Infection Prevention and Control Annual Report 2015-16

Medical Equipment Decontamination Team with Microbiology staff- Understanding the importance of hand hygiene within the scope of practice.

Staff collecting the Flu Fighter award from NHS Employers for most innovative campaign.

Dr Cathy Jeppesen  Consultant Microbiologist, Infection Control Doctor
Anne Smith       Nurse Consultant IPC
Emma Hoyle       Matron IPC
EXECUTIVE SUMMARY

- Trajectory MRSA and Clostridium difficile infections were met.

- One outbreak of gastroenteritis affecting two wards. No outbreaks of Norovirus confirmed.

- Uptake of staff influenza vaccination low uptake of 46.8% of all staff, 45.4% of healthcare workers who met the Department of Health recommendations for vaccination.

- Ebola plan successfully tested during the year in line with national guidance. National plans for Ebola have not been formally stood down.

- Surgical Site Infection surveillance 4 modules undertaken for knees and breasts.

- ICNet surveillance system is being effectively used by the IPC team.

- Future challenge of antimicrobial resistance must be taken into account when developing services.

- Importance of maintaining close links with Dorset Infection Control network to ensure services developed and standards of care delivered take account of planned integrated care models.
# INDEX

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive summary</td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td>4</td>
</tr>
<tr>
<td>2. Infection Prevention and Control Arrangements</td>
<td>5</td>
</tr>
<tr>
<td>3. Healthcare Associated Infections</td>
<td>5</td>
</tr>
<tr>
<td>4. National surgical Site surveillance</td>
<td>8</td>
</tr>
<tr>
<td>5. Outbreaks of Infection</td>
<td>11</td>
</tr>
<tr>
<td>6. ICNet Surveillance</td>
<td>12</td>
</tr>
<tr>
<td>7. Future Infection Challenges</td>
<td>13</td>
</tr>
<tr>
<td>8. Education</td>
<td>15</td>
</tr>
<tr>
<td>9. Policy review</td>
<td>15</td>
</tr>
<tr>
<td>10. Audit</td>
<td>16</td>
</tr>
<tr>
<td>11. Antimicrobials Report</td>
<td>20</td>
</tr>
<tr>
<td>12. Facilities Report</td>
<td>27</td>
</tr>
<tr>
<td>13. Decontamination Report</td>
<td>30</td>
</tr>
<tr>
<td>14. Estates Report</td>
<td>33</td>
</tr>
<tr>
<td>15. Conclusion</td>
<td>35</td>
</tr>
<tr>
<td>References</td>
<td>36</td>
</tr>
<tr>
<td>Appendix 1 Work Plan 2016-17</td>
<td>37</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

All care delivered at Dorset County Hospital is underpinned by the Trust values of: “Integrity, Respect, Teamwork and Excellence”. These values are integral to achieving an ongoing reduction in Healthcare Associated Infections and reflect the safe, clean care provided to patients at the Trust.

Prevention of Healthcare Associated infections (HCAI's) remains a key priority for the Trust. The Director for Infection Prevention and control (DIPC) reports directly to Trust Board on rates of Meticillin-resistant Staphylococcus aureus and Clostridium difficile. We have again improved on the incidence of Clostridium difficile infections and had fewer infections than the planned trajectory; and not had any cases of MRSA bacteraemia during 2015-16.

This year has been challenging across the NHS, increased pressure on emergency admissions has resulted in the Trust working to absolute capacity for much of the year. It is widely acknowledged that these circumstances are not ideal for delivery of an infection prevention and control programme. I am pleased to report that despite this increased pressure we have successfully limited outbreaks of infections such as Norovirus. This demonstrates the commitment of all staff to effectively identifying patients with potentially infectious diseases and initiating rapid isolation. This is challenging when capacity is limited.

The uptake of staff influenza vaccination programme was below the target of 75% for health and social care workers. We achieved only 45.4% of clinical staff and 46.8% of overall staff despite a proactive campaign to encourage staff vaccination.

Influenza is a serious illness; we have seen several patients admitted to intensive care unit critically ill during the year. We have a duty to protect our staff. Staff have expressed their concern regarding personal exposure to patients with influenza. It is therefore very important to strive to achieve improved uptake of influenza vaccination in the forthcoming year.

Preventing healthcare associated infections involves implementing a multi-faceted programme involving many different disciplines of staff across the Trust. Integration of care of patients across the domains of health and social care is the future for NHS services. It is therefore critical that the strong links that exist between the Dorset Infection Control Networks are maintained and continue to be strengthened. I will strive to ensure consideration for the prevention of healthcare associated infections is incorporated into the review of clinical service and any subsequent changes we make to the way services are provided. This is of increasing importance with the emergence of increased antimicrobial resistance, whereby the control mechanisms that support best practice are integral for the safety of the community.

I endorse the IPC work plan for the forthcoming year.

Julie Pearce
Chief Operating Officer, Interim Director of Nursing & Quality
2. INFECTION PREVENTION AND CONTROL ARRANGEMENTS

Infection Prevention Committee (IPC)

The IPC met 6 times during 2015-16. It is a requirement of The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections, that all registered providers: “have in place an agreement within the organisation that outlines its collective responsibility for keeping to a minimum the risks of infection and the general means by which it will prevent and control such risks”.

3. HEALTHCARE ASSOCIATED INFECTIONS

2015-16 has been a most successful year to meet the Trust trajectory for both MRSA bacteraemia and Clostridium difficile infections.

3.1 MRSA bacteraemia

There were no cases of trust acquired MRSA bacteraemia in 2015-16. This reflects the high standards of care patients receive at the Trust. This achievement is underpinned by attention and application of MRSA screening standards, care of intravenous lines, hand hygiene, isolation of colonised/infected patients and high standards of environmental cleanliness. This is the second year the Trust reports no cases of MRSA bacteraemia. This provides confidence in the review of the Trust MRSA Policy reviewed in 2015 taking account of the recommendations of the Department of Health (2014) strategy for modified admission MRSA screening. This strategy was based on a national review of MRSA screening and a cost benefit analysis, which suggested that it is more cost effective to move from universal MRSA screening to screening only ‘high risk’ areas where MRSA infection would have more severe consequences e.g. renal units, intensive care, orthopaedic patients. As specialities in DCH are not well segregated due to the hospital’s size, the IPC concluded we should continue screening all inpatients, but screening before low risk day case procedures has stopped.

Public Health England (PHE) reported in 2015 a continued fall in the incidence of MRSA bacteraemia. The report identified for the first time the percentage of MRSA bacteraemia with pneumonia as the reported source exceeded catheter/line infections for the first time. It was also noted that people ≥ 65 years old accounted for 66.3% of all infections in men and 57.9% in women. In this age group pneumonia was associated with a higher percentage of cases in men than women (23% vs.14.6%) and urinary tract infections (11.5% vs. 0%).

It is therefore important to take these findings into account when planning the IPC work for the forthcoming year. We continue to work closely with Dorset CCG to investigate community cases of MRSA bacteraemia.

3.2 Meticillin sensitive Staphylococcus aureus (MSSA)

Staphylococcus aureus is a bacterium that commonly colonises human skin and mucosa without causing any problems. The bacteria can cause disease when
entering the body. This can be via broken skin or a medical procedure. The range of illnesses the bacteria can cause are from mild to life threatening and includes skin and wound infections, infected eczema, joint infections, infections of heart valves, pneumonia and bacteraemia. These infections only differ from MRSA by virtue of the antibiotics they are sensitive to.

Nationally, Public Health England reported 9,827 cases of MSSA bacteraemia in England for 2014-15. This represented an increase of 5.8%. Trust apportion cases were reported to rise by 3.7% (PHE 2015).

In 2015-16 there were a total of 36 cases of MSSA bacteraemia, of these 28 cases were identified <48 hours of admission and 8 identified >48 hours after admission (Chart 1). This compares well with 2014-15 whereby 43 cases were reported.

These are significant infections; we have implemented control measures that include, screening for certain high-risk patient groups, and decolonisation of high-risk patients prior to procedures. However, analysis of cases in the >48hour group has shown that only a minority are truly trust-acquired, with many relating to a source present prior to admission.

### 3.3 *Escherichia coli* bacteraemia

*E. coli* are bacteria commonly found in the intestines of animals and humans. Some of these bacteria live in the intestine harmlessly; others may cause a variety of diseases. *E. coli* bacteria cause a range of infections including urinary tract infection, cystitis and intestinal infections. Blood stream infections (bacteraemia) may be caused by primary infections spreading to the blood (PHE 2016). *E. coli* bacteraemia are reported by Public Health England as rates per 100,000 population. The rate is estimated to have risen from 60.4 in 2012-13 to 66.2 per in 2014-15 per 100,000 population. In Dorset the rate of *E. coli* bacteraemia was 73.3 per 100,000 population for 2014-15, the higher rate reflecting the demographics of the age of the community.
In 2015-16 the Trust reported 120 E.coli bacteraemia, of these 11 were identified >48 hours after admission (these infections are not as yet Trust apportioned). The main sources of E.coli bacteraemia are urinary tract infections, gastrointestinal infections and hepatobiliary infections. Public Health England (2015) reported 48.1% of E. coli bacteraemias identified <48 hours of admission were associated with urinary tract infections. Half of all E. coli bacteraemias are identified in patients ≥75 years of age, with highest rates in older patients (≥ 85 years).

E. coli infections are a source of concern for IPC teams, as increasing antibiotic resistance poses a threat of these common infections being more difficult to treat in community settings resulting in increased hospital admissions. The IPC are working with Dorset Acute and Community Trusts to review the insertion and management of urinary catheters across the health community and will focus on detecting catheter associated urinary infections in the forthcoming year. The importance of improving outcomes for patients admitted with sepsis is recognised, the Trust is progressing work with early identification and optimal management of Sepsis in line with national guidance.

The surveillance capacity of ICNet has provided the opportunity to review antibiotic susceptibility of bacteria which will inform local antibiotic policies in the future, as discussed further in section 6 below.

3.4 Clostridium difficile

Clostridium difficile is a bacterium that is found in people's intestines. It can be found in healthy people and cause no symptoms (up to 3% of adults and 66% of babies). Disease occurs when normal bacteria in the intestine are altered, usually by the administration of antibiotics. This allows C. difficile bacteria to increase to high levels with the ability to produce toxins. The toxins disrupt the intestine and causes mild to severe diarrhoea. This has the potential to lead to more serious infections with severe inflammation of the bowel. In hospital settings there is the potential for cross infection through contact with a contaminated environment or person (PHE 2014).

The Trust trajectory for 2015-16 was set at no more than 14 cases of Clostridium difficile infection (CDI). Following appeal of cases where no lapse in care was identified we reported 10 cases of CDI. All cases of CDI detected >72h from admission are investigated thoroughly, this involves holding a root cause analysis (RCA) meeting chaired by the Chief Executive Officer and the multi-disciplinary team. The RCA reviews all elements of each case; this includes an overview of the case presentation, antibiotic prescribing, isolation (standard is <2hours from onset of symptoms), environmental cleaning, hand hygiene and potential for exposure to other cases. This provides confidence in the standards of care provided at the Trust. Any identified learning from these investigations is reviewed at the Infection Prevention Committee.

Cases where no lapses in care are taken to a Dorset-wide Post Investigation Review Committee to determine whether the Committee agree there were no lapses in care identified. If agreement is reached these cases do not count against trajectory. In 2015-16, 13 cases were successfully appealed. These cases probably represent the
irreducible minimum. A review of cases whereby a lapse in care was identified was undertaken and 3 key themes were identified (Chart 2). Achieving isolation within the required “2 hour” window from the onset of symptoms is challenging for staff, particularly given the increased pressures associated with admissions to the Trust resulting in working to capacity, and managing patients within the appropriate specialist area is a priority. It is however important to ensure appropriate escalation occurs if isolation cannot be achieved within the ward complement. It is also important to take into account the failure to isolate patients in timely manner during any ward reconfiguration involving the potential reuse of single rooms for non-clinical or alternative purposes. Depletion of this stock has the potential to increase preventable healthcare associated infections and may result in outbreaks of infection.

*These do not represent cases of CDI, as more than one lapse can be identified per case.

All samples of hospital acquired CDI are forwarded to the reference laboratory for ribotyping (a molecular technique to review DNA sequencing to differentiate strains of bacteria). From this data we have established that we did not experience linked cases of CDI and our control measures are effective.

4. NATIONAL SURGICAL SITE INFECTION SURVEILLANCE

Surgical site infections (SSIs) are defined to a standard set of clinical criteria for infections that affect the superficial tissues (skin and subcutaneous layer) of the incision and those that affected the deeper tissues (deep incisional or organ space). Preventing surgical site infections is an important component of Infection Prevention and Control programmes. There is a Mandatory requirement by the Department of Health for all Trusts’ undertaking orthopaedic surgical procedures to undertake a minimum of three months’ surveillance in each financial year.
During 2015-16 the IPC team have supported 3 modules for surveillance of knee replacement and 1 module for Breast surgery. Surveillance is more robust following the introduction of ICNet. The system facilitates readmission alerts, and data upload from PAS, theatre and microbiology systems and the ability to directly upload the data to PHE SSI site.

### 4.1 Surgical Site Surveillance of knee replacement

SSI for knee replacement involves 3 stages of surveillance:
- **Stage 1** - collection of data relating to the surgical procedure and inpatient stay
- **Stage 2** (not mandatory) collection of post discharge surveillance at 30 days post procedure
- **Stage 3** - review of patients readmitted within 365 with SSI

Data reports have been published up to the period of July- September 2015. Surveillance for the period January- March 2016 is not available at the time of this report as the surveillance period has not completed.

The following tables demonstrate the number of operations completed, and number of completed post discharge questionnaires for April- June 2015 (Table 1) and July- September 2015 and last 4 periods for which data was available (Table 2).

Following SSI modules undertaken in 2014-15, it was recognised that a higher rate of infections was reported by patients completing their post-discharge questionnaires. This rate of infection was above the national average (DCH 3.4% vs. 1.6%). Surgeons were confident that these post-discharge ‘infections’ represented the natural inflammatory process that occurs following insertion of an implant. Joint work was undertaken to review the cases, it was recognised that antibiotics were being inappropriately prescribed in the community and that infections were wrongly diagnosed by patients and community staff. The patient information leaflet was revised, access for review improved by initiating implementation of the facility to call the ward if infection was suspected to organise rapid review by Orthopaedic Surgeons.

Cases whereby infections have been identified are jointly reviewed at the Orthopaedic Governance meetings. Rates of post discharge identified infections have subsequently reduced as demonstrated in the tables 1 and 2. The percentage of post discharge questionnaires returned by patients is significantly higher than the national data for all hospitals.
### Table 1 April – June 2015 Knee Replacement Surveillance

<table>
<thead>
<tr>
<th>Operations &amp; Surgical Site Infections</th>
<th>Dorset County Hospital NHS Foundation Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apr-Jun 2015</td>
</tr>
<tr>
<td><strong>Operations</strong></td>
<td></td>
</tr>
<tr>
<td>Total number</td>
<td>72</td>
</tr>
<tr>
<td>No. with PQ given</td>
<td>72</td>
</tr>
<tr>
<td>% with PQ completed</td>
<td>87.5%</td>
</tr>
<tr>
<td><strong>Surgical Site Infection</strong></td>
<td></td>
</tr>
<tr>
<td>No. of inpatient/readmission % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>No of post discharge confirmed % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1.4%</td>
</tr>
<tr>
<td>No of patient reported % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>All SSI % infected</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1.4%</td>
</tr>
</tbody>
</table>

### Table 2 July- September 2015 knee replacement

<table>
<thead>
<tr>
<th>Operations &amp; Surgical Site Infections</th>
<th>Dorset County Hospital NHS Foundation Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jul-Sep 2015</td>
</tr>
<tr>
<td><strong>Operations</strong></td>
<td></td>
</tr>
<tr>
<td>Total number</td>
<td>73</td>
</tr>
<tr>
<td>No. with PQ given</td>
<td>73</td>
</tr>
<tr>
<td>% with PQ completed</td>
<td>80.8%</td>
</tr>
<tr>
<td><strong>Surgical Site Infection</strong></td>
<td></td>
</tr>
<tr>
<td>No. of inpatient/readmission % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>No of post discharge confirmed % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>No of patient reported % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>All SSI % infected</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### Table 3 shows the results from all hospitals in this surgical category for the previous 5 years (2010-2015) for purpose of comparison.

<table>
<thead>
<tr>
<th>Operations &amp; Surgical Site Infections</th>
<th>All hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without PQ</td>
</tr>
<tr>
<td><strong>Operations</strong></td>
<td>120280</td>
</tr>
<tr>
<td>% with PQ completed</td>
<td>70.1%</td>
</tr>
<tr>
<td><strong>Surgical Site Infection</strong></td>
<td>761</td>
</tr>
<tr>
<td>% infected</td>
<td>0.6%</td>
</tr>
<tr>
<td>No of post discharge confirmed % infected</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>0.2%</td>
</tr>
<tr>
<td>No of patient reported % infected</td>
<td>No data</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>All SSI % infected</td>
<td>1039</td>
</tr>
<tr>
<td></td>
<td>0.9%</td>
</tr>
</tbody>
</table>

The Orthopaedic Director has requested that we collect SSI data for hip replacements in 2016-17.


This data compares well to national data (DCH overall 3.8% vs 4.3%). Following initial surveillance undertaken in 2013 joint work identified that SSI rates would be reduced with the introduction of screening patients undergoing breast surgery for both MRSA and MSSA. Where patients are identified as colonised, decolonisation treatment is provided. The results are encouraging and surveillance is now completed annually.

<table>
<thead>
<tr>
<th>Operations &amp; Surgical Site Infections</th>
<th>Dorset County Hospital NHS Foundation Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan-Mar 2015</td>
</tr>
<tr>
<td>Operations</td>
<td></td>
</tr>
<tr>
<td>Total number</td>
<td>75</td>
</tr>
<tr>
<td>No. with PQ given</td>
<td>75</td>
</tr>
<tr>
<td>% with PQ completed</td>
<td>76%</td>
</tr>
<tr>
<td>Surgical Site Infection</td>
<td></td>
</tr>
<tr>
<td>No. of inpatient/readmission</td>
<td>0</td>
</tr>
<tr>
<td>% infected</td>
<td>0.0%</td>
</tr>
<tr>
<td>No of post discharge confirmed</td>
<td>1</td>
</tr>
<tr>
<td>% infected</td>
<td>1.3%</td>
</tr>
<tr>
<td>No of patient reported</td>
<td>0</td>
</tr>
<tr>
<td>% infected</td>
<td>0.0%</td>
</tr>
<tr>
<td>All SSI</td>
<td>1</td>
</tr>
<tr>
<td>% infected</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

5. OUTBREAKS OF INFECTION

5.1 There was only one outbreak of gastroenteritis during the year affecting 2 wards. The first ward affected was Ridgeway Ward, the orthopaedic elective surgical ward. The ward was closed for 14 days from 10/03/2015. 9 patients were affected, no staff were affected.

The second ward affected was Evershot, this wards was open in response to winter pressures and linked with the Acute Hospital at Home Team. The index case had been transferred from Ridgeway ward prior to closure. The outbreak was declared on 11/03/15 and the ward was closed for 16 days. There were 10 patients affected, no staff were reported as symptomatic during the outbreak.

We were unable to isolate a bacterial or viral causative organism during this outbreak. Samples were processed both at the Trust and by the regional reference laboratory. Communication with Public Health England identified that around the country there had been “several outbreaks of unknown origin”. This emphasises the importance of responding to patients’ symptoms and not the laboratory result.
6. ICNET SURVEILLANCE

Since the introduction of ICNet in 2013 the ability of the IPC team to function more effectively is very apparent.

We know have the ability to monitor patients with infections on a day to day basis during the course of IPC daily ward rounds, providing advice to staff and information for patients and their relatives. Working as a pilot site for ICNet we are currently in the process of integrating data feeds from VitalPac system for invasive devices. This is an exciting and challenging development as we will in the future increase our capacity to identify infections associated with invasive devices and work with clinical staff to reduce these. In 2016 we are undertaking a pilot study for the surveillance of infections associated with Critical Care Unit. This joint working provides the opportunity to benchmark with other Trusts using standardised data and where necessary to improve practice.

The system facilitates early identification of patients admitted or due to be admitted with previously known infections and where necessary alert the multi-disciplinary team to potential associated risks. This might involve treatment prior to admission, isolation and treatment, review of antibiotic treatment of the patient and direction of the required standards for decontamination of the environment.

Daily ward rounds also support the flow of patients within the hospital by providing an updated list of patients in single rooms. Patients with infections are rated by the current knowledge of their screenings and symptoms and where necessary supports the difficult decisions of Clinical Site Managers with placement of new patients.

During 2015-16 we have experienced one outbreak of gastroenteritis involving 2 wards. We were able to link the 2 wards using ICNet to identify the transfer of the index case into the second ward. This is not reflective of the experience of the 2 acute Dorset Trusts and Community Trusts whereby on-going outbreaks of Norovirus have been identified. It is difficult to measure events that are naturally occurring and those that are prevented, but the Trust has experienced the same bed pressures as surrounding Trusts but not been as adversely affected by Norovirus and subsequent ward closures.

The ICNet system has been gathering lab susceptibility data since the additional ‘suppressed results’ feed was set up in November 2014, allowing susceptibility reports to be generated. For example, the graph below shows the accumulated antibiotic susceptibilities of all Enterobacteriaceae (coli) isolates from blood cultures during 2015 (166 episodes in total). It is reassuring that resistance to gentamicin, which features in DCH policy as an adjunct in severe gram negative sepsis, remains low. This data can now be monitored on a regular basis to track trends in resistance and inform local antibiotic guidelines.
7. FUTURE INFECTION CHALLENGES

7.1 Influenza

Influenza has proven challenging to manage during the last quarter of the year. The chart below demonstrates the ages of patients admitted with influenza. Between March and April 2016. Of these patients 3 were admitted to Critical Care Unit.

IPC staff contributed to the staff influenza Vaccination programme. Only 45.4% of staff meeting the Department of Health criteria received the vaccination. Peer vaccination was encouraged and top vaccinators received prizes.
The rise in patients admitted with complications of influenza has alarmed some members of staff caring for these patients. The key lesson is to improve the uptake amongst staff likely to care for patients with influenza next year. Another key learning point is to achieve earlier isolation of symptomatic patients to prevent risk assessment and administration of prophylaxis when this has not been achieved.

7.2 EBOLA

The challenge of preparing for Ebola virus required significant resources and preparation. The Trust responded well and provided the facilities, equipment and staff training to meet the requirements.

Several false alerts were received, mainly associated with staff not referring to the geographical alerts issued by Public Health England and World Health Organisation. On one occasion in November a relevant alert was received and the Ebola Plan was initiated by A&E. Preparations were made to admit the patient, whilst he was assessed against the criteria by the Consultant Microbiologist in conjunction with the Consultant for Fever Service. During this phase of the assessment it was determined that the patient did not meet the criteria for Ebola Virus Disease. Most importantly the action plans were reviewed following this alert and plans amended accordingly. This work is worthwhile; it is possible that patients with other forms of viral haemorrhagic infection could be admitted and requires the same level of care to prevent transmission.

7.3 Antimicrobial resistance

Bacteria are evolving with increasing patterns of antimicrobial resistance. Antimicrobial resistant occurs when a micro-organism which causes infection develops to survive exposure to an antimicrobial agent that would normally kill them.

Public Health England have issued a toolkit for acute trusts for the early detection, management and control of Carbapenemase producing enterobacteriaceae (CPE) (PHE 2013). Enterobacteriaceae are a large group of bacteria, they usually live harmlessly in the gut of all humans and animals. These bacteria are a most common cause of opportunistic infections these include: urinary tract infections, intra-abdominal and blood stream infections. Carbapenems are a group of antibiotics usually reserved for the treatment of serious infections. Carbapenemases are enzymes that have developed the ability to destroy the carbapenem antibiotics. This pattern of resistance is of great concern as there are currently very limited treatment options available to treat patients with infections caused by CPE.

We have introduced screening of patients admitted (patients who have been hospitalised abroad in last 12 month, or an inpatient in UK hospitals which has
problems with CPE spread or known to be previously CPE positive). This is very important, as effective screening; isolation of patients at risk significantly reduces the potential for cross infection to occur. When a patient is identified as a being either colonised or infected with CPE an alert flag is placed on the Patient Alert System—this alerts staff if patients known to carry CPE are readmitted thus providing staff with a warning to isolate the patient. During the year we have identified 1 patient admitted to the Trust who met the criteria for CPE screening. Review of the case demonstrated that he had been managed well since admission and his risk factors were considered when he was placed in a single room.

8. EDUCATION

8.1 Mandatory training

All staff groups are offered Infection Prevention and Control training. Education is Mandatory for all Trust groups. For non-clinical staff we have developed an IPC workbook linked to key Trust policies combined with a training video.

During the year we have completed the following education session

77 Clinical sessions
5 non clinical sessions
12 Clinical induction sessions
12 Non clinical induction sessions
8 Doctors Essential Skills sessions
1 volunteers update

8.2 LINK GROUP

Each ward and clinical area has a representative Link Nurse/healthcare worker. We have run 6 link groups during the year, providing an opportunity for staff to gain from IPC experiences of others and receive updates on current issues. Attendance at these meetings can be difficult given the rotas of the staff members and annual leave. We would like to improve attendance next year.

9. POLICY REVIEW

The following policies have been reviewed and updated during 2015-16:

- Aseptic technique
- Ebola Guidance
- MRSA
- Infection Control
- Isolation
- Clostridium difficile

Guidelines reflect national recommendations e.g. NICE, Public Health England, NHS England.
10. AUDIT

10.1 Peripheral Venous Cannula (PVC)

In 2014 national guidance was published for the prevention of healthcare associated infections in NHS Hospitals. A full GAP analysis was undertaken and the insertion and management of Peripheral Venous Cannula (PVC) was one area that required improvement. PVC’s are commonly used devices in acute hospitals, used for the administration of intravenous fluids and drugs. Failure to monitor these devices correctly can result in early signs of infection being missed with the potential for serious infections to develop. The new evidence presented in the national guidance suggests a move away from routine PVC replacement to regular review and early removal if signs of infection are evident.

Further to last year’s ongoing PVC audits regular audits were carried out to monitor compliance. Repeat audit commenced January 2016 and remains ongoing. Initial results in January 2016 showed a lapse in compliance but since then improvement has been noted and IPCT support and input to the clinical areas has reinforced documentation policy.

10.2 Urinary Catheter Documentation Audit

Urinary tract infections are the second largest single group of healthcare associated infections in the UK. Insertion of a urinary catheter is known to be a significant risk factor in the development of urinary tract infections and the risk increases with the duration of catheter insertion. It is therefore important to ensure there is a comprehensive process in place to ensure that the risk of urinary tract infection is
taken into account and considered prior to insertion of urinary catheter and there is a continuous process for review.

Six monthly audits were undertaken in May and November 2015 by the Infection Prevention and Control Nurses to establish compliance with the documentation standards within the Trust Urinary Catheter Care Policy. Compliance with documentation of insertion and ongoing daily care of the catheter has been reinforced throughout. The option to utilise VitalPac as the preferred method of urinary catheter documentation has been agreed and Divisions are currently moving to this option.

Both audits took place across the adult inpatient clinical areas. All acute clinical areas were included in the audits all patients with urinary catheters in situ were included in these audits.

![Graph: Catheter Documentation Audit](image)

Documentation of insertion and management of urinary catheters has improved following previous audit. The planned audit in May 2016 will focus on the evidence for removal of urinary catheters and the planned implementation of Catheter Removal Protocol (Houdini) will follow over summer 2016.

### 10.3 Catheter Record Booklet

During 2014/15 the IPCT team (IPCT) worked alongside Dorset Healthcare University NHS Trust to develop documentation to support best practice and to support reduction in catheter associated UTI’s. Best practice recommendations were considered and the IPC teams have collaborated and developed a Catheter Record Booklet which was successfully trialed on several wards at DCHFT. This booklet is planned to remain with the patient who has a urinary catheter on discharge from acute care and remain with them in the community. The booklet covers patient and carer information as well as correspondence relating to the urinary catheter for the health care professional.

During last year the IPCT has worked with closely with the Dorset Infection Control Forum (IPCNs from Dorset Healthcare University NHS Foundation Trust, Royal Bournemouth and Christchurch NHS Foundation Trust, Poole Hospital NHS...
Foundation Trust and the Dorset Clinical Commissioning Group) to integrate the booklet into current practice.

The Dorset Clinical Commissioning Group is funding the printing of the booklet which was officially launched in the autumn of 2015.

This whole health economy approach has enabled the teams to work closely together to establish a safe process for patients who have urinary catheters in situ whilst in hospital or in the community.

10.4 Hand Hygiene Audit

In the summer of 2015 the Trust were visited by the Internal Audit Team (KPMG) in preparation for the Care Quality Commission (CQC) planned visit in 2016. The team looked at the Trust as a whole and one of the recommendations of this audit was “The Infection Control team should conduct a “deep dive” audit to assess practice, make improvements where necessary and reinforce clinical practice to all staff.

One of the challenges for the infection control team in undertaking hand hygiene audit is that practice tends to change when the team are visible in the clinical environments. Therefore it was agreed that an independent member of Trust staff would undertake an observational hand hygiene audit and an audit of availability of alcohol hand rub “at the point of patient contact”.

Compliance with hand hygiene practice at the time of the audit was 76.3%. Availability of hand rub in the acute clinical area showed that 78% met the standard for alcohol hand rub at the point of contact.

Following the audit further alcohol hand gels were made available. The Divisional Matrons reviewed common themes of non-compliance and developed action plans.

IPCT will conduct ongoing audits to ratify monthly hand hygiene audits.
10.5 Sluice Audit

Following the KPMG Internal Audit 2014/2015 and subsequent recommendations, an environmental audit of all sluices within the Trust was completed during June/July 2015 and February/March 2016. The Quality Improvement Tool used for the audit was developed by the Infection Prevention Society; these are tools designed for detailed measurement of all aspects of practice/environment or a specific clinical practice. This tool can be used to measure baseline compliance with standards and identify areas for improvement work. Guidance is provided against the criteria in each standard to ensure objective assessment. This tool is comprehensive and will give an overall indication of how well areas are doing.

Detailed findings were shared with Divisional Matrons to attend to with the Ward/Unit Sisters. Common themes identified in June/July 2015 included; staff knowledge on management of spillages, availability of PPE and correct storage of the recently introduced papier-mâché products. The recent audit carried out in February/March 2016 indicates that the majority of the issues identified in the first audit have been resolved. The audit will be modified and disseminated to Divisional for inclusion on their Annual Audit Plans.

10.6 Sharps Audit

The Infection Prevention & Control Team at Dorset County Hospital NHS Foundation Trust requested the Daniels Healthcare undertook a sharps safety audit of Dorset County Hospital. The Daniels Healthcare auditor(s) undertook the survey in August 2015. This audit was undertaken to gain insight into current practices with regard to management of sharps in the clinical area. The results highlighted an improvement in compliance with previous practice and areas for improvement were shared with the Divisional matrons to action. This audit will be annually undertaken.
Antimicrobials: Summary report for financial year 2015/16.

Overview
High quality antimicrobial prescribing is recognised as a key component in the slowing of the development of antimicrobial resistance in micro-organisms. In addition, some Healthcare Associated Infections (HCAI’s) such as Clostridium difficile diarrhea result from a complex interplay between antibiotic usage and other factors (e.g. hand hygiene, environmental cleaning, and patient factors). Prudent prescribing, with avoidance of unnecessary, or unnecessarily broad spectrum, high-risk antibiotics and attention to appropriate antibiotic course duration lessens the risk.

Antimicrobial stewardship is written into the Health and Social Care Act 2008 and in November 2011, the Department of Health published a guidance document entitled “Start Smart –Then Focus”, which outlines best evidence-based antimicrobial stewardship practice in the secondary healthcare setting which helps healthcare providers assess whether they meet Criterion 9 of The Act. August 2015 also saw the publication of NICE guidance NG15 “Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use.”

Overview of Work done in 2015/16

i) The Antimicrobial Stewardship Committee has met bimonthly throughout the year, chaired by the Chief Pharmacist. This has reported up to the Infection Prevention Committee assurances and concerns around antimicrobial stewardship in the trust.

ii) Continued work on increasing the range of antimicrobial guidance available on the Micro Guide smartphone app.

iii) Participation in Clostridium difficile post-infection RCA meetings and identifying themes related to antimicrobial prescribing and pharmaceutical review of patients.

iv) Mandatory training in Antimicrobial Stewardship for all F1s. This is the first year that all F1s have attended, through a series of catch-up sessions. Feedback from the F1s was positive, both in terms of the content and delivery of the sessions and in the positive impact they feel it will have on their practice.

v) Numerous antimicrobial prescribing audits and ward rounds in conjunction with the consultant microbiologists to educate prescribers and identify trends in good and poor antimicrobial prescribing practice.

vi) Participation in the South West Region Annual Point Prevalence Audit.

vii) Increased antimicrobial surveillance of patients who have previously had possible or confirmed Clostridium difficile infection.

viii) Electronic Prescribing and Medicines Administration (EPMA) is now becoming more established in the trust, and is being used as a tool to support antimicrobial stewardship.

ix) NICE NG15 “Antimicrobial stewardship systems and processes for effective antimicrobial medicine use” has been reviewed by the Antimicrobial Stewardship Committee and an action plan put in place to meet the recommendations.
Annual Point Prevalence Audit

This audit has been undertaken at Trust level for 9 years. This study is an annual one-day "snapshot" audit of antibiotic prescribing and was undertaken at Dorset County Hospital Foundation Trust in February 2016 as part of a regional study that included over 8700 patients across 20 other Trusts from the South West of England. The data collected can be used to;

i) chart the Trust's performance in previous years (9 years data collected) and/or
ii) compare antibiotic prescribing data with other Trusts in the region
iii) identify any trends highlighting areas requiring improvement or areas of best practice.

Results Summary 2015/16

100% of inpatients on all inpatient wards (excluding maternity) at DCHFT were seen as part of the audit, facilitated by the use of EPMA to identify those patients on antibiotics and ensure that those patients were targeted by the audit team. 33% of patients at DCH were on antibiotics, which compares to regional average of 34%.

There has historically been a trend of increasing antibiotic usage, both locally at DCH and across the South West region as a whole. Public Health England have also picked up on the trend as both a national and international problem and are setting targets to reduce antibiotic consumption as part of the strategy on reducing antimicrobial resistance.

In previous years, DCHFT has been an outlier, with a higher proportion of patients on antibiotics than the regional average. However, the trend in decreasing antibiotic prescribing that has been noted for the two previous years continues, and we are now nearer the regional average.
- The route of administration was considered appropriate in 97.2% of cases. In three of the four cases where the route was not considered appropriate, this was because a plan had been documented in the notes for antibiotics to be switched from IV to oral, but the prescription was not changed on EPMA.

- Only 41% of inpatient prescriptions at DCH had a course length or review date stated on the chart or in the notes, compared to the regional average of 80%. This is a further deterioration against the March 2014 result of 49%. This is an area that has shown continued deterioration in the last 12 months. Primarily down to the switch to EPMA and the inability to record review dates on prescriptions within the current EPMA set-up. A duration or stop date can be prescribed, but these do not warn that the last dose is being/has been given. Once the last dose has been given, the prescription silently disappears from the list of active orders. To further break this down, 34 prescriptions have stop dates entered on EPMA (mostly STAT doses), whilst 25 prescriptions only had review dates documented in the notes as currently advised to avoid the risks discussed above. This issue has been raised with JAC as an enhancement request, although it is still not on the horizon for the next upgrade. The Department of Health guidelines on Antimicrobial Stewardship (Start Smart Then Focus, 2011) state that “all antibiotic prescriptions should have a duration or review date on the drug chart and in the medical notes”. It is also noted that the other trusts in the region that have switched to electronic prescribing have experienced similar issues.

- 90% of inpatient prescriptions had an indication documented either in the notes or on the drug chart, compared to a regional average of 97%. This is short of the required standard, which is 100%. The audit demonstrates that some prescribers at DCHFT are failing in the very basics of documenting in medical notes and this represents a medico-legal risk to both the prescriber and the Trust.
However, despite losing the prompt on the paper drug chart to document the indication, recording in the medical notes has largely been sustained.

94% of antibiotic prescriptions at DCHFT were in line with current antibiotic guidelines (v 87% regional average), 1% no guideline available (v 4% regional average) and 5% not in line with guidelines (v 6% regional average).

A comparison of the most commonly prescribed antibiotics at DCHFT v Region (as % of total number of antibiotic prescriptions) did not show any significant variations between local practice and the rest of the region. Clarithromycin and doxycycline were both noted have higher usage at DCH compared to regionally, but this correlates with a higher proportion of patients being treated for respiratory tract infections compared with the region as a whole.

Prescribing of antibiotics associated with a high risk of *Clostridium difficile* associated diarrhoea (Cephalosporins, Quinolones, Clindamycin and Co-Amoxiclav) is in line with the regional average.

A comparison of the route of antibiotics at DCHFT v Region shows that 48% of prescriptions were for IV antibiotics at DCHFT, compared with 50% across the region.

**Conclusion and Action**

- Recording of review dates and indications on antibiotic prescriptions at DCHFT is below the regional average and performance has slipped compared to the previous year. Action needs to be taken to raise awareness of the importance of clear documentation of indications for antimicrobial therapy and the review process.
- Antibiotic use is largely in line with the rest of the region after a number of years of higher than regional average incidence of antibiotic prescribing.
There remains no facility on EPMA to mandatorily record indications or stop/review dates for antimicrobial prescriptions, and that we have significantly lower compliance than prior to the switch from paper charts, or when compared to other trusts using paper drug charts.

**Financial summary for year 2015/16**

The table below shows the cost of anti-infective drugs prescribed at DCHFT over the last 5 financial years. Figures include issues to inpatients and outpatients and cover all clinical directorates as reported from JAC via DSUM.

<table>
<thead>
<tr>
<th>Year</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics</td>
<td>£354,493</td>
<td>£402,540</td>
<td>£424,415</td>
<td>£372,273</td>
<td>£349,149</td>
</tr>
<tr>
<td>Antifungals</td>
<td>£131,231</td>
<td>£128,338</td>
<td>£118,739</td>
<td>£168,391</td>
<td>£74,239</td>
</tr>
<tr>
<td>Antivirals</td>
<td>£495,366</td>
<td>£501,053</td>
<td>£503,467</td>
<td>£504,693</td>
<td>£536,935</td>
</tr>
<tr>
<td>Totals</td>
<td>£981,090</td>
<td>£1,031,931</td>
<td>£1,046,621</td>
<td>£1,045,357</td>
<td>£960,323</td>
</tr>
</tbody>
</table>

It can be seen spending on antimicrobials is largely static over the last couple of years. Antibiotic spend has decreased slightly, which correlates with the point prevalence study results showing a decreased prevalence in antibiotic prescribing. Antifungal spending is decreased due to a number of factors, which includes a change in first-choice echinocandin from caspofungin to micafungin which has a lower acquisition cost, a decrease in acquisition cost of both IV fluconazole and nystatin mouthwash, and a decrease in use of intravenous antifungals.
Antibiotic Prescribing Audits 2015/16

668 patients have been audited by the antimicrobial stewardship team during the year. Of these 33.7% were on antibiotics at the time of the audit. 88.6% of prescriptions were fully compliant with guidelines, or were an appropriately justified deviation from the guidelines (e.g. alternative antibiotic choice for allergic reactions, failure to respond to guideline antibiotic, guided by culture results or recommendations of a consultant microbiologist). Reasons for non-guideline prescribing included inappropriate empiric choice of antibiotic, failure to adjust doses for renal or hepatic impairment, incorrect course length.

Future plans for 2015/16

i) Continue the work of the Antimicrobial Stewardship Committee.
ii) Continue to develop the F1 education programme, enhancing delivery following feedback from the 2015/16.
iii) Continue to build on the regular and structured audit programme.
iv) Identify further means of utilising EPMA and ICNET as useful resources in antimicrobial stewardship.
v) Developing an effective audit tool for conducting antibiotic audits and analysing the data generated.

Implement an action plan around the 2016/17 CQUIN targets to reduce overall antibiotic consumption by 1%, reduce piperacillin/tazobactam (Tazocin®) and carbapenem consumption by 1% compared against 2013/14 and improve compliance with the 72 hour review of empiric antimicrobial therapy in line “Start Smart then Focus.”

Data on our recent carbapenem and piperacillin/tazobactam usage are presented below, expressed in Defined Daily Doses (DDDs) per 1,000 admissions:
*Hospital admission data for 2015/16 not available at the time of compiling.
12. FACILITIES REPORT-PAUL ANDREWS, CLEANING SERVICES

12.1 Management Arrangements

The Head of Estates and Facilities is responsible for high standards of cleaning service delivery across all areas of the Trust. The Housekeeping and Portering Manager is responsible for the ‘day to day’ running of the service supported by an ‘in house’ team which is made up of a Housekeeping Team Leader supported by Housekeeping Supervisors and Housekeeping staff.

12.2 Monitoring Arrangement

In order to ensure that cleanliness and environmental standards are maintained to the highest standards robust technical and managerial monitoring systems have been put in place.

Technical cleaning audits are carried out weekly and monthly by a team of appropriately trained personnel to provide and monitor data as required by the national cleaning standard. The minimum target score set by the Trust (using the NHS National Standards of Cleanliness Criteria) is 98% for very high risk areas and 95% for high risk areas. In areas where the target score is not reached there is a rectification timeframe set at 24 hours for very high risk and 48 hours for high risk areas. Additional focused monitoring and validation of the audit scores also takes place in liaison with the IPC team.

On a day to day basis, the Ward Sisters/Charge Nurses and Matrons play a role in ensuring standards are being met with a number of inspections being taking place jointly.

The audits are managed by Maximiser and although there are no national targets for cleaning percentages within the National Specification of Cleanliness (2007), good practice suggests the following targets to work towards:

- Very high risk areas 98%
- High risk areas 95%
- Significant risk areas 85%
- Low risk areas 75%

The cleaning audits comprise of 49 element standards which are used when calculating the scores. All audits are recorded and calculated using Maximiser software. This software produces graphs and statistics that can be used in detailed reports as detailed below.
In addition, weekly Managerial Audits are undertaken to verify the cleaning outcomes of technical audits and to identify areas for improvement. The managerial audit team consists of an executive Director Representative with responsibility for infection control, senior managers from Estates and Facilities, senior nurses with responsibility for Infection Control, pharmacy and public representatives. All patient and visitor areas are checked for cleanliness, standard of decoration and state of repair, condition of furniture, fabric fixtures and fittings. The opportunity to talk to patients and receive their feedback is also encouraged. An action plan is produced following the audit which is sent to the individual Ward Sister/Charge Nurse and Matron responsible for the ward/department. A follow up meeting ensures that all actions identified are completed.

A Patient Environment Action Team (PEAT) meeting takes place quarterly and oversee the cleanliness agenda. Reports are produced detailing cleaning results from Technical and Managerial audits. Cleaning reports are also presented to the Infection Prevention Committee and the Decontamination Committee meetings. Feedback from ‘Friends and Family’ continued to rate the standard of cleaning across the Trust as very high. A recent survey undertaken by Picker Institute Europe rated the Trusts cleanliness at 99%.

12.3 The Role of the Infection Prevention and Control Team

The IPC Team worked in conjunction with the Trust Housekeeping Team to ensure cleaning standards were met across the Trust. Where a low score has been recorded these are subjected to scrutiny of the Housekeeping Manager and an agreed action plan is submitted to rectify the concerns. This work is in conjunction with the IPC department and monitoring and re auditing of the area occurs until consistent improvement is displayed. The IPC department shares a daily report which gives the Housekeeping Supervisors direction and guidance and on the recommendations for cleaning of single rooms following vacation of patients. This ensures resources are effectively and efficiently utilised. This has assisted in prioritising single rooms at times of greatest need.
12.4 Cleaning Schedules Review

All Cleaning schedules were reviewed and updated in January 2016 to reflect the Housekeeping provision to the Trust which meets the National Standards for Cleanliness. These schedules are displayed in all in patient areas and meet individual service needs of the wards and departments and are reviewed when service improvements dictate. Housekeeping staff are required to complete a weekly record of rooms cleaned and this records when weekly cleans of areas are undertaken. This process includes a robust reporting programme to our Estates Team to rectify any faults and to escalate cleaning concerns.

12.5 Patient Led Assessment of the Care Environment (PLACE)

These new self-assessments are undertaken by teams of NHS and private/independent health care providers, and include at least 50 per-cent members of the public (known as patient assessors). They focus on the environment in which care is provided, as well as supporting non-clinical services such as cleanliness, food, hydration, and the extent to which the provision of care with privacy and dignity is supported. This ensures a transparent, credible, impartial and robust process of evaluation against the PLACE standards.

2015 PLACE ASSESSMENT SCORES

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Cleanliness %</th>
<th>Food %</th>
<th>Privacy, Dignity and Wellbeing %</th>
<th>Condition Appearance and Maintenance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dorset County Hospital</td>
<td>99.17%</td>
<td>91.63%</td>
<td>92.49%</td>
<td>90.39%</td>
</tr>
<tr>
<td>National Average</td>
<td>97.57%</td>
<td>88.49%</td>
<td>86.03%</td>
<td>90.11%</td>
</tr>
</tbody>
</table>

12.6 IPC Training for Domestic Staff

The Trust ensures that cleanliness standards are consistent and provides a comprehensive training package to domestic staff which includes the principles of Infection Protection and Control. 92% of Housekeeping staff received training last year (2015/16).

12.7 Deep Cleaning

The deep cleaning programme of ward areas was completed during 2015-16 and plans are in development to continue this in 2016-17, with areas identified. The Trust embraces the process of decontamination with hydrogen peroxide vapour (HPV) misting machines and uses this as normal practice where a ‘deep cleaning’ requirement has been identified by Nursing or the Infection Control Team and where upgrades or refurbishment has taken place.
13. DECONTAMINATION REPORT-JULIE KNIGHT, Decontamination Lead

13.1 Sterile Services

13.1.1 Accreditation

The department continues to maintain a full Quality Management System. External Audit by Notified Body Intertek in May 2015 and December 2015 resulted in the department maintaining certification to BS EN ISO 13485 with only no non-conformance issued at the time of the audit.

This Accreditation continues to give quality assurance on the products produced but also allows the department to provide services for external customers. The department is now processing for two external customers.

The next surveillance audit is planned for May 2016.

13.1.2 Environmental Monitoring

The Clean room Validation is completed by an external laboratory on a quarterly basis. This consists of:

- Settle Plates
- Contact Plates
- Active Air Samples
- Particle Count
- Water – Total Viable counts (TVC)
- Detergent testing

The laboratory also tests:

- Product bio burden on five washed but unsterile items – Quarterly
- Water End toxin - Annual

Latest testing of all areas occurred on 16 February 2016 and all tests were below action level except the requirement for the retesting on one product bioburden. The investigation identified the requirement for the review and replacement of some of the instrument trays used by orthodontics. This review and replacement programme is in process and it is hoped to be completed by the end of June 2016. The pack room was given a Class 8 clean room status, which is appropriate for the service. The water quality issues have abated and recent results have been well within acceptable limits.

13.1.3 Tracking and Traceability

New additions to the tracking system have included specific wash sequence programmes built into the system which ensure operators apply the appropriate wash programmes and techniques that the individual set requires. This has significantly improved the processing and reduced the rejects on inspection.
13.1.4 Shelf Life Testing

Products that had been packed and sterilised for greater than 365 days (our maximum shelf life were sent for testing. All came back negative giving us good assurance that our shelf life period is appropriate.

13.1.5 Staff Training

19 Staff have now successfully completed the National Decontamination online training programme which is a first level training for all operational staff. We will now be sending two members of staff on the certification course in conjunction with Ruskin University.

13.2 Endoscopy

13.2.1 Quality Management System

The department has made significant progress in implementing a full quality management system in line with the system in place in sterile services. Working instructions are in place, staff training has been completed and the working instructions have been audited. It is hope the department will go through certification later in 2016.

This will be dependent on assessment of floor plan and product release control a preliminary report of the issues and recommendations has been presented at Decontamination Committee and presented to the space utilisation group for consideration.

13.3 Trust Wide Audits

An annual audit was carried out of department that uses reusable and single use surgical instruments.

The audit looks at:

- How sterilised instruments are received, checked and stored
- Stock rotation and management of expiry dates
- Checks prior to use
- Temporary storage and containers used to return contaminated items

The audit also looks at how departments control the use and disposal of single use items, preventing re-use. This includes ensuring there is a local protocol and posters are clearly displayed.

Any non-conformances from these audits are recorded on a log in Decontamination Portal on SharePoint. These are then monitored and required actions followed up through the decontamination committee.
13.3.1 Key Issues raised at audit

There have been 3 key themes of areas that were addressed:

- Sterile items being stored in open storage within treatment areas and therefore at risk of advantageous contaminate.
- Poor stock rotation resulting in items going out of date or being used after expiry date.
- Lack of information displayed about disposal of single use items

The decontamination Lead has been working with the departments to support them in addressing issues raised.

Full audit report is attached

The transportation of processed and contaminated items is currently under review. A risk assessment of endoscope processing and transportation has been completed.
14. ESTATES REPORT- ANDREW MORRIS

14.1 Water Quality

During 2015 the Water Quality Management Group (WQMG) supported by external Water Services Specialist continued to oversee and monitor and the Trusts Water Services / Quality. The Groups assessment of the potential risk posed by water systems remains Very Low, which is unchanged from the previous year.

The Trust Water Safety Plan has undergone a further review with Draft Document expected to be adopted shortly. All documents are available on the Estates SharePoint site.

The contract for pseudomonas aeruginosa sampling was extended. Results were reported to IC by exception with actions being agreed and implemented and formally reported to the WQMG on a quarterly basis.

With the structured Legionella sampling programme in place, 1 positive sample was enumerated (07/07/2015) form Pharmacy Aseptic Suite during the 2015/16 period. Remedial action (local disinfection) and follow up sampling resulted in no further isolate detection.

The bi-annual Legionella risk assessment was undertaken during 2014 and therefore programmed to be repeated in the summer of 2016.

The Estates Department continue to support and work with the Infection Control team on water issues.

14.2 Support for the Deep Clean Programme

Due to the pressure on bed space in 2015 / 16, the Trust were unable to facilitate a deep clean programme to the level achieved in the previous year, where six wards were both redecorated and deep cleaned.

14.3 Replacement of floor coverings

The following floor coverings were replaced in 2015/16:

- Children’s Centre waiting area
- Royal Eye Infirmary waiting area
- X Ray Reception
- Kingfisher and Maud Alex Shower Rooms
- Education Department Training Rooms
- Bereavement Room

14.4 Decoration and Environment

The opportunities to deliver significant redecorations were reduced in 2015 / 16 due to the increase in patient flow and the capacity issues related to the same. The
notable exceptions were Ilchester, Prince of Wales and Abbotsbury Wards, the Hydrotherapy pool & a significant proportion of the Emergency Department where decorations were undertaken.

The in-house painting team has continued to respond to areas which have deteriorated, thus maintaining an overall acceptable decorative standard.

14.5 Ventilation

A programme of Ward area high level deep cleans remains difficult to achieve. However, the Estates team remain responsive to deficiencies reported through the weekly managerial audit process.

During 2015/16, Estates supported / Housekeeping have facilitated high level deep cleaning to Critical Services (Theatres / Invasive procedure) and addressed any deficiencies being reported via the Decontamination Committee.

The Estates Department have continued to undertake formal annual validations of critical ventilation plant, in compliance with HTM 03-01.

14.6 Ward Audits

The Estates Department continue to support the weekly ward audits in association with Infection Control, Pharmacy Housekeeping and Patient Representatives.

14.7 Capital Plans for 2015/16

The Estates Department has a small budget for environment improvement works, aimed at improving shower / bathroom facilities. The ward audits provide the evidence to allow these funds to be targeted appropriately.

Capital schemes during 2015/16 saw the following developments completed:

- Damers Chapel roof replacement
- Kingfisher Ward sluice refurbishment
- Royal Eye Infirmary refurbishment
- Stroke Unit & Maud Alex Ward shower room refurbishments
- CT Scanner room refurbishment
- Gullies Place refurbishment
- ITU Isolation room provision

Works have recently been commenced to enable the provision of a second temporary Catheterisation laboratory and the introduction of a new Procedure Suite located on Level 2, East Wing.
15. CONCLUSION

2015-16 has been a most successful year with trajectories for both MRSA and Clostridium difficile being met. The IPC team are well integrated with ward teams. The model for delivery we believe from talking to peers is unique. Daily ward rounds provide the opportunity to discuss the management of patients with staff in the clinical session and provide guidance for their care pathways. The team also engage with patients and relatives as infections are a cause of significant alarm and fear for many. This provides the opportunity to discuss elements of care and precautions required to protect themselves and their visitors. It is important that we look to future challenges; the emergence of increasingly resistant bacteria with limited treatment options must serve as a warning for the development of facilities.

We must ensure we develop the capacity to effectively manage the care of these patients to prevent cross infection and continue to educate staff in the application of standard precautions. Our plans for the forthcoming year are to respond to any new alerts, sustain high levels of practice and increase surveillance to empower and support clinical teams to analyse and develop their own strategies to provide the highest standard of safe care for patients. The importance of maintaining close links with Dorset Infection Control network to ensure services developed and standards of care delivered take account of planned integrated care models.

Anne Smith
Nurse Consultant IPC
REFERENCES


## Infection Prevention and Control Work Programme 2015-16

<table>
<thead>
<tr>
<th>Objective</th>
<th>Action</th>
<th>Operational Lead</th>
<th>Date of completion</th>
<th>Measure of success</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve trajectory for <em>Clostridium difficile</em> infection (CDI) of ≤ 14 cases (does not include cases whereby no lapses of care were identified.)</td>
<td>Undertake Root Cause analysis of all hospital acquired cases of CDI.</td>
<td>Matron where the case of CDI occurs.</td>
<td>Ongoing</td>
<td>All cases of CDI will have RCA investigation and relevant action plan if deficits identified. RCA’s will be discussed by IPC team and any trends reported to IPC.</td>
<td>Matrons to feedback completion of action plans to Infection Prevention Committee</td>
</tr>
<tr>
<td>Divisions to develop IPC HCAI improvement plans for 2015-16</td>
<td>Matrons work with Clinical staff to develop IPC programme relevant to Division. IPC performance matrix standards to be met. Learning from performance data to be disseminated.</td>
<td>Miles Tompkins, Diane Smith, Simeon Edwards, Michelle Smith, Abigail Orchard, Jo Hartley, Alison Bryan</td>
<td>May 31 2016</td>
<td>Matrons to report progress against divisional IPC plan at IPC on rotational basis.</td>
<td>Evidence that IPC performance matrix is discussed and actioned at Divisional Governance meetings.</td>
</tr>
<tr>
<td>High standards of hand hygiene practice throughout the Trust.</td>
<td>Hand hygiene audits to be undertaken by all clinical wards/departments. Wards/departments that achieve &lt;90% to present action plan to Infection Prevention Committee.</td>
<td>Ward Sisters/Departmental Managers</td>
<td>Monthly</td>
<td>Hand hygiene results &gt;95% and sustained at this level for all wards/departments.</td>
<td>Departmental Managers to report to IPC with action plan when hand hygiene results...</td>
</tr>
<tr>
<td>Objective</td>
<td>Action</td>
<td>Operational Lead</td>
<td>Date of completion</td>
<td>Measure of success</td>
<td>Evidence</td>
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<tr>
<td>Participate in World Health Organisations Hand Hygiene Day.</td>
<td>IPC Team Trust wide</td>
<td>May 5(^{th}) 2016</td>
<td>&lt;90%.</td>
<td>Staff engaged with WHO Hand hygiene day to promote best practice.</td>
<td></td>
</tr>
<tr>
<td>Validation of hand hygiene audits.</td>
<td>To undertake audit of 5 moments of hand hygiene to improve compliance with standard.</td>
<td>IPC Team Matrons</td>
<td>Quarterly</td>
<td>High level compliance with WHO 5 moments of care hand hygiene standards.</td>
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<tr>
<td></td>
<td>Engage with PALS lead to develop programme to engage patients and visitors with hand hygiene.</td>
<td>Anne Smith Sarah Silverton.</td>
<td>November 2016</td>
<td></td>
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</tr>
<tr>
<td>Undertake surveillance of Blood Stream Infections in Critical Care Unit.</td>
<td>Interpret data and feedback to Divisional Matrons</td>
<td>IPC Critical Care Team</td>
<td>May 2016</td>
<td>Data analysed and reported to Divisional Matrons</td>
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<td></td>
<td>Divisional Matron feedback data to Divisional Governance meetings and where required develop plan to improve performance.</td>
<td>Miles Tompkins</td>
<td>Quarterly</td>
<td>Rate of Catheter related blood-stream infections is identified and if appropriate improvement plan developed and implemented.</td>
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</tr>
<tr>
<td>Surveillance of Surgical Site Infections</td>
<td>Complete PHE SSI modules for Hips and Breasts. Review results with clinicians. Orthopaedic surveillance SSI cases to be discussed at Orthopaedic Governance meetings.</td>
<td>IPC Team Relevant Surgical Team.</td>
<td>Quarterly</td>
<td>Surgical site surveillance meets national mandatory requirement. Rates of SSI are within acceptable parameters.</td>
<td></td>
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<tr>
<td>Objective</td>
<td>Action</td>
<td>Operational Lead</td>
<td>Date of completion</td>
<td>Measure of success</td>
<td>Evidence</td>
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<td></td>
<td>If required, action plan to be developed and implemented Results to be presented at Divisional Governance Meetings and IPC.</td>
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<tr>
<td>Audit programme- to audit compliance with Key IPC policies</td>
<td>PVC audits undertaken to ensure compliance with observation standard.</td>
<td>IPC Team</td>
<td>Quarterly</td>
<td>PVC observations will be observed every shift and recorded on Vital Pac.</td>
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<td></td>
<td>MRSA decolonisation</td>
<td>IPC Team</td>
<td>September 2015</td>
<td>Audit demonstrates compliance with MRSA policy recommendations for decolonisation.</td>
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<td></td>
<td>Urinary catheter documentation Pilot HOUDNI on selected ward.</td>
<td>Emma Hoyle</td>
<td>May 2016</td>
<td>Audit demonstrates improvement in documentation of the care of patients with urinary catheters.</td>
<td></td>
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<tr>
<td></td>
<td>Ensure interventions of urinary catheterisation interventions are appropriately considered.</td>
<td>Emma Hoyle</td>
<td>November 2016</td>
<td></td>
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<td></td>
<td>Undertake audit of isolation precautions to ensure appropriate signage, PPE precautions are in place.</td>
<td>IPC Team</td>
<td>January 2017</td>
<td>Audit identifies appropriate precautions to effectively manage patients with infections.</td>
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<td></td>
<td>Audit compliance with CPE screening recommendations.</td>
<td>IPC Team</td>
<td>August 2016</td>
<td>Audit identifies that documentation supports appropriate risk assessment is undertaken for patients.</td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td>Action</td>
<td>Operational Lead</td>
<td>Date of completion</td>
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<tr>
<td>Deep clean programme</td>
<td>Develop deep clean programme with Facilities/ Matrons/ Estates.</td>
<td>Facilities Manager</td>
<td>September 2016</td>
<td>Deep clean programme is undertaken.</td>
<td>admitted to Trust.</td>
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<td></td>
<td>Execute agreed deep cleaning programme.</td>
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<tr>
<td>Education</td>
<td>Update Education programme.</td>
<td>IPC Team</td>
<td>January 2017</td>
<td>Education reflects national and local requirements for mandatory IPC training.</td>
<td></td>
</tr>
<tr>
<td>Infection Control Week</td>
<td>Develop plan for IPC week.</td>
<td>IPC Team</td>
<td>October 2016</td>
<td>Staff engaged with IPC programme.</td>
<td></td>
</tr>
<tr>
<td>Environment is safe and meets national standards.</td>
<td>Participate in annual PLACE inspection.</td>
<td>DIPC IPC Team Facilities Manager Estates Manager Patient representatives Pharmacy</td>
<td>April 2017</td>
<td>The environment is safe and clean.</td>
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<td></td>
<td>Participate in weekly environmental technical audits.</td>
<td></td>
<td>Ongoing</td>
<td>Review of weekly audits identifies deficits and monitors remedial actions have been taken.</td>
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</tr>
</tbody>
</table>

Anne Smith  
April 2016