To	*Trust Board*
From	*Director of Infection Prevention and Control*
Date	*29 June 2009*

Title	Infection Prevention and Control Annual Report 2008-2009

This report provides a comprehensive summary of the Infection Control work programme across the trust during the last financial year:

Decision (approx 10 mins)		**Discussion** (approx 15 mins)	
Assurance (approx 5 mins)		**Endorsement** (approx 5 mins)	

Summary/Key Points:

The report details activity against the 9 Hygiene Code criteria to demonstrate how the trust discharged its legal duties.

Recommendations:

Trust Board is asked to

- **Note** content

Resource Implications (e.g. Financial, HR)

Nil

Assurance implications

Hygiene Code
NHSLA compliance
CQC Registration Standards

Information Exempt from Disclosure:

Nil

Infection Prevention and Control
Annual Report
2008-2009

CONTENTS

1. Introduction

This report summarises the work of the infection prevention and control team (IPCT) team at Heart of England NHS Foundation Trust (HEFT) during 2008-2009.

The team experienced an extremely successful year. The trust set out an ambitious commitment to improve performance in infection control. It rose to the associated challenges and met its key goals. Investment and infrastructure from 2007-2008 began to embed in the organisation. The revised approach to assurance structures at the end of 2007-2008 was sustained throughout 2008-2009 with notable benefit. There were inspection visits from both the Department of Health and the Healthcare Commission which were welcomed and assisted the trust in its endeavours. The commendable work of the infection control team and significant efforts by the trust as a whole was rewarded with a 52% reduction in MRSA bacteraemia and 27% reduction in *Clostridium difficile* infections in the calendar year 2008 compared to 2007. Further, the team received external recognition in the form of the worldwide Oxoid Infection Control Team of the Year award, and the regional Health Protection Agency Team of the Year award.

The key objectives of the service were:

- significantly reducing MRSA bacteraemia and *Clostridium difficile* infection
- improving the quality of patient care by preventing and controlling healthcare-associated infection
- ensuring effective assurance and reporting processes from board to ward
- improve infection prevention and control knowledge and skills of all staff, patients and public
- focussed management to significantly reduce incidence of Norovirus
- completion of the audit programme.

The activity in the report is described in the context of the Health and Social Care Act 2008 Code of Practice for the Prevention and Control of Healthcare Associated Infections (effective April 2009), so that it can be seen how the work of the trust relates to its statutory responsibility to maintain compliance with that Code.

2. Compliance Criterion 1: Effective management systems for prevention and control of HCAI informed by risk assessments and analysis of infection

2.1 Committee structures and assurance processes

The Code of Practice requires that the Trust Board has a collective agreement recognising its responsibilities for infection prevention and control. In relation to this duty, the Healthcare Commission recognised that strategic arrangements, reporting and demeanour of the board evidenced that the duty has been met.

In 2008-2009 the trust maintained the committee structure established at the end of 2007-2008. Strategic direction and oversight is provided through the monthly Infection Control Executive Committee (ICEC). This is chaired by the chief executive and reports to trust board to ensure the board addresses its collective responsibility for reducing and controlling infections. Trust executive job descriptions incorporate a statement detailing their responsibility for infection control issues. The annual programme for 2008-9 was reported to trust board in August 2008.

The ICEC is supported by the trust Infection Control Operational Group (ICOG) which is responsible for strong operational leadership and direction of resources. It is chaired by the Chief Nurse. The work programme overseen by ICOG was refocused following the

Department of Health's visit in May 2008 to target 8 priority areas where the trust could make rapid progress. The areas were: MRSA screening, ward audit, blood cultures, antibiotic prescribing, reporting, clinical practice, managing outbreaks/capacity, and environment. Key achievements against these areas were:

- MRSA Screening: launching MRSA screening for all emergency admissions and providing MRSA screening to all elective admissions
- Ward audit: monitoring high impact interventions at least monthly via web based system; appointing Lead Consultants for all wards
- Blood cultures: launching new standard operating procedure and equipment, auditing contaminants
- Antibiotic prescribing: compiling benchmarked usage reports; introducing improvement notices; removing quinolones in severe UTI; issuing duration policy
- Environment: undertaking programme to assess and enhance hand wash facilities
- Reporting: DIPC reporting monthly to Board, joint RCAs with PCT
- Clinical Practice: Trust wide aseptic non touch technique training programme in progress
- Outbreaks: informed planning for 08-09 resulted in reduced Norovirus incidence across trust

The trust Director of Infection Prevention and Control (DIPC), a consultant microbiologist, is accountable directly to the chief executive and trust board. The DIPC post holder changed in December 2008 from Dr. Savita Gossain to Dr. Itisha Gupta and this change was formally reported to trust board. As of June 2008, the DIPC attended trust board meetings monthly with detailed updates on infection prevention matters. She also met monthly with the chief executive.

The trust has a designated lead for decontamination, a consultant Virologist who chairs the Decontamination Committee which reports to the trust Medical Devices Committee.

The infection control service is provided through a structured annual programme of teaching, audit, policy development & review, advice on service development and 24 hour access to expert advice and support.

The IPCT, reporting to the DIPC, includes 13 (12 WTE) nursing staff and a substantive Lead Infection Prevention Nurse. There is also a substantive Infection Control Programme Manager (non-clinical) to provide oversight of the successful delivery of the work programme and to support the DIPC. The Programme Manager is assisted by a full-time Information Analyst who supports the performance reporting and mandatory data return requirements of the Trust as well as analysing surveillance data. The team works closely with a Clinical Scientist in Infection Control and there is a strong research record within the microbiology and infection control department.

The IPCT has a strong administration team who not only manage every day work, but also produce IPC newsletters, communication materials and educational display boards.

Following a merger in April 2007 with the Good Hope NHS Trust, successful integration with the IC team from Good Hope continued during the year, with development of a cross site working approach to ensure the team rotates across all hospital sites.

2.2 Compliance assessment and assurance

During 2008-2009 the trust had an ongoing process to evaluate its compliance with the Healthcare Standards in order to make a declaration of its position at year end, and continued to monitor compliance with the Code of Practice on Healthcare Associated Infections (Hygiene Code). At the end of 2008-2009, the trust declared full compliance with

the Hygiene Code and registered with the Care Quality Commission, and full compliance with the Healthcare Standards. The Trust achieved NHSLA Level 2 in January 2009 which included assessment against infection prevention and control standards.

In October 2008, the Healthcare Commission undertook an unannounced inspection to determine compliance with the statutory duty to observe the Hygiene Code. No breaches of the Code were identified. Some learning actions were gained from the inspection and an action plan put in place. This plan was monitored through the ICOG.

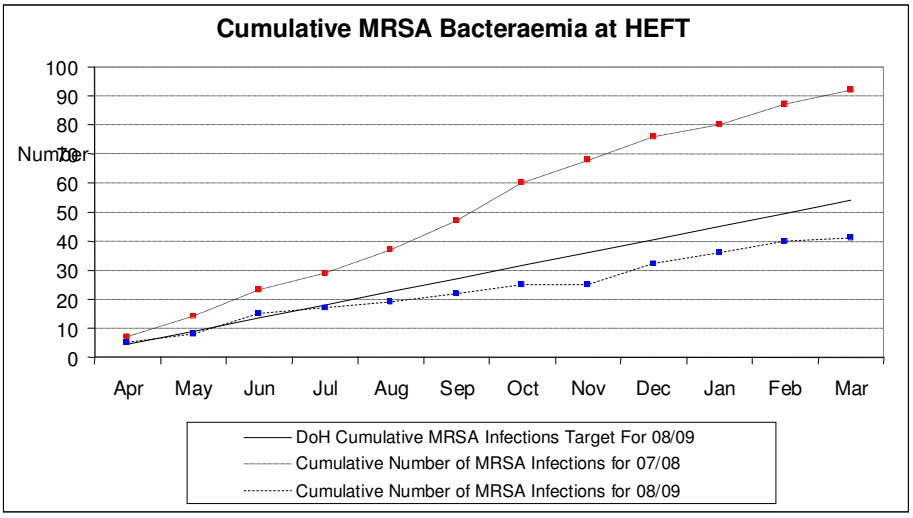
In May 2008 the Department of Health improvement team for infection control visited the trust and identified a number of areas where progress could be made or hastened. Following this visit an action plan led by the Chief Executive was put in place and remedial steps implemented rapidly. At the return visit of the Department in July, progress was deemed satisfactory and no further steps were taken.

2.3 Surveillance of Healthcare Associated Infection (HCAI)

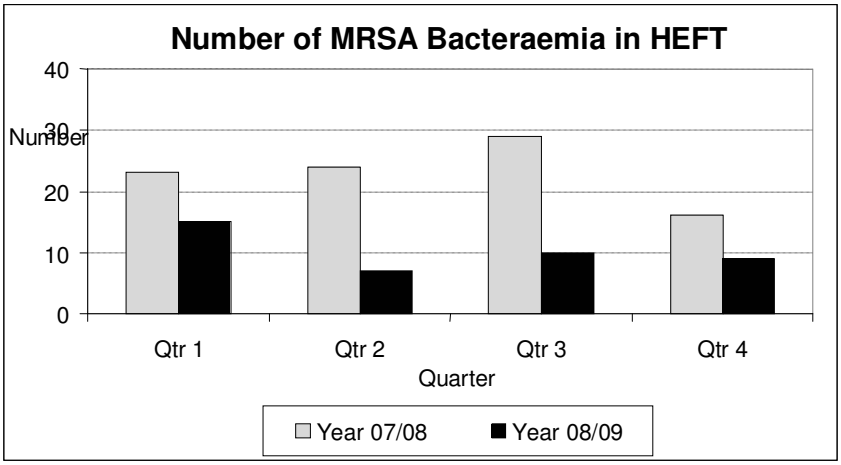
2.3.1 MRSA bacteraemia

The Department of Health (DH) began mandatory surveillance of MRSA bloodstream infections (bacteraemia) in 2001. This includes all bloodstream infections with MRSA, whether acquired in the hospital or in the community and whether considered to be contaminants or not. Data is reported to the DH (via the Health Protection Agency) monthly and quarterly.

In 2008-2009, the trust MRSA reduction target was kept at 54 cases by the Department of Health (the same as 2007-2008, when the trust did not manage to meet this goal). The chart below shows monthly cumulative data against the trajectory for 2008/9. The total number of cases of MRSA bacteraemia for 2008-9 was 41 which represents a 52% reduction over the previous year and the successful achievement of the target.



Quarterly bacteraemia numbers are shown below for the trust and for boards of medicine and surgery (based on ward at time blood culture taken).



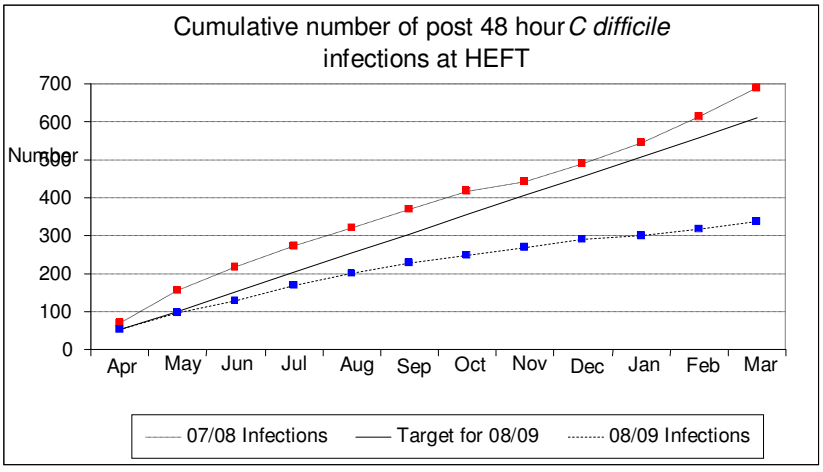
The trust reduced MRSA bacteraemias through sustaining and enhancing progress in key initiatives from 2007-2008, with significant impact of infection rates. Areas of work included:

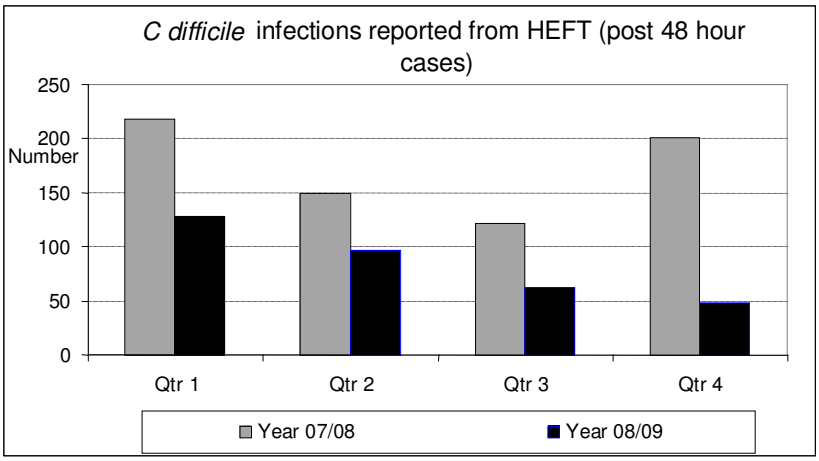
- Introduction of MRSA screening for emergency as well as elective admissions as required by the Operating Framework 2008-09 (DH 2008)
- Refinement of root cause analysis processes and IT tracking system, including commencing joint root cause analysis with PCT partners on pre 48 hour cases
- Delivery of aseptic non-touch technique training to 2975 staff
- Audit of blood culture contamination showing reduction in average monthly contamination from 7.7% (Feb-Apr 08) to 5.6% (Jul-Sept 08)
- Introducing individual competency assessment at junior doctors induction training
- Improved infection control management and audit at ward level e.g. equipment cleaning, PVC monitoring
- Sustaining Saving Lives High Impact Interventions web based audit at least monthly across trust
- Extending High Impact Interventions audit to include urinary catheters as an ongoing audit across all areas

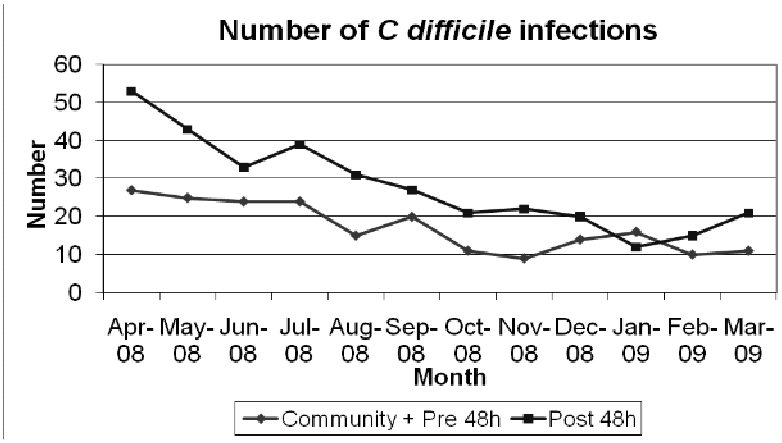
2.3.2 Clostridium difficile infection (CDI)

Mandatory national reporting of C.difficile

Acute NHS Trusts in England are required to report all cases of CDI from patients aged 2 years and over. This applies whether the *C. difficile* infection was considered to have been acquired in that Trust, in another hospital or in the community (e.g. in healthcare facilities, a nursing home, residential care facilities or from patients at home).







Local Target for C.difficile infection
In 2008-9, the trust entered the second year of a local reduction target spanning a 3 year period. Due to changes in the target criteria, this 3 year target increased slightly. The trust was expected to reduce CDI across all 3 sites by 37.9% by March 2010. In this second year of the target, the trust met the 37.9% reduction so achieving trajectory ahead of schedule.

The trust has worked to reduce *Clostridium difficile* infections with a number of initiatives including:

- Broadening cohort ward to accept admissions from all 3 hospital sites, and establishing permanent funding for this facility.
- Enhancements in antibiotic reporting to ensure usage monitored.
- Establishment of a dedicated team of Hygiene Technicians skilled in use of Sterinis (hydrogen peroxide vapour) and other deep cleaning techniques.
- Full deep cleaning and refurbishment programme on the Solihull hospital site.
- Enhanced environmental audits continued.

2.3.4 Glycopeptide Resistant Enterococcus (GRE) Bacteraemia
Enterococci are bacteria commonly found in the bowel and GRE are enterococci that have become resistant to vancomycin and similar antibiotics. Reporting of bacteraemia caused by GRE has been mandatory for NHS acute Trusts in England since September 2003. The trust continues to experience very low numbers of this type of infection, with 7 infections recorded for the three hospital sites in 2008-2009.

In September 2008, two patients on the Good Hope Intensive Care Unit were identified as being infected / colonised with GRE. An incident meeting including health economy colleagues was held and the below control measures were agreed and implemented:

- Isolation of infected/colonised patients and no other patient was found to be carrying GRE on screening other ICU patients
- Increased cleaning and reinforcement of importance of scrupulous hand hygiene and cleaning of equipment
- Environmental sampling were found to be all negative.

2.4 Audit programme to ensure key policies are implemented

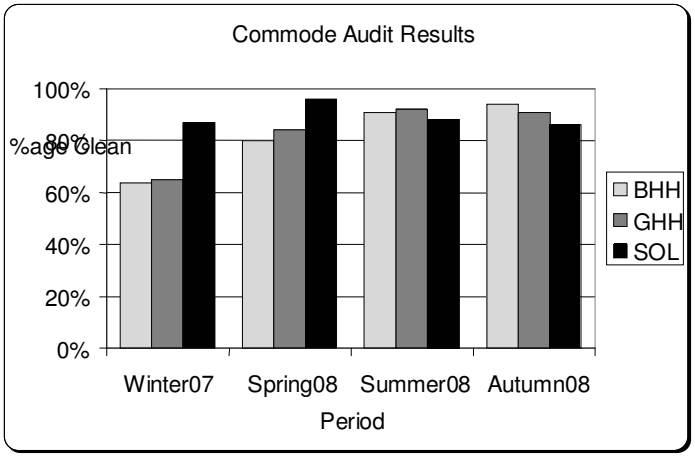
Audit Projects for 2008/9 completed by the IPC team were:

1. Commodes on a quarterly basis
2. C.difficile follow up in response to infections. If an area experiences 2 post 48 hour C.difficile cases in 28 days, they are placed on special measures with weekly follow up. They remain on this until they score 90% for 3 consecutive weeks and there are no further concerns.
3. "Hot spot" in areas with particular performance concerns
4. Observation and practice audits
5. Trials of the new Department of Health / IPS infection control audit tools
6. Sharps practice

Audit performance is discussed at the matron's monthly forums and aspects of practice selected for more in-depth review.

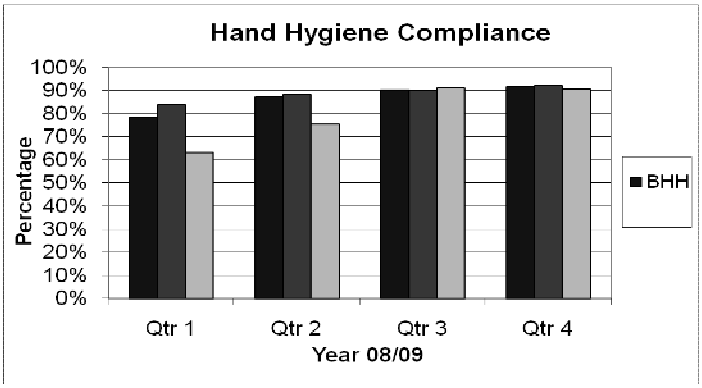
2.4.1 Audits of commode cleanliness

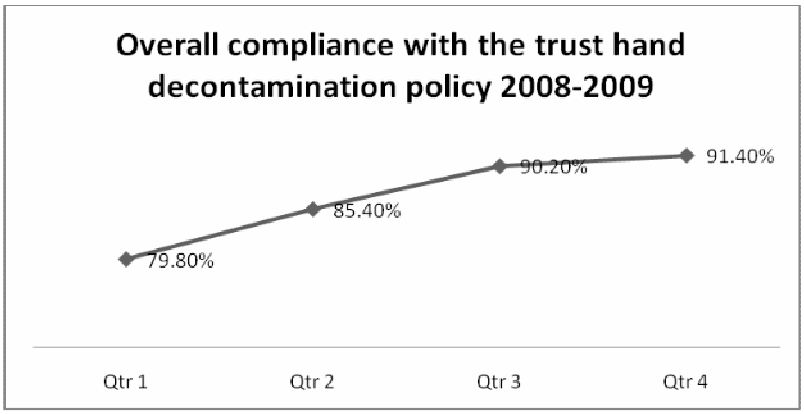
Results are published in league table format and circulated to matrons and business managers for follow up action, and have shown sustained improvement at all sites in 2008, contributing to reductions in C.difficile infection.



2.4.2 Audits of hand hygiene practice

Hand hygiene remains a central aspect of the audit programme. The results for 2008/9 are shown in the graphs below and indicate trust compliance broadly over 80%. The trust introduced in 2008-2009 a more stringent observational audit to encourage further improvements in practice.





2.4.3 Saving Lives audits

PVC

As of June 2008, the trust began PVC audits on a monthly basis using a web based system. The tables below show performance against the observations scrutinised for PVC insertion, and PVC care. This is the % average performance for the total available data for 2008-2009, shown by hospital site.

PVC insertion

		Element Under Observation				
Site	No. of observation	Hand hygiene	PPE	Skin prep	Dressing	Documentation
BHH	396	97.9%	98.2%	90.3%	96.0%	98.3%
GHH	283	99.0%	96.6%	95.7%	96.4%	98.8%
SH	282	98.6%	98.3%	92.2%	97.4%	98.6%

PVC ongoing care

		Element Under Observation						
Site	No. of obs	Hand hygiene	Continued clinical indication	Site inspection	Dressing	Cannula access	Admin set replacement	Routine replacement
BHH	1687	97.9%	98.2%	90.3%	96.0%	98.3%	95.3%	97.3%
GHH	912	99.0%	96.6%	95.7%	96.4%	98.8%	90.9%	94.3%
SH	575	98.6%	98.3%	92.2%	97.4%	98.6%	88.0%	87.1%

These audit results have been used to prompt staff to follow best practice in accordance with Saving Lives. Inclusion of insertion techniques continues to form part of the aseptic non-touch technique training programme.

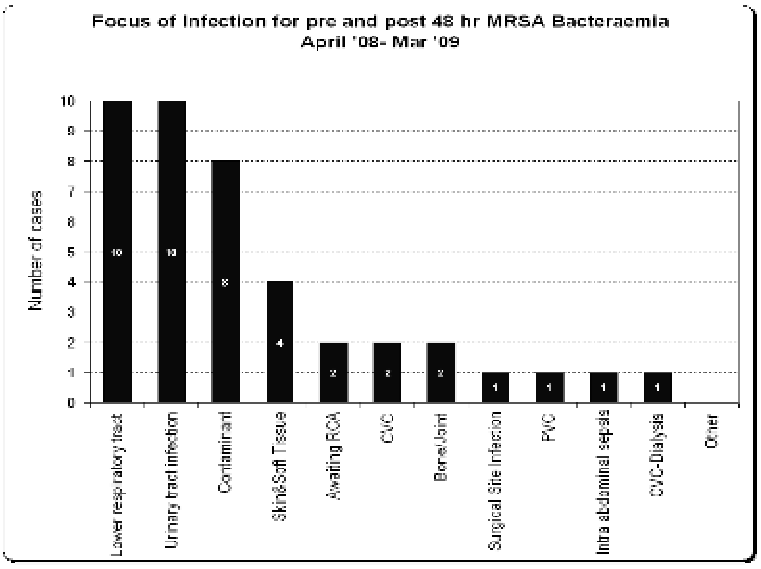
Catheter insertion
During Quarter 2 and Quarter 3 management of catheters was audited across the trust. The findings are summarised below:

Site	Number of pts audited	Indication for catheter documented	Review / removal date documented
BHH	96	76 **79%**	16 **17%**
GHH	103	79 **77%**	43 **42%**
SH	23	17 **74%**	11 **48%**

The performance in this audit led to formation of a continence advisory group and work to revise catheter labelling. Wards with poor performance were issued with improvement notices. Reaudit is planned.

2.5 Research activity to enhance practice
The trust has engaged in research work into HCAI control during 2008-2009.
(1) The Evaluation of Molecular MRSA Screening (EMMS) study has now been accepted for publication and has been presented at a European meeting.
(2) Advantage West Midlands have funded a two year project aimed at providing robust scientific studies evaluating new infection control products. For the first year two products have been selected for evaluation, including a disinfectant and an antibacterial coating.
(3) During the winter a project has been undertaken to determine if there is a relationship between an increase of *C difficile* during outbreaks of norovirus, the results of this study are currently being analysed.
(4) Two laboratory studies are underway comparing MRSA testing methodologies to establish if they have an increased sensitivity or specificity.
(5) A new typing technique for *Clostridium difficile* has been developed and introduced into routine practice. This enables discrimination between the predominant 027 ribotypes.

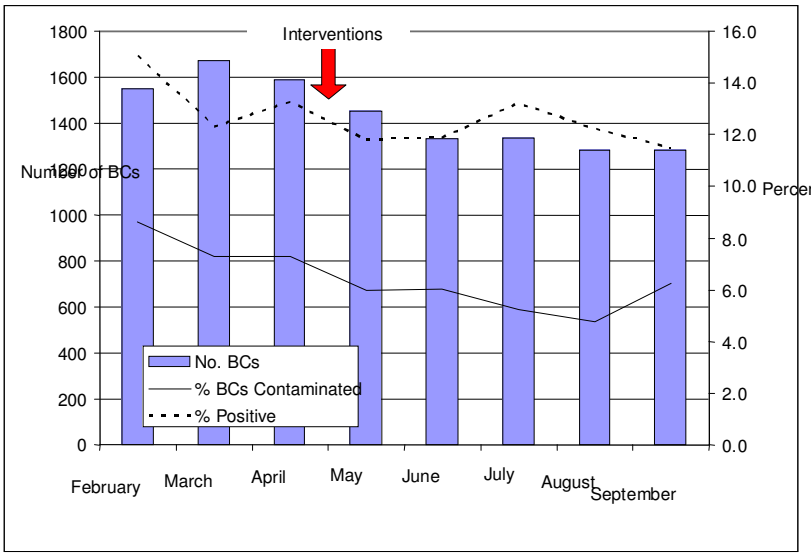
2.6 Root Cause Analysis (RCA) for MRSA bacteraemia
RCA for cases of MRSA bacteraemia continued during 2008-2009, with the introduction of routine joint RCA meetings with PCT partners for pre 48 hour bacteraemias. RCA findings are also reported to health economy meetings. The trust web-based tracker facility continues to be used for recording findings of root cause investigations and action plans. The chart below shows the findings from RCAs regarding what the identified foci of infection were for the cases during the year:



Actions following RCA findings:

Reducing urinary tract infection related MRSA bacteraemias: A number of actions have been taken around improving catheter related practice, as stated earlier in the report in relation to High Impact Interventions audits.

Reducing incidence of contaminants: RCAs revealed blood culture contamination was contributing to cases of MRSA bacteraemia. Blood culture packs were prepared with winged collection system and Chloraprepp® and launched in May 2008. In August, over 300 new junior doctors were trained and individually competency assessed in ANTT including aseptic blood culture collection. The session was supported by a bespoke web training system designed by the team. The IPCT continue to collaborate with professional development to support the Trusts ongoing ANTT programme. An audit of blood culture contamination showed a reduction in average monthly contamination from 7.7 % (Feb –Apr `08) to 5.6 % (Jul – Sep `08) shown below:



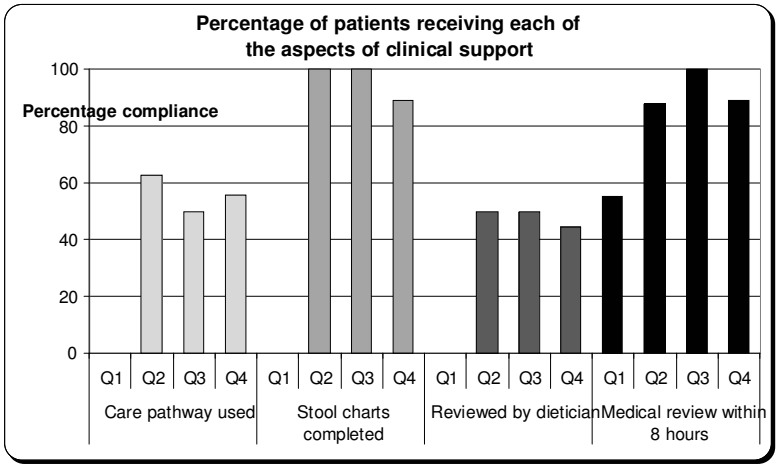
2.7 Root Cause Analysis (RCA) for C.difficile

In 2008-2009, RCA processes were introduced for cases where C.Difficile is listed on part 1 or part 2 of a patient's death certificate. A total of 58 RCAs were sent out during this period

of which 44 have been returned (76%). Findings were shared with the Infection Control committee structure on a quarterly basis. Some particular themes were that:

- Treatment is not started on suspicion of *C difficile*.
- There needs to be an increased awareness of the need to refer C difficile patients for a review with dieticians.
- Staff awareness and compliance with the *C difficile* care pathway requires improvement.

The chart below illustrates these points through the level of compliance recorded for key clinical factors by quarter for the year:



2.8 Risk assessment and action

Each quarter the ICOG maintained and responded to a risk register addressing key risks. The infection control committee structure contributes to the trust strategic risk register.

2.9 Staff training, information and supervision

2.9.1 Staff information

- **Reports to Medicine and Surgery Business Units:** These monthly reports continued in 2008-9 to include feedback of data on MRSA bacteraemia, *Clostridium difficile* infection, outbreaks of infection, audit results and other current information for each of the business units.
- **Ward Reports:** The trust successfully introduced an electronic web-based system of recording and reporting High Impact Interventions audits for the nursing structure, with further refinements planned for 2009-10. Monthly reporting of ward-based surveillance information on MRSA and *Clostridium difficile* diarrhoea to wards and directorates continued in 2008-9 using SPC charts. Cleaning scores and hand hygiene audit results are included on these reports.
- **Notice Boards:** A trust wide communications initiative was completed in the form of infection control notice boards for each ward, enabling staff to review their own performance and readily track their routine infection control tasks to complete.
- **Infection Prevention and Control Week:** This event was held again in 2008, during November, covering all hospital sites.
- **Infection Prevention and Control Study Day:** This event was held 22 October 2008 and included talks on chickenpox, HIV, and C.difficile, representation from companies, and networking space.
- **Intranet:** Infection control continues to make use of the intranet for providing staff with an easy access portal for information, policy guidance and team contact details for staff.

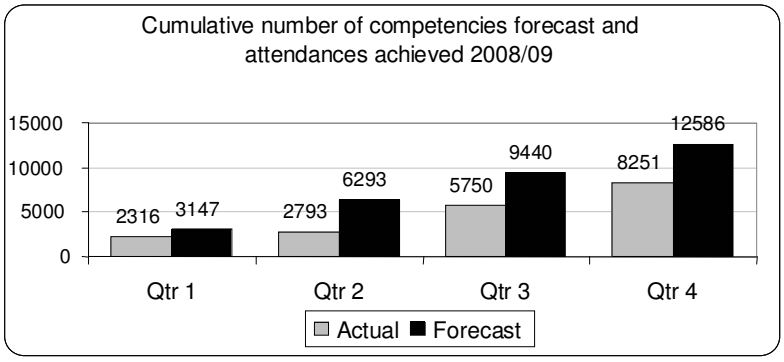
- **Link nurse scheme:** The infection control team continued to support the link nurses, with every ward area having a designated link member of staff, and various events and bulletins to keep these staff informed.
- **Lead consultants:** The trust appointed, via the Medical Directors, lead consultants to champion infection control issues. Events were run for these individuals, and they receive the "Bugs Free Zone" update.
- **Heart and Soul:** The trust staff magazine has been used to promote issues to staff, with a monthly column to highlight the current infection control messages.

Communications initiatives are discussed at the Infection Control Operational Group and Infection Control Executive Committee to facilitate appropriate dissemination of information. These groups receive information on the overall planning of communications work to ensure clarity of direction and full organisational involvement.

2.9.2 Staff training

The team continues to have a strong training role. Infection control training and education programmes during 2008/09 included a programme of mandatory sessions and presence on staff induction days. Other sessions included chlorclean awareness, C.difficile awareness, outbreak management, fit testing, portering and domestic updates, volunteers and HCA education. Link staff conducted cascade training on hand hygiene. The IC team provided updates to link staff in year. Training is recorded on a national standard module "OLM" on the Electronic Staff Record, with training attendance reported to the Infection Control Committee structures.

The mandatory training comprises 3 core competencies that all staff must attain: general awaress, sharps awareness and hand hygiene. The graph below shows actual performance against forecast for 2008-2009. Note that training is required every 2 years, so it is expected that underperformance against forecast will be rectified in 2009-2010.



2.9.3 Staff supervision

Infection Prevention and Control Team

The infection control nursing team are deployed to provide training and expert advice, and monitor compliance by wards and departments with expected standards. In this way, the work of staff in the trust is subject to scrutiny and supervision. The infection control team is based within the Health Protection Agency (HPA).

Infection Prevention and Control Team Personal Development and Training

During 2008/09 all members of the Infection control team attended mandatory training. In addition, three nurses completed their professional specialist infection control training course. The wider team attended national and local study days/seminars. Staff participated in the annual appraisal process. In-house training occurs monthly to update specialist skills and knowledge, for subjects such as microbiology, outbreaks and cleaning.

The DIPC has undertaken the HEFT Excel Leadership course and attends various regional and national networking and training events to support her effectiveness in the role.

2.10 Policy on admission, transfer, discharge and movement of patients

The trust bed management policy addresses the admission, transfer and discharge of patients within and between healthcare facilities. The IPCT were involved in updating and reviewing this policy during 2008. The IPCT liaises with bed management staff and operational managers as required to support compliance with this policy. For example, IPC team members advise on discharges to nursing homes, and transfers to the cohort ward.

3. Compliance Criterion 2: A clean and appropriate environment for healthcare

3.1 Committee structures and monitoring processes

The ICOG has a designated sub-committee to look at environment issues with IPCT representation in attendance. Legionella and Decontamination groups report to the ICOG environment group. There are designated lead managers for cleaning and decontamination. There is a trust waste manager who reports through the environmental sub committee. The Legionella Working Group for HEFT, which meets quarterly, is chaired by a Consultant Medical Microbiologist.

The following work has been carried out over 2008-09 by the Legionella Group:

Measure	BHH	SOL	GHH
Legionella policy and working group	Responsible person for each site, ensuring detailed local knowledge. Approved person covers trust on behalf of Chief Executive. Working Group met quarterly, rotating through trust sites. Training Course for Working Group members held in February over one week. Training to be extended to operational staff in Estates Maintenance on each site. Training had an immediate impact on Trust development build in progress.		
Annual risk assessment for trust-owned properties	2008 complete. Actions reviewed by WG	2009 Contract awarded. Date for inspection awaited	Commenced January 2009
Risk assessment for Properties used by Trust	Estates Development drawing up specification for monitoring and risk assessment for landlords and PFI managers to ensure Trust discharges duty of care.		
Water temperature monitoring	Building Management System monitors supply and return water temperatures. Monthly testing of Wards 2 and 19 & 3-monthly testing of Renal Unit. All sites comply with legislation cold water subject to heat gain.	BMS monitoring satisfactory	Monitoring programme commenced
Copper and silver ion treatment	Installed September 2007. Investigation of a case of	Installed January 2008.	Installed 2008/9. Some estates work in progress to achieve

Measure	BHH	SOL	GHH
	Legionnaire's Disease on Ward 12 in March 2009 found low level legionella colonisation of flexible hoses ,used on washbasin pipe work. Trust wide survey to be carried out and removal programme planned. Hoses now removed from ward 12.		satisfactory levels.
Flushing programme	Flushing records monitored by H&S inspections. Some inconsistencies in record keeping but improvement in compliance found.	Flushing records checked by H&S- findings as for BHH	Records satisfactory at all sites visited – approximately 30% of Trust sites.

The following summarises the 2008-2009 achievements of the Decontamination Committee:

- Trust decontamination policy was revised and updated.
- Decontamination Committee chairman assisted during the Healthcare Commission Hygiene Code inspection.
- The Committee reviews all incident reports involving decontamination and all quality issues concerning the contract with supplier of sterile services BBraun/Sterilog.
- The committee review all proposed purchases of medical devices for appropriate means of decontamination as part of the procurement process.
- A new endoscope decontamination facility was built and commissioned in the Endoscopy unit at the Heartlands site. The maintenance and testing of the reverse osmosis (RO) water plant associated with the facility upgrade has been contracted out to the Renal Medicine technical team.
- There is a shortage of skills and understanding around decontamination equipment in endoscopy and steps are being taken to send staff on external accredited courses.
- General training and understanding of decontamination issues are being addressed with the assistance of the Medical Devices Training Co-ordinator and the use of the web-based NHS Estates Decontamination training programme.
- An action plan for 2009-10 has been developed and will be discussed at the next decontamination meeting in July.

3.2 Patient Environment Action Team inspection

Infection control team members attend the Cleaning Standards Group on a quarterly basis. This committee monitors standards, receives cleaning monitoring reports and oversees the Patient Environment Action Team (PEAT) monitoring process.

PEAT scores for environment inspection 2008 are shown below. Scores for 2009 were not published at the time of writing, but the trust provisionally expects to maintain the 2008 scores.

	2008
Heartlands	Good
Solihull	Good
Good Hope	Acceptable

3.3 Examples of IPCT work to support environmental duties:

- For part of the year, regular meetings occurred between the ICPT and housekeeping manager to resolve operational issues. These meetings are being reinstated in 2009-10 as they are a useful forum.
- There has been IC attendance at service development meetings including upgrade and new build projects such as ITU at Good Hope Hospital; Midlands Innovation and Development Research Unit at Heartlands; the cardiology department at Heartlands.
- A robust environmental audit programme was followed during 2008-09. During 2008-2009 liaison continued between the IPCT and CSSD contractor BBraun to resolve initial service provision problems following the move to the new contractor.
- Provision of antibacterial handrubs and handwashing facilities across the trust was reviewed following external inspection by the Department of health.

3.4 Uniform standards

The trust maintained its dress code of doctors' uniforms and a bare below the elbows policy for all staff in clinical areas, in compliance with DH guidance.

4. Compliance Criterion 3: Provide information to patients, the public and between service providers on HCAI

4.1 Communications programme

During 2008-2009 the trust implemented a range of initiatives to provide information to patients and the public and raise awareness of infection control issues, and maintains a communications plan which is reported to the ICOG. Highlights include:

The trust continued to participate in the NPSA's "clean your hands" campaign with nationally provided resources displayed in wards, departments and communal areas. There have been several additional campaigns and initiatives including:

- Use of actors in costume in public areas to encourage hand gel usage
- Introduction of standardized bold signage to support hand hygiene
- Introduction of car park signage on infection control to inform visitors
- Pilot of standardized infection control branding to ensure communications unity
- Visitors stands manned by IPCT to address queries and highlight key issues
- Use of GP bulletin to publicise Norovirus messages
- Use of leaflets produced to highlight specific issues e.g. Norovirus
- Communications campaign to inform GPs and the public about MRSA screening

4.2 Trust website and information leaflets

The trust website promotes infection control issues, with trust magazines and press releases archived and links to the Health Protection Agency to guide people to performance information on MRSA and C.difficile. +

A range of information leaflets are available for patients, public and staff, archived on the trust patient information database.

4.3 IPCT meetings with stakeholders

The Lead Infection Prevention and Control Nurse attended a governors meeting to explain the work programme and achievements and progress. The team have also worked closely

during the year with several patient and stakeholder groups attending meetings and giving presentations. These have included work with:

- HEFT Foundation Members
- Solihull PPI Forum
- Good Hope Carers Group
- Solihull Overview and Scrutiny Committee

4.4 Providing information when patients move between providers

As part of assessment of the trust's compliance with the Hygiene Code, it is established that patient transfer information is shared by recording HCAI status on discharge summary letters and thereby GP notification. The Infection Prevention and Control nurses notify appropriate providers if patients have been discharged to them before results of tests are available.

5. Compliance Criterion 4: Promptly identify, manage and treat infected patients

There is a weekly Infection and Prevention and Control team meeting which is a multidisciplinary group comprising medical, nursing, science, analytical and managerial staff. The meeting reviews the current position of the trust in terms of infected patient caseload and locations, and the steps being taken to respond to the trust's situation.

5.1 MRSA screening

The trust worked hard and made significant financial investment to meet national directives ahead of deadlines and during 2008-2009 successfully achieved MRSA screening for:

- All emergency admissions.
- Extended the previous elective surgery screening to all elective surgery according to Department of Health guidance (MRSA screening operational guidance July 2008).
- Renal dialysis patients – From April 2007, all chronic haemodialysis patients are screened for MRSA and MSSA 3 times a year.

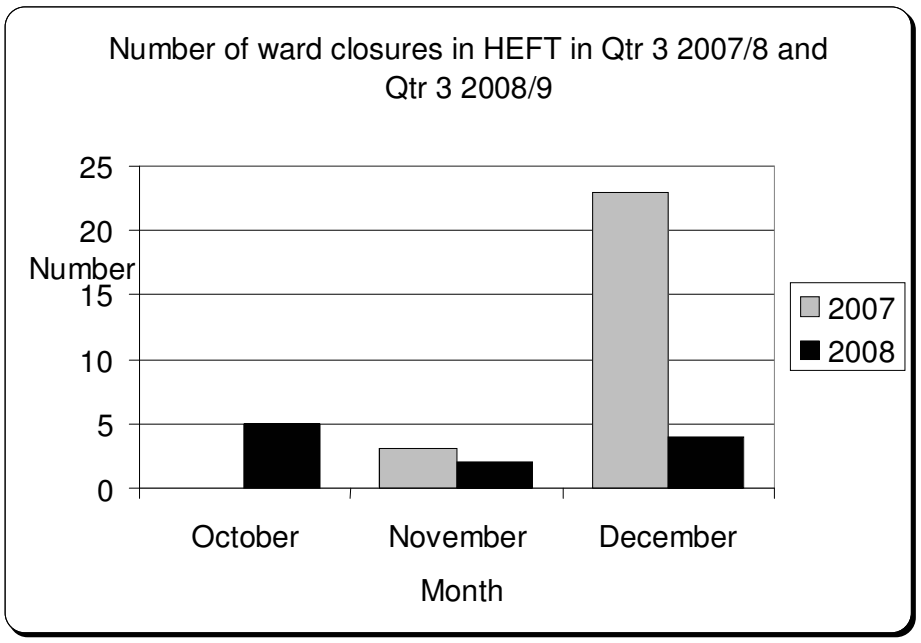
5.2 Managing outbreaks of infection

5.2.1 Norovirus

As well as tackling measures targeted at reducing MRSA and *C.difficile* infections, the first 3 months of 2008 were extremely busy for the IPCT with a number of ward closures due to Norovirus. A detailed review and analysis was undertaken in spring 2008 to learn lessons and implement measures to reduce the impact the following winter. A Norovirus Steering Group was set up to meet regularly from summer 2008. The steering group has delivered a detailed action plan including:

- Revised policy with "ward lockdown" when wards are closed with Norovirus outbreak.
- The IPC nursing team responded by adjusting their working week so there is onsite nurse presence every Saturday to prevent escalation of potential outbreaks (supported by a business case to fund this).
- Detailed communications plan for speedy internal and external communications and contingency planning to improve outbreak management.

The number of ward closures in the last 3 months of 2008 has reduced by 58% compared to the same period the previous year, as shown below:



5.2.2 Multi-resistant Acinetobacter

Three patients were either infected or colonised with Acinetobacter baumanni in July and August 2008. These cases were found to be linked. Typing results confirmed the three patients had the same strain. Weekly incident meetings steered investigation and control measures. Interventions to control further spread comprised:

- Strict isolation of colonised patient with one-to-one nursing.
- Continued attention to high levels of hand hygiene and cleanliness of equipment.
- Increased frequency of cleaning on affected wards; steam cleaning and deploying hydrogen peroxide (Sterinis machine.)
- Environmental sampling in affected wards – negative to date.
- Patient screening.

5.2.3 Endophthalmitis incidence post cataract surgery

The baseline infection rate for endophthalmitis should be below 0.14, and the rate of infection at HEFT increased to 0.243 during 2008. There were 8 cases of post cataract surgery endophthalmitis since November 2007, with 6 cases between August and October 2008. Cataract surgery was suspended in October during an investigation. Positive microbiology was found in 5/8 cases with a different organism in each patient. During investigation, a number of areas of poor practice/poor hygiene were detected in the decontamination processes, transportation and storage of sterile equipment and cleaning of theatre equipment. These issues have now all been addressed and audit procedures introduced, to be monitored at HEFT / BBraun quality meetings.

5.2.4 Neonatal Unit Serratia Marcescens

Nine babies at Heartlands and 4 at Good Hope were either infected or colonised with *Serratia marcescens* in November-January 2009. One baby's death was attributed to this infection. The unit at the Heartlands site was closed in December to ICU admissions whilst measures were put in place to control this infection.Outbreak meetings were held involving external organisations (Health Protection Unit and BEN PCT) and actions developed to prevent further spread:

- Strict cohorting of infected /colonised and exposed babies.
- Screening of other babies on the unit.
- Antibiotic use.
- Infection control measures with strict hand hygiene and use of PPE
- Enhanced cleaning program including deep cleaning.
- Estates repair work
- Installation of non-touch soap and alcohol gel dispensers
- Communication about the outbreak to parents, staff, newborn network and microbiologists in the region.

No common source was identified. All environmental samples done at BHH site were found to be negative for this bacteria. All the isolates sent for typing to reference laboratory except two were found to be indistinguishable.

5.2.6 Good Hope Hospital Ward 17 C. difficile

There was increased incidence of C. difficile infections on GHH 17 in the summer of 2008. A meeting was held to review the situation and put an action plan in place. This included:

- Revising gastroenterology's antibiotic policy
- Conducting RCA on new cases
- Antibiotic audit on the ward
- Cleaning training sessions
- Enhanced cleaning
- Weekly Cdifficile infection control audits
- Minor estates work

It was recommended that to conduct a proper refurbishment the ward must be closed and the upcoming modular ward was suggested as a decant ward. Following these measures the ward had a period of no C. difficile cases, however, the incidence started to increase again in early 2009. Typing of cases showed the majority to be 027. An outbreak meeting was held. In quarter 1 of 2009/10 at the time of writing the ward is closed for refurbishment.

6. Compliance Criterion 5: Co-operation within and between healthcare providers

6.1 Health Economy working

There is collaborative working at the operational level between HEFT infection control team and microbiologists, local PCT infection control teams, and the Birmingham & Solihull Health Protection Unit (HPU), including through a collaborative health economy wide HCAI group with monthly meetings set during 2008-2009.

The BEN PCT DIPC and a Consultant in Communicable Disease Control from the HPU attended the HEFT Infection Control Executive Committee.

As mentioned previously, the trust has worked to share root cause analysis findings with PCT partners (see section 3), and worked to contribute to a multiorganisational study day on urinary catheters in recognition that these issues affected the local health economy not just a single trust.

The trust participated in the Department of Health led "Performance Improvement Networking" events during the year on a quarterly basis.

6.2 Internal co-operation

In order to achieve the significant reduction in infection rates within the trust, extensive internal multidisciplinary collaboration was understandably necessary. Engagement with the

assurance framework and responsiveness to the needs of the infection control work programme was gained at all levels within the trust with clear leadership from the trust Chief Executive and senior clinical and operational personnel. The IPCT continued to meet with matrons on a monthly basis in order to publicise audit results and encourage further improvements. The trust created Lead Consultants in each area to encourage increased engagement amongst doctors and surgeons. External inspectors reported the Trust Board is aware of and active in relation to infection prevention and control responsibilities.

7. Compliance Criterion 6: Provide adequate isolation facilities

The dedicated cohort ward for C.difficile infected patients established in 2007 continued to be a useful resource for the trust and was reconfigured to meet current demand levels but during 2008 did receive permanent funding to ensure maintenance of this important facility.

8. Compliance Criterion 7: Ensure adequate laboratory support

Laboratory services are provided through contractual arrangements with the HPA on the Heartlands and Solihull sites, and within the trust on the Good Hope site. All laboratory services maintained Clinical Pathology Accreditation during 2008-2009.

Detailed information on laboratory performance for the year can be found in the "Annual Report on the HPA Regional Laboratory Service to Heart of England NHS Foundation Trust for Microbiology and Infection Control for 2008/2009".

The trust successfully established a set of key performance indicators for the Health Protection Agency (HPA) to monitor effective provision of the infection control service. The outturn for 2008-09 showed that the HPA met the expected benchmarks for these indicators, resulting in a bonus payment.

9. Compliance Criterion 8: Policies and protocols

The areas of the work programme described in this annual report are relevant to the policy areas listed in the Hygiene Code. The trust is confident it has policies to support trust practices as required. These are available through the trust intranet site and feedback to the IC team is that staff awareness of how to find policy guidance is good. Policies are within review dates, and were updated and approved by the ICEC according to review dates or changing practices. Policies were compared with peer performance and national guidance to ensure best practice is promoted.

10. Compliance Criterion 9: HCAI prevention among healthcare workers

Roles and responsibilities guidance, available on the intranet and circulated to wards and departments, was developed for all staff groups explaining their particular responsibilities around infection control. Job descriptions include infection control responsibility. The infection control team participate in induction training and mandatory updates for all staff groups (see Duty 2). Occupational Health services are provided as required within the trust. The IPCT worked with the Occupational Health services to support the flu vaccination campaign.