Annual Report of Infection Prevention & Control

<table>
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<tr>
<th>Trust Board Meeting</th>
<th>Item: 8.1</th>
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<tr>
<td>3rd June 2015</td>
<td>Enclosure: H</td>
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**Purpose of the Report:**
The Trust Board are provided with the Annual Report of Infection Prevention & Control 2014/15 in order to:

- To keep the Trust Board informed of Infection Prevention & Control performance over the year. This is in addition to the key infection control performance measures which are reported through the Trust governance framework at each Trust Board meeting.
- To highlight the aspects of good performance in the previous year, with regards to infection control and areas for further improvement.
- To highlight the key areas of focus for 2015/16.

**FOR: Information □Assurance□ Discussion and input □ Decision/approval □**

**Sponsor (Executive Lead):**
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Director of Nursing and Patient Experience
Director of Infection Prevention & Control (DIPC)

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**Risk Implications – Link to Assurance Framework or Corporate Risk Register:**
Assurance Framework

**Legal / Regulatory / Reputation Implications:**
Health & Social Care Act 2008 (DH, 2010)

**Link to Relevant Corporate Objective:**
Corporate Objective 1

**Document Previously Considered By:**
Clinical Quality Improvement Committee – 6th May 2015

**Recommendation& Action required by the Trust Board:**
The Trust Board are asked to note the content of the report and priority areas for the coming year.
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1.0 Executive Summary

The Trust has a statutory responsibility to be compliant with the Health and Social Care Act 2008 (DH, 2010). A requirement of this Act is for the Board of Directors to receive an annual report from the Director of Infection Prevention and Control. This report details Infection Prevention and Control activity from April 2014 to March 2015, with an assessment of performance against national targets for the year.

Key Points:

- There were zero Trust-apportioned MRSA bacteraemias reported against a ceiling target of zero and this is the first year that the Trust has not had a case. During the year there was one MRSA bacteraemia which was given third party assignment, following a review by NHS England, as the case was an original non-Trust apportioned case with continuing infection.

- There were 17 Trust-apportioned *Clostridium difficile* toxin (CDT) positive cases this year against a ceiling target of 24. A new process for determining ‘lapses in care’ by the Trust for each CDT positive case has been in place this year. Of fourteen cases this process identified one ‘lapse in care’ which was due to poor documentation of antibiotic prescribing advice.

- There were seven Trust-apportioned Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemias, a steady reduction over the last few years.

- The Trust reported 25 E.coli bacteraemia infections demonstrating a small and steady increase over the past few years, however the increase in these infections has also been recognised nationally.

- The Trust is moving closer to becoming fully compliant with The Health and Social Care Act 2008 (DH, 2010). Eight out of ten criteria have been self-assessed as ‘met’ with the remaining two assessed as ‘mostly met’ and these relate to risk assessment of infectious status (CRS flagging) / MRSA screening, and equipment cleaning.

- There were 25 patients in total with Vancomycin-resistant enterococci (VRE) in the Intensive Care Unit (ITU). Between April and June 2014 there were nine cases and from November 2014 to March 2015 there were a further 16 cases. An action plan has been implemented. Numbers have reduced significantly recently and PHE have now advised that no further screening of patients in ITU is required.

- There was an outbreak of diarrhoea and vomiting on Bronte ward during January – March 2015. Seven cases were positive to Norovirus.

- There was an outbreak of Panton-Valentine Leukocidin (PVL) MRSA colonisation in February and March 2015 on Astor ward. PHE were informed, and appropriate measures put into place including contact tracing and follow up of all possible contacts.

- There was an incident involving a patient with Carbapenemase-producing enterobacteriaceae (CPE). The patient had returned from having surgery abroad. PHE were informed and infection control measures put into place, including screening and follow up of contacts as appropriate.

- Hand hygiene and bare below the elbow (BBE) compliance was audited monthly by infection control link practitioners. The overall percentage of hand hygiene compliance for the year was 93.1%.

- The Trust participated in the mandatory three-month orthopaedic surgical site infection surveillance system (SSISS). Two patients were found to have wound infections (3%) during this period. In view of this a further three months of voluntary surveillance was carried out, and this identified no further infections.
2.0 Infection Prevention & Control Arrangements

2.1 Infection Prevention & Control Team (IPCT)
The IPCT consists of:
- 1.9 Whole time equivalent (WTE) Infection Prevention & Control Clinical Nurse Specialists
- 0.8 WTE Infection Prevention & Control Nurse
- One Consultant Medical Microbiologist/ Control of Infection Doctor (2 PAs).

2.2 Infection Prevention & Control Group (IPCG)
The IPCG is chaired by the DIPC. Each quarter, the IPCT produce a report. Throughout this year one matron has been required to attend, however the terms of reference have recently been changed in order to ensure that a representative from each division attends for cascading of information back to each area.

Table 1 Attendance at the IPCG - Terms of Reference requirements

<table>
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<tr>
<th>Required</th>
<th>15.04.14</th>
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<tr>
<td>Director of Nursing/ DIPC (chair)</td>
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<td>Present</td>
<td></td>
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<tr>
<td>Consultant Microbiologist/ Infection Control Doctor</td>
<td>Present</td>
<td>Present</td>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>CNSs Infection Prevention &amp; Control</td>
<td>Present</td>
<td>Present</td>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>Infection Control Nurse</td>
<td>Present</td>
<td>Apologies</td>
<td></td>
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<td>Apologies</td>
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<td>ISS Manager</td>
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<td></td>
<td>Present</td>
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<tr>
<td>Health &amp; Safety Adviser</td>
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<td>Clinical Audit Representative</td>
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<td>Occupational Health representative</td>
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<td>Facilities Manager</td>
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<tr>
<td>Matron (one to attend to represent matrons group)</td>
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<td>Absent</td>
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<tr>
<td>Antibiotic Pharmacist</td>
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<td>Decontamination Manager</td>
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<td>Apologies</td>
</tr>
<tr>
<td>South London CSU Infection Control Specialist Nurse</td>
<td>Present</td>
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<td></td>
<td>Present</td>
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2.3 Reporting line to the Trust Board
The IPCT reports directly to the Director of Infection Prevention and Control (DIPC), who is the Trust Director of Nursing and Patient Experience. The DIPC meets regularly with the Chief Executive, chairs the Infection Prevention and Control Group meetings and is a member of the Clinical Quality Improvement Committee, Clinical Quality Review Group and Serious Incident Group. The IPCT provides quarterly exception reports for the CQIC meetings and reports for Clinical Quality Review Group when required.

2.4 IPCT Liaison with Divisions
Representatives from the divisions attend the Infection Prevention and Control Group meetings and report back at Service Line meetings.

2.5 Antibiotic Prescribing and Stewardship
The Antibiotic Management Group (established in February 2013) continues to promote excellence in antimicrobial prescribing.
2.6 Collaborative working with Community Services/ Service Level Agreements
The IPCT continue to work with the community in the following ways:
- The Consultant Microbiologists provide an Infection Control Doctor service for Your Healthcare (Kingston), Hounslow & Richmond Community Healthcare Alliance & Royal Hospital for Neuro-disability, Putney.
- The IPCT provide infection control advice and training for Princess Alice Hospice in Esher, and complete an annual infection control audit.
- The IPCT have a service level agreement in place with BMI Coombe wing (on site)
- The IPCT liaise with the community Infection Control Nurses when required.

2.7 Decontamination Group
The quarterly Decontamination Group meetings continue, attended by the Infection Control Doctor, Infection Control Clinical Nurse Specialist, Decontamination Lead and representatives from maternity, day surgery unit, Estates and main theatres. The aim of the group is to ensure that equipment used for patient care is decontaminated safely, effectively and in accordance with published standards. An annual Decontamination Report, produced by the Decontamination Lead, is available upon request. The Decontamination Group is accountable to the Health and Safety Committee.

3.0 Targets and outcomes
3.1 The Health and Social Care Act 2008
The Health and Social Care Act 2008 provides Trusts with a code of practice for the prevention and control of healthcare associated infections (HCAI’s) and makes clear their statutory responsibilities. Each Trust is expected to have sufficient systems in place to apply evidence-based protocols and to comply with the relevant provisions of the Act so as to minimise risk of infection to patients, staff and visitors.

3.2 Health Assure
*Health Assure – Monitoring compliance with The Health and Social Care Act 2008*
The IPCT (and other persons nominated responsible) added evidence to Health Assure to allow self-assessment and compliance monitoring with The Health and Social Care Act 2008. Two criteria out of the 10 are scored amber as ‘mostly met’ and these areas are related to risk assessment of infection (including CRS flagging and MRSA screening), and equipment cleaning (Appendix 1).

4.0 Mandatory Reporting of Healthcare Associated Infections (HCAI) Statistics
Over the past year the Trust Business Intelligence Team (BIT), following sign off by the DIPC, reported the following HCAI statistics to Public Health England:
- Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia rates.
- Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia rates
- *Clostridium difficile* rates.
- *E coli* bacteraemia rates.
- Serious Incidents (SI) related to Infection Control.

Mandatory HCAI surveillance results have been reported via the quarterly report to the IPCG and Service Line review meetings, and to the Trust Board by the DIPC.

5.0 Reportable Healthcare Associated Infections
5.1 Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia
The total number of Trust-apportioned MRSA bacteraemia (blood stream infection) cases for the year was zero against a ceiling target of zero. Cases are deemed Trust-apportioned if the blood cultures are taken on or after the third day of admission.
An initial Trust apportioned MRSA bacteraemia was assigned third party allocation following a review by NHS England, as the case was a continued infection from an original non-Trust apportioned case.

**Graph 1 National and regional MRSA bacteraemia rates including Kingston Hospital NHS Foundation Trust (Public Health England, 2015)**

5.1 MRSA Screening

Emergency and elective MRSA screening continues. New Department of Health (2014) guidance on MRSA screening with a view to providing a more targeted and cost-effective MRSA screening programme is currently being investigated by the IPCT.

5.1.1a Elective MRSA Screening

A report was previously available on DISCO which provided the total number of eligible elective admissions for screening and whether these were screened within the 12 weeks prior to admission. The report was built by the BIT using a monthly data feed from Winpath, the Trust’s pathology system. The last set of data that was received before the Pathology service moved to South West London Pathology was for October 2014. The Trust does not currently have a data feed from South West London Pathology Service to replace the data that we previously obtained from Winpath and are therefore presently unable to report MRSA screening performance for Elective patients from November 2014 onwards. Actions are in place to liaise with South West London Pathology for a data set for quarter four and to identify reporting requirements for the year ahead.

5.1.1b Emergency MRSA Screening

A report was previously available on DISCO which provided the total number of eligible emergency admissions for screening and whether these were screened within the first 48 hours post admission. The report was built using a weekly data feed from an explorer report on the front end of CRS. In February 2015 the explorer report became affected with corrupt fields and unfortunately as this report is not supported by BT/Cerner it is unlikely to be fixed. A potential alternative source for this data is from the orders created on CRS and this is available in a table in the data warehouse.
In addition the Emergency MRSA Screening Report on DISCO has not been reporting correctly since May 2014. After this point it appears to be counting orders made rather than orders completed. Prior to May 2014 performance was between 70-80% and post May 2014 it has been showing consistently as 99%. The BIT are currently extracting data from the orders table to be able to report more accurately the emergency admission screening compliance for 2014/15. The IPCT are liaising with the BIT regarding future reporting requirements.

5.2 Meticillin-sensitive Staphylococcus aureus (MSSA) bacteraemia
There were seven Trust-apportioned Meticillin-sensitive Staphylococcus aureus (MSSA) bacteraemias, a steady reduction over the last few years. There is no national benchmark or annual threshold set for MSSA bacteraemia rates, however the Trust aims to have less than one per month. The Trust carries out Post Infection Review (PIR) on these cases where required in order to aid learning. PIR for three cases identified that one MSSA bacteraemia was an unavoidable line related case, one was ongoing sepsis from septic arthritis and the other was line related with poor documentation (device insertion, VIP scores, Saving Lives).

Please see section 9.2 for work regarding Intravenous line insertion and care.

5.3 Clostridium difficile Toxin (CDT)
There were 17 Trust-apportioned CDT positive cases against a trajectory of 24. Cases are deemed Trust-apportioned if the infection is diagnosed from a sample taken on or after the fourth day of admission.

This year each confirmed CDT case is secondarily assessed by the South East London Commissioning Support Unit Infection Control Nurse Specialist with the Trust Infection Control Nurse (and a Pharmacist / Infection Control doctor as required) to identify and agree if the infection was a result of any ‘lapse in care’ by the Trust. Cases have been assessed quarterly, with a report generated for each case and results presented at the Infection Control Group. There has been one lapse in care identified this year which was due to poor documentation of antibiotic prescribing advice. The last three cases have not yet been officially assessed for lapses in care due to current staffing issues at the Commissioning Support Unit, however PIR’s for each case have not identified any problems with care.

The trajectory for next year is a challenging nine cases, although case numbers will be based on lapses in care rather than total number of cases. Post Infection Review (PIR) was completed for each case and the following themes emerged:

Table 2 Clostridium difficile Toxin PIR Key Findings
Information from the 17 cases with completed PIR to date has demonstrated the following:

<table>
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<th>Possible Causes</th>
<th>Number</th>
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<tbody>
<tr>
<td>High risk factors</td>
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<tr>
<td>Trust apportioned due to late specimen (sent on or after the 4th day of admission, despite having diarrhoea from admission)</td>
<td>2</td>
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<tr>
<td>Previous history of Clostridium difficile</td>
<td>3</td>
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<tr>
<td>Prescribed and given laxatives</td>
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</tr>
<tr>
<td>Prescribed antibiotics</td>
<td>17</td>
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### Prescribed proton pump inhibitors (i.e. Ranitidine, Omeprazole)

<table>
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<th>Possible cross infection from other positive patients in the ward</th>
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### Other Risk Factors

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<th>Hand hygiene audit results &lt;95%</th>
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<table>
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<tr>
<th>Patient not isolated within 2 hours of diarrhoea commencing</th>
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<td>5</td>
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<table>
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<tr>
<th>Failed maximiser (environmental cleaning) audits</th>
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<table>
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<th>Equipment cleaning schedule (nursing staff) not adhered to</th>
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<td>4</td>
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#### Key

- Kingston Hospital NHS Foundation Trust
- South West London (acute trust rate)
- England (acute trust rate)
- Other South West London Trusts

### 5.4 Escherichia coli (E.coli) bacteraemia

During 2014-2015 the Trust reported 25 *E.coli* bacteraemia infections, a small and steady increase over the past few years which has also been experienced and recognised nationally. There is no national benchmark or annual threshold for *E.coli* bacteraemia or a standard for attribution of acquisition. Cases are deemed Trust-apportioned if the infection is diagnosed from a specimen taken on or after the fourth day of admission. The Trust has a local target of two per month. Almost half (10) of the *E.coli* cases this year had a likely primary source in the urinary tract. Five cases had an unknown likely primary source and the rest were attributed to: gastrointestinal (5), hepatobiliary (2), respiratory (1), with one contaminated sample and one case a relapse from a prior infection. See section 9.4 for forthcoming work regarding urinary tract infection.
6.0 Outbreaks and Incidents

6.1 Vancomycin-resistant enterococci (VRE)
Between April and June 2014 there were nine patients colonised with VRE in the Intensive Care Unit (ITU). An action plan was put into place alongside liaison with PHE. An incident meeting in June 2014 resulted in the Consultant for Communicable Disease Control (CCDC) recommending that no further screening of patients was required unless transmission was demonstrating infection, rather than colonisation.

In November 2014 three patients were noted to have infections with the same strain of VRE. Following liaison with PHE, screening of all admissions to ITU was re-commenced, an action plan was initiated and an incident meeting took place involving PHE early in January 2015. PHE also carried out an environmental check, which although demonstrating no serious problems, generated a few helpful actions for consideration. Since November 2014, there have been 16 cases of VRE in ITU in total, including six from rectal screens, three from arterial lines, two from central line tips, three from wound swabs, one urine sample and one ascitic fluid sample. Six of these cases so far have the same strain as the initial three in November 2014. The action plan has been put into place, which included patient screening, line insertion and care, environmental / equipment cleaning and hand hygiene and is almost completed. Liaison with PHE has been ongoing. There have been no further line infections since the end of January 2015. Numbers have reduced significantly over the last few weeks with only a few sporadic community cases now and, following an outbreak meeting, PHE have advised that no further screening of patients in ITU is required.

6.2 Norovirus
There was an outbreak of diarrhoea and vomiting associated with Norovirus infection on Bronte ward from 26.01.15 which lasted for just over a month. The initial outbreak involved 16 symptomatic patients, with seven confirmed to have Norovirus. Five members of staff also reported symptoms. During March 2015, three further cases of Norovirus were reported in Bronte ward from patients who were being nursed in different bays. PHE were notified on both occasions.

6.3 Salmonella
Two cases of Salmonella braenderup were reported on Bronte ward in November 2014. The index case was admitted from home with symptoms and was isolated from admission; a stool sample (sent by the GP) was culture positive for Salmonella braenderup. The second case developed symptoms as an inpatient and tested positive for the same strain of Salmonella braenderup. Antibiograms were identical for both patients indicating that transmission of infection had occurred. An action plan was implemented with PHE input.

6.4 Tuberculosis
In November 2014 a patient admitted into the Trust was subsequently found to be TB positive. The patient had been in A&E, AAU, ITU and Hamble ward. An incident meeting was held on 13th November 2014, with input from the Consultant in Communicable Disease Control (CCDC) from PHE. Contact tracing for patients and staff was carried out and some recommendations made regarding training for staff.

6.5 Panton-Valentine Leukocidin (PVL) MRSA Colonisation
In February 2015 a patient was identified as having PVL MRSA. Contact tracing identified 16 patients as having been potentially exposed. All patients were followed up with screening (if still an in-patient) and letters were sent to the patients and their GP’s providing advice regarding risks and further actions, as appropriate. Of the remaining in-patients three patients were negative and four were
positive with the same typing. These positive patients required follow-up treatment, which has been addressed. Advice has been sought from PHE throughout and an action plan put into place.

A further patient was found to have the same strain of PVL MRSA from an admission screen to Astor ward, and this patient was a healthcare worker from Kingston Hospital with a partner who also is a healthcare worker at the Trust and who consequently screened positive for PVL MRSA. PHE were contacted. Both staff members were temporarily excluded from working in a clinical capacity until treatment had been completed and screening was negative. Contact tracing and screening of other patients was carried out as appropriate, identifying two negative in-patients, and two discharged patients who received letters regarding risks and advice. The GP’s of the two discharged patients also received letters.

6.6 Carbapenemase-producing enterobacteriaceae (CPE)
During March a patient who had been to India for cataract surgery was found to be CPE positive in AAU. The patient had been nursed in a bay and discharged home. PHE were informed. Isolation cleaning took place and a total of 15 other patients who had been nursed in the bay at the time have been followed up. Letters were sent to relevant patients GP’s informing them of the situation and advising that patients will need screening on subsequent admission into hospital. In a separate and unrelated incident, a patient diagnosed with CPE at Tolworth Hospital, who had been an in-patient in the Trust, has been followed up. Advice has been sought from PHE and tracing of contacts has been carried out. Electronic notes of positive or contact patients have been flagged and staff are being reminded to check patient flags.

Training in A&E regarding management of patients who have recently been in a hospital abroad or in an area where CPE numbers are higher has commenced and is being planned for AAU.

6.7 Group A Streptococci
There were two unrelated Group A Streptococci infections, one in maternity and one in Jasmine unit in April 2014 and a further two unrelated cases in maternity in June 2014. Action plans were implemented for each case, which included contact tracing, provision of information to those exposed and environmental cleaning and disinfection.

6.8 Orthopaedic Wound Infections
In the first quarter, two orthopaedic patients (3%) were identified as having wound infections, which prompted the IPCT to carry out PIR’s on each case. Hand hygiene and theatre ventilation were identified as areas for improvement and were included in the action plans.

7.0 Surgical Site Infection Surveillance Service (SSISS)
The IPCT participated in the mandatory three month orthopaedic SSISS plus a further three months following the identification of two patients with wound infections in the first quarter. Data was collected in total from April – September 2014 and results demonstrated no further infections in the second quarter. The IPCT will carry out the mandatory surveillance over one quarter again next year.

8.0 Hand Hygiene and Aseptic Protocols
8.1 Hand Hygiene Audits
Hand hygiene audits have been carried out by the infection control link practitioners on a monthly basis with scores published on the Nursing and Midwifery Quality Scorecard and the Trust Clinical Quality Report. The hand hygiene compliance target remains at 95%. The overall score for the year was 93.1%. Link Nurses carry out peer review of saving lives on a quarterly basis.
8.2 Bare below the elbow
The Trust continues to monitor compliance with the Department of Health (DH) initiative ‘Bare below the elbow’ with all staff working in clinical areas. The requirement for clinical staff to be ‘bare below the elbow’ is discussed at all training sessions and compliance is monitored during hand hygiene audits, with results displayed on the Nursing and Midwifery Quality Scorecard and discussed at Service Line Review meetings. Staff are advised to escalate poor compliance to the DIPC, Clinical Director and/or the Medical Director where BBE continues to be a challenge. Poor practice is challenged when observed.

8.3 Hand Hygieneus Programme
In order to improve hand hygiene scores the IPCT implemented hand hygiene training across the site for all staff, awarding a certificate stating ‘I am a hand hygenius’ to participants once they had demonstrated the required knowledge around hand hygiene practices. Nine ward areas were visited as well as some non-clinical areas. This project is on-going and will continue into 2015.

9.0 Asepsis and Intravenous Line Care
9.1 Asepsis
The IPCT have implemented the nationally-recognised ANTT (Aseptic Non Touch Technique) programme. The IPCT have carried out asepsis training on the Trust clinical skills day, which is provided to all new Trust employees. New Junior Doctors received training on ANTT, specifically intravenous line insertion and care, and blood culture taking at induction. Parts of the process of asepsis are monitored via the DH Saving Lives initiative (see below).

9.2 Intravenous Line Care
In response to concerns regarding line-related infection and in recognition of increased demands for long intravenous lines an IV Therapy Task and Finish Intravenous Line Group was set up last year in order to improve Central Venous Catheter (CVC), Midline and Hickman line insertion, by establishing referral pathways to a dedicated service. In addition, new Trust-wide guidelines into the selection, care and management of intravenous devices is now available. Specialised training for staff regarding intravenous line care is due to commence in April 2015. Work is ongoing to introduce PICC line insertions.
The technique for insertion of arterial lines and central lines in ITU and theatres has been investigated following the increased number of VRE cases, with some associated with arterial and central lines (Section 6.1). There have been no further VRE line cases since the end of January 2015.

9.3 Visual Infusion Phlebitis (VIP) Scoring
Since the Trust has moved to Clinical Record Services (electronic documentation) an audit carried out by the IPCT has identified gaps in VIP scoring. This has been highlighted to ward staff, the audit team, the CRS team, and escalated to the Deputy Director of Nursing, who is arranging for VIP score auditing to become part of the sisters audit programme, overseen by the matrons. Mandatory training and the planned ward based training on care of long lines both include information on VIP scoring and the team will continue to address it at all training sessions with staff.

9.4 Reducing Catheter Associated Urinary Tract Infections (CAUTI)
The Trust has signed up to participate in the South London programme for reducing catheter associated urinary infections this year. Members of the IPCT attended the planning meeting in January this year and it is anticipated that the collaborative itself will launch in June 2015. It is anticipated that this work may have a positive impact on the management and number of E.coli urinary tract infections in the Trust.

10.0 Saving Lives Initiative
The Infection Control Link Practitioners continue to carry out monthly audits from the DH ‘Saving Lives’ programme. This includes auditing hand hygiene, peripheral line insertion and care, urinary catheter insertion and care and isolation practices. Aspects of the Saving Lives audit scores can be viewed on Nursing and Midwifery Quality Scorecard and are disseminated to the divisions via the Infection Control Quarterly Report.

11.0 Care of the Environment
11.1 Trust Cleaning Services
ISS Mediclean continue to use a microfibre cleaning system, supplemented with Chlorclean (a chlorine-based detergent) for isolation rooms and in outbreak situations. Cleaning scores are routinely recorded as a quality indicator. Three monthly curtain changes are in place, with curtains dated when changed. The schedule for the rolling programme is available in each ward area as are the dates of any ad-hoc curtain changes requested by staff. Infection Control training is given to all ISS Mediclean staff on induction by an external company.

11.2 Environmental Spot Checks
The IPCT have carried out environmental spot checks in some clinical areas over the past year. This includes checking aspects of environmental and equipment cleanliness and the use of equipment cleaning schedules.

<table>
<thead>
<tr>
<th>Clinical Area</th>
<th>Date</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoscopy</td>
<td>01.05.14</td>
<td>73%</td>
</tr>
<tr>
<td>Cardiology</td>
<td>01.09.14</td>
<td>No score given</td>
</tr>
<tr>
<td>Derwent</td>
<td>30.09.14</td>
<td>76%</td>
</tr>
<tr>
<td>Blyth</td>
<td>02.10.14</td>
<td>66%</td>
</tr>
<tr>
<td>ITU</td>
<td>03.12.14</td>
<td>88%</td>
</tr>
<tr>
<td>ITU (re-audit)</td>
<td>12.01.15</td>
<td>85%</td>
</tr>
<tr>
<td>Keats</td>
<td>11.12.14</td>
<td>51%</td>
</tr>
<tr>
<td>Astor</td>
<td>10.03.15</td>
<td>74%</td>
</tr>
</tbody>
</table>
During the audit process the IPCT address and discuss any low scoring areas with staff on the ward at the time of the audit. A re-audit is planned for each area in order to ensure that actions have been taken. It is planned that the matrons will take over this process with support from the IPCT in the coming year.

A blood culture trolley audit was carried out by the IPCT in August 2014, which demonstrated varying degrees of cleanliness and adequate stock. Feedback was given to the wards.

11.3 Assessments of the Care Environment (ACE)
The IPCT participate in ACE with the matrons as well as representatives from the works department, ISS, health and safety and waste departments on a planned fortnightly basis, monitoring cleanliness and the fabric of the building on a rolling programme.

11.4 PLACE Inspections
The annual Patient Led Assessment of the Environment (PLACE) inspection of the hospital site in 2014 achieved a score of 96.26% for cleanliness and hand hygiene. In addition, two mini PLACE assessments on the 23.10.14 achieved the following scores for cleanliness and hand hygiene:

1. Royal Eye Unit, 92.22%
2. Isabella ward, 94.85%

Action plans were put into place where necessary and monitored via the PLACE Steering Group, chaired by the Deputy Director of Nursing.

12.0 Infection Control Staff Training
Annual infection control update training is mandatory for all staff, and Infection Control has been included in the classroom based training, until September 2014, when the Trust changed the delivery of the training to on line booklets. Asepsis has continued to be covered by the IPCT on clinical skills training days, however from April 2015, asepsis will also be delivered via the training booklets. Infection Control classroom based training is also included in the corporate induction programme.

Infection control induction training has continued for new doctors and the session briefly includes blood culture taking and insertion and care of intravenous devices. The clinical skills manager has agreed to take on the longer practical training sessions on blood culture taking and insertion and care of intravenous devices from this year.

12.1 Ebola Training for Staff
In response to the Ebola threat during 2014 – 15 the IPCT updated the Trust Viral Haemorrhagic Fever (VHF) Guidelines in line with new PHE guidance and advised staff in the management of Ebola in A&E, maternity and AAU. Personal Protective Equipment (PPE) was sourced and trolleys set up in each area, with specific instruction for donning and removing PPE. Reception staff were given written sheets instructing them on specific questions to ask patients in the first instance. A practice run was carried out in the A&E department with a ‘fake’ symptomatic patient.

13.0 Policy Review
There are 70 Infection Control policies/ procedures/ guidelines available on the Trust intranet. All have been updated this year as required and ratified through the Infection Control Group. Compliance is monitored against some via the DH Saving lives initiative and audit project work.
14.0 Further Infection Prevention & Control Initiatives
14.1 Link Practitioners
The Trust currently has Infection Control Link Practitioners in each clinical area. This person should be allocated one day every two months specifically for infection control responsibilities including carrying out the Saving Lives audits, however this is variable in each clinical area with some fulfilling this and some not. Two of the quarterly study days, in which the Link Practitioner business meeting is incorporated had to be cancelled this year as they were not quorate.

14.2 Infection Prevention & Control Information for Patients, Relatives and Visitors
Infection Prevention & Control is included on the Trust website for patients, relatives and visitors. Included on the website are leaflets on MRSA, Norovirus and Clostridium difficile as well as information sheets on reducing the risk of infection whilst in hospital, respiratory syncytial virus (RSV) and diarrhoea and vomiting. Included on the website is information on MRSA screening and eradication protocol for patients. The above-mentioned leaflets are available in clinical areas as well as leaflets and posters regarding hand hygiene. Infection Control information is also included in the bedside booklets.

15.0 Conclusion
Over the past year the Trust has:
- Achieved zero cases of MRSA bacteraemia.
- Reduced the number of Clostridium difficile toxin by having 17 cases out of the allowed 24, with only one lapse in care reported so far (out of the 14 currently assessed).
- Continued to report MSSA bacteraemia rates and demonstrated a small but steady reduction of MSSA bacteraemia cases over the last three years.
- Continued to report E. coli bacteraemia cases, and noted a small but steady increase over the last few years, in line with national findings.
- Reported 25 cases of VRE in total (colonisation and infection), maintained and monitored a VRE action plan whilst continuing close liaison with Public Health England.
- Reported and managed seven confirmed cases of Norovirus in one ward during January and February 2015.
- Managed a number of infection control outbreaks / incidents such as MRSA PVL, CPE, Group A Streptococci and Salmonella.
- Responded to the threat of Ebola.
- Continued to work towards ensuring compliance with the Health and Social Care Act 2008 (2010), as is evidenced in Health Assure.
- Established improved intravenous line insertion and care pathways.
- Implemented the nationally recognised aseptic non touch technique (ANTT) into the Trust to provide a consistent approach across the health economy.
- Continued to monitor and train staff in hand hygiene performance.
- Continued to embed optimal antibiotic practice into the Trust.

16.0 Priorities for 2015/2016
- Continue to meet targets set by the DH by remaining below the Clostridium difficile threshold of nine cases (related to lapses in care) and maintain the zero tolerance for MRSA bacteraemia cases.
- Continue to work towards achieving MRSA screening requirements, investigating new DH screening guidance and working with the BIT to create robust screening reporting methods.
- Maintain Health Assure and therefore monitor Trust compliance with the Health and Social Care Act 2008 (2010), ensuring any non-compliance is addressed accordingly.
- Aim to maintain the reduction of VRE cases in ITU.
• Continue to ensure optimal infection control practices are in place, and to manage infection incidents and outbreaks promptly in order to keep our patients as safe as possible.
• Participate in ongoing work to ensure optimal care of intravenous lines in order to prevent infections.
• Participate in the South London programme - Reducing Catheter Associated Urinary Tract Infections (CAUTIs) in order to investigate rates of urinary tract infection, with an aim to impact upon Trust rates of E.coli cases.
• Improve hand hygiene and bare below the elbow compliance.
• Demonstrate enhanced cleaning score audits.
• Continue to survey surgical site infection as part of the Surgical Site Infection Surveillance Service.
17.0 References, sources and further reading


Appendix 1 Health Assure Chart

Hygiene Code Overall Compliance

<table>
<thead>
<tr>
<th>Overall organisational self-assessment results</th>
<th>Amber</th>
<th>This excludes any CQC or auditor qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amber</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Total number of Criterion assessed by the organisation</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

CQC Hygiene Code (HCAI) Criteria

| Mostly met | Criterion 1: Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider how susceptible service users are and any risks that their environment and other users may pose to them. |
| Mostly met | Criterion 2: Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections. |
| Met        | Criterion 3: Provide suitable accurate information on infections to service users and their visitors. |
| Met        | Criterion 4: Provide suitable accurate information on infections to any person concerned with providing further support or nursing/medical care in a timely fashion. |
| Met        | Criterion 5: Ensure that people who have or develop an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of passing on the infection to other people. |
| Met        | Criterion 6: Ensure that all staff and those employed to provide care in all settings are fully involved in the process of preventing and controlling infection. |
| Met        | Criterion 7: Provide or secure adequate isolation facilities. |
| Met        | Criterion 8: Secure adequate access to laboratory support as appropriate. |
| Met        | Criterion 9: Have and adhere to policies, designed for the individual’s care and provider organisations that will help to prevent and control infections. |
| Met        | Criterion 10: Ensure, so far as is reasonably practicable, that care workers are free of and are protected from exposure to infections that can be caught at work and that all staff are suitably educated in the prevention and control of infection associated with the provision of health and social care. |

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Reason</th>
<th>Person responsible</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>MRSA screening rates fall below required 100% compliance rate</td>
<td>Emergency Care Division</td>
<td>New DH guidelines advocating modified MRSA screening to be implemented this year.</td>
</tr>
<tr>
<td>01</td>
<td>CRS Flagging of infectious status not always being checked by staff</td>
<td>DDON / Matrons / IPCT</td>
<td>Global emails sent, online training arranged for staff to include CRS flags.</td>
</tr>
<tr>
<td>02</td>
<td>Infection Control spot checks demonstrate poor equipment cleaning compliance</td>
<td>DDON / Matrons</td>
<td>New equipment cleaning schedules are in place. The IPCT will continue to monitor and escalate.</td>
</tr>
</tbody>
</table>
Appendix 2  Glossary of terms

Asepsis - the prevention of microbial contamination of living tissue/fluid or sterile materials by excluding, removing or killing micro-organisms.

Aseptic non-touch technique (ANTT) - a specific nationally recognised (used by 60% of NHS organisations) method used to prevent contamination of susceptible sites.

Bacteraemia – the presence of micro-organisms in the bloodstream.

Blood cultures - a laboratory test to check for bacteria or other microorganisms in a blood sample.

Blood stream infection - the presence of microbes in the blood with significant clinical consequences (e.g. fever, chills, and hypotension)

Carbapenemase-producing Enterobacteriaceae - Enterobacteriaceae are a large family of bacteria that live harmlessly in the gut of all humans and animals however, they can cause opportunistic infections. Carbapenem antibiotics are a powerful group of antibiotics. Rapid spread of carbapenem-resistant bacteria has the potential to pose an increasing threat to public health.

Clostridium difficile - is an organism that lives in the gut that sometimes produces a toxin which causes colitis.

Eradication protocol – topical treatments given to patients with MRSA skin carriage, consisting of cream in the nose and a skin wash.

E.coli – (Escherichia coli) form part of the normal intestinal microflora in humans and warm-blooded animals with some strains having the ability to cause disease in humans. These diseases include food poisoning, e.g. E. coli O157, or infections outside the intestinal tract such as urinary tract infections (UTIs), and bacteraemia. E. coli are also becoming an important reservoir of extended-spectrum beta-lactamases (ESBLs).

Group A Streptococcus - (GAS; Streptococcus pyogenes) is a bacterium which can colonise the throat, skin and anogenital tract. It causes a diverse range of skin, soft tissue and respiratory tract infections. GAS can occasionally cause infections that are extremely severe, such as necrotising fasciitis.

Healthcare associated infection (HCAI) - any infection that develops as a result of receiving healthcare treatment.

Influenza - a respiratory illness associated with infection by influenza virus. Symptoms frequently include headache, fever, cough, sore throat, aching muscles and joints.

Intravenous cannula - a device inserted into the vein for giving medications or fluids.

Meticillin sensitive Staphylococcus aureus (MSSA) - Staphylococcus aureus is a bacterium that commonly colonises human skin and mucosa e.g. inside the nose, without causing any problems. However, the bacterium is capable of causing infections, i.e. in a wound or the blood stream.

Meticillin resistant Staphylococcus aureus (MRSA) - strains of Staphylococcus aureus that are resistant to many of the antibiotics commonly used to treat infections. Some strains are more likely to cause an infection than others i.e. they are more virulent. Strains that produce a toxin called Panton-Valentine Leukocidin (PVL) are more likely to cause infections, particularly of the skin.

Norovirus - the most common cause of infectious gastroenteritis (diarrhoea and vomiting) in England and Wales. The Illness is generally mild and people usually recover fully within 2-3 days.

Outbreak - two or more epidemiologically linked cases of infection caused by the same micro-organism in place and / or time.

Proton Pump Inhibitor – a drug which reduces the amount of acid made by the stomach.
**Salmonella** - there are many strains of salmonella bacteria (including a strain known as braenderup) living in the guts of domestic and wild animals. Salmonella causes food poisoning. Foods such as eggs, chicken, pork and dairy produce can carry salmonellas. Fruit and vegetables can also become contaminated. People can also become infected from contact with individuals with diarrhoea or from unwell animals.

**Scabies** - a human mite which penetrates the outer layers of the skin. The body’s immune system reacts to the mite’s droppings and saliva resulting in an immune reaction, which produces an intense itching.

**Surveillance** – the systematic observation of the occurrence of disease in a population with analysis and dissemination of the results.

**Vancomycin resistant enterococci (VRE)** Enterococci are Gram-positive bacteria that are naturally present in the intestinal tract of all people. Vancomycin is an antibiotic to which some strains of enterococci have become resistant. The resistant strains are referred to as VRE.

**Visual Infusion Phlebitis score** - a standardised approach to monitoring intravenous catheter sites. Phlebitis is inflammation of the wall of a vein which can be caused by a number of things, including intravenous devices.