ANNUAL REPORT OF THE DIRECTOR OF INFECTION PREVENTION & CONTROL

Covering the period
APRIL 2010 to MARCH 2011

Report compiled by Dr Patricia O’Neill and the Infection Prevention and Control Team
## CONTENTS

1. Overview & Page 4
2. Infection Control Arrangements & Page 4
   a. MRSA Bacteraemias & Page 5
   b. C difficile & Page 5
   c. Vancomycin Resistant Enterococcus (VRE) & Page 5
   d. Surgical Site Infection & Page 5
   e. Outbreaks & Page 6
4. Progress Against 2009/10 IPC Programme & Page 8
5. Compliance with the Health Act & Page 9
6. Hand Hygiene & Page 9
7. Audits (including High Impact Interventions) & Page 10
8. Environmental Cleanliness & Page 11
10. HCAI Targets for 2011/2012 & Page 13
1. Overview

In 2010/11, we again saw progress in combating Healthcare Acquired Infection at Shrewsbury and Telford Hospital NHS Trust (SaTH).

Each year our targets for reduction in MRSA bacteraemia and C difficile become more challenging as we continue on our goal to zero avoidable infections. However we once more achieved our reduction targets in MRSA bacteraemia and C difficile. Over the last few years we have reduced our SaTH acquired MRSA bacteraemia cases from 30 a year to 2, and C difficile from 208 to 76. This reflects the sustained efforts and commitment of staff in all levels and departments within the trust.

Looking forward it is critical that we maintain this level of commitment and do not become complacent. The microorganisms with which we share our environment are always ready to exploit any chink in our armour. In today’s world where every penny counts we must use our resources wisely and effectively to keep that armour intact.

Our targets for 2011/12 have deliberately been made extremely tough but working with our partners in Shropshire County and Telford & Wrekin PCTs, Powys Local Health Board, experts in other trusts, and the Health Protection Agency, we hope to meet them.

In the coming year we will continue to look at MRSA and C difficile, but will also focus on two other infections, MSSA and E coli, which also commonly cause HCAI. Our priorities will also include decontamination processes, and reviewing the way we manage incidents, learning from our mistakes and disseminating what we learn effectively so we do not repeat them.

Dr Patricia O’Neill
Director of Infection Prevention and Control

2. Infection Control Arrangement

Infection Prevention and Control Team (March 2011)

Dr Patricia O’Neill  Director of Infection Prevention and Control (DIPC) 0.5 wte/ Consultant Medical Microbiologist 0.6 wte

Janette Pritchard  Matron Infection Prevention & Control (1.0 wte Band 8a)

Nick Holding  Service Improvement Manager (1.0 wte Band 7)

Jan Heath  Nurse Specialist Infection Prevention & Control (0.8 wte Band 7)

Debbie Snooke  Senior Infection Prevention & Control Nurse (1.0 wte Band 7)

Karen Barber  Senior Infection Prevention & Control Nurse (1.0 wte Band 7)

Debbie Link  Infection Prevention & Control Nurse (0.8 wte Band 6)

Lynn Marston  Surveillance Nurse (0.8 wte Band 6)

Carla Webster  Infection Prevention & Control Secretary (0.8 wte Band 3)

Michelle Ellis  Infection Prevention & Control Administration Assistant (1.0 wte Band 2)

The Infection Prevention and Control (IPC) Team continues to be managed by Janette Pritchard (Matron Infection Prevention and Control).

Dr Patricia O’Neill continues as DIPC & works 5 PAs (0.5wte). In addition a further three consultant microbiologists continue to give support to the Infection Control Team. The DIPC reports directly to the Chief Executive Officer and has monthly meetings with him.

The IPC team continues to meet fortnightly with other key members of the Trust at the IPC Operational Group Meeting to discuss immediate issues and to ensure planned work is being implemented. The Trust Infection Control Committee continues to be held monthly and is chaired by the Medical Director.

Infection prevention and control issues are also raised at the monthly meetings of the Management Executive, chaired by the Chief Executive and attended by the DIPC, and the Clinical Governance Executive, which is chaired by the Medical Director and attended by the DIPC.

Infection Prevention & Control Team budget 2010/11

The infection control team had a budget of £265,716 pay budget (nursing and administration/clerical staff) and £25,514 non-pay.
3. Healthcare associated infections statistics

3a MRSA Bloodstream Infections

In 2010/11 the way in which MRSA bacteraemia cases are counted was changed. Trusts are now asked to report only on cases where the sample was taken more than 48 hours after the patient is admitted, as those that are positive within 48 hours are likely to have been acquired in the community. Our target for 2010/11 was to have no more than 6 post 48 hour cases. We achieved this target with only two cases over the year. This compares with 6 post 48 hour cases in 09/10, 7 in 08/09, 22 in 07/08, and 30 in 06/07. The graph below shows the numbers of cases over the last few years. To allow comparison with previous years both total numbers of cases and post 48 hour cases are shown. This shows that the upward trend up to 2003/04 has been reversed and we now have less than the numbers we saw ten years ago.

The two post 48 hour cases both occurred on the intensive care unit at Royal Shrewsbury Hospital within 10 days of each other in October 2010. However molecular typing of the strains showed that they were not related to each other. In one case the source of the bacteraemia was a surgical wound and in the other it was a central intravenous line.

In addition there were seven cases of MRSA bacteraemia that were positive within 48 hours of admission. Though most pre 48 hour cases are acquired in the community they are always investigated to see if there was any recent involvement from healthcare, either from hospital or the community, which may have contributed to the infection. Analysis of these seven cases showed that two cases had had recent contact from the trust which contributed to the infection. One patient had an infection post radiotherapy for throat cancer, and the other had recently had surgery for a fractured hip which had become infected.

Ongoing work in reducing MRSA bacteraemia and less severe infections from MRSA includes improving compliance with screening of emergency admission patients to over 90%, continued emphasis on isolation and clearance of colonised patients, and continued improvement in compliance with hand hygiene and prevention of line associated infections.

3b Clostridium difficile

Our national target for C difficile in 2010/11 was to have not more than 166 cases over the age of 2 years that were diagnosed on samples sent more than 72 hours after admission. Cases diagnosed within 72 hours of admission are very likely to have acquired their infection before admission. We had also agreed a stretch target with the PCT of not more than 76 cases. We achieved both targets with a final tally of 68 cases. This was a further reduction on last year’s total of 80 cases. The graph below shows the drop in cases over the last four years.

3c Vancomycin Resistant Enterococcus (VRE)

Along with MRSA bacteraemia and C difficile infections, all trusts must report their number of cases on Vancomycin Resistant Enterococcus (VRE) bacteraemia. This organism, though much less virulent than MRSA or C difficile, is highly resistant to antibiotics. It most commonly causes infections of central lines. There were two cases of VRE bacteraemia in 2010/11. This compares with two in 2009/10, and nine in 2008/09. The two cases this year occurred in one patient who had a central line infection, and one with intra-abdominal sepsis. Many of the actions put in place to reduce MRSA bacteraemia and C difficile will also help prevent this infection, although widespread use of oral vancomycin to treat C difficile is a risk factor for spread of VRE.

3d Surgical Site Infection Surveillance Scheme (SSISS)

The Health and Social Care Act 2008 recommends that there should be evidence of local surveillance of wound infections which develop while the patient is in hospital and also that trusts carry out surveillance for infections after discharge. We carry out in-hospital surveillance and report the results to the Health Protection Agency through the national Surgical Site Infection Surveillance Scheme (SSISS). This allows us to compare our infection rates with other hospitals.
We also report post-discharge surveillance to the Health Protection Agency. This is less reliable than in-hospital surveillance as it relies on self reporting by the patient rather than diagnosis by a doctor or nurse. It is now possible to get national comparative data for post-discharge infections.

Surveillance of orthopedic surgical site infection using the national surveillance scheme became a mandatory requirement in April 2004. We are required to perform surveillance on at least one category of orthopaedic surgery for at least one quarter per annum.

Surgical site surveillance was not carried out between April-June due to the surveillance nurse being involved in other IPC projects.

Results of the surveillance carried out in SaTH from July to December 2010 are shown in the table below.

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>Number of Months</th>
<th>Number of cases</th>
<th>Number of In-patient/re-admission Infections (%)</th>
<th>Post Discharge Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair Neck Femur</td>
<td>6</td>
<td>161</td>
<td>4 (2.5%)</td>
<td>3 (2.6)</td>
</tr>
<tr>
<td>Large Bowel</td>
<td>3</td>
<td>92</td>
<td>10 (10.9%)</td>
<td>5 (6.8%)</td>
</tr>
<tr>
<td>Breast Surgery</td>
<td>3</td>
<td>41</td>
<td>1 (2.4%)</td>
<td>4</td>
</tr>
</tbody>
</table>

We monitored repair of fractured neck of femur (hip fracture) for 6 months. Our in-patient infection rate was 2.5% (national infection rate 1.7%, range 0.7%-2.1%). The orthopaedic surgeons at PRH have continued to monitor this category in-house.

We also undertook post discharge surveillance in this category. 116 patients were eligible to be followed up and 3 of these reported having signs and symptoms of infection. This gives us a post discharge infection rate of 2.6%.

Large bowel surveillance was performed for 3 months. Our in-patient infection rate was 10.9% this is similar to the national infection rate for this category of surgery (mean 9.5%, range 6.0-12.0%). Post discharge surveillance was also carried out. 73 patients were eligible for contact; only 5 of these indicated problems with their wound, which gives us a post discharge infection rate of 6.8%.

The Health Protection Agency recently introduced breast surgery as a new category within SSISS. We have looked at this for 1 quarter. We collected data on in-patients; only one patient developed a wound infection, giving an infection rate of 2.4%. Post discharge surveillance was carried out using a patient reported self-assessment questionnaire. Thirty patients returned their questionnaire; seven of these patients indicated a problem with their surgical wound. Following clinic review 4 patients were considered to have definite evidence of a wound infection.

January-March surveillance results will be included in 2011/12 Annual Report; the follow-up post discharge is not yet complete.

### 3e Outbreaks

The following outbreaks of infection occurred in 2010/11:

#### Norovirus

Norovirus is the commonest cause of gastroenteritis in the community but also causes outbreaks in hospital as it is very infectious person to person. Over this twelve month period there have been eight episodes of confirmed Norovirus outbreaks requiring closure of a ward. No wards had to be closed for more than one week and on each occasion only small numbers of patients were affected. On each occasion asymptomatic patients were cohorted; twice daily cleaning of the wards was introduced and close monitoring of patients management by the IPCN Team, was instigated.

Infection prevention information roller blinds have been fitted to all the ward doors this year to aid communication to visitors on the required precautions they need to take when entering a ward with cases of infection. Large posters were also installed at entrances to the hospital informing visitors as to which wards were closed due to Noro virus.

#### New Delhi Metallo-beta-lactamase (NDM) Klebsiella in Urology

New Delhi Metallo-beta-lactamase (NDM) is an enzyme carried by Klebsiella and sometimes E coli bacteria which has the ability to destroy many antibiotics, making it very difficult to treat.

In June five urology patients were identified as having urine infections caused by NDM Klebsiella. Following investigation four more patients were identified as having acquired this bacterium. The outbreak was communicated to the Health Protection Agency, and the Strategic Health Authority.

Environmental screening and observation of practices and procedures was carried out in the Urology theatre, by the IPCN Team. The organism was isolated from a camera head in the theatre. Sterile disposable sheaths were introduced to cover the camera head during operations and prevent any further cases.

Sixty patients who had had recent urology surgery were contacted via their GP for urine checks and information provided to them on NDM Klebsiella. A contact number was also provided for patients to speak directly to the IPC Team. One additional case was found from this look back. No further cases have been identified since.

#### C difficile Outbreak Ward 265/U

Four cases of C difficile were identified on ward 265/U in June. Following further investigation fourteen cases were identified as having a link with ward 26 S/U from April 2010.

Ribotyping (a form of molecular fingerprinting) showed that some of the cases were identical suggesting direct cross infection; other cases however were of a different ribotype with no overlap of patients. Antibiotic prescribing was as a possible cause. The ward was closed to admissions, existing patients were moved to bays on other
wards, and a deep clean of the ward was performed. All positive C difficile patients were isolated on the cohort ward within 24 hours of positive results.

Cleaning schedules were reviewed and observational audits of hand hygiene were performed weekly, results in September and October were below 95%. Since November the ward has achieved 100% compliance.

The IPCN Team worked closely with the ward manager and staff to improve appropriate use of gloves and aprons. An audit of antibiotic use has been carried out and the ward is compliant with the current Trust antibiotic policy.

Respiratory Syncytial Virus (RSV) Special Care Baby Unit
This virus is the most common causes of bronchiolitis (croup) and lower respiratory tract infection in babies and toddlers and is highly transmissible in paediatric wards. Transmission is either directly during close contact or indirectly by the hands of healthcare workers or contact with surfaces contaminated with respiratory secretions.

In January there was a small outbreak of RSV affecting three babies in Special Care Baby Unit (SCBU). All three babies were isolated. An inspection of SCBU identified environmental cleanliness and storage issues, particularly in the high dependency area. An action plan has been drawn up and issues are in the process of being addressed. No further cases have been identified. All three babies recovered and are now at home.

Periods of Increased Incidence (PII)
From April 2010 all Trusts have been asked to report periods of increased incidence (PII) of cases of C difficile and MRSA. The definition of a PII is 2 or more new cases within a ward in a 28 day period.

MRSA PII
The Trust has had four separate incidences of PII with MRSA on three separate wards.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Date</th>
<th>Number of Patients</th>
<th>Number of Staff</th>
<th>Improvements initiated</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>23/09/10</td>
<td>3</td>
<td>2</td>
<td>Repeat screen of all patients and staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Education on correct use of PPE delivered.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improvement in prompt isolation of MRSA positive patients.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improved cleaning and storage of equipment.</td>
</tr>
<tr>
<td>RSH</td>
<td>20/10/10</td>
<td>3</td>
<td>3</td>
<td>Swift identification of positive patients</td>
</tr>
<tr>
<td>ITU</td>
<td></td>
<td></td>
<td></td>
<td>Screening of all patients and staff.</td>
</tr>
<tr>
<td>27</td>
<td>31/01/11</td>
<td>4</td>
<td>6</td>
<td>Screening of all patients and staff.</td>
</tr>
<tr>
<td></td>
<td>26/03/11</td>
<td>5</td>
<td>0</td>
<td>Replacement of damaged hand gel holders on lockers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Increase in house keeper hours.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improvement in percentage of patients screened on admission.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Education on correct use of PPE delivered.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improvement in monitoring of environmental cleaning.</td>
</tr>
</tbody>
</table>

C difficile PII
The Trust has had two separate incidences of PII with C difficile on two separate wards.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Date</th>
<th>Number of Patients</th>
<th>Improvements initiated</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>16/12/10</td>
<td>3</td>
<td>Second hand wash sink installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Education on correct use of PPE delivered.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Improvement in Environmental cleaning.</td>
</tr>
<tr>
<td>7</td>
<td>23/03/2011</td>
<td>3</td>
<td>Hand wipes are now offered to patients prior to meals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Improvement in prompt isolation of patients with Diarrhoea.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Education on correct use of PPE commenced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Staff now adhering to SATH bed cleaning guideline.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skip bags are now taken to the bed side.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inappropriate items removed from sluice.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Outstanding issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Education on PPE use continues.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Items stored on floor.</td>
</tr>
</tbody>
</table>

Wound infections post caesarean section patients in SATH.
Between 3rd February 2011 to 15th March 2011 there were ten wound infections post caesarean section caused by various organisms. In the absence of national/local infection rates it was difficult to ascertain if this was high, however an investigation was initiated.

Following investigation several issues were identified:
- Ventilation in theatre, no recent records of filter changes and air sample validation.
- Multi use Chlorhexidine 0.5% Skin prep being used.
- Skin prep not being allowed to air dry.
- Items inappropriately placed in front of ventilation grills.
- Environmental cleaning both in theatre and delivery suite rooms.
- Lack of storage.

All the above issues have been addressed although work is still in progress to review cleaning schedules and the lack of access to delivery rooms by cleaning services and storage systems. A detailed action plan has been compiled and outstanding issues are being speedily addressed.

Surveillance of this type of surgery will be introduced locally and there are plans to introduce National surveillance through the Surgical Site Infection Surveillance Scheme.

The progress of all action plans are being closely monitored through the IPC operational group which meets every two weeks.
MSSA bloodstream infections associated with the Renal Unit

MSSA (methicillin sensitive Staph aureus) is the less resistant and more common version of Staph aureus compared with MRSA. It is a very common organism and 25% of adults carry it harmlessly in their nose but like MRSA it can cause serious infections. A cluster of 8 MSSA bacteraemia episodes in 5 patients receiving care on the renal dialysis unit was seen over February and March 2011. The cluster was investigated and most infections were found to coming from central lines used for dialysis. Typing showed that they were different strains so cross infection between patients was unlikely to be the cause. An action plan has been developed to reduce central line infection on the unit including screening and decolonising all renal dialysis patients with MSSA, prompt treatment of localised infection and improving the environment where central lines are inserted. We have seen no further cases since March.

4. Progress against 2010/11 work programme

From April 2009 the Trust was legally required to register with the Care Quality Commission (CQC) under the Health and Social Care Act 2008 code of practice for the NHS on the prevention and control of healthcare associated infections and related guidance (usually called “the Health Act”). As a legal requirement of registration, the trust must protect patients, workers and others who may be at risk of acquiring a HCAI. Compliance by the Trust will be judged against the nine criteria laid down in the Health Act.

Our work programme is based on this which includes teaching, audit, policy development and review and progress against the 2010/11 IPC work programme is reported to the Shrewsbury & Telford Infection Prevention & Control committee (STIPCC)

Staff Health

The IPC team continues to work with the Occupational Health providers TeamPrevent to ensure that staff are protected from infection and do not pose a risk to others including patients from their own infections. Updating of the Infection Prevention & Control Policies Exposure to Blood Borne Viruses and Management of Infection in Staff come under this duty.

Education

The IPC Team continue to contribute to the Trust’s mandatory education programme:

Statutory training for all Healthcare Workers

- Induction training for all new staff
- Junior Doctors Induction
- Consultant and other senior Medical staff update training.

Human Resources monitor attendance at mandatory update and Induction training. The number of attendees from April 2010 to March 2011 who had IPC training is shown in the table below.

Attendance on Induction and Statutory training courses with Infection Control included April 10 - March 11 by staff group

<table>
<thead>
<tr>
<th>Staff Group</th>
<th>Totals</th>
<th>Stat training</th>
<th>Induction</th>
<th>% Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses</td>
<td>1454</td>
<td>762</td>
<td>143</td>
<td>62%</td>
</tr>
<tr>
<td>Midwives</td>
<td>256</td>
<td>149</td>
<td>20</td>
<td>66%</td>
</tr>
<tr>
<td>Medical staff (inc Consultants, Associate Specialists, Speciality Drs &amp; Staff Grades)</td>
<td>250</td>
<td>35</td>
<td>63</td>
<td>39%</td>
</tr>
<tr>
<td>HCAs, Healthcare Support Workers &amp; Healthcare Scientists</td>
<td>854</td>
<td>343</td>
<td>145</td>
<td>57%</td>
</tr>
<tr>
<td>Physiotherapy Department (inc Physios, Managers &amp; Assistants)</td>
<td>103</td>
<td>67</td>
<td>6</td>
<td>71%</td>
</tr>
<tr>
<td>Occupational Therapist Departments</td>
<td>36</td>
<td>14</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>Radiographers (Therapeutic &amp; Diagnostic)</td>
<td>127</td>
<td>82</td>
<td>6</td>
<td>69%</td>
</tr>
<tr>
<td>Portering Departments</td>
<td>74</td>
<td>9</td>
<td>11</td>
<td>27%</td>
</tr>
<tr>
<td>Phlebotomy Departments</td>
<td>32</td>
<td>27</td>
<td>1</td>
<td>88%</td>
</tr>
<tr>
<td>Domestic Departments</td>
<td>153</td>
<td>92</td>
<td>35</td>
<td>83%</td>
</tr>
<tr>
<td>Totals</td>
<td>3339</td>
<td>1580</td>
<td>434</td>
<td>60%</td>
</tr>
</tbody>
</table>

* Note: Induction counts as Stat Training for first year
The IPC Team continues to expand the provision of infection prevention and control training to as many groups as possible within the Trust. Overall, the total number of attendees on both Stat Training and Induction was an improvement on last year (April 2009 to March 2010), but the percentage of Nurses and Occupational Therapists attending the training was less than last year’s total. The attendance of these two groups at statutory training sessions will be actively managed this year through their Managers.

Nurses, along with Occupational Therapists and other members of staff have been captured via individual wards when separate training has been provided by the IPC Team following Action Plans from Periods of Increased Incidence, or IPC audits; including training to help improve compliance with the High Impact Interventions. The IPC Nurses have also responded to Occupational Therapy teaching requirements, by attending their Department meetings and discussing relevant issues.

The following education has also been undertaken:
- Hand decontamination training.
- Risk management in IPC
- Return to Nursing courses
- IV Foundation study day
- Healthcare Assistant Development days.
- Medical student doctors induction
- The IPC Team is also involved with Student Nurse placements.
- Link Nurse meetings have continued to take place at both sites throughout the year. This continues to be an effective way of disseminating information to Wards and Departments; also generating useful question and answer sessions.
- CleanYourhands Road Shows have also been delivered by the IPC Team.

The second IPC Conference. In September 2010, the IPC Team delivered a conference entitled “Take Control and Prevent HCAI’s. Implementing High Impact Interventions in Clinical Practice”. The subjects covered were

- Key principles for improving standards in relation to HCAI’s, Safety and Quality.
- Back to Basics
- MRSA and C.difficile
- New Delhi Metallo Klebsiella.
- The Law and the Nurse
- Chronic wounds – the root of the problem

The conference was attended by 119 delegates and was well evaluated by those who attended. A third conference will take place in July 2011.

The IPC Team also continues to provide education with Stafford University on the course on Developments in Infection Control Nursing.

The IPC monthly newsletter continues to be produced, by the IPC Service Improvement Manager with contribution from the IPC Nurses to inform staff of new policies and other issues relating to Health Care Associated Infections.

Essential Updates have also been introduced. These are A4 size fliers on relevant Trust IPC issues. These are produced by the IPC Service Improvement Manager and the IPC Nurses.

5. Compliance with the Health and Social Care Act 2008

Implementing the Code of Practice for Health and Adult Social Care on the prevention and control of infections and related guidance (Health and Social Care Act 2008) is a legal requirement for acute trusts and other health care providers. A resource used and developed by the Trust is a ‘self assessment tool’. This allows us to assess our compliance against the criterion within the Health and Social Care Act (2008) and also to produce a balanced score card which demonstrates our performance.

The Infection Prevention and Control Team use this tool to assess Trust compliance at various stages during 2010 and early 2011. An assessment of compliance was carried in January 2011 when the score was recorded at 95.7%. This followed a rigorous audit of evidence against the submitted statements, in order to gain an accurate awareness.

In areas where we show less than 100% compliance with a Criterion, ongoing work will be incorporated into the 2011/2012 work programme. However even when we are 100% compliant there will still be ongoing work to maintain that standard.

As part of the 2011/12 infection prevention work programme, a detailed internal validation of the self assessment will be carried out by the Infection Prevention and Control Team.

6. Hand Hygiene

Hand hygiene is the single most effective way of preventing transmission of infection. It has been estimated that good hand hygiene practice could reduce HCAI rates by up to one third.

The infection prevention and control team promote the World Health Organisation (WHO) ‘five moments for hand hygiene’ message, it is included in the trust induction and annual mandatory training sessions. Infection prevention and control link nurses, with support from the Infection Prevention and Control team continued to provide hand hygiene training and assessments for all staff every third year after being assessed within a month of joining the trust. The use of the ultraviolet light hand inspection cabinets ‘glowbox’ has been used as an excellent tool for demonstrating good hand washing practice at these training sessions as well as at other adhoc sessions throughout the year.

Compliance with the hand hygiene assessments of all clinical staff is now monitored by the IPCT through...
monthly reports sent by the training and development team. Compliance rates have increased but are still not 100% so ongoing monitoring and reinforcing the message regarding the importance of assessing staff in line with the trust policy will continue.

The Hand Hygiene Policy is available to all staff on the trust intranet and is reviewed annually.

Compliance in accordance with the 5 moments of hand hygiene is audited within all clinical areas and the results are presented to the trust in an electronic monthly report. The IPCT continue to visit areas where compliance is less than 95 percent and assist the ward managers in developing an action plan which is monitored through the relevant clinical governance teams.

The IPCT carried out validation audits in all areas in 2010, the results were reflective of those reported by the individual areas.

### 7. Audits (including High Impact Intervention)

Audit is an important activity that assists Trusts and Infection Prevention and Control teams in monitoring practice. One of the audit tools used is the High Impact Intervention (HII). These are provided within the “Saving Lives” resource pack and all Trusts are expected to use them. These audits give guidance on procedure, where infection is known to be a common problem and identify the key actions or interventions that staff can undertake to reduce the risk of infection occurring. Trends are monitored locally via clinical audit, clinical governance structures including ward assurance reports, and action plans put in place by ward managers if compliance is poor.

The High Impact Interventions audits include guidance on:
- Central venous catheter care
- Peripheral intravenous cannula care
- Renal dialysis catheter care
- Prevention of surgical site infection
- Care for ventilated patients
- Urinary catheter care
- Decontamination of Equipment

Audits are carried out by all wards and departments as applicable on a one to three monthly basis via the audit programme. A new High Impact Intervention has been released focusing on the decontamination of medical equipment. This has been developed into an audit tool and monthly reports sent by the training and development team. Compliance rates have increased but are still not 100% so ongoing monitoring and reinforcing the message regarding the importance of assessing staff in line with the trust policy will continue.

The Hand Hygiene Policy is available to all staff on the trust intranet and is reviewed annually.

Compliance in accordance with the 5 moments of hand hygiene is audited within all clinical areas and the results are presented to the trust in an electronic monthly report. The IPCT continue to visit areas where compliance is less than 95 percent and assist the ward managers in developing an action plan which is monitored through the relevant clinical governance teams.

The IPCT carried out validation audits in all areas in 2010, the results were reflective of those reported by the individual areas.

### 7. Audits (including High Impact Intervention)

Audit is an important activity that assists Trusts and Infection Prevention and Control teams in monitoring practice. One of the audit tools used is the High Impact Intervention (HII). These are provided within the “Saving Lives” resource pack and all Trusts are expected to use them. These audits give guidance on procedure, where infection is known to be a common problem and identify the key actions or interventions that staff can undertake to reduce the risk of infection occurring. Trends are monitored locally via clinical audit, clinical governance structures including ward assurance reports, and action plans put in place by ward managers if compliance is poor.

The High Impact Interventions audits include guidance on:
- Central venous catheter care
- Peripheral intravenous cannula care
- Renal dialysis catheter care
- Prevention of surgical site infection
- Care for ventilated patients
- Urinary catheter care
- Decontamination of Equipment

Audits are carried out by all wards and departments as applicable on a one to three monthly basis via the audit programme. A new High Impact Intervention has been released focusing on the decontamination of medical equipment. This has been developed into an audit tool and...
has been incorporated on to the audit programme. As more audits are developed these will be incorporated into the programme. Compliance has varied throughout the year and it is clear that there is more work to be done to improve and sustain compliance throughout the HII categories. Areas that required improvement have documented their actions on to the ward assurance report. The IPC Team have been working with the Band 7 ward managers to assist with these action plans and make sustained changes to current practice. This work will continue throughout 2011/2012. Throughout the year the IPC nurses have validated the audits to ensure compliance with the standards. See table above for results. Results of the Trust High Impact Intervention Audits also above.

Other audits have been completed during this period include:

- Commodes
- Isolation of patients with Diarrhoea
- Cdiff care pathway
- MRSA care pathway
- Segregation of Linen
- Screening of Emergency Admission for MRSA
- Screening of Elective Admission for MRSA
- Decontamination of Equipment Isolation Requirements for PRH
- Bed Cleaning
- Sink Audit
- PPE Audit

A programme of audit will be established for 2011/2012. This will form part of the IPC annual programme.

- Look in detail at root causes in order to reduce the annual number of post 48hr MSSA bloodstream infections
- Look in detail at root causes in order to reduce the annual number of post 48hr E.coli bloodstream infections
- Focus on decontamination of instruments/equipment outside of CSSD
- Increase Infection Prevention & Control information to visitors, through improved signage & the development of additional information leaflets

8. Environmental Cleanliness

Domestic Service Monitoring

The average Trust wide score for Domestic Cleanliness Monitoring for 2010/2011 was 95.05%

PEAT

The results of the formal annual 2010/11 PEAT Inspection confirmed that the Trust achieved an excellent rating score for cleanliness for the fourth consecutive year. The PEAT assessment programme for 2010/11 was carried out at RSH on 4 February 2011 and at PRH on 1 March 2011.

<table>
<thead>
<tr>
<th>Area of Performance: Environment and Cleanliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric (Method of Calculating Performance): Environments/Cleanliness as assessed by the Environment Action Team (PEAT) including a Patient Representative and PEAT Validator</td>
</tr>
<tr>
<td>Site Name</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Royal Shrewsbury Hospital</td>
</tr>
<tr>
<td>Princess Royal Hospital</td>
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</tbody>
</table>

The inspection was supported by a patient representative and by an external validator. The cleanliness results from this inspection will be publicised later in 2011.
**Hygiene and Compliance Audits**

During the period April 2010 to March 2011 23 clinical areas were audited

<table>
<thead>
<tr>
<th>Quarter 1 - April 2010 – June 2010</th>
<th>Quarter 3 - October 2010 – December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 14 PRH</td>
<td>ITU RSH</td>
</tr>
<tr>
<td>Maternity PRH</td>
<td>Ward 19 RSH</td>
</tr>
<tr>
<td>Ward 31 (Gynae) RSH</td>
<td>ITU PRH</td>
</tr>
<tr>
<td>Ward 32 (Discharge) RSH</td>
<td>Clinics 2, 3, 5 &amp; 8 RSH</td>
</tr>
<tr>
<td>Ward 7 PRH</td>
<td>Entrances, corridors RSH – A &amp; E</td>
</tr>
<tr>
<td>Rehab Unit PRH</td>
<td>Entrances, corridors RSH – IPC</td>
</tr>
<tr>
<td>Rehab – ADL Kitchen</td>
<td>Entrances, corridors RSH – Estates</td>
</tr>
<tr>
<td>Paul Brown – ADL Kitchen</td>
<td>Entrances, corridors RSH – Domestic</td>
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<td></td>
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<tr>
<td>Quarter 2 - July 2010 – September 2010</td>
<td>Quarter 4 - January 2011 – March 2011</td>
</tr>
<tr>
<td>Ward 15 PRH</td>
<td>A &amp; E PRH</td>
</tr>
<tr>
<td>Ward 26 U &amp; S RSH</td>
<td>Main X-Ray PRH</td>
</tr>
<tr>
<td>Apley Ward PRH</td>
<td>Radiology (X-Ray) RSH</td>
</tr>
<tr>
<td>Apley Clinic PRH</td>
<td>Renal Ward RSH</td>
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<td></td>
<td>Clinics (PRH) (B-F and Fracture)</td>
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<tr>
<td></td>
<td>Ward 23N RSH</td>
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<tr>
<td></td>
<td>CAPD (off 23N) RSH</td>
</tr>
</tbody>
</table>
9. Overview of 2011/12 IPC Programme

The 2011/12 programme reflects the requirements of the Health and Social Care Act 2008 our focus will be on:

- Monitor compliance against MRSA screening, providing local support to areas of poor performance
- Challenge existing assurance mechanisms & validate self assessment
- Follow up sub optimal standard of hand hygiene by small minority of medical staff. Clinical centres who do not achieve target score will be given further support
- Look in detail at root causes in order to reduce the annual number of post 48hr MSSA bloodstream infections
- Look in detail at root causes in order to reduce the annual number of post 48hr E coli bloodstream infections
- Focus on decontamination of instruments/equipment outside of CSSD
- Increase Infection Prevention & Control information to visitors, through improved signage & the development of additional information leaflets

10. HCAI Targets for 2011/2012

Each year we agree with our Commissioners a series of standards for the coming year. For 2011-2012, they are:

- The Trust will have no more than 2 hospital associated MRSA bloodstream infections
- The Trust will have no more than 54 cases of Clostridium difficile
- The Trust will investigate all episodes of Methicillin Sensitive Staph aureus (MSSA) bloodstream infections (bacteraemias) and report all cases and the likely cause and risk factors on the Health Protection Agency database to allow identification and prevention of avoidable infections. This is the commoner and more sensitive relation of MRSA. Like MRSA it often causes skin, soft tissue and bone infection including wound infection and infected intravenous lines. Some cases may be associated with health care. It is likely we will have formal reduction targets for this which may be introduced later this year after baseline levels have been established. This measurement is new for 2011-12
- The Trust will investigate all episodes of E coli bloodstream infections and report all cases and the likely cause and risk factors on the Health Protection Agency database to allow identification and prevention of avoidable infections. E coli is found in the human gut where it does not usually cause problems (apart from specific strains which can cause food poisoning). It is also a common cause of sepsis when it gets into the bladder producing urine infections. This is more likely to occur if a urinary catheter is present so may be health care associated. As with MSSA it is likely we will have formal reduction targets for this which may be introduced later this year after baseline levels have been established. This measurement is new for 2011-12

The investigation of all cases of MSSA and E coli bloodstream infections will be a significant workload for the infection prevention and control team as we see approximately 7 to 12 MSSA bacteraemias and 20 E coli blood stream infections a month. Many of these infections are seen in people coming into hospital with an infection acquired in the community as these are very common organisms and the majority are not acquired from health care. However, a significant percentage will have risk factors associated with health care, such as an infected surgical wound or urine infection associated with a urinary catheter, and this is where we hope to make a reduction.