (within 3 hours) of all Clostridium difficile cases.
- Ribotyping of faecal specimens from all Clostridium difficile cases within these Directorates
- RCA’s for all cases
- Enhanced environmental Chlorine disinfection of whole wards, side rooms, toilets and sanitary facilities.
- Hydrogen Peroxide (Bioquel) disinfection to reduce potential environmental reservoirs of affected areas.
- Consultant Microbiologist in put on ward rounds to evaluate antimicrobial use.
- Vigilant and rigorous ‘policy’ of the use of wards as thoroughfares.

Outcome:

- The last case occurred April 09 and prior to this January 09 when a significant cluster occurred within the Elderly and Surgery/Urology Directorates. The following control measures were implemented.
- The use of wards as corridors persists and is being addressed at Executive Board level – paper to be presented April 09.
5.2.1 Care and Management of *Clostridium difficile* cases is overseen by the lead clinician designated to the role. Practice and treatment of all cases is evaluated weekly via a 'virtual' ward round with the Consultant Microbiologist and IPCN with the outcome/changes communicated to clinical staff.

6. Norovirus

The season began in November 07 and ran through to June 08. The data below illustrates the impact of cases from 2006. Strict enteric precautions and enhanced disinfection is initiated on all closed areas, visitors are advised not to visit especially if exposed/symptomatic.

Isolation of all cases and again, the use of ward as thoroughfares remains a risk in limited spread, in particular when transmission is via the airborne route.
7. **Root Cause Analysis (RCA)**

7.1 **MRSA Bacteraemia**

16 patients developed MRSA bacteraemia during 2008/09 at York Hospital NHS Foundation Trust.

11 patients were positive in blood cultures taken on admission – 7 of these had previous hospital contact as inpatients and/or frequent attenders

5 patients were positive in blood cultures taken 48 hours or more after admission

Root cause analysis (RCA) was carried out for all patients. Prior to December 08 the RCA was initiated by the Infection Prevention and Control Team (IP&CT) with input from clinical teams. After December 08 the Department of Health documentation was adopted and RCA leads appointed from within the directorate. An RCA process was agreed at the HIP&CC in October 08.

The following key practices issues were identified and action plans have been developed and implemented (a final report is available from IP&CT)

**Issue 1:** 7 patients were not screened in accordance with the Trust MRSA policy.

**Issue 2:** 2 patients had cannula site erythema/phlebitis. Cannula documentation not available for either patient. (This issue was raised in RCAs from 07/08.)

**Issue 3:** Community flagging of MRSA patients is not available. GP IT infrastructure does not support this.

**Issue 4:** 5 patients received inappropriate antimicrobial prescriptions

**Issue 5:** Lack of catheter care policy/care package/guidelines across acute trust and community

**Issue 6:** Skin cleansing prior to central venous catheter, renal lines and peripheral cannula insertions not in line with national guidelines

**Issue 7:** One blood culture set may have been contaminated. One blood culture set should have been taken earlier.

Action plans have been developed and are in progress to address with these issues.

7.2 **Clostridium difficile**

RCA is (from April 09) performed on all cases of C.difficile in addition to type 027 – the more pathogenic strain. Outcome and data production are in progress and will be reported at the July 09 Board of Directors meeting.

8. **Audit and Surveillance**

8.1 Audit Programme 08/09
The Trust has a robust audit and surveillance programme for the environment policy implementation and HCAI surveillance. All projects are developed and logged with the department detailed below.

<table>
<thead>
<tr>
<th>Commencement date</th>
<th>Audit</th>
<th>Method</th>
<th>Comments and Outcome</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-going</td>
<td>Clinical environment audits</td>
<td>Annual audits of each clinical area</td>
<td>Commenced 2006 but annual audits not continued by clinical areas. To re-launch following Saving lives roll out in July 09</td>
<td>On-going</td>
</tr>
<tr>
<td>On-going</td>
<td>Hand hygiene compliance audits</td>
<td>Trust wide roll out of weekly audits in each clinical area</td>
<td></td>
<td>On-going</td>
</tr>
<tr>
<td>Ongoing</td>
<td>Saving Lives High Impact Interventions</td>
<td>Roll out programme from January 09 to June 09</td>
<td>By March 09 4 interventions rolled out – HII 1,2,3,7. On target for full programme roll out by June.</td>
<td>On target</td>
</tr>
<tr>
<td>July 2008</td>
<td>MRSA decolonisation and documentation compliance audit</td>
<td>Documentation and treatment check of all MRSA inpatients for 3 months</td>
<td>Revision of treatment record introduced</td>
<td>September 2009</td>
</tr>
<tr>
<td>2008</td>
<td>Cannula documentation audit</td>
<td>Spot check across Trust to check compliance with completion of cannula documentation</td>
<td>Trust wide cannula training and launch of documentation – July 2008 Audit planned for March 2009</td>
<td>March 2009</td>
</tr>
<tr>
<td>March 2009</td>
<td>Hand hygiene facilities audit</td>
<td>Annual audit of hand hygiene facilities in all clinical areas</td>
<td></td>
<td>March 2009</td>
</tr>
<tr>
<td>POLICY</td>
<td>AUDIT METHODS</td>
<td>FREQUENCY</td>
<td>RELATED SURVEILLANCE</td>
<td>SUPPORTING AUDITS</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Care and maintenance of peripheral cannula</td>
<td>Saving Lives HII 2 (programme roll out from December 2008) Audit results and action plan entered on electronic report by clinical staff.</td>
<td>Monthly in each clinical area</td>
<td>Monthly bloodstream infections of selected alert organisms</td>
<td>Audit of documentation compliance (annual spot check)</td>
</tr>
<tr>
<td>Effective Hand Hygiene and Bare Below the Elbows</td>
<td>Hand hygiene compliance audits by clinical staff to include Bare Below Elbows (BBE). Audit results and action plan entered on electronic report by clinical staff.</td>
<td>Weekly on wards. Reported monthly by matron patches, directorates and Trust</td>
<td></td>
<td>FIT study Hand hygiene facilities audit (NPSA)</td>
</tr>
<tr>
<td>Prevention and control of MRSA</td>
<td>Saving Lives HII 1,2,3,4,6 (programme roll out December 08) Audit results and action plan entered on electronic report by clinical staff Compliance of decolonisation treatment audits (spot checks)</td>
<td>Monthly HII audits</td>
<td>Monthly MRSA incidence reported by ward, directorate and Trust – observation of trends. National reporting of MRSA bacteraemia</td>
<td></td>
</tr>
</tbody>
</table>

Care and maintenance of peripheral cannula
- Saving Lives HII 2 (programme roll out from December 2008)
- Audit results and action plan entered on electronic report by clinical staff.

Effective Hand Hygiene and Bare Below the Elbows
- Hand hygiene compliance audits by clinical staff to include Bare Below Elbows (BBE).
- Audit results and action plan entered on electronic report by clinical staff.

Prevention and control of MRSA
- Saving Lives HII 1,2,3,4,6 (programme roll out December 08)
- Audit results and action plan entered on electronic report by clinical staff
- Compliance of decolonisation treatment audits (spot checks)
## 8.3 SURVEILLANCE PROGRAMME (including Elective Screening) - APRIL 2008 – MARCH 2009 (updated March 09)

<table>
<thead>
<tr>
<th>Commencement date</th>
<th>Surveillance</th>
<th>Method</th>
<th>Comments and Outcome</th>
<th>Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-going</td>
<td>Mandatory MRSA bacteraemia and <em>Clostridium difficile</em> reporting</td>
<td>Web-link case reporting as occurs</td>
<td></td>
<td>On-going</td>
</tr>
<tr>
<td>On-going</td>
<td>Mandatory MRSA, MSSA, GRE bacteraemia and <em>Clostridium difficile</em> reporting</td>
<td>3-monthly reporting to Health Protection Agency</td>
<td></td>
<td>On-going</td>
</tr>
<tr>
<td>On-going</td>
<td>MRSA and <em>Clostridium difficile</em> surveillance</td>
<td>Monthly reporting to Trust</td>
<td></td>
<td>On-going</td>
</tr>
<tr>
<td>On-going</td>
<td>Data collection of bacteraemia organism incidence</td>
<td>Monthly data collection</td>
<td>Elderly Care Peripheral cannula audit (managed by Elderly care doctor – completed October 08) Cannula documentation audit following launch of revised cannula documentation</td>
<td>October 2008</td>
</tr>
<tr>
<td>January 2008</td>
<td>Mandatory orthopaedic surgical site infection surveillance</td>
<td>SSISS protocol</td>
<td>Surveillance shows York Hospital NHS Foundation Trust within acceptable infection rate</td>
<td>June 2008</td>
</tr>
<tr>
<td>July 2008</td>
<td>Enhanced MRSA screening of all admissions to Acute Medical Unit</td>
<td>Two week trial</td>
<td>Trial to determine numbers of patients prior to MRSA elective screening required from April 2009</td>
<td>August 2008</td>
</tr>
<tr>
<td>July 2008</td>
<td>Post discharge surveillance of surgical sites</td>
<td>Trial to establish best method</td>
<td>Part of Safer Patient Initiative. Methods trialled were unsuccessful. Concerns about cost and staff implications if surveillance is to be established effectively.</td>
<td>September 2008</td>
</tr>
<tr>
<td>September 2008</td>
<td>Surgical site infection surveillance of Caesarean sections</td>
<td>Revised SSISS protocol methods used</td>
<td>To include post discharge SSI surveillance</td>
<td>December 2008</td>
</tr>
<tr>
<td>Winter 2008</td>
<td>Surgical site infection surveillance of lower gastrointestinal surgery</td>
<td>Planned start Winter 2008/09</td>
<td>Delayed start</td>
<td>Spring 2009</td>
</tr>
<tr>
<td>March 2009</td>
<td>MRSA Elective Screening</td>
<td>Screening at OPD/Pre-assessment Clinics matching specimens with numbers of elective cases</td>
<td>Elective Screening Pathway developed</td>
<td>Commenced March 09 - Ongoing</td>
</tr>
</tbody>
</table>

Note: The table above outlines various surveillance programmes and their associated methods, comments, and outcomes. Each entry details the commencement and completion dates, as well as specific methods and comments regarding each programme's progress and outcome.
9. Antimicrobial Stewardship Team (AST)

The AST was established as sub-committee of Drugs and Therapeutics Committee (DTC) June 2008 in response to DH directives and local priorities. These form the framework to the role and function of the team which is to promote prudent antimicrobial prescribing and use within the Trust in line with the DH Saving Lives best practice guidance.

Membership

- Consultant Microbiologists
- Directorate antimicrobial link clinicians
- Deputy Chief Pharmacist, Clinical Services
- Trust Antimicrobials Pharmacist
- Antimicrobial Senior Pharmacy Technician
- Senior Infection Control Nurse
- Information management expert
- Senior secretarial and project support (through DTC)

Accountability: The team advises and informs the DIPC changes made to the Trust antibiotic formulary, policies and any guidelines are presented via the team to the DTC for approval.

- Liaises with and informs Hospital Infection Prevention and Control Committee
  - Collaboration with above on specific (non-antimicrobial) priorities (qv. MRSA enhanced screening strategy)
- Representation from most directorates through consultant “Antimicrobial Stewards”

9.1 Adult Antimicrobial Formulary

- Elderly Medicine Directorate
  - Operational August 2008
  - Launch of clinical areas poster, staff orientation and training
- General Medicine Directorate
  - Elderly Medicine poster extensively revised and redesigned
  - Operational December 2008
- General & Urology Surgery Directorate
  - Advanced “piloting” or redesigned poster since January 2009
  - Poster located on Wards 11, 14 & 16
  - Revised surgical prophylaxis formulary under immediate discussion
- Trauma & Orthopaedic Surgery
  - Treatment and prophylaxis formularies under immediate discussion

9.2 Formulary Adherence and Implementation (using measurable targets)

- Reduce healthcare acquired infection (HCAI) / resist a rise in frequency
- Improve adherence to appropriate drug choice in antimicrobial treatment protocols amongst prescribers
- Reduce average amount of antimicrobials prescribed with reference to hospital activity
• Adherence to antimicrobial clear prescribing pathway (including timely parenteral to oral switch, indication of intended review and/or stop)
• Eliminate Serious Untoward Incidents (SUI’s) in which death or damage from serious infection is due in part to omission of doses of antimicrobials and/or a delayed start to new treatment

9.3 Communication and dissemination
• Managing Restricted Antimicrobials (recommended by Formulary regarding minimising multi-resistance, but potentially expensive if uncontrolled)
  - Currently close liaison between Pharmacy Antimicrobials Team and Microbiology
  - Pressing need to enhance communication between Microbiology, Pharmacy and Clinician Teams regarding approval for restricted drugs and advice regarding follow-up
  - **URGENT recommendation:** facilitation of IT solution through electronic care record
• Future intended joint Consultant Clinical Microbiologist & Antimicrobial Pharmacist “trouble-shooting” daily rounds throughout Trust

9.4 Challenges
• Continuing to build on early progress
  - Embed optimal antimicrobial practice in day-to-day care
• Audit regularly to inform directorate management
  - (Piloting “Clear Pathway Charter” audit on pilot wards for inclusion in Directorate Dashboard information – currently in progress)
• Multi-professional practice
• CPD for doctors, nurses and pharmacy staff
• Research and Teaching
  - Aspiration for York Hospitals to become recognised “beacon” for advanced antimicrobial practice through collaborative research and educational development

10. Infection Prevention and Control Performance and Assurance

10.1 The Hygiene code Self Assessment Process is now complete and the Trust is currently at 68% compliance (Appendix 1). The next step is to produce a corporate action plan based on the assessment final report. This is in progress and will be presented to the Board in July 09. The Trust has no non-compliant duties or assurance statements, 9 with partial compliance, 9 with almost compliant and 9 where full compliance is achieved (a full report is available from the IP&C). The Board is asked to comment on expected minimum compliance.

10.2 IPC Assurance Framework (Appendix 2) is approved and monitored by the HIPCC.

10.3 IPC Directorate Performance and Assurance Dashboard. (Appendix 3). These are disseminated monthly to directorates and are aimed at devolving responsibility and generating accountability and ownership for IPC to Directorates, Wards and individual
level. Discussed at Directorate Management meetings and subsequently at Directorate Performance Management Meetings they provide staff with HCAI data and feedback on performance against key IPC indicators, demonstrating trends and compliance and demanding action planning and escalation when indicated.

This process enables staff to understand and be clear about their role and contribution to HCAI improvement.

10.4 Hand Hygiene and ‘Bare below the Elbows’

10.4.1 The Trust expectations for Hand Hygiene compliance is 95% across all clinical areas and staff groups. Weekly Hand Hygiene observation audits are carried out along side compliance with ‘Bare below the Elbows’ (BBE). Whilst there was poor compliance and resistance to these initiatives in the early days of introduction compliance has improved and is sustained. ‘Bare Below the Elbows’ data commenced reporting electronically in March 09.

The Trust continues to actively implement the Nation Patient Safety Agency ‘Cleanyourhands’ and in 2006 appointed to the IP&C a designated Hand Hygiene Co-ordinator, (the first in the country) to oversee continued implementation of the campaign. Hand hygiene is continually observed and recorded during outbreaks, or clusters of infection.

<table>
<thead>
<tr>
<th>Date</th>
<th>Doctors</th>
<th>Nurses/HCA</th>
<th>Allied Health Professionals</th>
<th>Support staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>04 August 08</td>
<td>50%</td>
<td>80%</td>
<td>89%</td>
<td>63%</td>
</tr>
<tr>
<td>4th May 09</td>
<td>93%</td>
<td>97%</td>
<td>96%</td>
<td>94%</td>
</tr>
</tbody>
</table>
### 10.4.2 Initiatives to improve and sustain Hand Hygiene 08/09

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand Hygiene Awareness Day</td>
<td>May 08</td>
</tr>
<tr>
<td>Monthly Hand Hygiene Audit</td>
<td>June 08</td>
</tr>
<tr>
<td>Gel dispensers sited at all Ward/Dept entrances and point of care contact points</td>
<td>July 08</td>
</tr>
<tr>
<td>Weekly Hand Hygiene Audits commenced – compliance data fed back electronically via Hospital ‘Q’ drive</td>
<td>August 08</td>
</tr>
<tr>
<td>Infection Control Information posters sited at hospital entrances</td>
<td>September 08</td>
</tr>
<tr>
<td>NPSA Patient Safety Alert re-issued</td>
<td>September 08</td>
</tr>
<tr>
<td>Bare below the Elbows implemented</td>
<td>November 08</td>
</tr>
<tr>
<td>Hand Hygiene Observation Tool adapted and staff trained to use the tool. Weekly audit spreadsheets created</td>
<td>December 08</td>
</tr>
<tr>
<td>Action plans for electronic generated data – inputting by ward staff.</td>
<td></td>
</tr>
<tr>
<td>Hand Hygiene compliance identified as a key performance indicator on the Directorate IP&amp;C performance dashboard</td>
<td>December 08</td>
</tr>
</tbody>
</table>
World Health Organisation (WHO) 5 Moments for Hand Hygiene promoted throughout Trust. Attend Directorate management meetings to feedback to staff compliance data

Hand hygiene facilities audit conducted as required by the NPSA

Audit tool adapted to include 5 Moments

WHO 5 moments Awareness Day Initiative

Training for Ward Sisters on data inputting

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Health Organisation (WHO) 5 Moments for Hand Hygiene</td>
<td>January 09</td>
</tr>
<tr>
<td>promoted throughout Trust. Attend Directorate management meetings</td>
<td></td>
</tr>
<tr>
<td>to feedback to staff compliance data</td>
<td></td>
</tr>
<tr>
<td>Hand hygiene facilities audit conducted as required by the NPSA</td>
<td>Feb/March 09</td>
</tr>
<tr>
<td>Audit tool adapted to include 5 Moments</td>
<td>April 09</td>
</tr>
<tr>
<td>WHO 5 moments Awareness Day Initiative</td>
<td>May 09</td>
</tr>
<tr>
<td>Training for Ward Sisters on data inputting</td>
<td>May/June 09</td>
</tr>
</tbody>
</table>

10.5 Saving Lives

Saving Lives: reducing infection, delivering clean and safe care is an assessment and action planning tool based on the Duties contained within the Hygiene Code. The High Impact Interventions (HIIS) based on a “care bundle” concept, integrate the latest evidence-based guidelines and provide a means for staff to measure compliance to key clinical procedures.

These tools set the framework for organisation-wide improvement on infection rates. They are designed to help Trusts ensure that every patient receives the right care, every time.

Implementation of HIIs began in December 08.

HIIs 1: Central Venous Catheter Care Bundle

| Trust overall compliance of all elements for Saving Lives HIIs 1 (CVC - ongoing) |
|---------------------------------|---------------------------------|
| Percentage of compliance       |                                 |
| Mar-09                          | Apr-09                          |
| Apr-09                          | May-09                          |
| May-09                          | Jun-09                          |
| Jun-09                          | Jul-09                          |
| Jul-09                          | Aug-09                          |
| Aug-09                          | Sep-09                          |
| Sep-09                          | Oct-09                          |
| Oct-09                          | Nov-09                          |
| Nov-09                          | Dec-09                          |

HIIs 2: Peripheral Intravenous cannula care bundle
HII 3: Renal Dialysis Care Bundle

HII 7: Care bundle to reduce the risk of Clostridium difficile

HII4: Care bundle to prevent surgical site infection – implementation scheduled for June 09

HII 5: Care bundle for ventilated patients (or tracheostomy) – implementation scheduled for May 09

HII 6: Urinary Catheter Care Bundle – implementation scheduled for April 09

11. IPC Policies

Development, review and updates remains an ongoing priority.
11.1 Reviewed and updated 08/09

- Blood Born Virus including Sharps Injuries
- Hand Hygiene
- Management and Organisation of Infection Prevention & Control
- Antiseptic and Decontamination
- Care and maintenance of Peripheral Cannulae

11.2 Being developed

- Asepsis and competency framework – due completion July 09

11.3 Implementation and Compliance within policies is via IP&C audit strategy and the Saving Lives Process

12. IPC training and education

12.1 Mandatory IP&C Training is identified and delivered using training profiles. All IP&C training is focused on the requirements of the Hygiene Code and Saving Lives with strong emphasis on clinical practices and accountability for patient safety. The data below shows uptake by directorate which is a key performance indicator within the dashboard process enabling Directorate Managements to identify staff groups requiring training. Uptake is a marker of IP&C performance. Breakdown by staff group is available from the IP&CT. Attendance by Medical Staff is minimal, the main constraints being access/availability. This was reported in the quarterly report to the Board in December 08.

![Infection Control Training 2008/09](image-url)
13. **Decontamination and the environment**

13.1 Cleaning standards have been agreed with the Trust Infection Control Team and reflect the DOH National Standards of Cleanliness 2004. Work is ongoing to review compliance with the revised National Standards of cleanliness published in 2007.

13.2 The annual Department of Health Patient Environment Action Team (PEAT) inspections have shown year on year improvements in standards of cleanliness. The Trust internal PEAT inspections undertaken by multi-disciplinary teams provide effective monitoring of cleanliness, maintenance and the patient environment highlighting areas for improvement.

13.3 The Trust Environment Review Group, comprising Infection Control, Nursing, Facilities and Patient Representatives ensures that hospital cleanliness and the patient environment meets DOH standards and user expectations. Following discussions with the Infection Control team it has been agreed that this group will report to the Non Clinical Risk Group.

13.4 Cleanliness is formally monitored in line with DOH recommendations. The system is currently under review to ensure compliance with the revised guidance for monitoring set out in the National Standards of Cleanliness 2007. This will increase transparency, provide more realistic monitoring information and more accurately reflect the differing cleanliness requirements of individual areas, e.g. offices, wards, theatres etc.

13.5 The Hygiene Code Inspection by the Health Care Commission in December 2008 found the Trust to be in breach part of Duty 4. The following work has been undertaken to address these issues:

- PPM procedures are being updated and will include liaison with the Infection Control Team.

- Building & refurbishment: A project execution plan is under development and this will include liaison with the Infection Control Team.

- Potable and Non Potable water supplies: A revised policy on the safe operation and management of water supplies has been completed and is undergoing a quality assurance review. This policy includes liaison with the Infection Control Team.

- Food Hygiene document: This has been amended to make reference to the involvement of infection control and the policy will be presented to the Infection Control Committee for ratification.

- Pest Control Document: The draft specification for the new Pest Control Contract is complete and will be forwarded to Infection Control for comments. Reference to Infection Control Procedures and Protocols has been incorporated into the document.

- The above removes the partial breach under Duty 4a. All future Facilities Policies will make provision for liaison between members of the Trust Infection Control Team and Facilities Management.

In relation to cleanliness the following action has been taken:
- The introduction of a night shift on the Renal Unit to provide more effective out of hours cleaning
- Descaling of all taps in patient areas
- Colour coding Policy re-circulated to Matrons to ensure Nursing compliance with the Trust Colour Coding Procedures
- Failures in floor coverings picked up in routine PEAT inspections and promptly rectified where operationally practicable however high levels of occupancy may hinder this process.
- Specialist nurses offices have been relocated off wards into the Admin block thus providing the opportunity to review storage space in conjunction with the Productive Ward project. This should ensure that wards are ‘clutter free’.
- All issues above highlighted under Duty 4c have been addressed.
- There has been significant capital investment to fit thermostatic mixing valves to all wash hand basins. A review of the adequacy of taps and basins will follow and will required further investment. This demonstrates ongoing compliance with Duty 4e.
- An equipment trainer post has been agreed and appointed to.
- A business case has been prepared for the replacement of low risk pressure reducing mattresses which, if approved, will allow local decontamination. High risk pressure reducing mattresses continue to be sent off site for decontamination and this will continue until such time that a new centralised decontamination facility is commissioned.
- Endoscopy will achieve JAG accreditation following approval of a Business Case for the replacement of the existing reprocessors and improvement of patient flow.

The above actions have been taken to ensure compliance with Duty 4f.
### Appendix 1

**Code of Practice for the Prevention and Control of Healthcare Associated Infections (HCAI)**

**Self Assessment Tool**

**Balanced Scorecard: Self Assessment Summary**

*York Hospital NHS FT, 00/01/00*

<table>
<thead>
<tr>
<th>Overall Status</th>
<th>68%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Key</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Full compliance</td>
</tr>
<tr>
<td>71% - 99%</td>
<td>Action required</td>
</tr>
<tr>
<td>50% - 70%</td>
<td>Urgent action required</td>
</tr>
<tr>
<td>&lt;= 49%</td>
<td>Trust priority</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Duty 2: Duty to have in place appropriate management systems for infection prevention and control (IPC)</th>
<th>Core Duty 3: Duty to assess risks of acquiring HCAI and to take action to reduce or control such risks</th>
<th>Core Duty 4: Duty to provide and maintain a clean and appropriate environment for health care</th>
</tr>
</thead>
<tbody>
<tr>
<td>00/01/00 89%</td>
<td>00/01/00 55%</td>
<td>00/01/00 79%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Duty 5: Duty to provide information on HCAI to patients and the public</th>
<th>Core Duty 6: Duty to provide information when a patient moves from the care of one health care body to another</th>
<th>Core Duty 7: Duty to ensure co-operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>00/01/00 72%</td>
<td>00/01/00 50%</td>
<td>00/01/00 67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Duty 8: Duty to provide adequate isolation facilities</th>
<th>Core Duty 9: Duty to ensure adequate laboratory support</th>
<th>Core Duty 10: Duty to adhere to policies and protocols applicable to infection prevention and control</th>
</tr>
</thead>
<tbody>
<tr>
<td>00/01/00 67%</td>
<td>00/01/00 81%</td>
<td>00/01/00 60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Duty 11: Duty to ensure that health care workers are free of and are protected from exposure to communicable infections during the course of their work, and that all staff are suitably educated in the prevention/control of HCAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>00/01/00 63%</td>
</tr>
</tbody>
</table>
### Principle Objective – Strategic Organisational Goals – Drive response to HCAI

**Key Controls - relate directly to managing Principle Risks**

<table>
<thead>
<tr>
<th>Gaps in Controls</th>
<th>External Controls</th>
<th>Assurance, Effectiveness and Evidence – effectiveness of controls</th>
<th>Gaps in Assurance</th>
<th>Outcome - Assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quarterly Reports (identify Gap in Controls and Assurance)</strong></td>
<td><strong>Assurance Framework to assess current conditions</strong></td>
<td><strong>Action /Development Plans</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve and sustain compliance with Hygiene Code and Trust HCAI Action Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- The Trust not identifying fully the actions required with in the Trust Action Plan identified within the Trust Action Plan via Self Assessment Tool and Balanced Score Card (BSC)</td>
<td>- Trust HCAI Action Plan generated by Self Assessment (SA) against the Hygiene Code</td>
<td>- IPC Directorate Performance Dashboard</td>
<td>- Definitive Action Plan required</td>
<td>Commenced 09.08 (to develop format and template)</td>
</tr>
<tr>
<td>- Failure to report to Board of Directors re Hygiene Code compliance</td>
<td>- Hill/Saving Lives Programme</td>
<td>- BSC and Action plan review</td>
<td>To Executive Board and Board of Directors</td>
<td>Directorate Performance Summary Corporate Risk Register</td>
</tr>
<tr>
<td>- Some decontamination systems as identified in Hygiene Code Self Assessment/BSC</td>
<td>- Balanced Score Card (BSC) from SA of Hygiene Code</td>
<td>- Governance Committee</td>
<td></td>
<td>Governance Structure</td>
</tr>
<tr>
<td></td>
<td>- Self assessment – monitoring and review – Balanced Score Card</td>
<td>- Internal Audit Reports/data</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Corporate &amp; Directorate Risk Registers</td>
<td>- HIPCC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- IPCT Assurance Framework</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Variations in Cannulation practice
- RCA – Process
- Saving Lives & Policy implementation
- Audit of key policies – (Hygiene Code Sub Duty 2e)
- Directorate IPCT Performance Dashboard

### Antibiotic use variations in appropriate use
- Quarterly reports to Monitor DH Observations of Care Team
- MESS data

### Inconsistencies in screening compliance
- RCA Action Plans OPC Directorate Performance Dashboard
- Balanced Score Card
- Saving Lives Hill data

### Current data production limitations
- To Executive Board and presentation of RCA’s RCA Process Incidence and surveillance data

### Ineffective use of decolonisation treatments
- Saving Lives High Impact Intervention Care Bundles

---

**Table:** Infection Prevention and Control Assurance Framework for the Reduction of Healthcare Associated Infections (HCAI)

**Gaps in Assurance:**
- Variations in Cannulation practice
- Antibiotic use variations in appropriate use
- Inconsistencies in screening compliance
- Current data production limitations
- Ineffective use of decolonisation treatments
<table>
<thead>
<tr>
<th>Principle Objective – Strategic Organisational Goals – Drive response to HCAI</th>
<th>Principle Risks – Obstacles to achieving objectives and associated consequences</th>
<th>Key Controls - relate directly to managing Principle Risks</th>
<th>Gaps in Controls</th>
<th>External Controls</th>
<th>Assurance, Effectiveness and Evidence – effectiveness of controls</th>
<th>Gaps in Assurance</th>
<th>Outcome - Assurance</th>
</tr>
</thead>
</table>
| Reduce *Clostridium difficile* infection (CDI) year on year by 5-10% from baseline | • Antibiotics – use of broad spectrum and in appropriate agents  
• Inadequate isolation capacity  
• In consistencies specimen collection and submission process  
• Inadequate cleaning and disinfection | • Narrow spectrum formulary Antimicrobial Stewardship Team (AST)  
• RCA and action plans  
• Saving Lives/best practice guidance  
• Isolation capacity within winter planning  
• Improved specimen collection  
• Weekly ‘virtual’ ward round with IPCT and Clinical Lead for CDI.  
• IPC Directorate Performance Dashboard | • Quarterly reports to Monitor  
• DH Observations of Care Team  
• HPA reports/data | • Antibiotic use data (AST)  
• RCA process and action plans  
• Saving Lives HII data  
• Directorate Performance Summary | To Executive Board and Board of Directors | Incidence and Surveillance data | Saving Lives High Impact Intervention Care Bundles |
| Audit of Key IPC Policies and Practices | • Non compliance  
• Lack of key personnel i.e. data/staff | • Trust Audit strategy  
• Duty 2e of the Hygiene Code | | | | | |
| Implement Saving Lives – reducing infection, delivering clean, safe care 2007 | • Lack of sustained compliance with HII implementation | • Develop IT data collection system  
• Action plans/ measuring compliance  
• HCAI action plan  
• BSC review | • DH Observations of Care Team | • Self assessment tool completion and review  
• Balanced Score Card  
• HII’s implemented – compliance data  
• Directorate Performance Summary | To Executive Board and Board of Directors | BSC Compliance data | Saving Lives High Impact Intervention Care Bundles |
## Appendix 3

### TRUST INFECTION PREVENTION & CONTROL PERFORMANCE DASHBOARD

**Trust Targets 08/09**  
MRSA bacteraemia: 16 (pre and post 48 hours)  
Clostridium difficile Associated Diarrhoea: 121

<table>
<thead>
<tr>
<th>Isolate</th>
<th>2007/08 baseline</th>
<th>2008/09 target</th>
<th>Cases in 2008/09</th>
<th>Cases (to date)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MRSA Bacteraemia cases per year</strong></td>
<td>Trust total 16</td>
<td>Trust trajectory 16</td>
<td>Actual (Includes pre 48 hour bacteraemias)</td>
<td>1 6 2 1 1 1 0 0 1 0 0 3</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Target</td>
<td>1 1 2 1 1 2 1 1 2 1 1 2</td>
<td></td>
</tr>
<tr>
<td><strong>MRSA clinical isolates</strong></td>
<td>161 hospital acquired = 0.81 per 1000 bed days*</td>
<td>145 hospital acquired = 0.73 per 1000 bed days**</td>
<td>Actual total per 1000 bed days*</td>
<td>2.7 2.1 2.3 2.5 1.7 2 1.9 1.4 1.4 1.5 2 2.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual hospital acquired</td>
<td>22 11 14 12 7 9 13 7 5 12 8 12</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Target hospital acquired</td>
<td>12 12 12 12 12 12 12 12 12 12 12 12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual hosp acq per 1000 bed days</td>
<td>1.2 0.6 0.8 0.7 0.4 0.6 0.7 0.4 0.3 0.6 0.5 0.7</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Clostridium difficile Associated Diarrhoea</strong></td>
<td>129 = 0.65 per 1000 bed days*</td>
<td>121 = 0.61 per 1000 bed days**</td>
<td>Actual</td>
<td>15 14 10 15 9 9 8 3 7 7 4 2</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Target</td>
<td>10 10 10 10 10 10 10 10 10 10 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual per 1000 bed days</td>
<td>0.8 0.8 0.6 0.9 0.5 0.6 0.5 0.2 0.4 0.4 0.2 0.1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Using 07/08 total bed days as baseline**
## NUMBER OF OUTLIERS WITH AN INFECTIOUS CONDITION

| Number of patients | A | M | J | J | A | S | O | N | D | J | F | M |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    | 5 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |

TRUST INFECTION PREVENTION & CONTROL PERFORMANCE DASHBOARD
Saving lives is being rolled out across the Trust from January 2009. As more audits are launched they will be added to the report.

All audits require 100% compliance.
TRUST INFECTION PREVENTION & CONTROL PERFORMANCE DASHBOARD

MANDATORY TRAINING

<table>
<thead>
<tr>
<th></th>
<th>April to June</th>
<th>July to September</th>
<th>October to December</th>
<th>January to March</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered staff - Nurses</td>
<td>68</td>
<td>466</td>
<td>27</td>
<td>168</td>
</tr>
<tr>
<td>Unregistered staff - HCA`s</td>
<td>37</td>
<td>111</td>
<td>52</td>
<td>96</td>
</tr>
<tr>
<td>Medical staff</td>
<td>0</td>
<td>29</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>


Directorate Monitoring scores are fed back by ward and directorate. The above % compliance criteria apply.

DUTY 4 COMPLIANCE HYGIENE CODE (Audit template currently being piloted)