

Infection Prevention & Control Annual Report

Trust Board	Item: 12
3rd of October 2018	Enclosure: H
Purpose of the Report: The Trust Board are provided with the Annual Report of Infection Prevention & Control 2017/18 in order to: <ul style="list-style-type: none"> • Provide assurance of the Trusts compliance with the Health and Social Care Act 2008 (DH, 2015) during 2017/18. • 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 2018/19. 	
For: Information <input checked="" type="checkbox"/> Assurance <input checked="" type="checkbox"/> Discussion and input <input type="checkbox"/> Decision/approval <input type="checkbox"/>	
Sponsor (Executive Lead):	Sally Brittain Director of Nursing and Quality; 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 and Social Care Act 2008 (DH, 2015)
Link to Relevant CQC Domain: Safe <input checked="" type="checkbox"/> Effective <input type="checkbox"/> Caring <input type="checkbox"/> Responsive <input checked="" type="checkbox"/> Well Led <input checked="" type="checkbox"/>	
Link to Relevant Corporate Objective:	Corporate Objective 1
Document Previously Considered By:	Infection Prevention & Control Committee 10/04/18
Recommendations: Board members are requested to note the content of the report and priority areas for the coming year.	

ANNUAL REPORT
INFECTION PREVENTION & CONTROL
2017/ 2018



1. Executive Summary

Introduction and Purpose

The Trust has a statutory responsibility to be compliant with The Health and Social Care Act 2008 (DH, 2015). A requirement of this Act is for the Board of Directors to receive an annual report from the Director of Infection Prevention and Control (DIPC). This report details Infection Prevention and Control Team (IPCT) activity from April 2017 to March 2018, with an assessment of performance against national targets for the year.

Key Points:

- There were four Trust-apportioned Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia cases reported against the national zero tolerance. Learning points from associated Post Infection Review's (PIR) have been progressed.
- There were 18 Trust-apportioned *Clostridium difficile* toxin (CDT) positive cases this year, with four being classed as a lapse in care out of the ceiling target of nine lapses in care. All four cases were deemed a lapse in care due to having late a stool specimen sent. The Trust diarrhoea algorithm has been changed to ensure that specimens are taken immediately rather than waiting for laxatives to stop.
- There were 13 Trust-apportioned Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia cases against no national target. PIR has been completed on each case and actions put into place where learning has been identified.
- There were 148 *E.coli* bacteraemia cases in total, a reduction from 168 in the previous year. 31 cases were Trust apportioned demonstrating an increase from 22 cases last year, despite the Trust action plan and post infection review (PIR) on all cases. Further actions for progression are currently being developed.
- There were 56 VRE cases this year including 16 in the Intensive Care Unit (ITU) with no evidence of cross infection.
- There were 117 confirmed cases of Norovirus this year affecting mostly medical and orthopaedic wards.
- High numbers of flu were reported nationally this year. In December 2017, the Trust was the first in the country to introduce a molecular point of care test (POCT) for influenza, which provides a result in 20 minutes. This had a huge impact in terms of isolation and bed management. The Trust performed 1301 POCT tests of which 450 were positive to flu A or B. The total number of positive adult and paediatric flu cases was 478 as there were also 28 laboratory confirmed cases.
- There were two separate cases of Carbapenemase-producing enterobacteriaceae (CPE) this year and the Trust continues to work towards ensuring screening compliance.
- The Trust considers itself to be compliant with The Health and Social Care Act 2008 and the team continue to monitor this through the Infection Control Annual Plan.
- Hand hygiene and bare below the elbow compliance has been audited on a monthly basis by the infection control link practitioners. The Trust target for hand hygiene compliance remains at 95%, which 81% of areas have achieved, with just 13% achieving an amber score (70 – 95%) and no areas with red scores (<70%).
- The Trust participated in the mandatory three-month orthopaedic surgical site infection surveillance system (SSISS) and no infections were reported.

2. Infection Prevention & Control Arrangements

Infection Prevention & Control Team (IPCT)

Table 1 IPCT

Fran Brooke-Pearce	CNS Infection Prevention & Control (CNS IP&C)	1.0 WTE
Shona Ross	CNS Infection Prevention & Control (CNS IP&C)	1.0 WTE
Vicky Wells	Infection Control Nurse	0.8 WTE
Elli Demertzi	Consultant Microbiologist/ Infection Control Doctor	3 Pas

Infection Prevention & Control Group (IPCG)

The IPCG is chaired by the DIPC. Each quarter the IPCT produce a report. At the end of this financial year it was agreed that the group should have committee status, as it is chaired by a member of the Trust Board and makes decisions and approves guidelines for the organisation. This was effective from April 2018.

Table 2 Attendance at the IPCG - Terms of Reference Requirements

Required	11.04.17	11.07.17	10.10.17	09.01.18
Director of Nursing/ DIPC (chair)	Present	Present	Present	Present
Deputy Director of Nursing	Apologies	Absent	Absent	Apologies
Head of Nursing	Apologies	Absent	Absent	Absent
Consultant Microbiologist/ Infection Control Doctor	Present	Present	Present	Present
CNSs Infection Prevention & Control	Present	Present	Present	Present
Infection Control Nurse	Present	Present	Present	Apologies
Public Health England representative	Present	Present	Present	Present
Facilities Manager/ Estates Manager/ ISS Manager	Present	Apologies	Absent	Present
Health & Safety Adviser	Apologies	Present	Present	Absent
Clinical Audit Representative	Present	Present	Present	Present
Occupational Health Representative	Present	Present	Present	Present
Matron (one to attend to represent matrons group)	Present	Present	Present	Present
Antibiotic Pharmacist	Absent	Absent	Absent	Absent
Decontamination Manager	Absent	Absent	Absent	Absent
CSU Clinical Infection Prevention & Control Lead	Present	Present	Present	Present

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 Quality. The DIPC meets regularly with the Chief Executive, chairs the IPCG meetings and is a member of the Quality Improvement Committee (QIC), Quality Assurance Committee (QAC) and Serious Incident Group (SIG). The IPCT provides reports for QIC and attends when required. When required the IPCT provides reports for and this year presented to the Clinical Quality Review Group (CQRG) on the Trust's position regarding the *E.coli* Bacteraemia target. Reports are also provided for the Integrated Board Compliance Report and the Quality Account Priority 2 - Implement measures to reduce hospital acquired infections caused by Gram-negative bacteria.

IPCT Liaison with Service Lines

Representatives from the Service Lines attend the IPCG meetings and report back at Service Line meetings.

Antibiotic Prescribing and Stewardship

The Antibiotic Management Group (established in February 2013) continues to promote excellence in antimicrobial prescribing. This group reports to the IPCG and the Drugs and Therapeutics Group.

Work this year has focused on:

- Working towards the current antibiotic stewardship CQUINs (Commissioning for Quality and Innovation). The two parts consist of: 72 hour review of non-septic patients; and assurance of appropriate use of antibiotics with a total value of £118k. CQUIN targets have been met to date and the Trust is currently planning for next year's CQUIN's.
- Reviewing and updating Trust Antibiotic Guidelines and introducing Care Records Service (CRS) antibiotic prescribing plans.
- Reviewing new antimicrobial agents, agreeing strategies for their use and monitoring their effectiveness in the Trust.
- Conducting and reporting the monthly antibiotic prescribing audits across the Trust based on the 'Start Smart and Focus' approach, with feedback to individual consultant groups and QIC.
- Implementing an education and training program for junior doctors, pharmacists and nurses.
- Reviewing incident reports related to antimicrobial use.
- Working closely with primary care pharmacists to update both Richmond and Kingston GP group antimicrobial prescribing guidelines.

Collaborative working with Community Services/ Service Level Agreements

The IPCT continue to work with the community in the following ways:

- The Consultant Microbiologists provide Infection Control cover for Your HealthCare (Kingston), Hounslow & Richmond Community Healthcare Alliance & Royal Hospital for Neuro-disability.
- The IPCT provide infection control advice, an annual environmental infection control audit, and access to Trust policies and guidelines for Princess Alice Hospice in Esher.
- 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.
- The IPCT liaise with Public Health England/ South London Health Protection Team and NHS South East Commissioning Support Unit when required.

Decontamination Group

The IPCT attend quarterly Decontamination Group meetings chaired by the Infection Control Doctor. The purpose of the group is to ensure that reusable medical devices are decontaminated effectively and in accordance with published standards. The Decontamination Group has previously been accountable to the Health and Safety Committee, but this has now changed to the Infection Prevention & Control Committee.

3. Targets and outcomes

The Health and Social Care Act 2008 provides Trusts with a code of practice for the prevention and control of healthcare associated infections (HCAIs) 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. The Trust considers itself to be compliant with this document and continues to monitor this through the IPCT Annual Plan.

4. **Mandatory Reporting of Healthcare Associated Infections (HCAI)**

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* infection rates.
- *E coli* bacteraemia rates.

Mandatory HCAI surveillance results have been reported via the quarterly report to IPCG and QIC, and to the Trust Board by the DIPC. The Trust also reports Serious Incidents (SIs) related to infection control and outbreaks of infection, and there were no SIs relating to infection prevention and control this year.

5. **Trust Reportable Healthcare Associated Infections**

Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia

The total number of Trust-apportioned MRSA bacteraemia (blood stream infection) cases for the year was four 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. Post Infection Review (PIR) has been carried out on all cases and these have been presented to Service Line Review meetings and Serious Incident Group in order to facilitate learning.

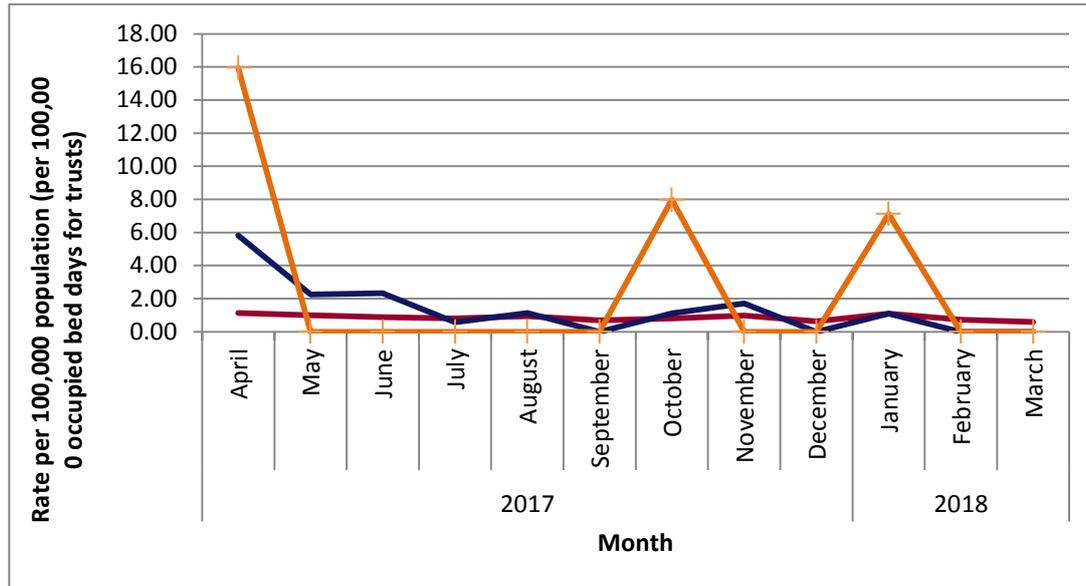
Two of the four cases were in April 2017. The first case in April 2017 was a possible line infection. Asepsis on insertion had not been documented but was verbally confirmed. In response to this a three month audit of intravenous (IV) line insertion and care was carried out in quarter three (Section 9.2).

For the second case it was agreed that blood cultures should have been taken earlier and that the positive blood culture may have been due to a contaminant. In response to these findings the Trust MRSA guideline was revised to include screening of patients who have been hospitalised within the last three months, and bi-annual MRSA screening audits were commenced. In addition to the above actions, messages regarding MRSA screening, decolonisation and IV line care were added to staff payslips in July 2017.

The third case in October 2017 was deemed Trust apportioned however, the patient was colonised with MRSA (wound and screen) on admission, but didn't demonstrate signs of skin and soft tissue infection initially. The patient was high-risk (known diabetic with chronic leg ulcers and significant peripheral vascular disease). Blood cultures were taken as soon as the patient developed signs of sepsis and empirical antibiotics started. For these reasons it was considered that this case was not Trust apportioned and was therefore appealed, however this was unsuccessful. The same patient had a second bacteraemia two months later, which was successfully appealed and attributed to Richmond CCG.

There was a further case in January 2018 in the haematology ward. This patient was in a bay that was already closed due to influenza. There was a patient colonised with the same strain of MRSA in the same bay. During this period there were extreme bed pressures due to influenza and norovirus, therefore single room isolation may not have been possible, but learning from the PIR has focussed on ensuring robust isolation procedures.

Graph 1 National and regional MRSA bacteraemia rates including Kingston Hospital NHS Foundation Trust (Public Health England, 2018)



Key

- Kingston Hospital NHS Foundation Trust —+
- South London (acute trust rate) —
- England (acute trust rate) —

MRSA Screening and Decolonisation

To assess compliance with the Trust MRSA guideline, a point prevalence survey was completed for all in-patients in high risk areas (Cambridge, Canbury, Bronte, Astor, Intensive Care Unit & Neonatal Unit) for one week in June 2017.

The Business Intelligence Team identified 118 inpatients eligible for MRSA screening and results identified that:

- 91 patients (77%) were managed in accordance with Trust policy, i.e. screened within 24 hours of admission and given decolonisation therapy if the screen was positive.
- 26 patients were not screened (22%) within 24 hours of admission.
- 5 patients were not screened at all – one of whom was admitted to both Astor and Cambridge wards during the in-patient episode.
- Of the 113 patients who were screened, only two tested positive; one was given decolonisation therapy, the other was not.

The poor compliance on Astor ward was discussed with the Matron for Urology & Surgery and it was agreed that recent changes in MRSA screening (in response to updated Department of Health advice) may have created some confusion amongst staff. This was clarified and it is now agreed that MRSA screening for all admissions to Astor ward should cease, with the exception of 'high risk' patients.

In order to provide assurance of compliance with MRSA screening in low risk areas, Kennet ward was selected by the QIC for a point prevalence audit on MRSA screening compliance in January 2018.

Thirty patient records were audited:

- 25/30 patients were managed in accordance with Trust guidance (83% compliance)

- Five patients were not managed appropriately:
 - Two patients were screened who did not meet the screening criteria;
 - One patient from Tolworth Hospital should have been screened, but wasn't;
 - One previously positive MRSA patient should have been screened, but wasn't;
 - One patient appropriately screened, had the screen >24 hours after admission.

The results were shared with the Kennet ward manager and Matron and staff were reminded of the screening criteria at the Sisters' forum and as part of key messages discussed at handover (BIG 4).

In March 2018 compliance with the Trust MRSA guideline was assessed for orthopaedics using a random sample of 100 patients from a total of 522. Results demonstrated that:

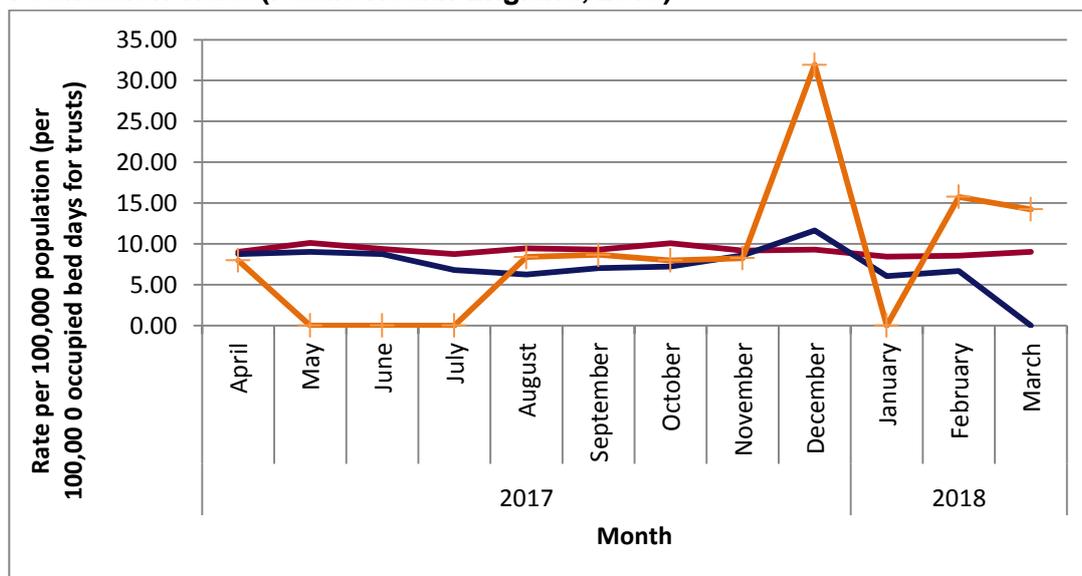
- 88 patients (88%) were screened in accordance with audit criteria.
- 11 patients (11%) were not screened during the inpatient episode under scrutiny.
- One patient (1%) was screened more than 24 hours after admission.

There was only one MRSA screen positive patient and this patient had been discharged before the result was known. Results were shared with the orthopaedic Matron in order to ensure learning.

Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia

There were 13 Trust-apportioned MSSA bacteraemia cases reported this year. There is no national benchmark or annual threshold set for MSSA bacteraemia rates. Gaps identified from PIR were generated into action plans which this year included documentation of insertion and maintenance of intravenous lines; and the production of an ascitic drain competency framework. Actions were discussed through Service Line Review meetings and SIG.

Graph 2 National and regional MSSA bacteraemia rates including Kingston Hospital NHS Foundation Trust (Public Health England, 2018)



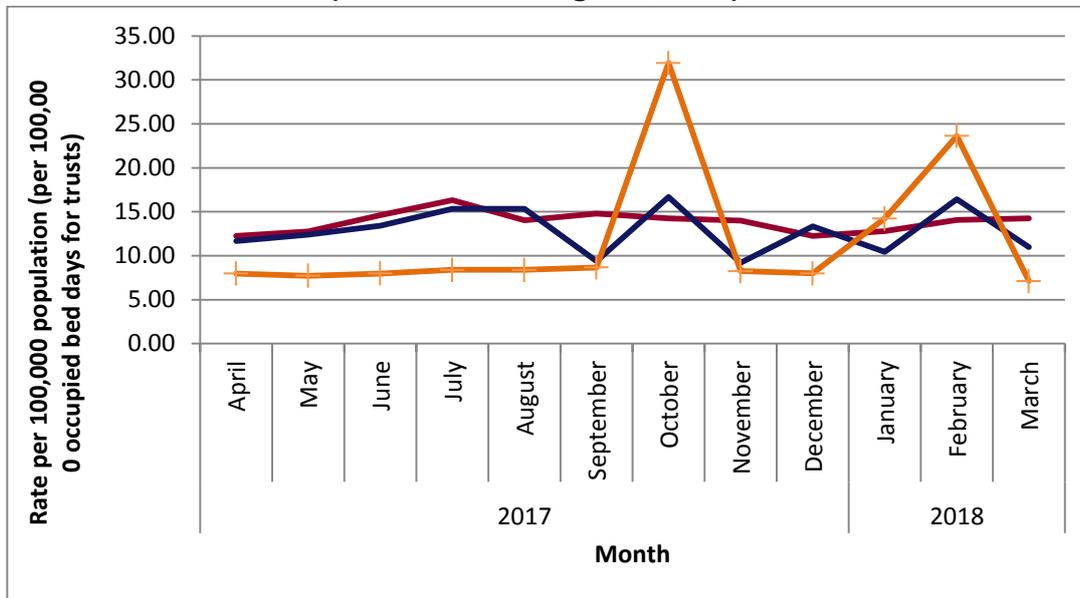
Key

- Kingston Hospital NHS Foundation Trust —+—
- South West London (acute trust rate) ——
- England (acute trust rate) ——

***Clostridium difficile* Toxin (CDT)**

There were 18 Trust-apportioned CDT positive cases in total this year. Cases are deemed Trust-apportioned if the infection is diagnosed from a sample taken on or after the fourth day of admission. The average Trust rate for Kingston Hospital per 100,000 bed days (11.89) is lower than the South London figure (12.87) and the overall England total (13.85).

Graph 3 *Clostridium difficile* toxin infection rates, London, England and Kingston Hospital NHS Foundation Trust (Public Health England, 2018)



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

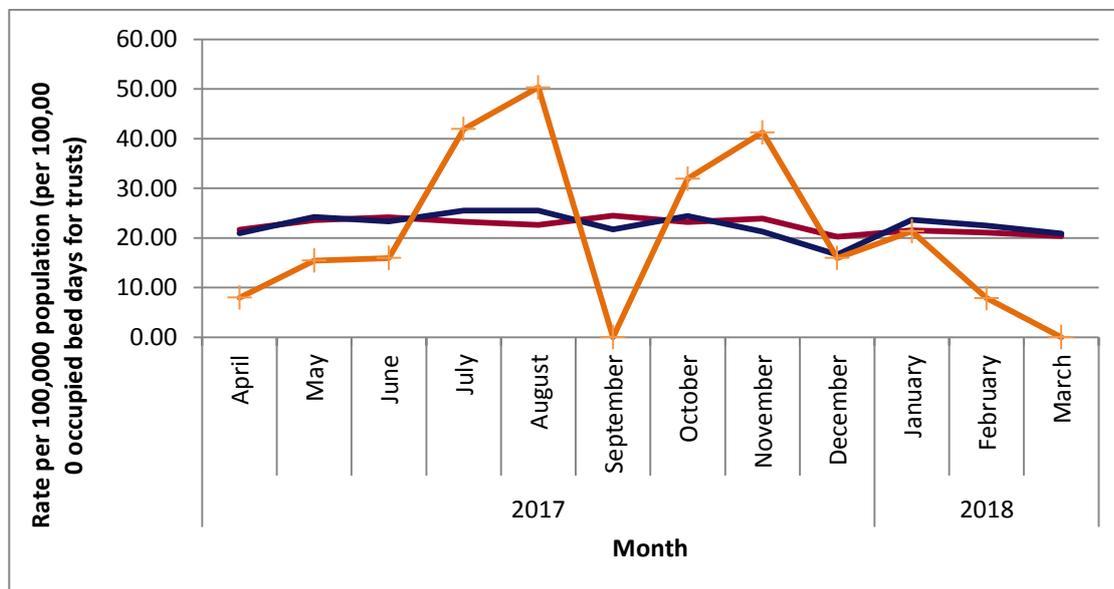
The Trust may have been penalised if there were more than 9 lapses in care, identified by evidence that policies and procedures consistent with Trust guidance were not followed (NHS Improvement 2018). There were four lapses in care this year as assessed by the South East London Commissioning Support Unit Infection Control Nurse Specialist, and these were due to late stool specimens. The IPCT have revised the Trust diarrhoea algorithm to ensure that stool specimens are sent straight away rather than waiting for laxatives to be stopped for 48 hours. Cases have been presented to Service Line Review meetings and SIG in order to facilitate learning.

***Escherichia coli* (E.coli) bacteraemia**

The current national ambition to achieve a 50% reduction in Gram-negative blood stream infections (GNBSIs) by 2020/21, including a 10% reduction in *E.coli* blood stream infections by March 2018, instigated a number of actions outlined in the initial Trust *E.coli* action plan, which was commenced in February 2017 (Appendix 1). The Trust reported a total of 148 cases of *E.coli* bacteraemia this year, which demonstrates a reduction from the figure of 168 last year. A total of 31 cases were Trust apportioned, which is an increase from the 22 reported last year and represents a failure to achieve the ambition of a 10% reduction, despite the initial action plan. However, the average Trust rate for Kingston Hospital per 100,000 bed days (20.47) is lower than the South London rate (22.55) and the overall England rate (22.50). The emphasis is currently on reducing urinary tract infections and a catheter associated urinary tract infection (CAUTI) project group was commenced. It has been acknowledged that resources to deliver service line improvements for CAUTI reduction, and completion of the action plan, exceed the scope of the IPCT, and therefore the Trust is

currently exploring ways forward by encompassing a wider remit and leadership within other services in the Trust. This has been discussed at QIC and is currently being taken forward by the Director of Nursing and Quality.

Graph 4 *E. coli* bacteraemia rates, London, England and Kingston Hospital NHS Foundation Trust (Public Health England, 2018)



Kingston Hospital NHS Foundation Trust —+
 South West London (acute trust rate) —
 England (acute trust rate) —

PIR of all *E.coli* blood stream infections (BSIs) commenced as part of this plan. Baseline figures for all cases from 01.04.17 – 08.08.17 demonstrated that 57% of the Trust *E.coli* BSIs were related to urinary tract infections (UTIs) and a few learning points were identified. Other causes such as hepatobiliary; gastrointestinal and endocarditis failed to identify any learning points.

It is recognised that community input and collaborative working regarding reduction of *E.coli* BSIs is important and in view of this the IPCT organised and hosted a study day on Urinary Catheters and Continence on June 20th 2017. There were 120 delegates from local nursing and residential care homes, community nurses, practice nurses, district nurses and student nurses, in addition to Trust staff. Sponsorship was provided by the London Health Improvement Network (HIN), Deb Group Ltd, Coloplast Ltd, CliniMed Ltd and Optimum Medical, with additional funding from the Nursing Directorate. The event was evaluated very positively.

6.0 Outbreaks and Incidents

Vancomycin-resistant enterococci (VRE)

During 2017 – 2018 there were a total of 56 VRE cases, with 16 in the Intensive Care Unit (ITU). Typing results are available for 29 cases to date; two cases in ITU had the same strain but did not represent cross infection due to timing of admission and placement in the unit. However, a full isolation clean, curtain change, equipment cleaning check and more frequent hand hygiene audits had already been completed.

Table 3 ITU VRE typing and ward areas

Typing	Number of cases	Ward/s
Unique	13	N/A
KINGB8EC -22	2	AAU, Keats
SGEO07EC-13	1	ITU
SGEO07EC-15	2	ITU, Derwent
SGEO07EC-24	1	Hamble
SGEO07EC-27	3	ITU X 2 (5 months apart), Chest clinic
SGEO07EC-28	3	ITU, Bronte, AAU
SGEO07EC-29	2	Hardy, ITU
SGEO07EC-30	2	ITU X 2 (no cross infection)

AAU – Acute Assessment Unit

ITU – Intensive Care Unit

Diarrhoea and Vomiting

Kingston Hospital Foundation Trust

There were 117 cases of confirmed Norovirus this year in the Trust. Hamble ward was closed from 4th to 8th January 2018 and Blyth ward was closed from 5th to 9th February 2018 due to diarrhoea and vomiting affecting each bay on the wards. Actions were put into place by the IPCT and ward staff and PHE were notified. Brand new signage regarding diarrhoea and vomiting was placed at the main entrances into the Trust.

Table 4 Norovirus cases and ward areas

Ward	Number of cases	Ward	Number of cases
Kennet	5	Claremont	12
Blyth	20	AAU	8
Hamble	23	Cambridge	11
Bronte	11	Canbury	8
Keats	7	Isabella	3
Derwent	9	Total	117

An outbreak of diarrhoea and vomiting in the staff nursery in May 2017 affected 15 children, two members of staff and one parent. PHE were notified and infection control precautions were implemented.

Princess Alice Hospice

As part of the Trust Service Level Agreement, the IPCT advised staff at Princess Alice Hospice on management of an outbreak of diarrhoea and vomiting affecting staff and patients in early December 2017.

Influenza

During the third week of December 2017 the Trust initiated a molecular point of care test (POCT) for influenza, which provides results for Influenza A and B, and RSV from a throat swab in 20 minutes, rather than waiting one to two days or more for results from the laboratory. The Trust was

the first in the country to introduce this type of testing and consequently received positive reviews in the Nursing Times and also in the local press. The test was invaluable in terms of bed management this year as high numbers of flu were reported nationally.

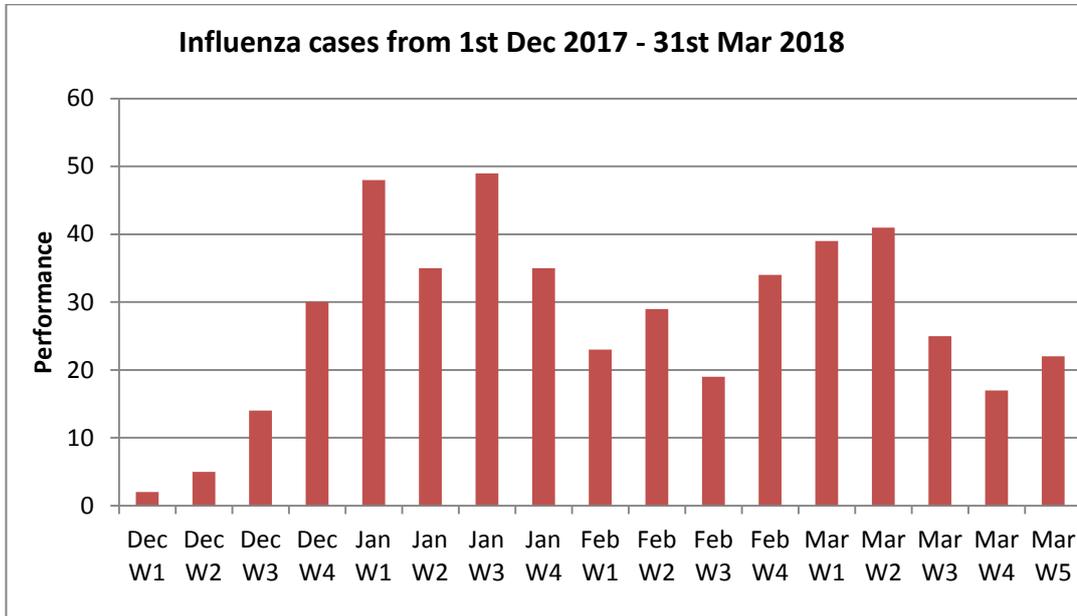
From 21.12.17 – 01.04.18 the Trust performed 1301 POCT tests of which 450 were positive to flu A and B; and 91 tests were recorded as invalid / aborted. The total number of positive adult and paediatric flu cases for the whole year was 478 as there were 28 cases confirmed by the laboratory only. It is noted that:

- 91% of the total number of cases were non-Trust apportioned i.e. patients came into the Trust with flu
- 31% did not require admission and were discharged from ED on the same day
- 34.5% of those tested using the POCT were positive, demonstrating that 65.5% of suspected cases did not require initial isolation whilst waiting for laboratory results - this having a positive impact on bed management this winter.

Positive flu cases requiring admission were isolated accordingly and most were prescribed flu treatment, with contacts of positive cases being isolated and prescribed prophylactic treatment where appropriate.

NHS Improvement requested that the Trust report daily flu figures including: numbers of new cases; numbers of cases in ITU; and number of flu positive cases currently in the Trust, and the IPCT have been collating the numbers.

Graph 5 Flu numbers per week at Kingston Hospital



In addition, the Trust telephone message for the public was changed to address diarrhoea and vomiting and influenza. A written guideline for cohorting patients with either influenza or diarrhoea and vomiting was provided for the Advanced Site Practitioners.

Carbapenemase-producing enterobacteriaceae (CPE)

There were two separate cases of CPE this year, one in Blyth ward in April 2017; and the other in AAU, Derwent and ITU in January 2018. Both tested positive in urine samples. Contacts of both patients were identified and screened as appropriate. ‘Flags’ (a system of alerting staff to important

patient information) were added to the electronic records of the positive case and the contacts advising staff of further actions required for this and any subsequent admissions. Contacts screened so far have all been negative.

Measles

There were two separate cases of measles this year. The first, in December 2017, was a child who attended ED and Dolphin ward on three consecutive days. Contact tracing was carried out on over 100 patients and after risk assessment 54 warn and inform letters were sent to parents and their GPs. The second case in March 2018 was an adult in Hamble ward who had contact with 16 patients – all were followed up accordingly with flags added to CRS notes and letters sent to discharged patients and their GPs.

Panton-Valentine Leukocidin (PVL) MRSA / Staphylococcus aureus (SA)

This year there were seven cases of PVL MRSA/ SA, with one possible transmission of infection.

- A patient on Astor ward tested positive for PVL MRSA in a wound swab in June 2017. Four patients in the same bay were exposed and three tested negative. The other patient had gone home and a letter was sent to the patient and her GP.
- A child admitted and diagnosed with PVL SA in a wound in July 2017 had been isolated throughout his inpatient stay and therefore no other patients were exposed.
- A patient in Canbury ward with PVL MRSA from a leg abscess was nursed in a side room throughout.
- A patient with PVL SA in their sputum was nursed in ITU and AAU, and all patient contacts tested negative.
- A patient who had been admitted to ITU and Bronte ward in December 2017 had a PVL positive screen result after discharge, however no patient contact tracing was required as the patient was isolated throughout.
- A patient admitted to AAU, CDU and Bronte was reported to have the PVL gene in February 2018, contact tracing identified 38 patients and in-patients were screened and letters sent to discharged patients and their GPs. Following this case a contact was found to have MRSA with the same PVL strain as the index case - an incident form was completed. Both patients subsequently tested MRSA negative.
- A patient admitted to AAU and Bronte in February 2018 was found to have the PVL gene in March 2018. Four contacts were identified – two were screened and two discharged patients had letters sent. This was a different strain to the previous two cases this quarter.

Staff exposed to PVL via respiratory secretions were advised to attend Occupational Health & Wellbeing (or their GP) for advice regarding screening and/or treatment as per Trust guidelines.

Group A Streptococcus (GAS)

There were eight invasive GAS infections and 28 non-invasive GAS infections, all of community origin bar two. Contact tracing and advice for staff was completed for all cases, in accordance with Trust guidelines.

Chickenpox and Shingles

There were five separate cases of chickenpox and eight separate cases of shingles this year.

Chickenpox

- In June 2017, a patient referred to ED with a rash, who was not isolated upon presentation to ED, was diagnosed with chickenpox that resulted in 42 exposed patients. An incident report

was completed for the failure to isolate the patient on presentation at ED. The patient was later transferred to Bronte ward, which does not comply with Trust guidance; this was also reported as an incident.

- There was a confirmed case of chickenpox in Sunshine ward in June 2017 who was found to have been isolated from admission and therefore no other patients were exposed.
- A patient admitted to Hardy ward in June 2017 was diagnosed with chickenpox eight days after admission, resulting in seven exposed patients.
- A patient admitted to Hamble ward in August 2017 was confirmed to have chickenpox and had been isolated from admission and therefore no patients were exposed.
- A child treated in the Pre Assessment Unit in March 2018 had chicken pox and had been isolated from admission, exposing no other patients.

Shingles

- In May 2017, a Bronte (cardiology/ haematology ward) team member discovered a shingles rash after working a night shift having gone home mid-shift feeling unwell.
- In June a staff member on Astor had shingles. The rash was covered and there was no exposure.
- In July there were three cases:
 - One patient who was cared for in ED, AAU & Coombe
 - One patient in AAU who was isolated throughout;
 - One patient on Sunshine ward who was isolated throughout;
- In September a staff member in AAU had shingles. The rash was covered and there was no exposure.
- In October 2017 there was a case of shingles in Astor ward who had initially been nursed in a bay.
- In March 2018, a patient who had been on AAU and Isabella ward was diagnosed with shingles.

All patient cases and susceptible patients exposed to chicken pox and shingles were isolated. In addition, immunocompromised patients, or patients with an uncertain history of chickenpox, were tested for immunity as soon as possible. 'Warn and inform' letters were sent to discharged patients and their GPs. Pregnant staff / those who had not had chickenpox and had contact with a positive case were referred to Occupational Health and Wellbeing for management and advice.

Aspergillus fumigatus

Three patients in ITU and one in the Acute Assessment Unit (AAU) tested positive for *Aspergillus fumigatus* from sputum & broncho-alveolar lavage samples. None of the patients were immunocompromised and treatment was required for only one patient, due to the fact that he had different fungi isolated from other sites. All patients were in an area of possible environmental contamination due to a number of necessary building projects ongoing at the time. Steps were taken to ensure that dust control measures were maintained and enforced, and ITU, AAU and the associated corridor had an isolation clean, with curtains changed in the clinical areas.

Neisseria meningitidis

Neisseria meningitidis was identified from pericardial fluid of a patient who had been transferred to St. George's Hospital. Contact tracing identified eight members of staff requiring prophylaxis.

Scabies

In August 2017 the Occupational Health and Wellbeing department diagnosed scabies in a member of radiology staff. Advice was given regarding contact with patients, treatment, precautions and return to work.

Staff Member with MRSA

In September two staff members were diagnosed with MRSA. Advice was given regarding treatment, re-screening and return to work.

Wound Infection Raynes Park Health Clinic

Four patients were noted to have post-operative complications following dermatology procedures undertaken at Raynes Park Health Centre. One patient had a *Staph. aureus* wound infection, which was treated by their GP. The IPCT completed a site visit and the service line reviewed their practices and procedures. An action plan was fully implemented.

7. Surveillance

Surgical Site Infection Surveillance Service (SSISS)

Results from mandatory orthopaedic surveillance carried out on the repair of neck of femur for three months from July to September 2017 demonstrated no infections, compared to a national rate of 1.3%.

National Point Prevalence Survey

Results from the National Point Prevalence Survey (PPS) on healthcare associated infections and antimicrobial use carried out for three weeks in October 2016 only became available in April 2017, and are therefore included in this year's Annual Report.

Table 5 Overall National and Trust PPS Results

Category	National	KHT
<i>Total number of patients observed</i>	48,312	476
Healthcare Associated Infection rate	3174 (6.6%)	35 (7.4%)
<i>Antimicrobial Use</i>	17,884 (37%)	167 (35.1%)
Pneumonia / lower respiratory tract infection	969 (2%)	14 (2.9%)
Gastro-intestinal tract infections	244 (0.5%)	7 (1.5%)
<i>Urinary Catheter in use</i>	9724 (20.1%)	120 (25.2%)
Urinary Tract infections	576 (1.2%)	6 (1.2%)
<i>Peripheral Vascular Device in use</i>	20,675 (42.8%)	220 (46.2%)
<i>Central Venous Catheter in use</i>	3183 (6.6%)	16 (3.4%)
Intravenous (IV) line infections	23 (0.0%)	1 (0.2%)
Surgical site infection	496 (1%)	0 (0%)

Eye, Ear, Nose or Mouth infections	95 (0.2%)	4 (0.8%)
Skin and Soft Tissue infections	164 (0.3%)	3 (0.6%)

Further information on the survey is available via the IPCT. There was one IV line infection and the IPCT have since carried out a three month IV line audit (Section 9.2).

8. Hand Hygiene Compliance

Hand Hygiene Audits

The Department of Health (DH) Saving Lives hand hygiene audits have been carried out by the infection control link practitioners on a monthly basis. The hand hygiene compliance target remains at 95%. The majority (81%) of scores have a green score (>95%) with a few (13%) amber scores (70-95%) and no red scores (<60%). A total of 6% of audits were not completed.

The Trust hired the SureWash hand hygiene training unit again this year for three months, which raises the profile of hand hygiene as well as training staff the correct hand hygiene technique. The unit spent four days in each ward but didn't have the same impact as last year with fewer interactions by staff however, this was more in line with interactions reported by other trusts.

Bare below the elbow (BBE)

The Trust continues to monitor compliance with the DH initiative 'Bare below the elbow' with all staff working in clinical areas. Compliance is monitored during hand hygiene audits and staff are advised to directly challenge poor practice and escalate to the DIPC / Medical Director where necessary.

9. Asepsis and Intravenous Line Care

Asepsis

The IPCT have continued to carry out asepsis training on the Trust clinical skills day, which is provided to all new Trust employees. Parts of the process of asepsis are monitored via the DH Saving Lives initiative (see Section 10.0).

Intravenous (IV) Line Care

From September to December 2017 the IPCT carried out an audit on intravenous central lines in response to a request from the Medical Director to provide assurance that practices are in place to prevent infection. There was a 3% infection rate (two infections out of 70 cases). Findings demonstrated that:

- Documentation requires improvement:
 - Documentation that asepsis had been used for insertion of lines had reduced since the last audit (from 68% to 59%);
 - Visual Infusion Phlebitis (VIP) scoring had increased from 57% to 80%;
 - Labelling of lines had improved from 24% to 49%.
- Use of the Biopatch (a Chlorhexidine infused patch that sits at the insertion site), introduced in 2016, was very good at 91%.
- Use of the closed system had improved up to the required standard from 76% to 95%.
- VIP scores completed in the last 24 hours on the day of audit were recorded as zero, and were correct, demonstrating good practice.

- There was confusion from a few nurses around the different line names.

The audit has been shared with appropriate staff, discussed at the IPCG and an action plan is in place. A quality improvement project will be piloted in Bronte ward and a re-audit will take place next year.

Table 6 Action Plan

Recommendation	Action required	Possible barriers	Responsible person	Timescale
Improved documentation	Insertion & asepsis documentation <ul style="list-style-type: none"> • ITU – reminders to staff to adhere to the protocol • Theatre – to ensure that all staff inserting lines document asepsis in CRS 	Nil	ITU Matron	Immediate
	VIP scores - reminders to staff	Nil	FBP / Theatre Matron / Consultant anaesthetist	June 2018
	Labelling – to investigate label types and trial in Bronte ward	Nil	Matrons / Senior sisters	June 2018
Biopatch use on all lines	Reminders to staff Company Rep to provide refresher training	Nil	FBP / Matron Bronte ward	June 2018
Staff education regarding line types (not in ITU)	Training to ward staff	Nil	Matrons / Senior Sisters	PDN's currently carrying out 'drop in' sessions

10. Saving Lives Initiative / High Impact Interventions (HIs)

The Infection Control Link Practitioners continue to carry out monthly audits from the DH 'Saving Lives High Impact Interventions' 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. The ITU also carry out aspects of the HIs regarding ventilator associated pneumonia / tracheostomy and central venous access devices via ICNARC (Intensive Care National Audit Research Centre).

11. Care of the Environment

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.

Trust Curtain Changing guidelines 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.

ISS Mediclean have provided extra cleaning as requested during the outbreaks of Norovirus and Influenza this year.

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.

Equipment Cleanliness Audits

The Head of Nursing for Medicine / Emergency Department and the Infection Control Clinical Nurse Specialist have been carrying out equipment cleaning audits on a monthly basis (with the exception of December 2017). Scores have improved and results are demonstrated in Appendix 2. As the year has progressed other areas have been added to the list including out-patient, dental, ITU and maternity departments. The Infection Control Link Practitioners also continue to carry out their own monthly equipment audits.

Ebbisham Care Centre Equipment Cleanliness Audit

This area was visited by the CNS Infection Control and OPD Matron in the previous quarter and a number of equipment cleaning issues were identified. A report was issued and a re-visit in November 2017 demonstrated improvement.

Environmental Audits

The IPCT have audited the environment of a number of clinical areas this year:

- Orthopaedics Outpatient Department Rooms 2, 6 and 7, August 2017
- Maternity, August 2017, October 2017
- Minor Ops ACU October 2017
- Minor ops DSU October 2017
- Echo room Esher level 6 January 2018
- Cardiology January, February 2018
- Pre-assessment check March 2018
- ED Majors pantry March 18

Reports with clear actions have been supplied to the clinical area managers, ISS manager and works department.

Princess Alice Hospice (PAH) Environmental Audit

As part of the Trust Service Level Agreement the IPCT carried out an Infection Control audit at PAH during November 2017.

Haztab Audit

Haztab use was audited in four wards and it was immediately evident that there were gaps in knowledge on their availability and correct use. The IPCT have provided resources and training on their correct use and are currently exploring alternative products.

Mask Fit Testing

Mask fit testing is available for all staff and is of particular focus in high risk areas. The Link Practitioners were provided with training by the company representative in December 2017, with a view to cascade testing in their own areas. Sessions continue to be provided in different locations

on a monthly basis by the Infection Control Nurse, however uptake has been poor. Risk assessment has been carried out and new methods of increasing compliance are currently being planned.

13. Bed Tendering Process

The IPCT were involved in the bed tendering process with procurement and Epsom & St. Helier Trust, which involved site visits and product assessments.

14. Decontamination

The IPCT continue to support the decontamination agenda. The Trust commissioned an external review of decontamination in December 2017. The report recommended areas for improvement and these were incorporated into an action plan.

In August it was discovered that a positive mycobacteria result for endoscope rinse water sampled in May 2017 had not been acted upon, as the result had been emailed to one staff member who had left the Trust in the interim. An incident meeting was held and advice was sought from Public Health England. There was no risk of infection to patients however, there was a risk that clinical samples may have become contaminated, and based upon false positives, patients may have been given unnecessary treatment. A look back exercise into the affected endoscope patient list demonstrated no false positive AAFB cultures, and therefore there is no concern regarding false Mycobacteria diagnosis for any of the patients involved.

In January 2018 there was a positive reading for mycobacteria (1cfu/100ml) in the rinse water from one of the endoscope washer disinfectors in DSU. The bay was taken out of use and disinfected; patients treated with the scopes reprocessed in that chamber from the date of the last negative water result were followed up in case of false positive Mycobacteria results. None of the patients had any positive cultures and therefore there was no concern of false diagnosis for these patients.

In response to this, designated members of staff have been charged with ensuring prompt follow up of endoscope rinse water microbiology results. Decontamination responsibilities have been reviewed and an interim decontamination policy has been agreed.

15. New Builds / Refurbishments

The IPCT provided expert guidance on new builds and refurbishments throughout the year.

The Built Environment

The IPCT provided input to the fire stopping project throughout the Trust, the refurbishment of theatres, radiology, the planned refurbishment of Sir William Rous Unit (SWRU) and Worcester ward, and the delivery of the ED urgent care centre. Audits were completed for the pain room in main theatre and the assisted conception unit to assess these areas suitability for proposed increase in activity.

Planned Refurbishment

The IPCT advised on room specifications, fixtures fittings and finishes throughout the transformation of the former microbiology lab into an extended outpatient department, plus the planned refurbishments in ITU, SWRU, Radiology, Princess Alexandra Wing, ED majors and resus, Maternity, plus the conversion of Claremont ward on Esher Level 7 into an endoscopy suite. In accordance with infection control guidance new flooring was installed in the Assisted Conception Unit to enable the facility to be used for minor operations.

16. Infection Control Staff Training

Face to face training sessions for new staff on induction were provided by the team. Annual infection control update training continued to be delivered by on-line booklets this year, with a move to online training imminent. Asepsis has been covered by the infection control nurse on all clinical skills training days. Infection Control classroom based training has been delivered on induction training for new band 2 and band 5 nurses. The team continue to support training for volunteers. Additional training has been supplied when requested.

17. Policy/ Guideline Review

There are around 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.

18. Further Infection Prevention & Control Initiatives

Link Practitioners

The Trust currently has Infection Control Link Practitioners in each clinical area. This person is allocated one day every two months specifically for infection control responsibilities including carrying out the Saving Lives audits. Quarterly study days, in which the Link Practitioner business meeting is incorporated, have continued this year.

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 VRE, CPE, ESBL, Flu and Norovirus having been approved by the Patient information Review Group and Communication Team. Information sheets on reducing the risk of infection whilst in hospital, respiratory syncytial virus (RSV) and diarrhoea and vomiting are also available.

19. Summary and Conclusion

Over the past year the Trust has:

- Reported four cases of MRSA bacteraemia against the zero trajectory. The Trust has recognised some gaps in IV line care and has worked to rectify this by carrying out a three month IV line audit with recommendations and an action plan. The Trust has introduced MRSA screening of patients who have been hospitalised in the previous three months, and has carried out MRSA screening audits.
- Reported 18 cases of *Clostridium difficile* toxin with four lapses in care out of the allowed nine. All four lapses were due to late stool specimens and consequently the Trust has revised the Trust diarrhoea algorithm to ensure that stool specimens are sent straight away, rather than waiting for laxatives to be stopped for 48 hours.
- Continued to report MSSA bacteraemia rates and achieved the Trust aim to have less than one per month with 13 cases this year.
- Continued to report *E. coli* bacteraemia cases, having had 31 Trust apportioned cases this year. The Trust completed an action plan in response to the ambition from Public Health England and the UK Sepsis Trust to halve healthcare associated Gram-negative blood stream infections by March 2021. However, despite this, hospital numbers have not been reduced this year. Work is on-going with recognition that collaboration is required by encompassing a wider remit and leadership within other services in the Trust in order to reduce the number of cases.
- Reported and managed 117 confirmed cases of Norovirus this winter.

- Initiated a molecular point of care test (POCT) for influenza, which provided a result in 20 minutes. The Trust managed 478 (91% non-Trust apportioned) confirmed flu cases during a season of high numbers reported nationally this year. The POCT had a huge impact on bed management and patient experience this winter.
- Reported a total of 56 VRE cases with 16 in the Intensive Care Unit (ITU) and typing results for 29 cases so far. Two cases in ITU had the same strain but did not represent a risk of cross infection due to timing of admission and placement in the unit.
- Managed a number of infection control outbreaks / incidents such as CPE, Group A Streptococci, measles, chicken pox and shingles.
- Demonstrated compliance with The Health and Social Care Act 2008 (2015) with continuing focus via the IPCT Annual Plan.
- Maintained improved hand hygiene scores with no red rated compliance scores (below 70%) and demonstrating mostly green scores (above 95%) for the year.
- Worked towards reducing intravenous line infections and continued to teach asepsis on the Clinical Skills training day.
- Continued to embed optimal antibiotic prescribing practice into the Trust.
- Prioritised the achievement of the new antibiotic stewardship CQUINs within the work of the Antibiotic Management Group with both CQUIN targets met for all quarters this year.

20. Recommendations / Key Priorities for 2018/2019

Priorities will be monitored via the IPCT Annual Plan for 2018-2019.

- Meet targets set by the DH by remaining below the *Clostridium difficile* threshold of eight cases (related to lapses in care).
- Aim for zero MRSA bacteraemia cases and continually monitor for further required actions.
- Continue to work towards optimal screening of patients in accordance with Trust guidelines including MRSA; CPE screening; and stool sampling.
- Continue with on-going work to ensure the best care of intravenous lines in order to prevent infections, ensuring delivery of the IV audit action plan and further monitoring.
- Work collaboratively with other key staff in the aim of halving healthcare associated Gram-negative blood stream infections by March 2021, and respond to guidance for other Gram-negative infections as set out by PHE this year. Ensure liaison with community teams in the achievement of this goal where necessary.
- Continue to ensure that optimal infection control practices are in place, and to manage infection outbreaks and incidents efficiently in order to keep our patients as safe as possible whilst maintaining hospital functioning.
- Continue to demonstrate enhanced hand hygiene, bare below the elbow and equipment cleaning score audits.
- Continue to survey surgical site infection as part of the Surgical Site Infection Surveillance Service.
- Implement the ACME infection control software system, and deliver benefits of introduction.
- Continue to provide infection control training.
- Provide a whole time equivalent antibiotic pharmacist and consultant microbiologist protected time to conduct the Trust antibiotic stewardship and CQUIN work.
- Continue to refurbish and develop the built environment in accordance with published standards.

21. References, sources and further reading

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Appendix 1 Trust wide *E.coli* Bacteraemia Action Plan 2017 V9.0

	THEME	ACTION	TIMESCALE	PROGRESS UPDATE	STATUS
Added in response to PHE/	Self-assessment of progress against core standards for <i>E.coli</i> BSI reduction	Develop improvement plan based upon <i>E. coli</i> BSI case review.	30.04.18	Explore possibility of having a continence/ bowel community liaison nurse: <ul style="list-style-type: none"> ○ Catheter training for ED staff ○ Catheter hospital pack ○ Catheter home pack ○ Red bag scheme 	
		Implement new HII's from DH	31.12.17	IPCG to discuss with ICLPs 22.09.17	
	Infection prevention and control	Surveillance, audit, risk assessments.	30.09.17	IV line care audit completed.	
		Prompt identification of people at risk of developing an infection. Ensure hydration and nutrition are incorporated into care.	Ongoing	SR meeting with Nutrition CNS Annemarie Nunwa w/b 11/09/2017	
	No Catheter No CAUTI* Group	Streamline urinary catheter products.	May 2017	Procurement leading via clinical procurement group.	
London HIN COP	Improve communication with community partners on presence of urinary catheter/ TWOC	July 2017	GNBSI group met on 21.09.17. Meeting notes available. NP attending PN forum in Jan 2018.		
	Consider setting up a patient support group	July 2017	No resource.		
	Explore possibility of e-trigger for catheter removal	Jun 2018			
	Consider setting up a dedicated ED urology unit	TBA			
Completed actions					
Post Infection Review (PIR)	PIR on all Trust apportioned cases.	Jul 2016	Commenced and completed by IPCT.		
	PIR to be completed by Clinicians and reported through Service Line meetings and SIG to facilitate learning.	Jan 2017	Email sent to Clinicians in December 2016 to inform them of the new requirement, process commenced January 2017.		
No Catheter No CAUTI* Group	Set up NCNC meetings and ensure good representation.	Feb 2017	NCNC meetings reconvened 09.02.17, but were poorly attended/ not quorate.		
	Audit / surveillance	Feb 2017	Point Prevalence completed 2015.		
	Urinary Catheter guidelines.	Jul 2016	New guidelines produced by IPCT with Urology and PDN approval July 2016.		
	Urinary catheter training – liaison with PDN's.	Feb 2017	PDN's currently carry out urinary catheter training / competency assessment.		
	Audit/ surveillance	Completed	Documentation audit completed Oct – Dec 2016.		
	Progress NCNC agenda with Urology CNS support	In place			
Reporting	Continue PHE monthly reporting of cases. Continue reporting to quarterly Infection Control Group.	Ongoing	Monthly reporting of E coli numbers to PHE by DON. Trust apportioned cases and themes reported in the Infection Control Quarterly Report.		

IV line care	Monitor all PIR's to ensure that intravenous lines are not causing bloodstream infections. Ensure use of the new 'Biopatch' for preventing line infections.	Ongoing	Trust Intravenous Devices policy produced in 2014, updated in 2017. Biopatch (for preventing infection) attachment on all long lines continues and is audited frequently, alongside training by the company.
Hand Hygiene	Implement new hand hygiene audit system.	Ongoing	Hand hygiene compliance rose from 83% in July 2016 to 92% in Dec 2016. New system currently being trialled in five clinical areas. Trust wide hand hygiene action plan to continue.
London HIN COP	Deliver catheter care and continence study day	20.06.17	
	Consider which service improvements would be required to reduce GNBSI incidence.	August 2017.	Meeting with urology CNSs and community stakeholders took place on 21.08.17. Exploring COBWEB. Meeting notes available.
	Consider implementing catheter passport	Dec 2017	Agreement not to progress.
Self-assessment of progress against core standards for <i>E.coli</i> BSI reduction	Monitor local surveillance activity, compare findings with case reviews.	August 2017	
	Review a sample of patients with <i>E. coli</i> BSI to identify themes for action (suggested sample size= 30 cases)	31.03.18	<ul style="list-style-type: none"> • 01.04.17 – 08.08.17: 59 <i>E. coli</i> BSIs: <ul style="list-style-type: none"> ○ 47 NT & 12 TA ○ 34 UTIs (57%) ○ 4/4 TA UTIs had a urinary catheter ○ 5/29 UTIs from NTA had a urinary catheter <ul style="list-style-type: none"> ▪ PIR on 37 cases (27 NTA, 10 TA): 22 had UTI, 16 came from own home • Oct – Dec 2016, 106 pts treated in ED with catheter-related problems <ul style="list-style-type: none"> ○ Themes: retention, infection & catheter-related problems ○ Referral routes: 68 self; 11 healthcare provider; 3 GP.
Infection prevention and control	Surveillance, audit, risk assessments.	30.04.17	PEG tube audit completed April 2017
		In place	Surveillance in place
	Technical guidelines and procedures	In place	Trust guideline on catheterisation launched 2016.
	Adequate isolation	In place	<ul style="list-style-type: none"> • The Trust has adequate isolation facilities. • Saving lives 'isolation' auditing in place.
	Microbiology and laboratory staff	In place	The Trust employs four Consultant Microbiologists and has a SLA in place with SWL Pathology.
	Sepsis – recognition and treatment.	In place	Sepsis steering group & bundle in place.
Clean, safe environment (cleaning, buildings, water, decontamination).	In place	PLACE and mini-PLACE assessments, weekly Maximiser audits, weekly Matrons walk around; water	

			safety & decontamination groups all in place; monthly equipment audits in place.	
	Antimicrobial stewardship	In place	<ul style="list-style-type: none"> • Antimicrobial Stewardship Committee in place, reports to Drugs and Therapeutics Group and Infection Control Group. • Antimicrobial/sepsis CQUIN in place. • The Group seeks to ensure appropriate antibiotic prescribing using measures such as audit, training and policy update. • Antibiotics audits feedback shared with all Directorates & Medical Director. • CQUIN results are reported to PHE every quarter by Pharmacy. • Trust participated in PPS of HCAs, antimicrobial use and stewardship in England - October 2016. 	
	Provide accurate information to service users. Links to Public Health and other services.	In place	<ul style="list-style-type: none"> • Annual report in public domain. • Links established with PHE, who disseminate information. • Trust data publicly available via PHE website. 	
	Systems to ensure staff discharge their responsibilities-competent staff/ education and training	In place	<ul style="list-style-type: none"> • Robust induction programme in place for all staff. • Mandatory training booklet provided for all staff. • PDN network in place. • ANTT training included in clinical induction. • Ad-hoc training sessions in wards/ depts. • Infection control link network/ programme in place. • Saving lives audit programme in place. 	

*CAUTI – Catheter associated urinary tract infection

Key:

-  Completed
-  On target
-  At planning stage
-  Significant slippage

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IPCT 29.12.17; updated 16.05.18

Appendix 2 Hand Hygiene 2017 – 2018 per Month by Clinical Area

Ward	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct -17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
A&E - Adult	95%	97%	99%	99%	96%	97.5%	97%	97%	96%		94%	
A&E - Paediatrics		97%	100%									
AAU	75.5%	99%	83%	100%	100%	98%	94%	93%	89%	95%	93%	93%
Alex	85%	93%	95%	96%	95%	97%	95%	95%	96%	96%	96%	100%
Astor	92%	96%	90%	95%	93%	92%	95%	94%	89%	93%	94%	86%
Audiology	98%	91%	95%	91%	88%	97%	88%	96%	98%	96%	97%	99%
Blyth	100%	100%	100%	97%	100%	100%	100%	100%	100%	100%	100%	98%
Bronte	94%	98%	94%	100%	100%	98%	97%	93%		98%	93%	100%
Cambridge	99%	99%	94%	100%	98%	100%	100%	100%	94%	100%	100%	100%
Canbury	100%	98%	100%	100%	98%	100%	100%	100%	100%	100%	99%	96%
Derwent	79%	84%	99%	100%	86%	93%	99%		98%	95%	97%	100%
DSU	96%	100%	100%	100%		100%	98%	100%	100%	100%	100%	98%
Hamble	94%	95%	97%	99%	97%		96%	96%	97%	96%	95%	97%
Hardy	98%	98%	100%	100%	98%	100%	100%	100%	100%	100%	100%	100%
Isabella	92%	94%	96%	99%	100%	99%	98%	96%	100%	96%	100%	98%
ITU	98%	95%	98%	96%	97%	98%	99%	98%	98%	98%	97%	98%
Keats	91%	98%	96%	95%	98%	98%		100%	95%	96%		96%
Kennet	96%	100%	100	95%	100%	100%	100%	100%	100%	100%	100%	100%
Main Theatres	100%	100%	92%	92.5%	100%	97%	97%	100%	100%	100%	100%	97%
Maternity Delivery	94%	96%	97%	97%	95%	95%	97%	97%	97%	97%	99%	99%
Maternity Malden	87.5%	100%	94%	98%	98%			98%	100%	100%	100%	
Maternity TSAN	96%	94%	97%	97%	95%	97%	95%	93%	95%	97%	97%	97%
Maternity TSPN	100%	99%	100%	100%	100%	96%	92%	92%	98%	98%	98%	100%
Maternity TC	100%	100%	100%	97%	100%	100%	99%	95%	100%	100%	100%	100%
Maternity Worcester	94%	100%	100%	99%	100%		100%	100%	100%	100%	94%	100%
NNU	100%	96%	92%	98%	96%	96%	98%	98%	98%	100%	93%	100%
REU	100%	98%	99%	96%	100%	99%	100%	100%	100%	100%	100%	100%
PAW	100%	100%	100%	98%	100%	100%	100%	100%	100%	100%	100%	100%
Radiology	89%	97%	97%	96.5%	96.5%	97%	95.5%	98%	98%	100%	97.5%	97%
Sunshine	97%	93%	96%	100%	100%	95.5%	100%	100%	98%	96%	98%	96%

Key

Green >95%

Amber 70 - 95%

Red <70%

Appendix 3 Equipment Cleaning Monthly Audits

Ward / Area	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
ED	91%	40%	63%	40%	75%	72.5%	75%	87%		68%	68%	80%
ED (Paediatrics)	100%	70%	100%	40%	90%	20%	100%	87.5%		100%	70%	100%
Alex	90%	80%	100%	80%	100%	90%	100%	100%		100%	100%	100%
Astor	100%	30%	90%	90%	100%	90%	80%	100%		90%	80%	80%
Blyth	100%	100%	100%	70%	90%	100%	90%	100%		100%	100%	100%
Kennet	100%	40%	80%	90%	80%	80%	100%	90%		100%	80%	70%
Bronte	100%	10%	100%	80%	80%	80%	100%	100%		10%	90%	100%
Derwent	100%	60%	90%	80%	60%	100%	80%	90%		80%	80%	100%
Hardy	90%	90%	100%	60%	80%	80%	100%	100%		100%	90%	90%
Hamble	100%	80%	100%	100%	100%	90%	80%	*		60%	40%	80%
Keats	80%	70%	90%	60%	70%	80%	90%	100%		70%	40%	80%
AAU	70%	40%	75%	55%	60%	55%	80%	80%		65%	40%	90%
Cambridge	90%	80%	100%	30%	80%	80%	60%	100%		100%	80%	100%
Canbury	100%	90%	100%	90%	70%	70%	100%	90%		100%	60%	90%
Isabella	100%	30%	100%	100%	90%	80%	70%	70%		70%	70%	100%
Claremont										70%	50%	70%
OPD							25%	55%	80%		86%	63%
SWRU							70%	90%	80%		70%	90%
Dental								90%			90%	
Maternity											87%	
REU											80%	
ITU												90%

*Not completed due to outbreak.

Key

Green >90%

Amber 70 - 90%

Red <70%

Appendix 4 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.

Aspergillus fumigatus - is a fungal pathogen that is commonly found in the environment and which usually does no harm, however it can opportunistically cause a multitude of diseases in humans, in particular to those who are immunocompromised.

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.

CRS - the NHS Care Records Service is a service provided by NHS Connecting for Health for the National Health Service in England which provides mobile patient records and documentation.

Decolonisation 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) is a bacterium which can colonise the throat, skin and anogenital tract. It can cause a diverse range of skin, soft tissue and respiratory tract infections. GAS can occasionally cause infections that are extremely severe, such as necrotising fasciitis. Invasive GAS (iGAS) is when the bacteria are found in the blood stream i.e. by taking blood cultures.

Haztab – a Chlorine-based product used in different concentrations for disinfecting the environment and blood / body fluid spillages.

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.

Measles – a common and highly infectious childhood illness that may affect any age group. Early symptoms include the onset of fever, malaise (aches and pains), coryza (head cold), conjunctivitis (red eyes) and cough. It is vaccine preventable.

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.

Neisseria Meningitidis- a type of bacteria that causes meningococcal disease - a potentially life-threatening infection (including meningitis and septicaemia).

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.

Panton-Valentine Leukocidin (PVL) MRSA / Staphylococcus aureus (SA) - Some strains of MRSA or SA (see above) are more likely to cause infections 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.

Scabies - is an intensely itchy and contagious skin infestation which can be passed from one person to another by touching.

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.