



# Infection Prevention & Control

Annual Report 2010 - 2011

**Respond, Deliver & Enable**

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## Key Issues/Executive Summary

1. The Trust has achieved a year on year reduction in Methicillin Resistant *Staphylococcus aureus* (MRSA) bacteraemias since reduction targets were set in 2004-5. During 2010-11 only two MRSA bacteraemias were identified and attributed to the RD&E, against a target of four. This reflects a 93% reduction since 2004-5.
2. A more sensitive test for laboratory diagnosis of *Clostridium difficile* was introduced in October 2010. This test was introduced because the traditional toxin test, which identifies the presence of *C.difficile* toxin in faeces, can produce false negative results. Therefore, introduction of the PCR test, which identifies the gene that regulates toxin production (but not the toxin itself), identifies cases that would have been missed with the toxin test alone. This in turn helps with clinical management and prevention of cross infection. The new test has been associated with a 50-60% increase in case ascertainment. This additional test is not used by all laboratories and, unlike the RD&E, those that do use it do not necessarily report cases identified by this method through the mandatory surveillance system, therefore, comparison of *C.difficile* infection rates with other hospitals cannot be made.
3. Despite introducing the additional, and more sensitive, test, there has been a further small reduction in *Clostridium difficile* infection, achieving both local and national targets. When examining the data for toxin positive cases alone there has been a more significant reduction.
4. The rate of surgical site infection for hip arthroplasty (identified prior to discharge and on re-admission) is 0.2%. This compares very favourably with the aggregated rate of 0.8% for all participating hospitals.
5. Considerable reductions in surgical site infection following abdominal hysterectomy and Caesarian section have been achieved following evidence based changes to practice relating to skin disinfection, antimicrobial prophylaxis and dressing protocols.
6. Maintenance of low central venous catheter ( CVC) related blood stream infection rates have continued. Quality standards relating to CVC associated bacteraemias agreed with NHS Devon have been achieved
7. The clinical benefits associated with pre admission screening of elective patients were analysed as recommended by the DH. Screening data for a 12 month period showed that local MRSA carriage rates are extremely low, 0.87% for inpatients, and 0.5% for day cases. Furthermore, 50% of these patients were already known to be MRSA carriers prior to screening. With such a low carriage rate in the local population, screening such a wide range of elective patients was not associated with the clinical benefits predicted by the DH impact assessment. Therefore, based on these data, and with the approval of our commissioners, we have been able to focus MRSA screening on sub sets of elective patients where there may be a clinical benefit to screening in terms of reducing risk of serious infection for that individual.

8. Procedures for screening of emergency admissions for MRSA were introduced by 31<sup>st</sup> December 2010. The impact and clinical benefit of this screening programme will be analysed on completion of the first year of screening.
9. The hand hygiene improvement programme has focused on improvement amongst medical staff. A wide range of published studies throughout the world have shown compliance to be lower amongst this professional group than amongst others. Whilst average compliance remains lower for medical staff than other professional groups, improvement has been achieved and in some specialties, the standard is now comparable or better than other disciplines. Work will continue in 2011-12 to make further improvement with what is an ever changing professional group.
10. A comprehensive programme of education and training has been provided to all relevant disciplines of staff on general infection prevention and control, antimicrobial prescribing and aseptic technique.
11. Outbreaks of Norovirus infection place a considerable burden on the organisation each winter. Transmission in hospital is exacerbated by high bed occupancy and movement of patients and staff within the hospital setting. Considerable effort was made in 2010-11 to limit movement within the medical directorate wards and to reduce outlying to surgical wards. Whilst the introduction of norovirus from the community once again resulted in outbreaks affecting several wards in December and January, the impact was much less severe than winter 2009-10 and the number of wards affected was the least since 2006-7. However the outbreaks highlighted the continued potential for unrecognised transmission within admission wards with onward transmission to subsequent wards following the transfer of patients who are asymptomatic but incubating the infection.

## **1. INTRODUCTION**

- 1.1 The purpose of this report is to inform patients, public, staff, Trust Board and Commissioners of the infection control work undertaken in 2010/11, the management arrangements, the state of infection prevention and control within the RD&E and progress against performance targets. .
- 1.2 Healthcare associated infection remains a top priority for the public, patients and staff. Avoidable infections are not only potentially devastating for patients and healthcare staff, but consume valuable healthcare resources. Investment in infection prevention and control is therefore both necessary and cost effective. The resources committed by the RD&E to infection prevention and control can be appreciated in the contents of this report.
- 1.3 The authors would like to acknowledge the contribution of other colleagues to this report, in particular, the section on cleaning.

## **2. INFECTION PREVENTION AND CONTROL ARRANGEMENTS**

### **2.1 Infection Prevention and Control Team (ICT)**

- 2.1.1 The infection prevention and control team employed by the RD&E also provides a service to the entire Devon Partnership Trust (DPT) and the Eastern area of Devon Provider Services (DPS).
- 2.1.2 The lead nurse (1.0 WTE) is responsible for leading the infection control nursing service across the three organisations and managing the associated service level agreements. For each organisation, there is a distinct clinical infection control nursing team functioning within the combined service. All members of the nursing service are capable of working in each of the three organisations. With regular rotation amongst the Band 6 posts, specialist practitioners are developed who recognise and respond to differing levels of risk, differing needs and can apply their clinical knowledge and skills in a variety of settings.

2.1.3 In 2010-11, the RD&E nursing team consisted of:

1.0 WTE Band 7	Clinical Lead
4.0 WTE Band 6*	Nurse Specialists
1.0 WTE Band 6	Audit and Surveillance Nurse
1.0 WTE Band 3	Health care assistant

\*One of these posts is funded as a band 7 but following two unsuccessful attempts to appoint following external advertisement, a band 6 nurse was appointed with a view to developing someone into the band 7 role from within the team. At the time of writing this report an internal appointment has been made.

2.1.4 The DPT nursing team consists of:

0.8 WTE Band 8A	Senior Nurse Specialist/Clinical Lead*
1.0 WTE band 7	Nurse Specialist
1.0 WTE Band 6	Nurse Specialist

\*this post holder is also deputy to the Lead Nurse for the whole team.

2.1.5 The DPS nursing team consists of:

1.0 WTE Band 7	Clinical Specialist Lead
0.8 WTE Band 6	Nurse Specialist

However, this allocation of nursing manpower also provides the clinical service to the RD&E surgical and maternity services in the community hospitals.

2.1.6 The department is supported by admin and clerical staff:

1.0 WTE Band 5	Administration Manager.
0.5 WTE Band 3	Team Secretary*

\*This is a reduction of 0.5 WTE on previous years as a cash releasing efficiency saving.

- 2.1.7 The DPT funds the 0.5 WTE band 3 secretarial post and also 0.1 WTE of the Lead Nurse salary.
- 2.1.8 All four Consultant Medical Microbiologists play an active role in infection control. However, one Microbiologist fulfils the role of Infection Control Doctor with 4 sessions of clinical time allocated for this purpose. The same microbiologist is also the infection control doctor for the DPT and DPS. A further 1.25 sessions of clinical time are allocated for this.
- 2.1.9 An on call nursing service ensures that infection control advice is available 24 hours a day, 7 days a week. All nurses providing this service have completed a specialist post graduate programme of study and are experienced infection prevention and control specialists. There is also 24 hours a day, 7 days a week Consultant Medical Microbiologist cover.

## **2.2 Budget allocation**

### **2.2.1 Staff**

Budget allocation for staffing is in accordance with the grades of staff indicated in Section 1.

### **2.2.2 Support (IT etc)**

The cost of licences for infection control surveillance software, IC net, were met from within the infection control budget.

### **2.2.3 Training**

The infection control team has a small budget for training and also a charitable fund which is used for educational purposes.

## **2.3 Directors of Infection Prevention and Control (DsIPC)**

The Infection Control Doctor and the Lead Nurse continue as Joint Directors of Infection Prevention and Control (DIPC), reporting directly to the Chief Executive.

## **2.4 Infection Control Committee (ICC)**

The Committee is chaired by one of the DsIPC and meets quarterly. The terms of reference and membership have been reviewed this year and are attached at Appendix A.

## **2.5 Reporting line to Trust Board**

The DsIPC report to the Board through the Chief Executive. The ICC reports to the Trust Board via the Governance Committee. The assurance framework for infection prevention and control can be viewed at Appendix B.

## **2.6 Links to the Antimicrobial Subcommittee**

The purpose of the Antimicrobial Subcommittee of the Drug and Therapeutics Committee is to ensure that antimicrobial drugs are used prudently and responsibly within the Trust. The Antimicrobial Subcommittee is chaired by a Medical

Microbiologist who is also a member of the Drug and Therapeutics Committee. The Subcommittee reports to the Governance Committee through the Drug and Therapeutics Committee and also provides regular reports to the Infection Control Committee and also liaises with the joint formulary committee.

## **2.7 Links to Clinical Governance/Risk Management/Patient Safety**

The DIPCs are members of the Governance Committee, the Non Medical Professionals Governance Committee, Patient Safety Steering Group and the Health and Safety Committee.

## **3. DIPC REPORTS TO THE BOARD**

Reporting arrangements are outlined at Appendix B.

### **3.1 Number and Frequency**

The Infection Control Committee (ICC) meets 4 times a year. The committee reports to the Trust Board, through the Governance Committee, which meets 8 times a year. A "Decision Briefing" is prepared after each ICC meeting, and is included as a standing item in the following Governance Committee meeting (Refer Appendix C). This ensures that the most important items from the ICC are formally noted by the Governance Committee and thus, brought to the attention of the Board.

The Directors of Infection Prevention and Control have a formal minuted meeting at least bi-monthly with the Chief Executive and other members of the Executive Team, including the Medical Directors, Chief Operating Officer and the Director of Nursing and Patient Care. In addition, information regarding outbreaks, significant incidents and performance against HCAI targets is communicated daily to all Executive Directors.

### **3.2 Annual Programme**

An annual programme is prepared by the ICT, agreed each year by the ICC and approved by the Board. The annual programme runs from April to March and is prepared for the ICC meeting each year. The programme of work is mapped to the duties of the Code of Practice. Progress against the annual programme is monitored by the ICC. The programme for 2010-11 and progress made can be found at Appendix D.

### **3.3 Board Decisions**

The Board approves the annual report and annual programme. Policies and guidelines developed by the infection control team, both new policies and significant revisions of existing policies and guidelines are generally considered by other relevant committees before receiving formal approval from the Governance Committee. The Governance Committee is a sub committee of the Board and decision briefings are reported to the Board.

## **4. MANDATORY SURVEILLANCE OF HEALTHCARE ASSOCIATED INFECTION**

Mandatory reports are made to the Health Protection Agency (HPA). Some reports are made on line weekly and others are quarterly.

### **4.1 *Staphylococcus aureus* bacteraemia**

- 4.1.1 *Staphylococcus aureus* is a bacterium commonly found colonising humans. Although most people carry this organism harmlessly, it is capable of causing a wide range of infections from minor boils to serious wound infections and from food poisoning to toxic shock syndrome. In hospitals it can cause surgical wound infections and bloodstream infections. When *Staphylococcus aureus* is found in the bloodstream it is referred to as a *Staphylococcus aureus* bacteraemia.
- 4.1.2 *Staphylococcus aureus* bacteraemias have been reported since April 2001. Data has been submitted monthly since October 2005.
- 4.1.3 Reports from this Trust consist of all *Staph. aureus* isolated from blood cultures processed by the Trust Microbiology Department. These are expressed by the HPA as total episodes of *Staphylococcus aureus* bacteraemia and methicillin resistant *Staphylococcus aureus* (MRSA) bacteraemia.
- 4.1.4 These include all isolates, whether true infections or contaminated blood cultures; hospital acquired or community acquired infections.
- 4.1.5 Although most blood cultures originate from patients admitted to the RD&E, specimens submitted from community hospitals and General Practitioners are also included in the returns.
- 4.1.6 In October 2005, an enhanced data set was introduced which allows the distinction to be made between MRSA bacteraemia occurring before admission or within 48 hours of admission and those that occur more than 48 hours after admission.
- 4.1.7 Despite the enhanced data set, the HPA report continued to attribute *all* MRSA bacteraemia, regardless of source, to the RD&E during 2009-10. However, this was changed for 2010 -11 when only those identified more than 48 hours after admission were attributed to the acute trust.
- 4.1.8 National reduction targets and outcomes are described at section 14.
- 4.1.9 In January 2011, reporting of an enhanced data set for MSSA bacteraemia became mandatory. Unlike many Trusts, we were already doing this voluntarily. National and local reduction targets have not been set as the intention is to establish a baseline through 2011-12.

### **4.2 Glycopeptide Resistant Enterococcal (GRE) Bacteraemia**

- 4.2.1 Enterococci are normally found in the gut, and are part of the normal human gut flora.

- 4.2.2 Although one of the causes of urinary tract infections, enterococci can occasionally cause serious infections such as endocarditis. In immunocompromised patients, for example, haemodialysis patients and haematology patients, especially those with intravascular lines, enterococci may cause bacteraemia.
- 4.2.3 Glycopeptide resistant enterococci are resistant to glycopeptide antibiotics such as vancomycin and teicoplanin. These have been reported to the HPA since July 2003. The same criteria for selection and denominators as *Staph. aureus* applies.
- 4.2.4 The number of cases reported are low and cases are usually sporadic.

### **4.3 Clostridium difficile Infection (CDI)**

- 4.3.1 *Clostridium difficile* is a bacterium that can cause colitis (inflammation of the colon), and symptoms range from mild diarrhoea to life threatening disease. Infection is often associated with healthcare, particularly the use of antibiotics which can upset the bacterial balance in the bowel that normally protects against *C. difficile* infection (CDI). Infection may be acquired in the community or hospital, but symptomatic patients in hospital may be a source of infection for others.
- 4.3.2 Mandatory surveillance for CDI in over 65 year olds was undertaken since 2004. Since 2007 episodes of CDI in patients between the ages of 2 and 65 have also been reported.
- 4.3.2 For mandatory reporting purposes, all diarrhoeal stools submitted to the microbiology laboratory are examined for presence of *C. difficile* toxin (it is the toxin released by the *C. difficile* bacterium that causes damage to the bowel). Episodes are reported via the HPA mandatory enhanced surveillance system. An episode consists of one or more *C. difficile* toxin positive stools during a 28 day period. Cases that occur more than 72 hours after admission are attributed to the acute Trust with those identified within the first 72 hours likely to have been community acquired.
- 4.3.3 In addition to the toxin test, the Trust introduced a more sensitive test for detecting toxigenic *C. difficile* in patients' faeces in October 2010. The toxin test used historically is known to produce some false negative results and the new test overcomes this problem. The new test, a test that identifies the gene that regulates toxin production, rather than the toxin itself, is now used in addition to the toxin test. More than 50% of the cases identified since October have been detected as a result of the new test.
- 4.3.4 Lack of clear national guidance on reporting cases of toxigenic *C. difficile* means that it has become difficult to compare rates of *C. difficile* between hospitals. Some hospitals do not use the new test, whilst other hospitals do use it but choose only to report cases identified by the toxin test. Hospitals that do this justify it because the reduction targets were set based on toxin test results only. At the RD&E we have chosen to report all cases identified by either test method. As a result, the rate of *C. difficile* compares unfavourably with other Trusts in the South West and nationally and such comparisons should not be made.

- 4.3.4 Control of CDI is taken extremely seriously in the RD&E and designated isolation facilities are provided for patients with CDI on Torridge ward and these patients are managed by a team who have developed the expertise in management of CDI.
- 4.3.5 Each case identified in hospital is investigated and precipitating factors examined. If there appear to be linked cases in an area of the hospital strains are sent to reference facilities for typing.
- 4.3.6 Strain typing is a specialised service provided by a network of reference laboratories. This is an indispensable service which helps us to manage and minimise CDI. In 2010-11 selected strains were typed where possible clusters of CDI were noted. In fact very few incidences of cross infection were shown. In addition there were no predominant strains present in the trust. No cross infection with the 027 strain which has been associated with severe outbreaks was seen.
- 4.3.7 As for MRSA bacteraemias, national targets are set and our performance against these targets is shown at Section 14.

#### **4.4 Orthopaedic Surgical Site Infection**

- 4.4.1 It is a mandatory requirement to conduct surveillance of orthopaedic surgical site infections, using the Surgical Site Infection Surveillance Service of the HPA. The data set collected is forwarded to the HPA for analysis and reporting. This system is controlled and validated to allow comparison between centres.
- 4.4.2 The requirement is for a 3 month module of surveillance of *one* of the orthopaedic options, namely
- Open reduction of long bone fracture
  - Hip arthroplasty
  - Knee arthroplasty
- 4.4.3 However, a more accurate rate can be ascertained by continuous surveillance and therefore, continuous surveillance of all knee and hip arthroplasty started in this Trust in July 2007.
- 4.4.4 The aggregated rate of infection (identified prior to discharge and on re-admission) for the calendar year of 2010 for hip arthroplasty at the RD&E is 0.2%. This is below the national average aggregated rate of infection of 0.8%.
- 4.4.5 The aggregated rate of infection (identified prior to discharge and on re-admission) for the calendar year of 2009 for knee arthroplasty at the RD&E is 0.75%. This is just above the national average aggregated rate of infection of 0.6% but is not considered high. The higher rate reflects an increase in the July to September quarter only (1.7%) which has subsequently been reduced and demonstrates why continuous surveillance provides a better overall perspective than the minimum mandatory requirement.

## 4.5 MRSA Screening of Elective Admissions

- 4.5.1 The rationale for screening of non emergency patients is to identify MRSA carriers, enabling application of the decolonisation or suppression treatment either immediately prior to admission or on admission and the use of appropriate systemic antimicrobial prophylaxis at time of procedure, if this is appropriate.
- 4.5.2 The DH cost benefit analysis for implementing universal MRSA screening of elective admissions was based on an assumed carriage rate of 7%, of which 1 in 140 colonised patients were assumed to go on to develop a bacteraemia and four times as many would develop a wound infection. With each MRSA bacteraemia costing approximately £5000, the conclusion reached was that the cost of screening would be met by the money saved through preventing MRSA infection.
- 4.5.2 Under the Operating Framework for the NHS in England (2007) all NHS Trusts were required to implement procedures to screen elective admissions by 31<sup>st</sup> March 2009.
- 4.5.3 The guidance from the DH identified that all elective admissions should be routinely screened, with the exclusion of:
- Day case ophthalmology
  - Day case dental
  - Day case endoscopy
  - Minor dermatology procedures,
  - Children
  - Maternity/obstetrics except for elective caesareans
  - Termination of pregnancy
- 4.5.3 This had major implications for clinical and laboratory resources. With each MRSA screen consisting of at least two swabs taken from the patients nostrils and throat, the microbiology laboratory expected to process and report on an additional 84,000 specimens per year. A new screening room in the laboratory was established and staffing increased to process the specimens. The laboratory became operational in February 2009.
- 4.5.4 Based on data from April 2009 - March 2010, MRSA carriage was detected in only 0.87% of patients screened prior to an in-patient admission. The carriage rate for day case patients was lower still at 0.5%. The rate for all in-patient and daycase admissions was only 0.7%. Furthermore, 50% of these patients were already known to have a history of MRSA carriage.
- 4.5.5 Root cause analysis of MRSA bacteraemias undertaken prior to the introduction of MRSA screening of elective patients showed that none of the bacteraemias were associated with elective admissions. Whilst there was a further reduction in MRSA bacteraemias in 2009-10, there was no evidence that this was as a result of elective admission MRSA screening but was attributed to continued emphasis on intravascular line care, aseptic technique and decolonisation and isolation of known cases. Furthermore, there had already been a reduction of other hospital acquired MRSA infections e.g. wound infection, prior to the introduction of screening, but there has been no further reduction since its introduction.

- 4.5.6 The data suggested strongly that many subsets of patients were screened where there was a low risk of MRSA carriage and low risk of MRSA infection and therefore there was no clinical benefit to these patients by screening for MRSA.
- 4.5.7 In April 2010, the DH issued further guidance - DH (2010) Screening elective patients for MRSA – FAQs. ([http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_114999.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_114999.pdf)) This guidance allowed more flexibility with local risk assessment and stated that whilst all relevant admissions should be screened, PCTs and acute Trusts were expected to review the need to screen, in particular, subsets of day case patients, and, where risk of MRSA infection was negligible, to amend their local plans. It provided examples of low risk subsets such as arthroscopy, joint injections and minor hand surgery such as carpal tunnel decompression.
- 4.5.8 Thus a proposal for a revised strategy for screening was made locally based on local data and risk assessment and was approved internally and by our Commissioners.
- 4.5.9 In addition to the original subsets of patients excluded as per the DH guidance, the following sub sets of elective patients are also excluded from pre-admission MRSA screening:
- All day cases in general medicine, geriatric medicine, thoracic medicine, neurology, anaesthetic, clinical immunology, gastroenterology
  - All non surgical elective in-patient admissions.
  - All cardiology day cases, with the exception of cardiology pacemaker insertion
  - All surgical day case with the exception of patients undergoing fistula/graft formation for dialysis and those admitted for orthopaedic surgery.
  - All patients attending for joint injections, infusions, injections under a variety of specialities e.g. orthopaedics, rheumatology, renal medicine.
- 4.5.10 Thus, we continue to screen the following subsets:
- All surgical in-patients
  - Orthopaedic day cases
  - Patients undergoing cardiac pace maker insertion or similar procedure
  - Patients undergoing AV fistula formation or graft for dialysis

## **4.6 MRSA Screening of Emergency Admissions**

- 4.6.1 All NHS Trusts were required to implement procedures to screen emergency admissions by 31<sup>st</sup> December 2010.
- 4.6.2 Procedures for screening emergency admissions were implemented during 2010 to meet this deadline.
- 4.6.3 By the end of 2011-12 we hope to be able to draw conclusions regarding the benefits of this strategy.

## 5. VOLUNTARY SURVEILLANCE OF HEALTHCARE ASSOCIATED INFECTION

In addition to mandatory surveillance, the infection prevention and control team conducts voluntary surveillance to monitor hospital infection in several areas. Some of the surveillance is ward based, such as surgical site infection, some is laboratory based. These include the following:

### 5.1 Bacteraemia Surveillance

- 5.1.1 Hospital acquired bacteraemia for all organisms (not just *Staph. aureus* or MRSA) is undertaken routinely. This surveillance includes recording the major risk factors for hospital acquired bacteraemia, defined as bacteraemia occurring after 48 hours in hospital.
- 5.1.2 Although there have been considerable improvements, invasive devices, mainly central vascular devices, remain a common risk factor associated with hospital acquired bacteraemia, and continue to be focus for prevention activities
- 5.1.3 Feedback of central vascular devices associated bacteraemia rates to high risk specialties has enabled targeted work to be undertaken to reduce infection rates with rewarding improvements seen over recent years (refer Appendix E )

### 5.2 *Clostridium difficile* infection

- 5.2.1 In addition to mandatory reporting, and Trust wide monitoring of *Clostridium difficile* infection which is reported to the Infection Control and Governance Committees, ward specific cases are monitored and feedback provided to individual wards in the form of annotated run charts.
- 5.2.2 This assists with the early identification of clusters of cases or increased prevalence and the impact of control interventions.
- 5.2.3 An extensive dataset from *C. difficile* patients including antibiotic use and response to treatment is also collected. Information obtained has helped to improve patient management.
- 5.2.4 A weekly review meeting is held by the team caring for inpatients with CDI. This monitors cases, precipitating causes, treatment and outcomes. Lessons learned are disseminated to clinicians and others involved.
- 5.2.5 In October 2010 new laboratory tests for the detection of *C. difficile* were introduced. These tests are more sensitive, so it is expected that the number of positive results could increase. The Trust Board and PCT were made aware of this in advance. Earlier and better detection, treatment and isolation of cases should contribute to improvements in the management of *C. difficile*. The impact of the new test is being carefully monitored and audited.
- 5.2.6 From time to time cases of *C. difficile* may be seen in apparent clusters, either occurring in one clinical area, or at similar times. Selected isolates are typed to see if they are truly related. In most cases investigation confirms that the

clusters are chance associations and not due to outbreaks of cross infection. In addition there have been no clusters of type 027 *C. difficile*.

- 5.2.7 In the last year an additional method of treatment has been introduced for patients with severe and relapsing infection. This treatment is known as faecal transplant or faecal biotherapy and involves restoration of colon homeostasis by reintroducing normal bacterial flora from stool obtained from a healthy donor. Several centres in the UK have recently begun to use this therapy on selected cases, although it was first described some time ago. By April 2011, two patients have been treated, both with success.

### **5.3 MRSA - Newly Identified**

- 5.3.1 The numbers of patients diagnosed as MRSA positive for the first time are collected from laboratory data.
- 5.3.2 This includes people who are colonised (i.e. carrying the organism without any sign of infection) and those who have an MRSA infection of *any* type, not just blood stream infections.
- 5.3.3 The Infection Prevention and Control team advise on appropriate management of in-patients to reduce risk of transmission to others.
- 5.3.4 The number of new cases identified more than three days after admission remains low and stable following several years of reduction. (Refer Appendix F).

### **5.4 Abdominal Hysterectomy - Surgical Site Infection Surveillance**

- 5.4.1 Abdominal hysterectomy has a relatively high risk of infection, because the nature of the surgery means that the procedure is classified as 'clean contaminated'.
- 5.4.2 As with mandatory monitoring for orthopaedic infections, the data set collected is forwarded to the HPA for analysis and reporting. This system is controlled and validated to allow comparison between centres.
- 5.4.3 Voluntary modules of surveillance were undertaken, using the Surgical Site Infection Surveillance Service of the HPA, between April- December 2010 for abdominal hysterectomy as a follow up to the previous periods of surveillance in 2008 and 2009. Data collection includes post discharge surveillance using outpatient clinic feedback and patient feedback via patient questionnaire and this had shown a high rate of infection identified post discharge.
- 5.4.4 As a result, an improvement programme was implemented using the DH Saving Lives care bundle for reducing surgical site infection, which included changes to antimicrobial prophylaxis, skin disinfection methods and dressing protocols
- 5.4.5 The improvement programme has resulted in a 44% reduction in infections identified in hospital, on readmission and post discharge.

## **5.5 Caesarean Section - Surgical Site Infection Surveillance**

- 5.5.1 Last year, we reported that the Surgical Site Infection Surveillance Service of the HPA recruited hospitals to participate in a pilot of a new voluntary module of surveillance for patients who had undergone C. section and that we were one of the centres that participated.
- 5.5.2 Data collection was complex and included infections in in-patients and readmissions, infections reported by community midwife and patient reported infections via a patient questionnaire. Patients who did not return a questionnaire were followed up by phone call by the infection prevention and control team.
- 5.5.3 Although the in-patient and readmission rate of infection was lower than the aggregated rate for all participating hospitals, a higher than anticipated rate of infection after discharge was identified and an improvement programme, as described for abdominal hysterectomy, was implemented with a repeat period of surveillance planned for July – September 2010 to measure the impact.
- 5.5.4 This repeat period of surveillance showed a 55% reduction in all infections identified in hospital, after discharge or on readmission.

## **5.6 Spinal surgery - Surgical Site Infection Surveillance**

- 5.6.1 Since September 2009 spinal surgery has been under continuous surveillance and shows that the aggregated rate of infection for all hospitals participating is 0.9% whilst the rate at the RD&E is lower at 0.58%.
- 5.6.2 This is a reduction on the previous period of surveillance where the RD&E rate was 0.7%.

## **5.7 Catheter associated urinary tract infection**

- 5.7.1 Point prevalence surveys of catheter associated urinary tract infection (CAUTI) were undertaken in 2006, as part of the National Hospital Acquired Infection Prevalence Study, and in 2008, as a local surveillance project, using the same protocol. This showed that the Trust had low prevalence rates of CAUTI at 1.8% in 2006 and 3.2% in 2008.
- 5.7.2 In 2009, the CNO launched 8 High Impact Actions for Nursing and Midwifery. The prevention of catheter associated urinary tract infection was identified as one of the high impact actions. In order to support clinical directorates who might choose to implement improvement programmes relating to urinary catheter care, a surveillance programme, to establish quarterly CAUTI point prevalence rate as an outcome measure, was established by the Infection Prevention and Control Team.
- 5.7.3 The protocol used for the quarterly point prevalence surveys is exactly the same as the CAUTI element of the National Prevalence Survey of 2006.
- 5.7.4 In-patients of all consultant specialities were included, except paediatric patients, rehabilitation patients, psychiatric and day-case patients.
- 5.7.5 Point prevalence surveys were undertaken in each quarter between April and December 2010. This showed that prevalence rates of infection remain low

and have been reduced with an aggregated catheter associated infection rate of 1.13%.

## **6. OUTBREAK AND INCIDENT REPORTS**

### **6.1 Background**

An incident is a near miss, or a failure of infection control without significant consequence, but where lessons may be learnt with the potential to prevent more serious events. Outbreaks occur when there are two or more linked infections which may or may not be preventable. These events are recognized through surveillance, reporting or routine IPCT activities and are by definition unpredictable.

### **6.2 Response to Incidents and Outbreaks**

Every year the Infection Prevention and Control Team recognize and respond to many incidents and potential outbreaks. Some are real but others turn out to be chance clusters not caused by cross infection. It is not unusual to see variation in surveillance data, and the ICT has to be alert to all potential outbreaks, and investigate them accordingly.

### **6.3 Recording and Reporting Incidents and Outbreaks**

Incidents and outbreaks may be recorded in several different ways. Many are recorded in the minutes of the weekly Infection Control Team Meeting and important occurrences are included in Infection Control Committee minutes. Where an outbreak is considered particularly significant because of its size or the lessons learnt in its management, an outbreak report is prepared. All important infection control incidents and outbreaks are disseminated through the Governance system and Ward to Board communication and awareness is maintained.

### **6.4 Noteworthy Incidents and Outbreaks**

Some noteworthy incidents and outbreaks are summarised below. The IPCT and ICC minutes are also available for examination on request.

#### **6.4.1 MRSA on the Neonatal Unit**

- 6.4.1.1 Babies admitted to the neonatal unit are either born at the RD&E or transferred from other neonatal units. Some babies are occasionally readmitted if they have feeding problems after discharge.
- 6.4.1.2 MRSA was detected on two occasions in the Neonatal unit, in June 2010 and January 2011. On the second occasion this was in a baby transferred from another unit, suggesting that there was no internal source of MRSA in the RD&E. These babies were isolated to minimise the risk of spread. Neither baby had a serious infection.
- 6.4.1.3 On both occasions screening of other babies on the unit confirmed that no spread had taken place, and no source was discovered. The fact that no further cases occurred indicates that a continuing source is unlikely so that an exhaustive search was not considered necessary.

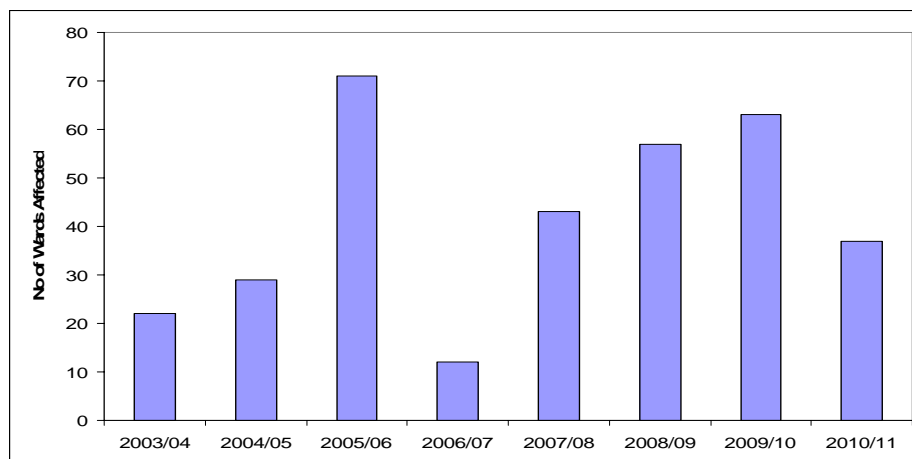
## 6.4.2 Chickenpox on the Haematology Unit

- 6.4.2.1 Chickenpox is normally considered to be a mild but unpleasant childhood illness. However it can be serious in individuals, and is dangerous when infection occurs in newborns, pregnant women and immunocompromised patients.
- 6.4.2.2 A patient with a successful bone marrow transplant was admitted to the haematology unit with a febrile illness which proved to be chickenpox. It became apparent that he had been to a haematology clinic while incubating the infection and therefore infectious. Several immunocompromised patients had potentially been exposed.
- 6.4.2.3 An exercise was undertaken to identify any exposed patients who needed prophylactic treatment to minimise the risk of their developing clinical chickenpox, and potentially passing chickenpox to other patients. The index case was isolated. Fortunately no patients developed infection and the index case recovered without complication.

## 6.5 Norovirus Outbreaks

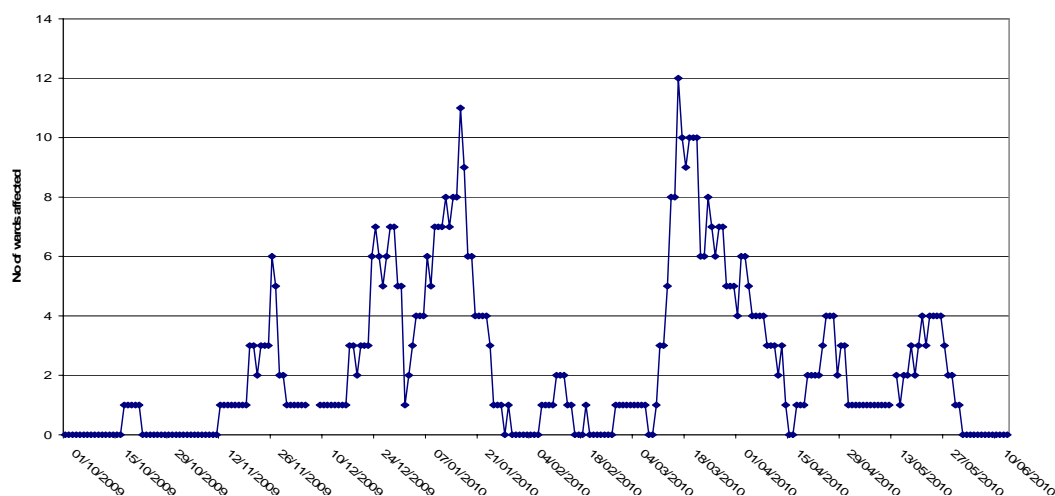
- 6.5.1 Norovirus causes outbreaks of diarrhoea and/or vomiting. It is extremely infectious and spreads easily in any semi closed settings such as hospitals, schools, hotels and cruise ships.
- 6.5.2 Norovirus infections not only affect patients but also staff and visitors.
- 6.5.3 The 2009-10 saw the highest number of wards affected with Norovirus infection since 2005-6 (Figure 1)

**Figure 1 Norovirus Outbreaks April 2003-March 2011**



- 6.5.4 The most challenging period for the hospital was between January and March 2010 when two large outbreaks occurred affecting multiple wards. (Figure 2). The winter outbreaks for the winter 2009-10 actually continued through until the end of May 2010 but outbreaks that occurred between 1<sup>st</sup> April and 31<sup>st</sup> May are recorded in the data for 2010-11 in Figure 1.

**Figure 2**      **Number of wards closed due to norovirus outbreaks**  
**October 2009-June 2010**



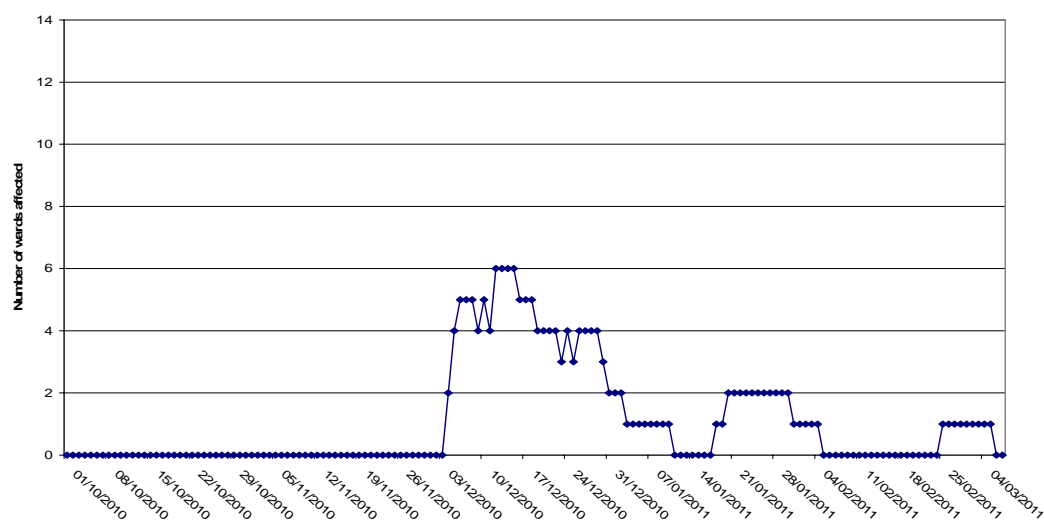
6.5.5 There are many measures designed to identify and isolate patients potentially infected with norovirus on admission to hospital. Information for visitors discourages visits from people likely to carry the virus into hospital. However it is clear that these measures were not effective enough.

6.5.6 Therefore, prior to the winter of 2010-11 a review and planning meeting was held with all stakeholders represented including representatives from NHS Devon, Devon Health protection Unit and Devon Provider Services. An action plan was agreed which focused mainly on:

- Additional education for clinical staff regarding the importance of admission assessment, isolation, hand washing, minimising movement of staff and patients.
- Enhanced frequency of cleaning in the Emergency Medical Unit (EMU) when incidence of Norovirus in community increases
- Robust admission assessment with immediate isolation of possible cases
- Provision of isolation facilities on Torridge Ward for likely cases needing hospital admission
- Provision of hospital laundered scrub suits for staff working on outbreak wards.

6.5.7 Despite thorough planning in preparation for the winter period, a multi ward outbreak of norovirus infection occurred within the hospital between 3<sup>rd</sup> December 2010 and 10<sup>th</sup> January 2011 (Figure 3). Indications are that the index case was admitted via EMU, infecting other patients in EMU who, whilst still in the incubation phase, were transferred to other wards where they subsequently became symptomatic, infecting yet more people.

**Figure 3**      **Number of wards closed due to norovirus outbreaks**  
**October 2010- March 2011**



6.5.8 Stringent measures were put in place to limit further spread and the outbreak reached a conclusion on 10th January 2010. Whilst the impact on normal operations within the Trust was challenging, there was only a limited impact on non-medical wards and no outbreaks occurred in other institutions associated with transfers from the RD&E.

6.5.9 Two further limited outbreaks occurred with much less impact on the Trust. The first affected two wards on the same geographical template, that function as one unit with common staffing and facilities. The source for this outbreak was not ascertained. The second was contained to only one ward and again the source of the outbreak was not clear.

6.5.10 The outbreak between December 2010 and January 2011 once again emphasises the infection risks associated with admission assessment wards and intra hospital movement of patients. It also emphasises the importance of admission assessment, segregation in single rooms of possible cases and use of proper isolation facilities for probable cases.

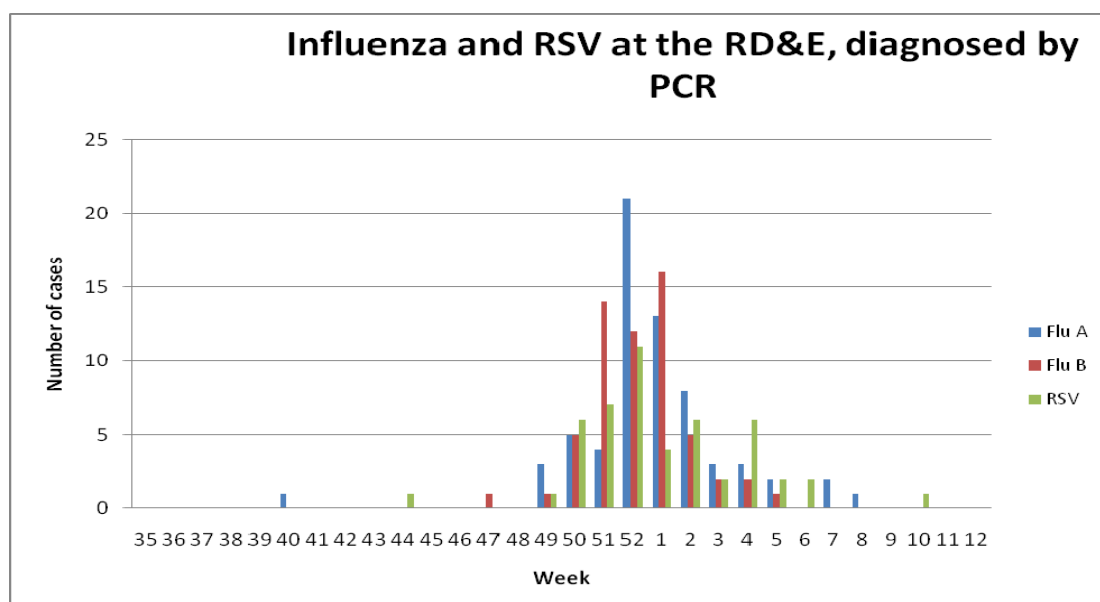
6.5.11 Despite this multi ward outbreak, there have been fewer outbreaks of norovirus this year in the Trust than in the winter of 2009-10 which may, despite the source of the outbreak reported above, reflect a more robust approach to assessment on admission, isolation of suspected cases, prompt reporting and testing.

## 6.6 Influenza

6.6.1 Influenza is a highly infectious viral respiratory disease, spread by contact and airborne droplets. Typically 'flu circulates in the winter months, but with an intensity that varies unpredictably from year to year. There are two types of 'flu, 'flu A and 'flu B. Both are capable of causing serious infection, especially in vulnerable groups.

- 6.6.2 Flu viruses undergo changes from year to year, and in 2008 a new strain of 'flu A was recognised (influenza H1N1 (2009) "swine 'flu") which caused a pandemic. This has now become one of the circulating seasonal 'flu strains. Vulnerable groups and other individuals including healthcare staff and carers are offered 'flu vaccine each year. The vaccine is formulated annually to cover the circulating strains of 'flu A and B by experts in the WHO.
- 6.6.3 In the winter of 2010 – 11 the UK experienced an epidemic of 'flu caused by both 'flu A (the "swine flu" strain) and 'flu B. The attack rate was greatest in the under 5 and the 15 – 44 year age groups. In the RD&E patients with influenza were admitted, and a number of children and adults required intensive care and respiratory support. Some patients were referred for specialist care in other centres. There were unfortunately some deaths.
- 6.6.4 As influenza is highly infectious, infected patients are a potential source of infection for other patients and staff. Staff infected in the community may also infect patients if they work while incubating infection before it is symptomatic, or if they work when suffering from only mild symptoms – not recognised as 'flu. Therefore staff immunization is encouraged to protect patients as well as staff and their families.
- 6.6.5 Figure 4 is a chart of selected respiratory infections diagnosed at the RD&E by a PCR test. This shows that there was a peak in infection with 'flu A, 'flu B and RSV starting in early December, week 49 and peaking over Christmas and New Year, weeks 52 and 1. This is significant because 'flu A and B are clinically indistinguishable, and especially in infants 'flu cannot be distinguished from respiratory syncytial virus (RSV) infection. Patients with these infections need to be isolated or nursed in separate groups (cohorts) in order to prevent cross infection.

**Figure 4**



- 6.6.6 On ITU, for example, there were patients with serious infections caused by either 'flu A or B. These patients were in ITU for a prolonged admission in some cases, and were potentially infectious for a week or more after

admission. Patients with flu A or B had to be isolated from other non 'flu patients and each other while potentially infectious.

- 6.6.7 The potential threat from 'flu was recognised early with the help of reports from the HPA on 'flu activity in the country. As the extent of the epidemic and particularly the number of people requiring high intensity treatment became apparent it was recognised that daily outbreak conferences were required to manage the situation. Coincidental to the influenza / RSV epidemic, there were other pressures included Norovirus (see 6.5) and a cold snap with extensive snow fall which caused severe travel disruption. These made management of 'flu difficult.
- 6.6.8 To manage flu and respiratory virus infection special arrangements were made on the respiratory wards (Culm E & W) to cohort patients admitted with suspected and confirmed influenza. Paediatric patients were segregated in isolation rooms and different areas on the paediatric Ward (Bramble). Frequent review rounds by Respiratory Physicians to assess adult patients with confirmed or suspected 'flu were introduced to manage the 'flu cohort arrangements, and see patients with suspected flu identified in other areas. Paediatricians continued to manage children on the paediatric ward. In addition special arrangements for laboratory diagnosis of influenza and other respiratory viral agents were made in co-operation with the HPA virology Laboratory in Bristol.
- 6.6.9 Meetings to co-ordinate 'flu management and the other pressures were held daily or more frequently during the period of peak 'flu activity. These involved clinical and management staff, and proved to be highly effective. The involvement of a duty Respiratory Physician was found to be particularly helpful.
- 6.6.10 Only one case of hospital acquired influenza was diagnosed. This was in an orthopaedic patient, whose infection was likely to have been acquired during his admission. Actions to limit potential spread were taken, including screening all patients in the same area for possible infection. However no further patients were identified, and the index case, who had some immunocompromise, recovered from the infection. No source was identified. It is possible that at the time, with an epidemic in the community, the infection was acquired from a visitor.
- 6.6.11 Some staff including medical and nursing staff were diagnosed with influenza. It is impossible to judge whether infection was acquired at work or outside the hospital. Symptomatic staff were excluded from work.
- 6.6.12 Special arrangements were made to offer a limited supply of seasonal 'flu vaccine to unvaccinated staff. In addition vaccine to "swine 'flu" was also used. However vaccine, to be effective, should preferably be administered in the period before viruses begin to circulate, and staff will continue to be encouraged to take up offers of seasonal 'flu vaccine in the future.

## **6.7 C.difficile**

- 6.7.1 As indicated in 5.2.6 surveillance of *C. difficile* does on occasion reveal clusters of cases which could be due to an outbreak of related infection, or

chance. It is also that they are an indication of other factors predisposing to *C. difficile* infection, such as excessive, inappropriate use of antibiotics.

- 6.7.2 Investigation includes typing of isolates of *C. difficile* from cases. This is undertaken by a reference laboratory in Leeds. Other factors that are examined include ward hygiene, staff handwashing compliance and antibiotic use.
- 6.7.3 Investigations were undertaken on Creedy ward in May and in July on Bovey and Kenn which are neighbouring Elderly Care Wards. In both cases consistent cross infection was not observed, although there were single possible isolated instances of cross infection between a pair of patients on both occasions. Education and awareness exercises were undertaken.
- 6.7.4 It was noted in the elderly care wards that extra work was required to ensure that raised toilet seats were properly and consistently cleaned. As these are potential sources of cross infection, all wards were informed about potential problems to ensure that this equipment was properly cleaned.

## **6.8 Monitoring water supply for Legionella Risk**

- 6.8.1 *Legionella pneumophila*, which causes Legionnaires' disease, is a bacterium that lives in water, and can infect the water systems in buildings such as offices, hotels and hospitals. Human infection is caused by inhaling water droplets contaminated with the bacteria. Droplets are formed normally when devices such as taps and showers are operated. Those most at risk of infection are either immunocompromised or are middle aged people who smoke.
- 6.8.2 Hospital water supplies are monitored for legionella risk, and this is minimised by ensuring that hot and cold water systems are maintained at the correct temperatures, and that no stagnation occurs in the water distribution systems.
- 6.8.3 Routine water temperature monitoring in late 2010 at Heavitree Hospital showed that in some areas the cold water supply was not being maintained below 20°C. This is the upper limit proscribed in Health Technical Memorandum (HTM 04). It was found that redevelopment of the site, which had occurred in several separate phases, had resulted in conditions causing excessive heat gain in the cold water main on site.
- 6.8.4 Immediate actions included additional flushing of the system and monitoring for legionella in the water by culture. At the same time remedial actions including redesigning the cold water main and installation of a silver ionisation system were planned.
- 6.8.5 To date legionella has been detected on one occasion. Repeat sampling in the affected area has been negative. Indications are that the increased flushing regimen has been sufficient to control any risk until permanent engineering solutions can be implemented.
- 6.8.6 A second legionella incident occurred when legionella contamination was detected in a calorifier, (water heater) in the Mobility Centre. Remedial work on the calorifiers and temperature monitoring equipment in the Centre has been undertaken, and further monitoring failed to detect legionella.

6.8.7 In both these incidents risk was detected through monitoring or routine maintenance activity. No cases of Legionnaires' disease have been detected. It does however highlight the importance of successful legionella prevention strategies undertaken by the Estates Department, and monitored by the Legionella Committee, which is a subcommittee of the Infection Control Committee.

## **7. HAND HYGIENE**

7.1. Previous annual reports have described our participation in the NPSA 'cleanyourhands' campaign continues which involves four main components:

- ◆ Point of care alcohol hand rub
- ◆ Awareness and role model posters
- ◆ Patient involvement
- ◆ Audit of practice using an adapted Lewisham audit tool with feedback to wards/dept using run charts.

7.2 This year it was agreed that audit would focus predominantly on the practice of medical staff. This decision was taken because the multidisciplinary audits showed that the small number of doctors included were less compliant than other disciplines. This reflects the findings of other studies (WHO, 2009)

7.3 It is important that senior medical staff, as the constant medical workforce, provide positive role models to the trainees who are a predominantly transient workforce.

7.4 As improvement has been achieved amongst other disciplines through feedback of audit results and education, it was hoped that if the focus was specifically on medical staff the same outcome would result.

7.5 Although compliance remains lower amongst doctors than other disciplines there has been improvement in many specialties. There remains room for further improvement in a small number of specialties and work will continue to achieve this in 2010-11. (Appendix 10).

## **8. ASEPTIC CLINICAL PROTOCOLS**

The principles of asepsis are included on the Trust induction programme for new staff. Clean and aseptic technique principles are also provided as part of nursing and medical staff education, with assessment of competency made in relation to intravascular drug administration, intravascular cannulation and venepuncture. Particular emphasis continues to be placed on aseptic procedures when inserting and managing the ongoing care of central venous catheters.

### **8.1 Care of Peripherally Inserted Central Venous Catheters (PICC)**

8.1.1 The use of PICC has greatly increased since the appointment of the Vascular Access Team. Patients who previously would have had multiple of peripheral vascular devices for lengthy IV treatments are now more appropriately managed, reducing pain and discomfort.

8.1.2 PICC insertion by the VAT is always undertaken to a high standard using an aseptic technique.

8.1.3 Ongoing care of the line is managed by the ward staff and the need for additional training was highlighted in 2008 to reduce risk of infection. Workshops and ward based training sessions were implemented in 2008-9 and have continued during 2010-11 with excellent results (refer Appendix 8).

## **8.2 Care of Central Venous Catheters for Administration of Parenteral Nutrition (PN)**

8.2.1 Central venous catheters used for the administration of parenteral nutrition are associated with a very high risk of infection. We reported in last years report that surveillance undertaken by the Nutritional Support Team and the Infection Prevention and Control Team identified that this was the case at the RD&E (Appendix 8).

8.2.2 Several improvements to practice were made during 2009 -10 which included identifying two wards in the hospital (Okement (medical) and Lyme (surgical) wards) where patients requiring PN were managed to ensure that the staff involved in managing the catheter are trained and assessed as competent, but will also maintain that competence by managing the lines on a frequent basis.

8.2.3 During 2010-11, reconfiguration of surgical specialities to provide single sex wards has meant that men and women receiving PN as part of a surgical admission can no longer all be nursed on Lyme ward and an additional surgical ward is now identified to receive surgical patients with PN. This has involved training and assessing the competency of another ward team which, in the absence of a Nutritional Support Nurse for much of the year, has been led by a member of the Infection Prevention and Control Team.

## **9. DECONTAMINATION**

### **9.1 Arrangements**

9.1.1 The Decontamination Committee is responsible for monitoring decontamination arrangements and compliance overall and reports directly to the Governance Committee.

9.1.2 This is chaired by the Trust Decontamination Lead, who is one of the Joint DsIPC. The Infection Control Doctor is also a member of the Decontamination Committee.

### **9.2 Audit of Decontamination**

9.2.1 Hospital Sterilisation and Decontamination Unit, which reprocess all surgical and other invasive reusable instruments, conduct internal audits to ensure their compliance with ISO9001/2000, ISO13485 and the Directive 93/42/EEC + 2007/47/EC and are externally audited twice a year by a notified body.

9.2.2 Decontamination of lower risk patient equipment (i.e. non invasive equipment such as commodes, monitors, infusion pumps) is audited in two ways: Firstly,

it is included as part of the Nursing Quality Audit Tool and as part of the Credits for Cleaning audits (refer section 10.2).

9.2.3 In addition, an audit was undertaken to measure compliance with sections of the Decontamination Policy relating to single use devices, availability of cleaning and disinfection products and patient equipment cleaning records on wards.

### **9.3 Incidents relating to Decontamination**

#### **9.3.1 Surgical Instrument Tray Wraps**

A number of incidents (66) have been reported via the incident reporting system that relate to sterile surgical tray wraps being damaged. This follows a change from use of traditional fabric wraps to disposable wraps to meet EU standards. For the instruments within to remain sterile the tray wrap must be intact until opened for use. It is important to emphasise that the damaged wraps were found prior to use and the instruments were not used, therefore patients were not put at risk. However, the HSDU have been made aware and are trying to resolve the situation, including trialling and costing modern fabric wraps.

#### **9.3.2 Endoscopy disinfection**

Prior to the transfer of endoscopy services at Axminster and Tiverton Hospitals to the management of the RD&E, the IPCT highlighted problems with the endoscopy decontamination facilities. This was rectified at Axminster Hospital around the time of the transfer because, fortuitously, the hospital was undergoing refurbishment which included an endoscopy room and associated decontamination facilities. The RD&E was able to influence the planning of the decontamination room and ensure that it was appropriately equipped with an automated endoscope reprocessor (AER) that is compliant with the relevant Health Technical Memorandum (HTM).

This was not possible at Tiverton Hospital. There are two issues:

- the AER is many years old and is not HTM compliant
- the decontamination room in which it is housed is too small to install an HTM compliant pass through washer disinfectant which would also allow physical separation of processes for dirty and clean scopes and match the standards provided at Wonford and Axminster sites.

Whilst plans are made to overcome these issues, strict protocols have been put in place to ensure the quality of the disinfection process. The quality of the water used within the automated washer disinfectant is being monitored closely in line with the HTM. This has resulted in several incidents where endoscopy lists have been cancelled and the AER has undergone double deep cleaning cycles. The frequency of the failures suggests that the AER has significant biofilm contamination.

## **10. CLEANING SERVICES**

### **10.1 Management Arrangements**

All cleaning services are managed in-house.

### **10.2 Monitoring Arrangements**

10.2.1 Monitoring is undertaken in accordance with the National Specification for Cleanliness in the NHS, 2007. Housekeeping Services use the NHS approved Credits for Cleaning (C4C) monitoring system which was successfully introduced during 2006.

10.2.2 A team of dedicated monitoring officers (2.86 WTE) undertake & record technical monitoring on a weekly basis as required by the National Specification. The monitoring of waste streams is also included in their daily audits.

10.2.3 Areas of housekeeping cleaning failure are recorded on a rectification sheet which is given to the duty supervisor to action and follow up.

10.2.4 All ward sisters /charge nurses, matrons and senior matrons are sent a printed list of the cleaning results at the time of audit, this includes patient equipment cleaning failures. When rectified, the ward sisters / charge nurses e-mail a response back to the monitoring team so as to close the audit loop.

10.2.5 Collated results of monitoring are e-mailed to the Lead Nurses, Senior Matrons and Matrons on a monthly basis and show 3-month rolling results for wards and departments. Action plans are implemented for any wards or departments failing to reach the required standards as laid down by the NPSA.

10.2.6 A greater focus is being given to 'closing the loop' in terms of rectification of outstanding faults. Also a greater emphasis is being placed on root cause analysis of recurring faults and identifying robust actions required to resolve these issues.

10.2.7 A quarterly management audit is undertaken by a multi-disciplinary team, which includes a Monitoring Officer, a matron or nominated nursing representative, a member of the Estates Department and an infection prevention and control nurse specialist and the results of this are used to monitor the technical audits undertaken on a weekly basis.

10.2.8 An annual external audit of cleaning standards is undertaken by South Devon Healthcare NHS Foundation Trust.

### **10.3 Budget Allocation**

It is a rolling budget. Any additional requirements or new areas are funded by the division to which they relate. Preparation of BC1 Forms and costings are supplied by the Housekeeping Manager or Facilities Service Manager.

- 10.3.1 The Credits for Cleaning (C4C) programme has now been successfully in use for over 5 years and significant amounts of data relating to current resources and the recommended minimum frequency of clean requirements have been recorded.
- 10.3.2 The output data is used in the re-design of Housekeeping Services and their delivery in order to meet the ever changing needs of the Trust.
- 10.3.3 This is effective in allowing the Lead Nurses more freedom to negotiate the delivery of cleaning services within their areas of responsibility whilst remaining within the set financial parameters.
- 10.3.4 The impact of cook freeze service on cleaning activities continues to be closely monitored. The implementation of cook-freeze required additional resources at ward level to ensure full compliance with work schedule requirements throughout the day and evening. Funding was secured on a non-recurring annual basis. In November 2010, the Ward Cleaning and Hospitality Project commenced to specifically explore the feasibility of two separate roles for ward based food service requirements and all cleaning services – four pilot wards have recently been identified with the aim of undertaking 3-month trials in these areas in the summer of 2011.
- 10.3.5 Call-off funding for a dedicated infection outbreak cleaning team continues to be allocated on an annual basis. The positive impact of this funding is well recorded e.g. improved response times for organising outbreak and specialist cleaning and the turnaround time for re-opening a closed ward.
- 10.3.6 Additional monies were also secured to increase the cleaning resources available for public area cleaning and specialist cleaning requirements through a 24-hour period. This continues to ensure that these facilities are maintained to a satisfactory standard of cleanliness throughout each day, thus significantly reducing the number of complaints (written and verbal) received from patients and visitors regarding the cleanliness of these facilities.
- 10.3.7 The specialist cleaning team continue to operate until 10pm on a Sunday – Thursday night, (until housekeeping staff arrive for the night shift) and overnight on a Friday and Saturday night. The site practitioner team liaise with these staff on a Friday and Saturday night and this continues to be a positive example of collaborative working.
- 10.3.8 There continues to ensure swift ‘turn-around’ times for the terminal cleaning of side rooms, bed spaces or even bays that have been vacated by infected patients. The number of cleans required has increased in the last year with an average of 517 per month. These are reported to the Infection Control Committee and Trust Executives on a quarterly basis.
- 10.3.9 Additional non-recurring money continues to be allocated each year and a fourth deep cleaning programme took place from June – September 2010. Deep cleaning took place overnight meaning that wards remained out of use for a shorter period of time. Housekeeping Services staff also undertook the deep cleaning of all patient equipment, therefore releasing nursing staff time to care for patients. We continue to use steam cleaners, chlorine releasing disinfectants and hydrogen peroxide vapour to achieve a high level of

disinfection. A further £100k has been allocated for 2011/12 for the deep cleaning programme to continue within all in-patient and some outpatient areas. Nursing, operations and housekeeping colleagues have worked together to produce a programme of cleaning for the next Deep Clean, which will commence slightly earlier this year in April 2011.

#### **10.4 Clinical Responsibility**

The Matrons and Senior Matrons have responsibility for ensuring that clinical care is provided in a clinically hygienic environment. They work closely with the Housekeeping Supervisors, the Housekeeping Manager and the Facilities Service Manager to ensure that standards are maintained.

#### **10.5 Clinical Access**

10.5.1 Access to the clinical areas is made during the day time in in-patient areas and in the evening or at night in outpatient or day case departments. This minimises disruption to patients and clinical staff. However a review of night cleaning services is currently being undertaken as part of the Ward Cleaning and Hospitality Project, as it is envisaged that some of this work can be undertaken during the late afternoon / evening and will provide a more robust infrastructure to support ad-hoc specialist / outbreak cleaning requirements during late afternoon / evenings, particularly when we have outbreak situations e.g. Norovirus.

10.5.2 Following patient consultation, restricted visiting hours were introduced and this continues to provide improved access for cleaning.

#### **10.6 User Satisfaction Measures**

10.6.1 The Housekeeping supervisors hold monthly meetings with Ward Sisters / Charge Nurses and Matrons to review the monitoring data, discuss staffing requirements and any other issues that need to be addressed and discussed regarding the housekeeping service provision.

10.6.2 The Monitoring Officers continue to audit the meal service both within the catering department and at ward level. In-patient satisfaction surveys for both food and cleaning services continue to be issued every month. These are returned to governance support unit for collation and results are reported to the board on a 6-monthly basis.

#### **10.7 Patient Equipment Cleaning**

10.7.1 Following work undertaken by one of the Divisional Lead Nurses a definitive list of Patient Equipment was established in order to identify responsibility, frequency and method of cleaning. There is a Patient Equipment Cleaning Policy.

10.7.2 A further review of this document is currently in progress in order to ensure compliance with the Minimum Frequencies of Cleaning requirements for patient equipment and this is also be included in the Ward Support Worker project as referred to in 10.3.3.

## **10.8 Training**

- 10.8.1 In 2010/2011 funding was secured through Widening Participation Strategy and a subsequent Training Needs Analysis (TNA) bid to fund British Institute of Cleaning Science (BICSc) training for Housekeeping Services staff. This is a national qualification – Certificate of Professional Competency in Healthcare Cleaning. Two additional Housekeeping Supervisors completed the Assessors certificate in 2010/2011 and are currently training Housekeeping staff in the COPC. Eighty five Housekeeping Services staff have voluntarily signed up to take the certificate and to date 48 have completed this qualification. We work in partnership with Exeter College - external training provider / assessor and the BICSc national assessor.
- 10.8.2 Monitoring evidence has shown that housekeeping staff who have completed the COPC are demonstrating a more methodical approach to their work leading to a greater work output, greater attention to detail and higher cleaning scores.
- 10.8.3 The training of housekeeping staff continues to be reviewed in 2011/12 and the possibility of securing funding for staff to undertake NVQ Level 2 in Housekeeping and Level 2 Customer Care awards is currently being explored.
- 10.8.4 A Cleaning Manual has been issued to all Housekeeping staff based on the national NHS Cleaning Manual. This incorporated a self-assessment training needs analysis tool which was then evaluated by Housekeeping Supervisors to identify initial and refresher training needs for Housekeeping staff. This links into core competencies for staff and KSF.

## **11. AUDIT**

### **11.1 Clinical Audit**

Audits are undertaken to identify areas for improvement in practice. The clinical audit programme is contained within the Annual Programme at Appendix 2. All audits planned in the programme were completed with one exception and this highlighted at Appendix 2 and will be completed as part of the 2011-12 programme of work. All audit findings and associated recommendations have been presented to the Infection Control Committee.

Audits of hand hygiene and patient placement are of particular importance and a summary is provided at Sections 11.2. and 11.3 respectively.

### **11.2 Hand Hygiene Audit**

11.2.1 Monthly observational audit of hand hygiene practice has continued using an adapted Lewisham Observational Audit tool, but, unlike previous years, has primarily focused on doctors hand hygiene as research has shown repeatedly that this professional group are more likely to be non compliant than other health care workers.

11.2.2 Observations are undertaken by link nurses and other trained auditors who submit the data to the Infection Prevention and Control Team. Feedback on compliance is provided to each ward in the form of a run chart and poster with recommended measures for improvement sent to matrons and Divisional IPC Leads.

11.2.3 Considerable improvement has been made in many specialties with compliance now matching that of other professional groups. However, overall Trustwide compliance for medical staff, whilst higher than previously, continues to be lower than for other professional groups due to a small number of poorly performing specialties.

11.2.4 Where there are particularly low rates, considerable input is being provided by the IPCT in the form of practice facilitation and observation with immediate feedback to the individuals concerned.

### **11.3 Patient Placement, Isolation and Infection Risk Assessment**

This is an annual observational audit undertaken on all wards to measure compliance with infection control policies and guidelines that impact on patient placement, isolation and infection risk assessment. Key results show that:

11.3.1 168 single occupancy rooms are available for in-patient use within the Trust. This is a reduction of 4 since 2009-10 due to the reconfiguration of surgical beds and the loss of Lowman ward as an in-patient ward.

11.3.2 However, *en suite* facilities were available in 51% of the single occupancy rooms which is a 3 point increase on the previous year.

11.3.3 Whilst 47% of single room occupants were in the room for infection control reasons, the remainder were occupied by patients who were not infectious. The majority of these were in a single room because this was the only bed available on admission or the only bed appropriate to the gender of the

patient. This is similar to the findings in 2008-9 and 2009- 10 and has not improved as a result of reconfiguration to provide several single sex wards.

- 11.3.4 This meant that a small number (22) of patients with infectious conditions were placed in multiple occupancy rooms, although risk assessment had indicated that risk of transmission to other patients was low. This number of patients is slightly, but not significantly, higher than last year but still suggests that availability of single rooms for infection control purposes is sub optimal within some specialties, particularly Medicine and T&O.

#### **11.4 Environmental Audit**

As reported in Section 10, cleanliness standards audits are undertaken monthly by the Trust monitoring officers and are validated quarterly by a team which includes infection control nurses and Matrons. The audit assesses both environmental and patient equipment hygiene and overall shows high standards of cleanliness. Where any problems are identified, these are highlighted immediately for rectification by either the housekeeping team, the ward matron or Estates depending on the nature of the issue.

#### **11.5 Antibiotic Prescribing**

- 11.5.1 Audit and surveillance of antibiotic use and prescribing is undertaken and monitored through the Antimicrobial Subcommittee and co-ordinated by the Antimicrobial Pharmacist
- 11.5.2 The annual report for the Antimicrobial Sub-Committee is at Appendix 12 and highlights the audits undertaken in 2010-11.

### **12. TRAINING ACTIVITIES**

#### **12.1 Induction and Annual Update Training for Trust Staff**

- 12.1.1 Acceptable attendance rates for all disciplines of staff have been achieved in 20010/11 and were reported to the Infection Control Committee by each Directorate Lead.
- 12.1.2 Two e-learning modules have been developed for essential learning updates, one for all registered health care professionals and the other for unregistered clinical staff.

#### **12.2 Information for Contractors**

Information for contractors is available in the Estates Department prior to accessing clinical areas.

#### **12.3 For Infection Prevention & Control Specialists**

- 12.3.1 All members of the Infection Prevention and Control Team are members of the Infection Prevention Society (IPS) and attend SW branch meetings which provide the opportunity for update and networking. All receive specialist journals as a benefit of membership which also aids development.

- 12.3.2 Three members of the team attended the IPS Annual Conference in Bournemouth, one was funded by the IPS as she is involved as a member of a committee.
- 12.3.3 Five infection prevention and control nurses are studying toward a Post Graduate Diploma in Infection Control, Another nurse graduated in May 2010 with a PgDip and has subsequently been appointed to a Band 7 position within the team.
- 12.3.4 The Infection Control Doctor is a member of the IPS, Healthcare Infection society (HIS) and the Royal College of Pathologists and participates in the College's continuing professional development scheme. His annual continuing professional development (CPD) plan includes infection control.

#### **12.4 For the Joint DIPCs**

- 12.4.1 The DsIPC both already hold specialist qualifications and have considerable experience within the field of infection prevention and control.
- 12.4.2 In addition to training undertaken as part of their personal development as Lead Nurse and Infection Control Doctor, the DIPCs have attended South West DIPC events.

### **13. POLICIES AND GUIDELINES**

A schedule for policies and guideline revision/development is included in the annual programme (Appendix 2). All policies are available on the Trust website and intranet.

### **14. TARGETS AND OUTCOMES**

#### **14.1 MRSA Bacteraemia**

- 14.1.1 Having achieved all reduction targets set between 2004-2009, the emphasis in 2009-10 was on maintaining low levels i.e less than 18 bacteraemias per year. Last year we were pleased to report that a further significant reduction was made with only 7 cases identified, 4 of which were identified within 48 hours of admission and therefore were not hospital acquired.
- 14.1.2 In the 2010-11 another target was set, based on the low number of hospital acquired cases in 2009 and was set at no more than four hospital acquired MRSA bacteraemias ( i.e cases identified more than 48 hours after admission). With targets this low, normal variation in infection rates could have resulted in failure to meet the target. However, the target has been achieved with only two cases identified. There has also been a reduction in the cases identified within 48 hours of admission ( i.e. not hospital acquired) with only 3 cases identified.
- 14.1.3 In the past, root cause analysis of each MRSA bacteraemia has helped identify where improvements to practice would reduce risk of bacteraemia - themes emerged that were addressed across all areas. With only two cases in 2010 the RCAs could only provide insight as to whether the risk of these specific bacteraemias occurring could have been reduced but the findings

could not be generalised. Therefore any actions for improvement identified were important but very focused within specific departments.

## **14.2 C.difficile Infection**

14.2.1 Improvement targets have continued to be set for all NHS Trusts, both a national target and a local stretch target. The targets for acute Trusts are based on the number of toxin positive cases identified more than 72 hours after admission to exclude those that are community acquired.

14.2.2 The national target set was a generous one but the local target set by the Commissioners which, if exceeded, resulted in financial penalties, was much more challenging at 100 cases. It was particularly challenging because the Trust introduced a more sensitive test method half way through the year which increased case ascertainment by 50 -60%. Despite this change in method the local target was achieved.

14.2.3 Swift isolation of patients with symptoms, management of confirmed cases on a designated isolation ward, prudent antimicrobial prescribing, hand washing and high standards of routine environmental cleaning are all important prevention and control strategies. The annual deep cleaning programme is also invaluable in reducing the burden of spores in the environment.

## **14.3 Cleaner Hospitals (PEAT scores)**

14.3.1 PEAT (Patient Environment Action Team) inspections are undertaken annually by self assessment. The team undertaking the inspection includes two members of the public. High standards continue to be maintained with a score of 'Good' awarded for the environment in 2010.

## **14.4 The Health and Social Care Act 2008. Code of Practice for the Prevention and Control of Infection ( Hygiene Code)**

14.4.1 The Care Quality Commission have not undertaken an inspection at the RD&E during 2010-11. However, the CQC found that the Trust continued to be compliant when they carried out an unannounced inspection toward the end of 2009-10 and we can be assured that this compliance continues to be strengthened through achievements identified in the annual programme of work (Appendix 2).

## **14.5 Local Targets**

14.5.1 Progress with the Infection Control Annual Programme has been monitored by the Infection Control Committee and, in general, planned activities have been completed (Appendix 2).

14.5.2 An ambitious aspiration of achieving a Trust wide average hand hygiene compliance rate of 85% was agreed at the start of 2008-9 and was achieved in 2009-10. However, it was recognised that compliance amongst medical staff was lower and therefore this group has been the main focus of improvement work in 2010-11. Although average compliance for medical staff Trustwide remains below 85% there has been improvement and the momentum gained within 2010-11 will be pursued in 2011-12.

14.5.3 A clinical quality target related to central venous catheter associated bacteraemias agreed with commissioners as part of the quality programme has once again been achieved.

14.5.4 A new CQUIN target relating to implementation of, and achieving 40% compliance with all elements of the care bundle for on-going care peripheral cannulae was also agreed with the Commissioners. This has also been achieved with 66% compliance in quarter 4.

## 15. CONCLUSION

Healthcare associated infection remains a top priority for the public, patients and staff. In response, a robust annual programme of work has, yet again, been implemented over the last year which has been led by an experienced and highly motivated Infection Prevention and Control Team. Particularly notable successes include:

- surpassing the target for MRSA bacteraemias once again,
- achieving the national and stretch target for *C.difficile* infection despite introducing a more sensitive test method,
- maintaining low levels of surgical site infection in orthopaedic surgery,
- making significant reduction in surgical site infection in obstetric and gynaecological surgery
- maintaining low levels of central line associated infection
- achieving high standards of environmental cleanliness including an annual deep clean of all in-patient wards
- reducing the number of outbreaks caused by Norovirus.

Challenges remain and, in particular, efforts to further improve hand hygiene compliance will continue.

Infection Prevention and Control is the responsibility of all Trust staff and the Infection Prevention and Control Team do not work in isolation. The considerable successes over the last year have only been possible due to the commitment for infection prevention and control that is demonstrated at all levels within the organisation. Such commitment will be crucial to maintain high standards into the future.

## INFECTION CONTROL COMMITTEE

## TERMS OF REFERENCE

These Terms of Reference are used as evidence for:	
Healthcare Commission Core Standard numbers:	C4a
NHSLA Risk Management Standards for Acute Trusts:	✓
NHSLA CNST Maternity Clinical Risk Management Standards:	✓
Other ( <i>please specify</i> ):	Hygiene Code

**1. Accountability**

- 1.1 The committee reports to the Chief Executive and the Board through the Governance Committee of which the Director of Infection Prevention and Control is a member.

**2. Purpose**

- 2.1 The Infection Control Committee is the forum for consultation between the Trust's Infection Control Team and all other Directorates and Departments of the Trust.
- 2.2 The Committee agrees and endorses the Infection Control Annual Programme, which it also supports and monitors.

**3. Membership**

- 3.1
- Joint Directors of Infection Prevention and Control (Chair)
  - Infection Control Nurse Specialists
  - Audit and Surveillance Nurse Specialist
  - A Consultant Microbiologist representing the Medical Microbiologists
  - Chief Executive or a representative with delegated authority
  - Chief Operating Officer
  - Medical Director
  - Director of Nursing & Patient Care or representative
  - Consultant in Communicable Disease Control
  - Occupational Health Physician or Nurse
  - Divisional Manager Facilities/Decontamination Lead
  - Directorate Infection Control Leads
    - Lead Nurse - Medicine
    - Lead Cancer Nurse
    - Lead Nurse - Surgery
    - Lead Nurse - Child Health
    - Lead Nurse/Head of Midwifery - Women's Services
    - Lead Nurse - Trauma & Orthopaedics/Critical Care
    - Superintendent Physiotherapist - Professional Services

- Divisional/Directorate medical staff infection control champions
    - Medicine
    - Surgery
    - Child and Women's Health
    - Cancer Services
    - Trauma & Orthopaedics
    - Critical Care
  - Hotel Services Manager
  - Deputy Director of Capital & Estates
  - Antimicrobial Pharmacist
- 3.2 The Committee/Group/Forum will review the membership of the Committee annually to ensure that it reflects the requirements of the Hygiene Code.
- 3.3 The Chairman will serve for three years. Individuals may be co-opted for specific projects
- 3.4 Individuals may be co-opted for specific projects.
4. **A Quorum**
- 4.1 A quorum will consist of not less than 5 members of the Committee with at least the following members present:
- A Director of Infection Prevention and Control
  - One of the following:
    - Chief Executive (or representative),
    - Medical Director or Director of Nursing & Patient Care
5. **Procedures**
- 5.1 The Infection Control Committee shall appoint a secretary to prepare and distribute agendas, keep minutes and deal with any other matters concerning the administration of the Committee. The Secretary shall distribute unapproved minutes of the Committee's meetings to all members of the committee and the Governance Committee Manager within one month of a meeting.
- 5.2 Any member of staff may raise an issue with the Chairman, normally by written submission. The Chairman will decide whether or not the issue shall be included in the Committee's business. The individual raising the matter may be invited to attend.
- 5.3 The Chairman will prepare a '**decision briefings**' report after each Committee meeting to be sent to the Governance Manager within one month of a meeting for inclusion at the subsequent Governance Committee meeting.
6. **Frequency of Meetings**
- 6.1 Meetings will be held no less than 4 times in each accounting year.
- 6.2 Extraordinary meetings may be called at the request of the Director of Infection Prevention & Control or the Chief Executive.

## **7. Duties and Responsibilities**

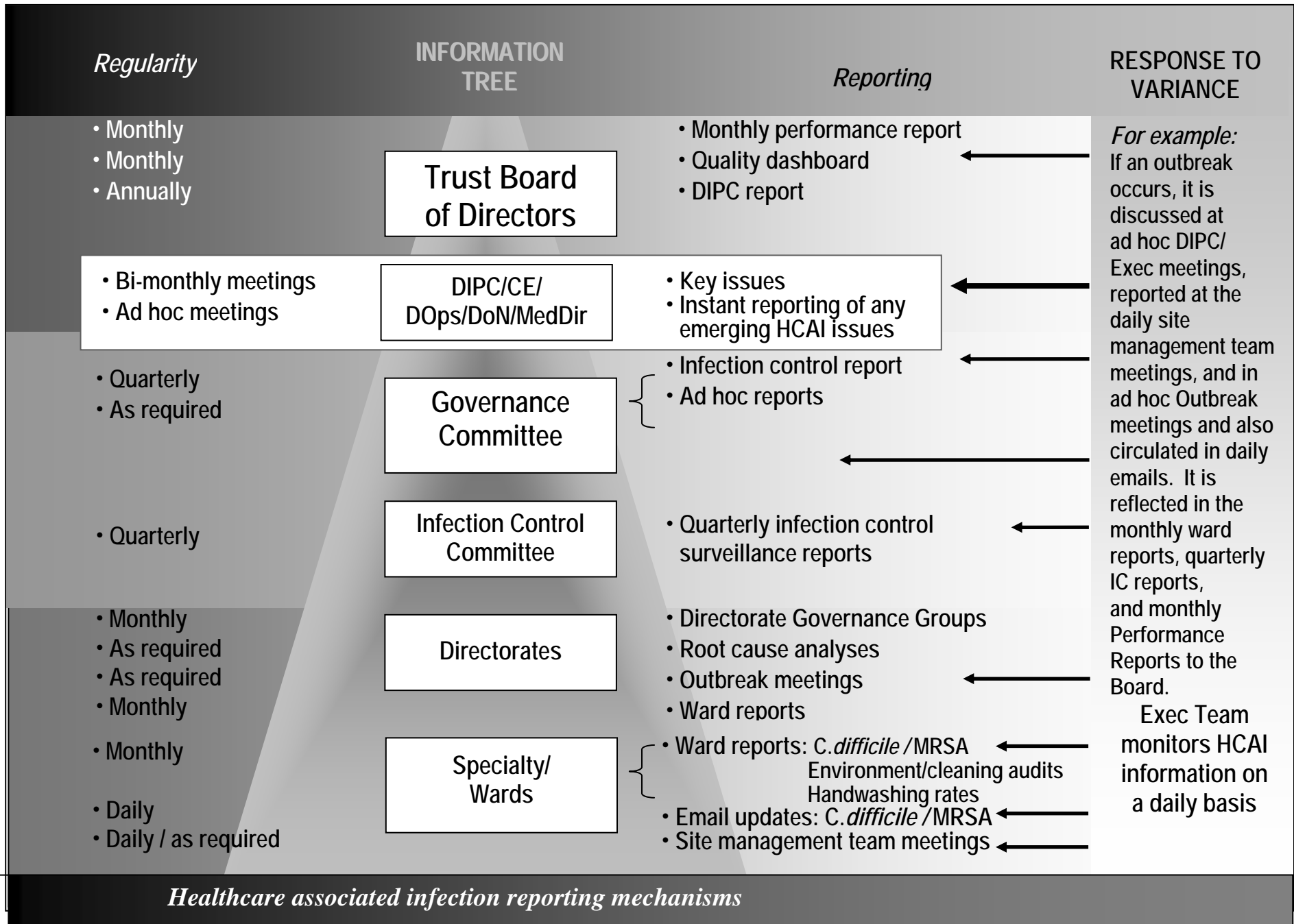
- 7.1 Agree and monitor an annual programme of activity including surveillance, audit and education programmes.
- 7.2 Advise and support the Infection Control Team on the most effective use of available resources in delivering an annual programme to include audit surveillance and education.
- 7.3 Draw the attention of the Chief Executive and the Board to any serious problems or hazards relating to infection control.
- 7.4 Review reports on hospital acquired infection and infection control problems.
- 7.5 Commission, approve and review policies for all aspects of infection control and monitor their implementation
- 7.6 Draw up plans for management of outbreaks both in the hospital and the hospital's response to major outbreaks in the community.
- 7.7 Ensure that all relevant legislation, Health Service Guidelines etc is reviewed and that appropriate amendments/additions are made to local policies and procedures
- 7.8 Review the funding and resource implications of other infection control issues such as provision of adequate hospital facilities and accommodation and make appropriate recommendations to the Trust Board.
- 7.9 Receive the DIPC Annual Report

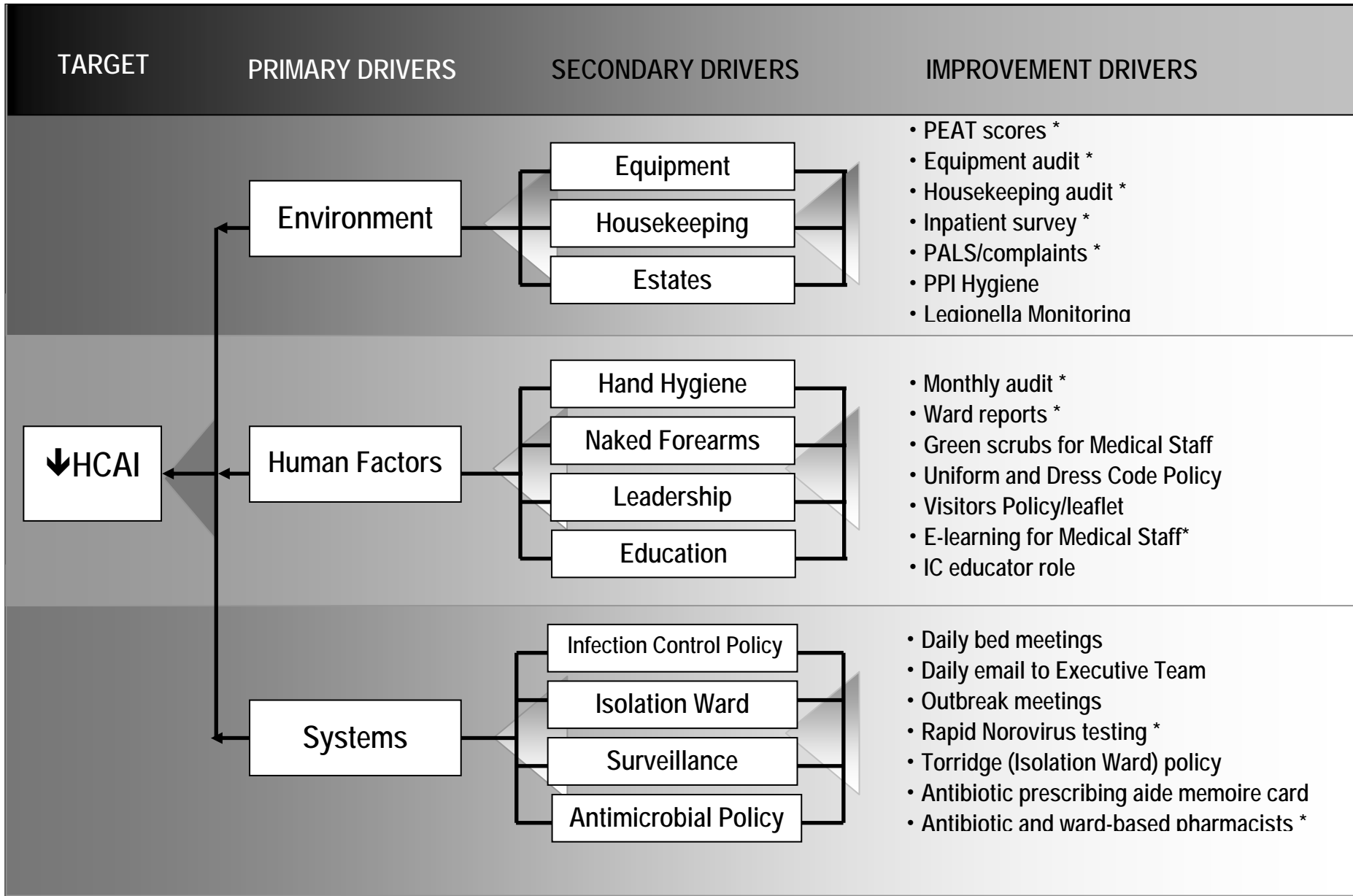
## **8. Review**

- 8.1 The Infection Control Committee will review its Terms of Reference annually and make recommendations to the Governance Committee for any changes required to ensure that the Committee remains fit for purpose.

## **9. Monitoring the effectiveness of the committee**

- 9.1 Minutes of the Infection Control Committee will be reviewed by the DIPC to determine whether the committee is effective as defined by the duties and responsibilities in these terms of reference. The outcome of this review will be included in the published DIPC annual report which is presented to the Trust Board
  - 9.2 Decisions made by the Infection Control Committee will be reported quarterly to the Trust Governance Committee in a decisions briefing paper.
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## INFECTION CONTROL COMMITTEE – DECISION BRIEFINGS

Date of Meeting: 08/5/10

Number	Description of Decision
1	<p><b>Policies updated and amended</b>  <b>TSE policy</b> subject to comments and minor amendments</p> <p><b>Guidance for the Management of Suspected or Probably Cases of Highly Pathogenic Avian Influenza</b></p> <p><b>Cleaning Policy</b></p>
2	<p><b>Audit</b>  Following discussions on monitoring hand hygiene compliance it was agreed to investigate ways of improving rates amongst medical staff. This is because compliance in this group lags overall Trust performance</p>
3	<p><b>Annual Programme 2009/10 – end of year update</b>  Monitoring indicated successful completion but for 3 elements being carried over to 2010-11. No implications for CQC compliance.</p>
4	<p><b>Annual Programme 2010/11</b>  This was approved</p>

Date of Meeting: 04/08/10

Number	Description of Decision
1	<p><b>Policies updated and amended</b>  Infection Prevention &amp; Control Policy  Decontamination Policy &amp; Procedures  Torrige Ward – Operational Policy  Patient Placement &amp; Movement Policy  Guidelines for the Management of RSV</p>
2	<p><b>Audit s reported</b>  <b>Hand Hygiene Compliance</b>  Although acceptable overall rates are recorded, analysis shows that this needs improvement especially amongst medical staff in some areas. Measures to improve compliance include work led by junior doctors in medial directorate which if successful will be taken to other directorates.  <b>Stool chart audit</b>  Need for spot checks in some areas</p>
3	<p><b>Surveillance</b>  Voluntary and Mandatory surveillance continues and where targets are in place trust is below trajectory</p>
4	<p><b>Annual Programme 2010/11– monitoring</b>  At this stage of the year programme is on target</p>
5	<p><b>Progress with Deep Cleaning Programme</b>  This is on target</p>

## INFECTION CONTROL COMMITTEE – DECISION BRIEFINGS

Date of Meeting: 03/11/10

Number	Description of Decision
1	<p><b>Policies updated and amended</b></p> <p>Approved with changes</p> <ol style="list-style-type: none"> <li>1. Occupational Health Varicella Zoster Virus Policy</li> <li>2. Staff Health &amp; Illness (Infection Control)</li> <li>3. Pest Control Policy</li> </ol> <p>Approved with no changes</p> <ol style="list-style-type: none"> <li>1. Guidelines for the Management of PVL – associated <i>Staphylococcus aureus</i> infections in the hospital environment.</li> <li>2. Guidelines on Animals and Pets in Healthcare Facilities</li> </ol>
2	<p><b>MRSA Screening</b></p> <p>Proposals on targeted MRSA screening in elective patients accepted. Developed using figures from RD&amp;E screening programme, reduces groups of elective patients routinely screened.</p>
3	<p><b>Audit</b></p> <p><b>Hand Hygiene</b></p> <p>Measures to improve performance specifically in medical staff. Interventions successfully used in medical unit will be trialled on orthopaedic unit.</p> <p>Explore medical infection control champions and clinical directors taking lead for hand hygiene in areas with poor medical staff performance.</p> <p><b>Visiting clinicians to Bramble Ward</b></p> <p>The Directorate of Child and Woman's Health asked to reinstate the supply of tattles to visiting clinical staff to enable them to use alcohol gel for hand hygiene</p>
4	<p><b>Annual Programme 2010/11</b></p> <p>On target</p>

Date of Meeting: 02/02/11

Number	Description of Decision
1	<p><b>Policies updated</b></p> <p>Approved with changes</p> <ul style="list-style-type: none"> <li>• Aseptic Technique Guidance</li> <li>• Tuberculosis Management in a Hospital Setting</li> <li>• Major Outbreak Plan</li> <li>• MRSA Policy</li> </ul>
2	<p><b>Audit</b></p> <p><b>Hand Hygiene</b></p> <p>Judy Potter has been asked to submit a paper to the Governance Committee in April making proposals for the management of hand hygiene compliance, target levels with respect to action levels for intervention and also to provide reassurance for the public.</p>

## INFECTION CONTROL COMMITTEE – DECISION BRIEFINGS

3	<p>Surveillance - <i>C. difficile</i></p> <p>Using current reporting methods Trust continues to have a level above other Trusts in SW. However if reporting only Toxin positive cases (as opposed to PCR positive) the rate is falling.</p> <p>It was agreed that mini root cause analysis will be undertaken for all patients in hospital identified with CDI with the clinical team on the ward of acquisition.</p>
4	<p><b>Annual Programme 2010/11</b></p> <p>On target</p>

# Royal Devon and Exeter



NHS Foundation Trust

## **Infection Prevention and Control (IPC) Annual Programme 20010/11**

### **1. Introduction**

The Code of Practice for the Prevention and Control of Healthcare Associated Infections (DH, 2009) otherwise known as the Hygiene Code consists of one overarching regulation which requires that patients, healthcare workers and others are protected against identifiable risks of acquiring a healthcare associated infection.

The regulation is underpinned by nine compliance criteria against which the Trust was externally assessed during 2009-10 and found to be compliant. This year's programme of work, which is mapped to the compliance criteria, will ensure that the Trust continues to maintain and strengthen its position.

Antibiotic regulation and control is an important part of infection prevention and control. However, as it is such a significant area the programme of work for this aspect of infection prevention and control is determined and monitored separately by the Antimicrobial Committee which is a sub committee of the Drug and Therapeutics Committee.

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## 2. Programme

Code of Practice Criteria	Programme of work 2010/11	By whom (lead)	By when	Progress/Outcome March 2011
<b>1. Have in place and operate effective management systems for the prevention and control of HCAI which are informed by risk assessments and analysis of infection incidents.</b>	Hold four Infection Control Committee (ICC) meetings with decisions briefings to the Governance Committee.	Directors of IPC (DsIPC)	Quarterly	Achieved
	The ICC will review its TOR	DsIPC	Nov 2010	Achieved
	The ICC will receive quarterly Divisional IPC reports on behalf of the Board, which will identify progress with: <ul style="list-style-type: none"> <li>o Progress on action plans following root cause analysis of healthcare associated infection</li> <li>o Actions to improve compliance with hand hygiene/bare below the elbow strategy</li> <li>o Compliance with Saving Lives audits</li> <li>o Outbreaks and Incidents</li> </ul>	Divisional Leads	Quarterly	Achieved by most divisions
	Present annual programme (2010-11) and the DsIPC annual report 2009-10 to the Trust Board.	DsIPC	June 2010	Achieved
	Make other presentations/reports to the Board as required and provide monthly data for monitoring progress against national targets for MRSA bacteraemia and C.difficile	DsIPC	As required	Achieved
	Regular attendance at, and provision of quarterly reports to the Governance Committee	DsIPC	Quarterly	Achieved

Code of Practice Criteria	Programme of work 2010/11	By whom (lead)	By when	Progress/Outcome
	Review the HCAI risks and identified risk reduction measures identified on the Trust risk register ensuring that any additional risks identified through surveillance and audit are added, if required. Complete the planned programme of surveillance at Appendix 1 Complete the planned programme of audit listed at Appendix 2 Monitor compliance of MRSA screening for elective patients (number of patients screened as a proportion of the number of patients who should be screened) by specialty	Judy Potter (JP)	Quarterly	Achieved
	Undertake root cause analysis of: <ul style="list-style-type: none"> <li>All MRSA bacteraemias,</li> <li>All deaths due to C.difficile infection(recorded on Part 1 of death certificates),</li> <li>C.difficile infection that results in colectomy</li> <li>Staph aureus bacteraemias in Renal Patient.</li> </ul> Ensure that action plans are Achieved.	Alaric Moore	Monthly reports to Directorates	Achieved Refer appendix 2 Proposal for targeted screening approved and implemented.
	Undertake weekly review of <i>C.difficile</i> cases in the RD&E, highlighting common themes with feedback to clinical teams Implement care bundles and monitoring of same as listed at Appendix 3:	IPCT/Divisional Leads	Report summary of key issues to ICC quarterly	Achieved
		Ray Sheridan/Alaric Colville ( AC)	Weekly	Achieved Achieved except catheter care bundle which is being implemented 2011-12.

Code of Practice Criteria	Programme of work 2010/11	By whom (lead)	By when	Progress/Outcome
<p><b>2. Provide and maintain a clean and appropriate environment which facilitates the prevention and control of HCAI.</b></p> <p><i>Liaison between members of the ICT and Facilities/Estates</i></p>	Monthly meetings between Hotel Services and Infection Control Team to review cleaning issues	JP/Hazel Hedicker	Monthly	Achieved
	Ensure that there is infection control input to environmental monitoring systems			
	a) Cleanliness Standards management audits b) PEAT assessments	IPCT	Quarterly Annually	a) Achieved b) Achieved
	Provide specialist input to Cleaning Standards Group, PEAG, Waste Management Committee, Deep cleaning programme meetings.	IPCT	Quarterly	
	Provide expert advice to all service developments to ensure infection risks are considered and good infection control facilities/practices built into the development. In particular, ensure that infection control is considered in the built environment through involvement of infection control expertise to capital projects from concept stages to commissioning.	IPCT	According to project plans	Achieved
	Provide infection control/microbiology input to review of Legionella control measures through attendance at Legionella Control Team meetings	JP/AC	Twice annually with feedback to Infection Control Committee	Achieved
Audit compliance with patient equipment cleaning policy, including commode cleaning.	Lead Nurses /Matrons	As part of NQAT programme	Achieved.	

Code of Practice Criteria	Programme of work 20010/11	By whom (lead)	By when	Progress/Outcome
<i>Hand hygiene</i>	Continue with Year 5 of 'Cleanyourhands' campaign which includes: a) Observational audits of compliance focusing particularly on medical staff compliance b) Feedback to clinical areas on compliance	Link Nurses JP	Monthly 2 monthly	Improvement campaign launched in PEOC in response to poor compliance.
<i>Decontamination</i>	The Lead Nurse as Trust Decontamination lead will ensure that the Decontamination Committee meets and works in accordance with its terms of reference and reports to the Governance Committee (GC).  Work with the ENT team to determine the most appropriate method of managing instruments in ENT outpatients and present option appraisals to Exec Team at 1:1.	JP  Nicky Lavender	Quarterly reports to the GC  June 2010	Achieved  Options appraisal written and costed. No further progress.
<b>3. Provide suitable and sufficient information on HCAI to the patient, the public and other service providers when patients move to the care of another healthcare or social care provider.</b>	Ensure that DIPC Annual Report is posted on RD&E website following presentation to the Board.  Make new and revised policies available on the Trust website  Review visitor information on Trust website and update if necessary Work with PALs, Complaints, Legal Dept, Comms Dept and FOI officer to provide timely, accurate and comprehensible information to press enquiries, FOI requests and patient concerns/complaints and report common themes to ICC.	Janet Oatley  Janet Oatley  JP JP	June 2010  Within month of approval  September 2010 As required	Achieved  Achieved  Achieved Achieved

Code of Practice Criteria	Programme of work 20010/11	By whom (lead)	By when	Progress/Outcome
<b>4. Ensure that patients presenting with an infection or who acquire an infection during their care are identified promptly and receive appropriate management and treatment to reduce the risk of transmission.</b>	Pursue and implement use of IC alert with ED IT system.	ED CSM	July 2010	Achieved
	Roll out redesigned isolation room door signs across Trust	Lucy Hill	December 2010	Not achieved yet but underway - Service Development Dept leading.
	Amend admission documentation to include record of MRSA screen for all emergency admissions	JP	Dec 2010	Achieved
	Plan and implement MRSA screening of all emergency admissions	AC	Dec 2010	Achieved. Compliance improving.
<b>5. Gain the co-operation of staff, contractors and others involved in the provision of healthcare in preventing and controlling infection.</b>	Audit provision of infection control guidance to estates contractors	JP	March 2011	
<b>6. Provide or secure adequate isolation facilities.</b>	Determine feasibility of installation of an additional magnehelic gauge to monitor negative pressure ventilation in a second room on Torridge.	AC	March 2011	Not taken forward this year.
<b>7. Secure adequate access to laboratory support</b>	Plan and implement the laboratory arrangements for admission screening for emergency patients	Julie King	Dec 2010	Achieved
	Plan and implement more sensitive test methods for <i>C.difficile</i> .	Julie King	TBC	Achieved

Code of Practice Criteria	Programme of work 2009/10	By whom (lead)	By when	Progress/Outcome
<b>8. Have and adhere to appropriate policies and protocols for the prevention and control of HCAI.</b>	Review and update where necessary the policies/guidance ;listed in policy review programme at Appendix 4.	ICT	Refer Appendix 4	Refer Appendix
<b>9. Ensure, so far as is reasonably practicable, that healthcare 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 and control of HCAI.</b>	Deliver essential induction and update training as per training needs analysis	IPCT	Ongoing	Achieved.
	Update presentations corporate induction	CK	April 2010	Achieved
	Deliver infection control and invasive procedures training for medical staff	Penny Criddle	Each new intake of junior doctors	Achieved
	Revise and update e-training packages	IPCT	July 2010	Achieved
	Deliver at least one link nurse training course	IPCT	Dec 2010	Achieved.
	Provide quarterly link nurse updates	IPCT	Quarterly	Achieved
	Work with Vascular Access Team and Learning and Development Service to deliver workshops and updates on CVC management.	IPCT	As required	Achieved
	Provide other adhoc training as required/need identified.	IPCT	As required	Achieved

### **3. Monitoring Delivery**

Progress against the programme will be monitored by the infection Control Committee. Significant lapses in progress will be reported to the Board via the Governance Committee.

Surveillance programme 2010-11

Type of Surveillance	Lead	When?	Progress/outcome
<ul style="list-style-type: none"> <li>○ Continuous mandatory enhanced surveillance for MRSA bacteraemia</li> </ul>	IPCT	Reported Monthly to HPA	Achieved
<ul style="list-style-type: none"> <li>○ Continuous mandatory surveillance for VRE bacteraemias</li> </ul>	IPCT	Reported Monthly to HPA	Achieved
<ul style="list-style-type: none"> <li>○ Continuous mandatory enhanced surveillance of <i>C.difficile</i> in the over 2yr olds</li> </ul>	IPCT	Reported Monthly to HPA	Achieved
<ul style="list-style-type: none"> <li>○ Continuous surveillance of spinal surgical site infection through participation in the national voluntary surveillance scheme.</li> </ul>	Catharine Pym (CP)	Reported quarterly	Achieved
<ul style="list-style-type: none"> <li>○ Continuous surveillance of hip and knee replacement surgical site infection through participation in the national mandatory surveillance scheme</li> </ul>	IPCT	Reported Quarterly	Achieved
<ul style="list-style-type: none"> <li>○ In house, continuous all organism bacteraemia surveillance identifying risk factors, sources and line associated bacteraemia rates.</li> </ul>	IPCT	Reported Quarterly	Achieved
<ul style="list-style-type: none"> <li>○ 3 - 6 months surveillance of total abdominal hysterectomy as a follow up to previous surveillance and introduction of improvement programme.</li> </ul>	IPCT	April to September 2010	Achieved. >50% reduction. Another module commenced Jan 2011.
<ul style="list-style-type: none"> <li>○ 3 month surveillance of C-section surgical site infection as a follow up to previous surveillance and introduction of improvement programme</li> </ul>	IPCT and Liz Trevelyan	July- Sept 2010	Achieved. Another module commenced Jan 2011.
<ul style="list-style-type: none"> <li>○ Surveillance of catheter associated urinary tract infection - quarterly prevalence surveys</li> </ul>	IPCT	Quarterly	Low rates identified. ICC agreed therefore to cease quarterly prevalence surveillance. Achieved.
<ul style="list-style-type: none"> <li>○ Undertake continuous alert organism surveillance with run chart feedback on MRSA and <i>C.difficile</i> to: <ul style="list-style-type: none"> <li>- Wards and directorates</li> <li>- Infection Control and Governance Committees</li> </ul> </li> </ul>	IPCT	2 Monthly  Quarterly	

Audit Programme 2010/11

Audit Hand hygiene	Lead Matrons	When? Monthly	Progress/outcome Achieved in most areas. Improvement campaign commenced in response to poor compliance in PEOC.
Central line care	Vicky Shawyer	June 2010	Achieved
Phlebitis associated with peripheral cannula insertion	Vicky Shawyer	June 2010	Achieved
Use of stool charts	CK	June 2010	Achieved
Decontamination policy Single use devices Products available for use Patient equipment cleaning records	JP	<del>Dec 2010</del> March 2011	Achieved
Sharps disposal	CK	Sept 2010	Achieved
Isolation procedures	CK	<del>Oct 2010</del> Jan 2011	Achieved
Aseptic technique	DM-P	Nov 2010	Achieved
Infection control aspects of uniform policy	CK	<del>Dec 2010</del>	Deferred to 2011-12
MRSA screening - emergency admissions	Richard Blackwell	Monthly from Jan 2011	Achieved

**Care bundle programme 2010/11**

Care bundle/high impact intervention	Lead	When?	Progress/outcome
Plan implementation strategy for Saving Lives peripheral cannula high impact intervention (ongoing care)	Judy Potter	Report monthly as part of Patient Safety programme and CQUIN scheme	Achieved and undertaken routinely now by Link Nurses. Trustwide
Dialysis CVCs	Louise Oakaby	Report quarterly to Directorate Governance Group	Achieved
Ventilator Associated Pneumonia	Fred Cock	Report monthly as part of Patient Safety programme	Achieved
Hickman lines in Cancer Patients	Tina Grose	Report quarterly to Directorate Governance Group	Achieved
Reducing surgical site infection	Hayley Peters	Monthly as part of Patient Safety programme	Achieved
Urinary catheterisation -	Berni George	Report quarterly to Directorate Governance Group	Pilot completed. Planning roll out in 2011-12

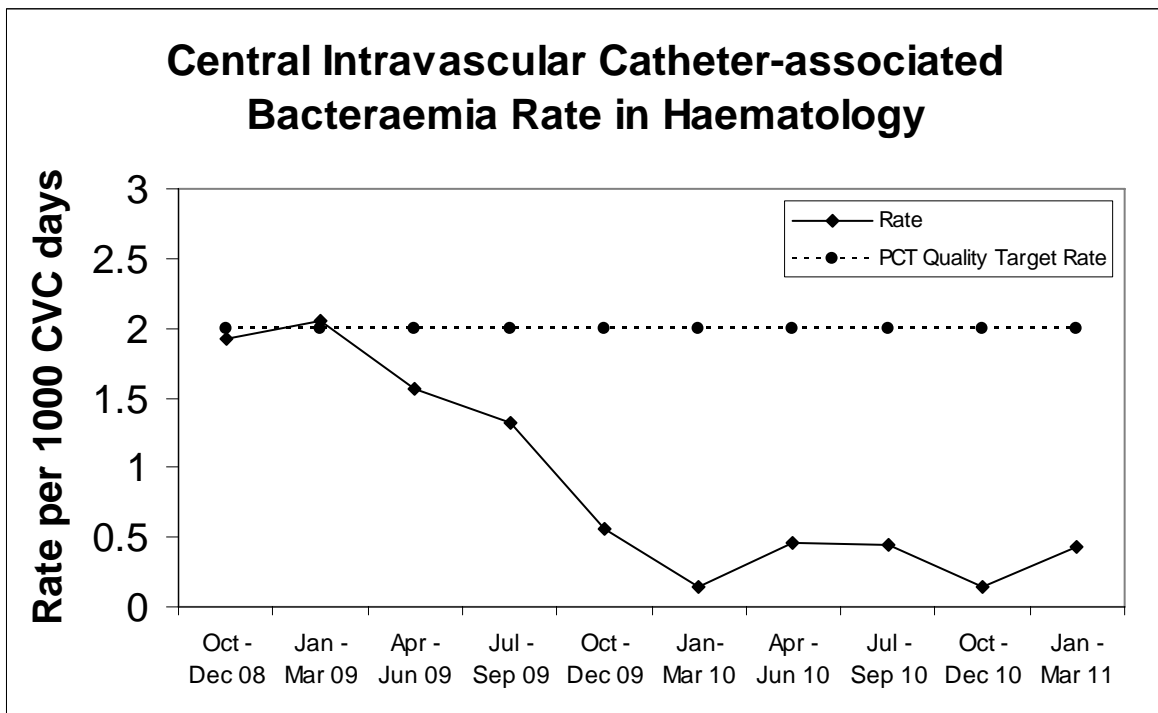
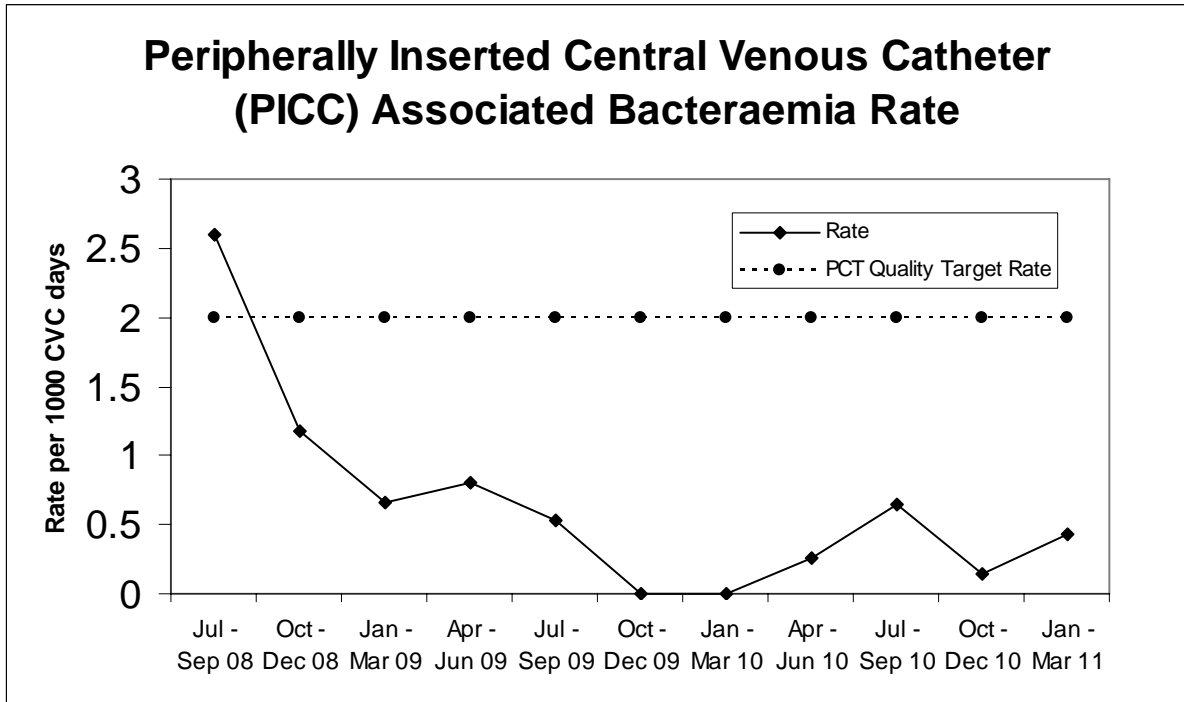
**Policies for Review 2010/11**

<b>Policy name</b>	<b>Lead</b>	<b>Review date</b>	<b>Progress</b>
Decontamination Policy	JP	May 2010	Approved
Guidance of the Management of Respiratory Syncytial Virus	CK	May 2010	Approved
Infection Control and Torridge Operational Policy	JT	May 2010	Approved
Infection Control Policy	JP	May 2010	Approved
Patient Placement & Movement Policy	JP	May 2010	Approved
Staff Health & Illness Relating to Infection Control	CK	August 2010	Approved
Guidance on Animals and Pets in Healthcare Facilities	DM-P	November 2010	Approved
Guidelines for the Management of Central Venous Catheters	Lizzie Perry	November 2010	Approved.
Guidelines for the Management of PVL – associated <i>Staphylococcus aureus</i> infections in the hospital environment	CK	November 2010	Approved
Pest Control Policy	HH	November 2010	Approved
Aseptic Technique	SM	February 2011	Approved
Guidelines for the Management and Control of MRSA	JP	February 2011	Approved
Major Outbreak Plan	BS	February 2011	Approved
Tuberculosis Management in a Hospital Setting	SM	February 2011	Approved

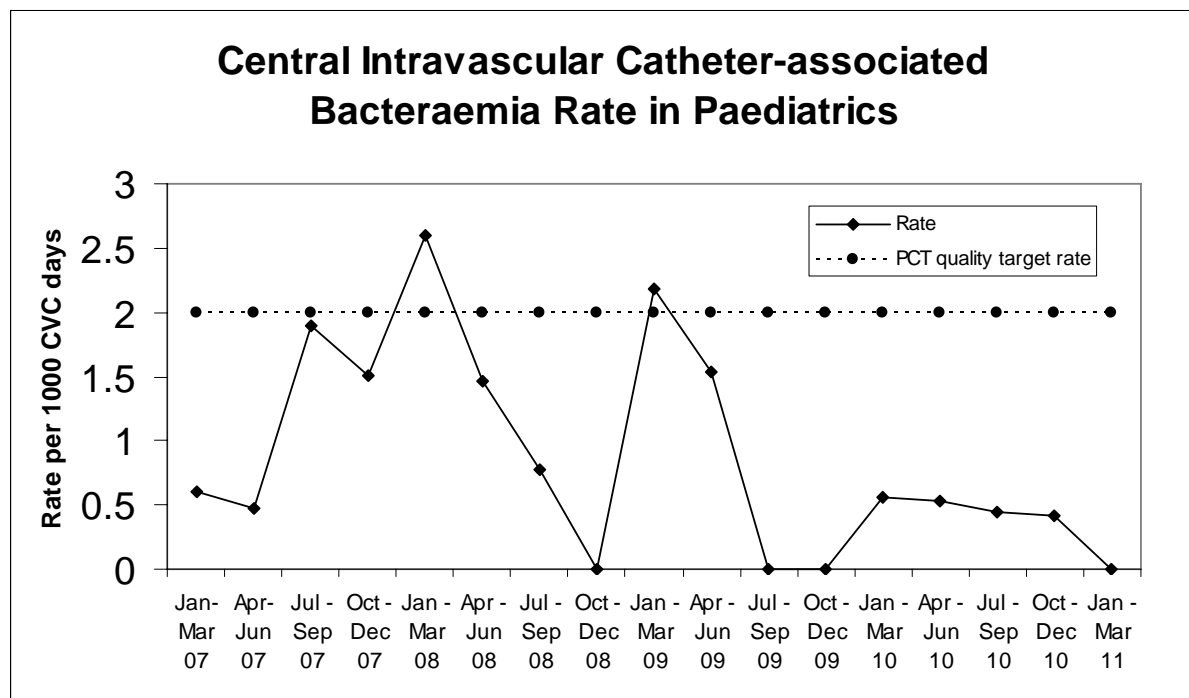
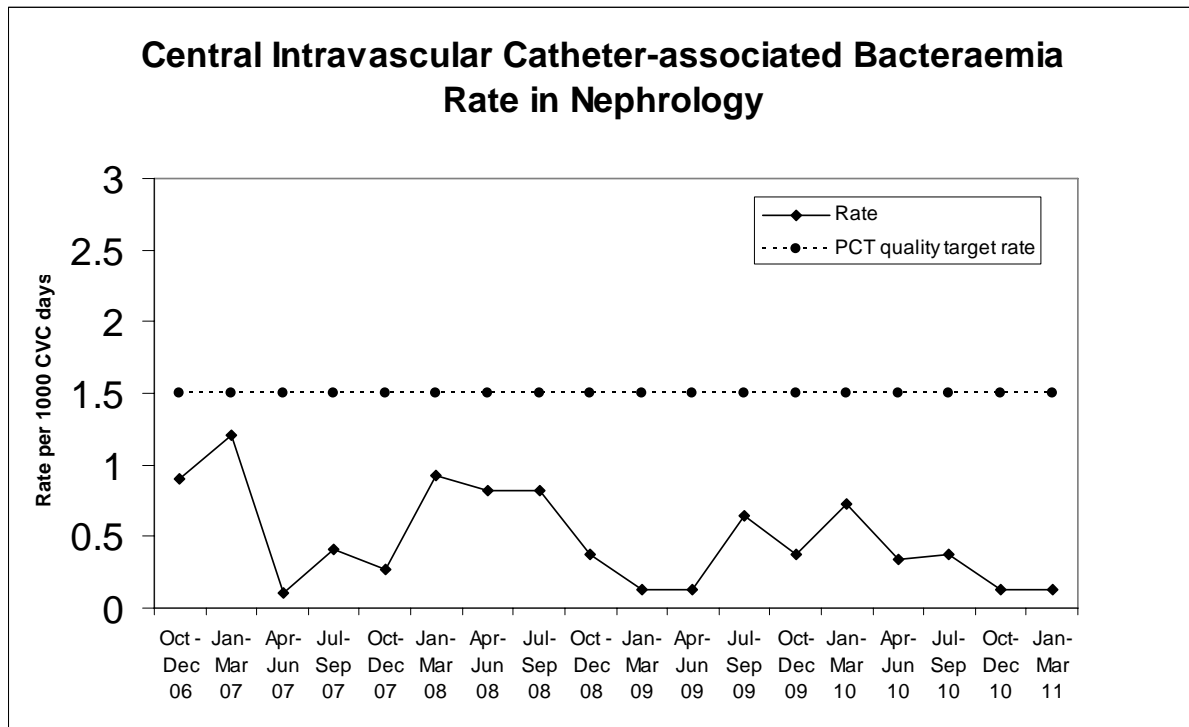
**Reference**

Department of Health (2009) *The Health and Social care Act 2008: Code of Practice for the Prevention and Control of Healthcare Associated Infections*  
<http://www.mrsaactionuk.net/pdfs/Hygiene%20Code%20Revised%20January%202008.pdf>

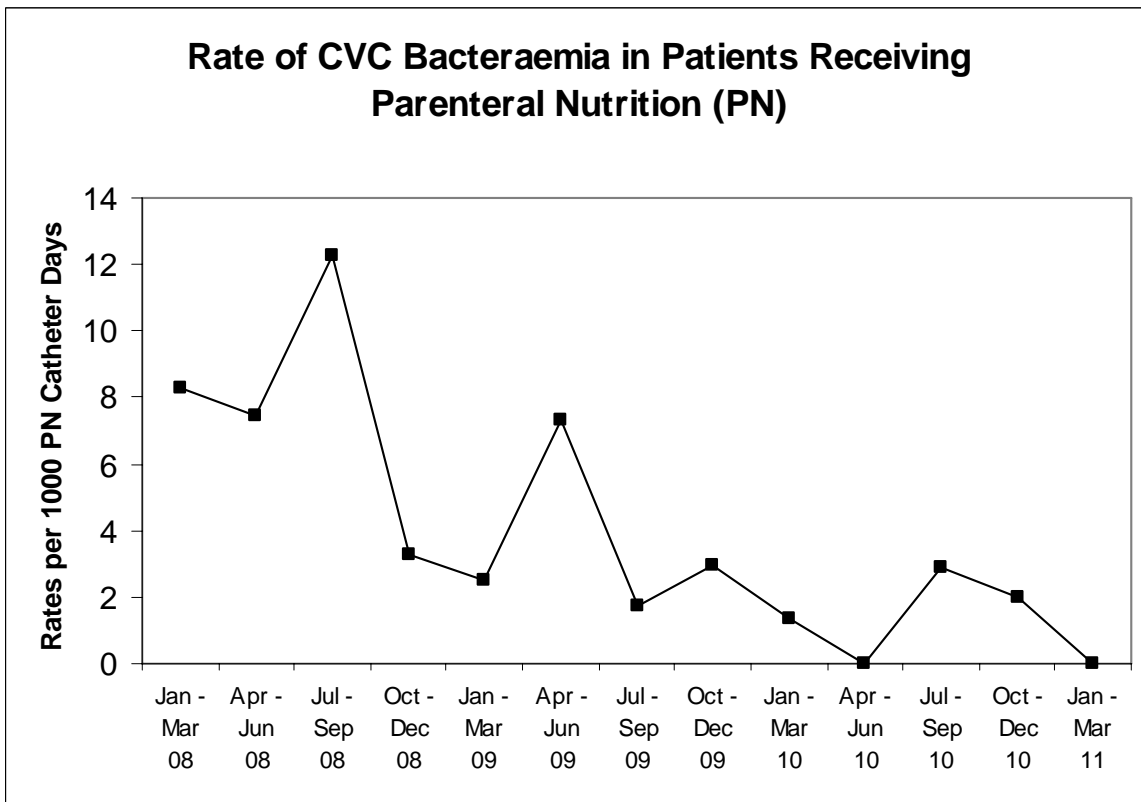
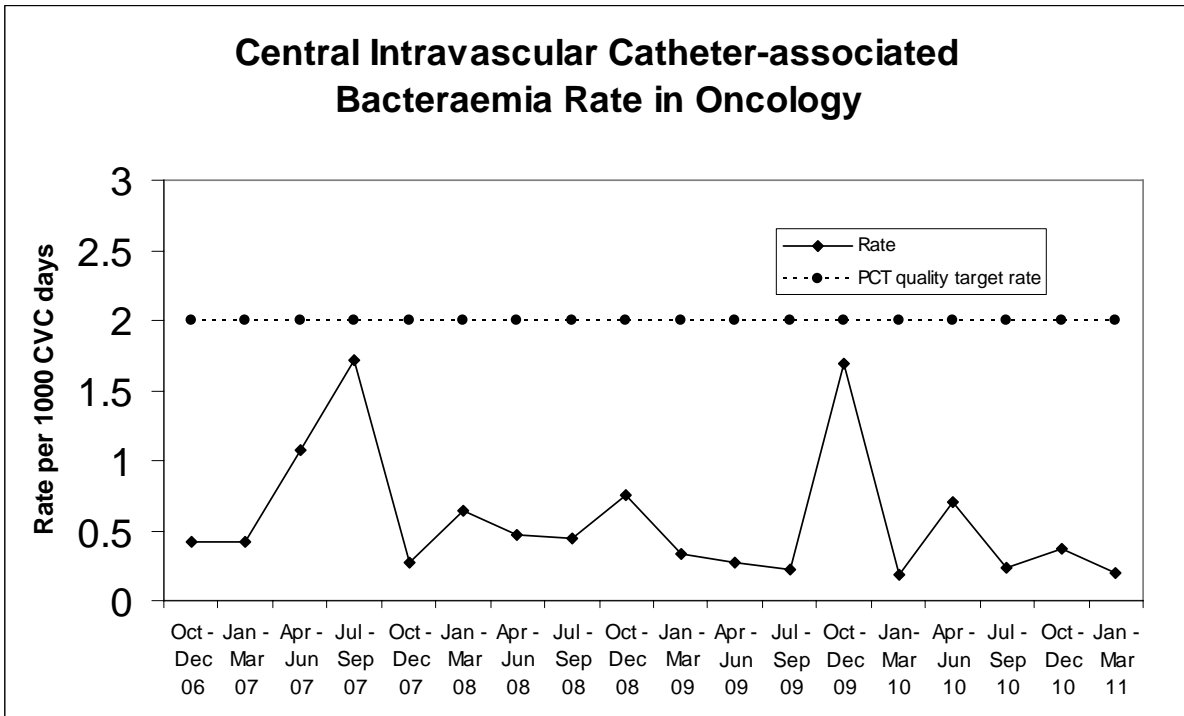
CENTRAL VASCULAR DEVICES ASSOCIATED BACTERAEMIAS



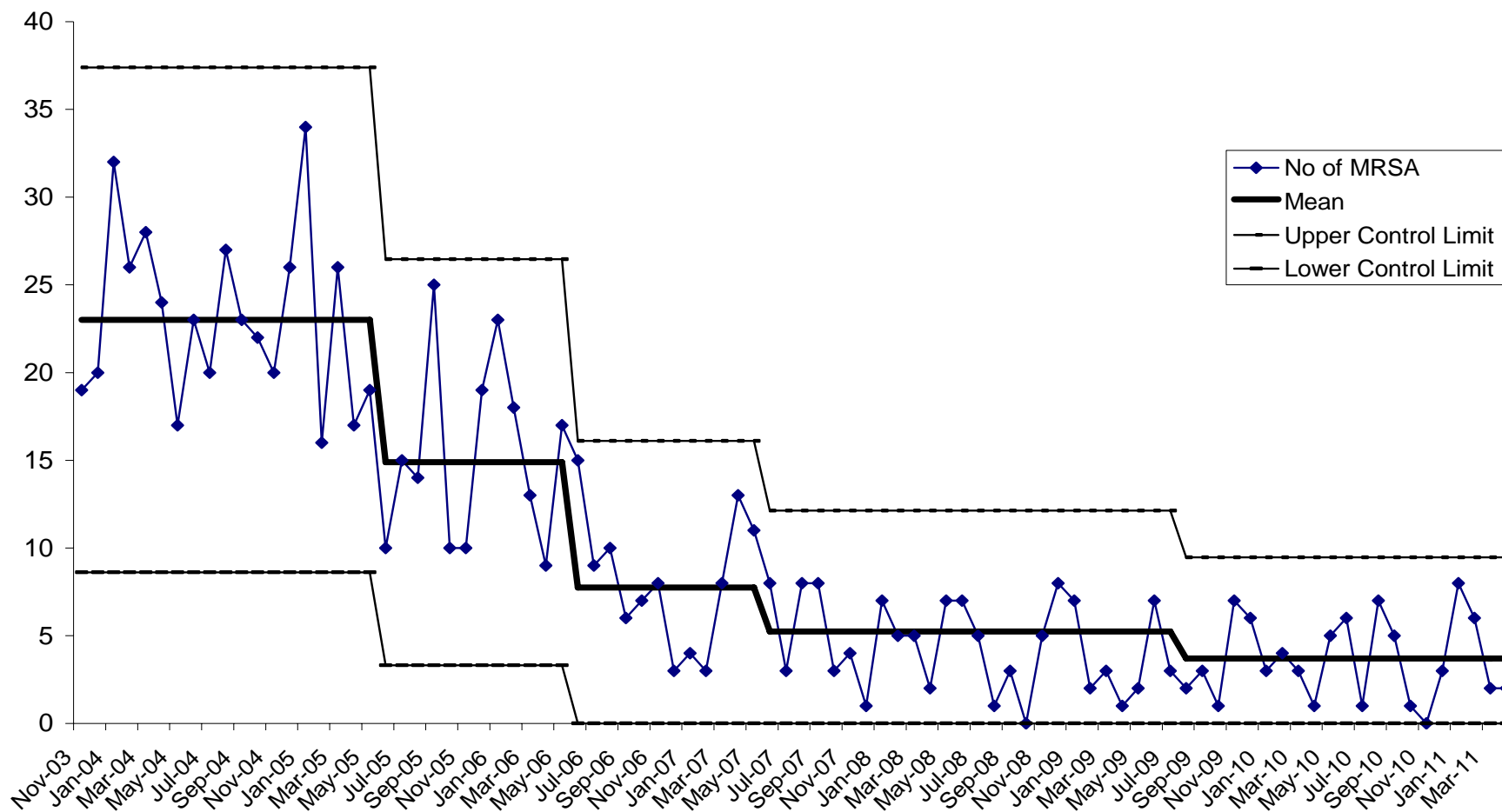
CENTRAL VASCULAR DEVICES ASSOCIATED BACTERAEMIAS



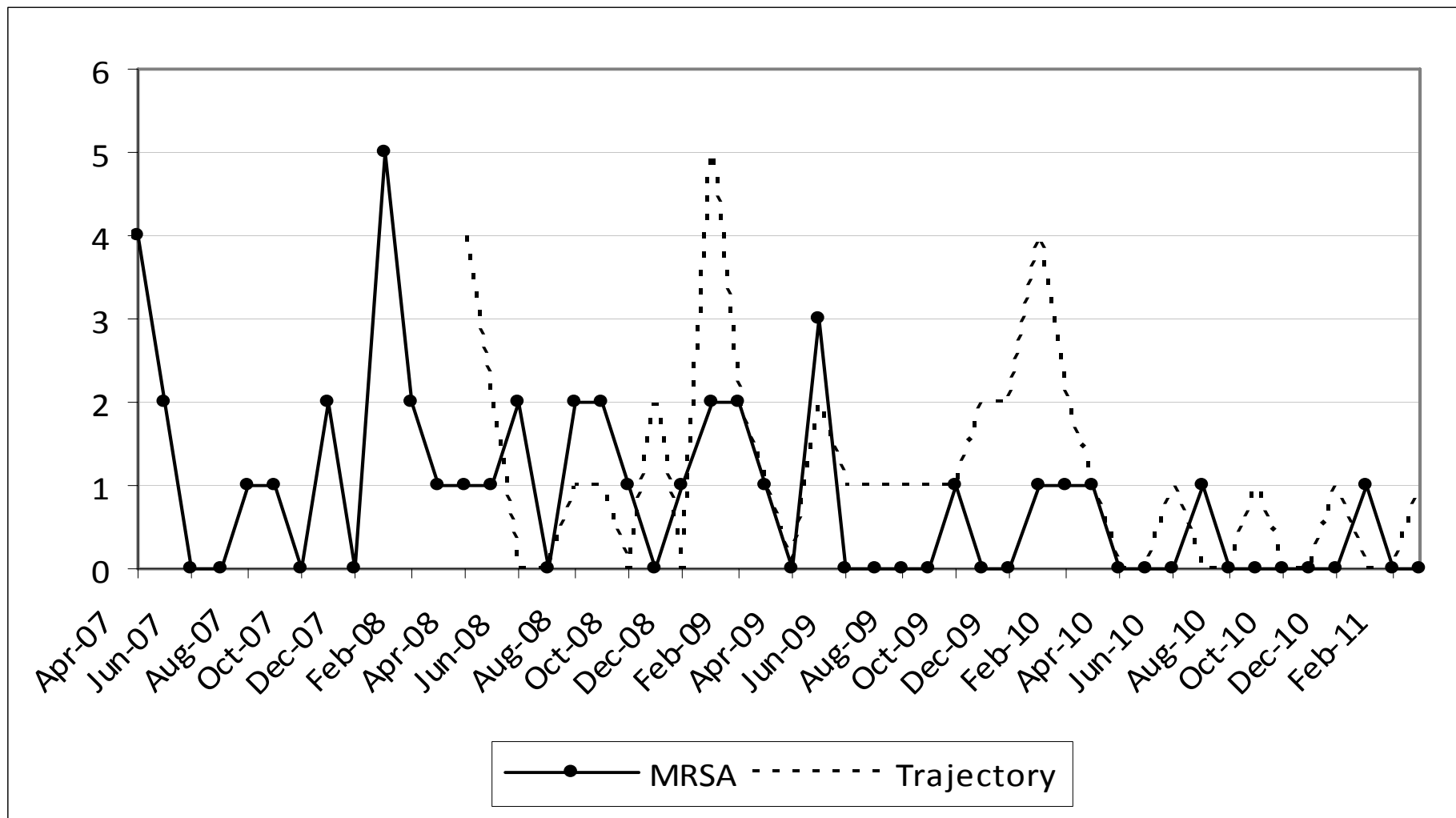
CENTRAL VASCULAR DEVICES ASSOCIATED BACTERAEMIAS



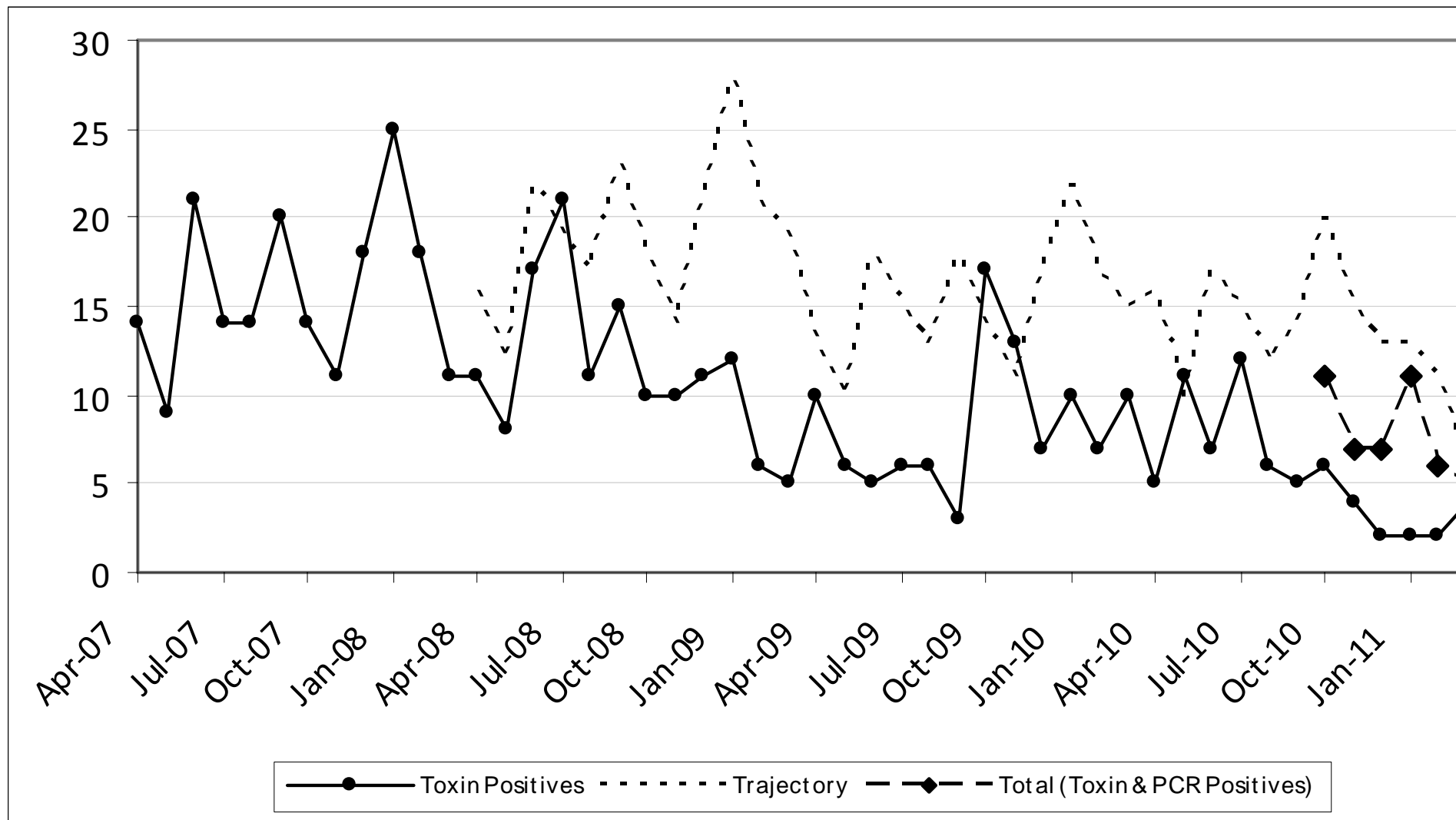
ALL NEW CASES OF MRSA  
 (IDENTIFIED MORE THAN 3 DAYS AFTER ADMISSION)



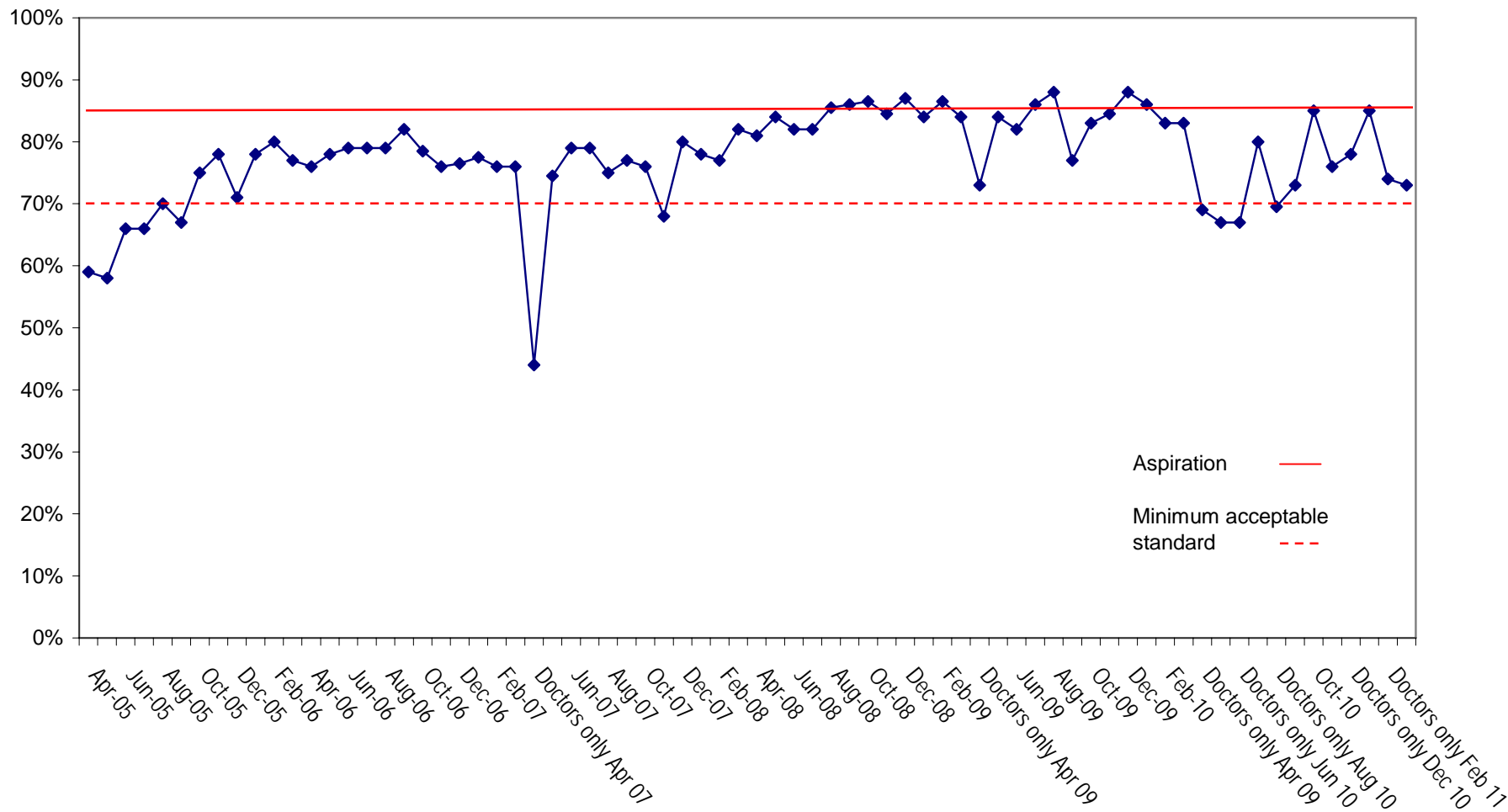
NUMBER OF MRSA BACTERAEMIA AND TRAJECTORY



**CLOSTRIDIUM DIFFICILE INFECTIONS AND TRAJECTORY**



TRUST HAND HYGIENE COMPLIANCE



## ANTIMICROBIAL SUBCOMMITTEE OF THE DRUG AND THERAPEUTICS COMMITTEE

## ANNUAL REPORT TO THE GOVERNANCE COMMITTEE 2010 – 2011

<p><b>What we've achieved</b></p> <ul style="list-style-type: none"> <li>• The Committee met four times between March 2010 – March 2011</li> <li>• The Healthcare commission were satisfied with antimicrobial stewardship on their annual visit</li> <li>• New chair: Dr Katy Marden (Microbiology lead for Antimicrobial Stewardship)</li> </ul> <p><b>Policies and Guidelines</b></p> <ul style="list-style-type: none"> <li>• Community acquired pneumonia guideline updated</li> <li>• Hospital acquired pneumonia guideline updated</li> <li>• Surgical prophylaxis guidelines produced for Obstetrics &amp; Gynaecology, General and Specialist Surgery and Orthopaedics (open fracture guidance still outstanding) – posters have been produced for anaesthetic rooms</li> <li>• Haemodialysis vancomycin dosing and monitoring guideline produced</li> <li>• Paediatric Antibiotic Monitoring Guidelines updated</li> <li>• Adult quick antibiotic reference Card updated and distributed</li> <li>• Paediatric antibiotic quick reference card updated and distributed</li> <li>• New drug chart with antimicrobial section now in use Trust-wide</li> <li>• Oral Fosfomycin now available for the treatment patients with resistant UTIs (pathway agreed with PCT so that primary care patients may be treated with this agent)</li> <li>• Out-of-hospital Cellulitis Pathway agreed – starting in MTU from April 2011</li> <li>• Joint formulary antimicrobial chapter updated</li> </ul> <p><b>Audit and Surveillance</b></p> <ul style="list-style-type: none"> <li>• Monthly quality of antimicrobial prescribing audit ongoing</li> <li>• Annual regional point prevalence study (March 2011)</li> <li>• Vancomycin audit (presented at Trust Audit Prize meeting)</li> <li>• Quinolone prescribing</li> <li>• Bi-weekly Antimicrobial Review Rounds</li> <li>• <i>C. difficile</i> infection ward rounds and RCAs</li> </ul> <p><b>Education</b></p> <ul style="list-style-type: none"> <li>• Induction Training Tracker presentation on prudent prescribing for new doctors updated</li> <li>• Contributed to teaching for several professional groups (including prudent prescribing campaign on European Antibiotic Awareness Day – Nov 18<sup>th</sup> 2010)</li> <li>• Antimicrobial Pharmacist has completed a Diploma in Prescribing and Therapeutics including qualification as an Independent Prescriber (Bath University)</li> <li>• Dr. Katy Marden attended the BSAC OPAT European Summit</li> </ul>	<p><b>What is planned</b></p> <ul style="list-style-type: none"> <li>• On-going quality of antimicrobial prescribing audit and/or antimicrobial prescribing care bundle with data to be reviewed at directorate governance and or quarterly reviews</li> <li>• Mandatory annual e-learning package on prudent antimicrobial prescribing for all prescribers and pharmacists within the Trust (recorded on ESR)</li> <li>• Review recently introduced surgical prophylaxis guidelines</li> <li>• Review existing antimicrobial guidelines as indicated and work with relevant specialities to develop new guidelines as appropriate e.g. SBP, intravesical gentamicin etc.</li> <li>• Develop antimicrobial formulary including restriction categories and implementation procedures for restricted agents, and rationalise the choice of agents within drug classes</li> <li>• Audit recently introduced antimicrobial guidelines e.g. Haemodialysis Vancomycin Guidelines, Out-of-hospital Cellulitis Guideline etc.</li> <li>• Work with Datix web team to achieve timely and relevant reports on antimicrobial incidents</li> <li>• Populate and implement use of antimicrobial website</li> </ul> <p>A new antimicrobial stewardship programme has been set out for 2011-2012, including audit and surveillance, clinical activity, policies &amp; guidelines, education and several new developments. This was agreed at the March 2011 Antimicrobial Subcommittee quarterly meeting and will be uploaded on to the Antimicrobial Subcommittee section in IaN.</p>
<p><b>Difficulties</b></p> <ul style="list-style-type: none"> <li>• Limited IT resources makes recommended surveillance impossible to achieve</li> <li>• Paper/bound Joint formulary format is inflexible</li> </ul>	<p><b>What we need help on ...</b></p> <ul style="list-style-type: none"> <li>• IT provision to achieve effective surveillance of antimicrobial use within the Trust, in defined daily dose format, traced to clinical directorates and areas/wards</li> <li>• On-line formulary (software has now been purchased but sickness in IT has prevented progress with the population and implementation of this resource)</li> </ul>