

# **Board of Directors Quality & Performance Committee Meeting**

15<sup>th</sup> April 2015

(BDA/)

## **Infection Prevention and Control Annual Report 2014/15**

<b>Status:</b>	A Paper for Information
<b>History:</b>	Previous Annual Report 2013/14

**Dame Eileen Sills DBE & Dr Nicholas Price**  
**Joint Directors of Infection Prevention and Control**

## Quality & Performance Committee Meeting

15<sup>th</sup> April 2015

A paper prepared by David Tucker, Deputy Director Infection Prevention & Control (DIPC)

Presented by

Eileen Sills, Chief Nurse, Joint DIPC and

Nicholas Price, Director of Infection, Joint DIPC

### Infection Prevention and Control Annual Report 2014/15

#### Purpose of the report

The purpose of this report is to provide the Board with information on trust performance and provide assurance that suitable processes are being employed prevent and control infections. This paper provides the board with an update on:

- 1) Actions arising from the year
- 2) The performance against alert organisms/infections benchmarked against trust and national standards
- 3) Clinical activity and incidents
- 4) Seasonal viral infections
- 5) Decontamination
- 6) Surgical Site Infection Surveillance (SSIS)
- 7) Community activity
- 8) Antimicrobial stewardship
- 9) Intravenous therapy services, including outpatient antibiotic therapy
- 10) Mandatory training (including hand hygiene)
- 11) Other relevant points for the board to consider

#### Key points

- The Trust has put in place comprehensive measures in response to the Ebola virus disease (EVD) outbreak in West Africa. To date, 10 patients have required assessment for the possibility of EVD and 2 have required in-patient admission. All were managed safely, effectively and efficiently. There were no positive diagnoses.
- The Trust had 2 “attributable” MRSA bacteraemias against an objective of zero. Formal root cause analysis determined that one was “unavoidable”. A further 2 cases were assigned to the Trust which were contaminated samples and not clinical cases, giving a total of 4 assigned cases
- Similar to almost all comparable London Trusts, GSTT failed to meet its stringent DH objective of not exceeding 37 C.diff cases and reported a total of 51 cases (6 involved “lapses of care”). Some Trusts may be close to, or have achieved, an irreducible minimum number of C. diff cases. Consistent with this analysis, the 2015/16 DH target for GSTT has been upwardly adjusted to not to exceed 51 cases.

#### Implications

- Patients and staff are put at risk by failure to adhere to good infection control practice.
- Due to an increase in antibiotic resistant organisms across the UK (e.g. Carbapenemase-producing Enterobacteriaceae), effective antibiotic stewardship is essential to preserve the future efficacy of antibacterial agents.
- Failure to meet mandatory DH targets may result in financial penalties for the Trust.

## Recommendations

The Board is asked to consider the contents of this report and raise any issues of concern or outline any specific action they request.

### 1.0 Background

This report collates infection surveillance data, audit results, progress with actions identified on the annual programme and all information necessary to assure the board that suitable systems and processes are being employed within the trust to prevent and control infections.

### 2.0 Update on any actions arising throughout the year

Concern	Action taken/to be taken	Lead	Completion date
1.0 Prevention of hospital-associated <i>Staph aureus</i> bacteraemia (MRSA and MSSA).	1.1 Minimising MRSA and MSSA bacteraemia by driving improvement in IV line care throughout the year	DDIPC/IV team lead	On going
	1.2 Changes in MRSA screening are to be introduced from April 2015 following changes in the Department of Health guidelines. This is in recognition of reduction in the incidence of MRSA in healthcare.	DDIPC	April 2015
2.0 Increased incidence of Carbapemase-producing Enterobacteriaceae cases	2.1 Implementation of Public Health England guidelines within Trust policy (e.g. screening).	DDIPC/ICD	Relaunch April 2015
	2.2 Raising awareness of CPE risk with all clinical staff groups	DDIPC/ICD	In progress
	2.3 Enhanced surveillance and developing effective strategies to minimise risk	ICD/DDIPC	In progress
	2.4 Intensifying focus on appropriate prescription of antibiotics and avoidance of unnecessary carbapenem use.	ICD/Consultant Pharmacist	In progress

### 3.0 Performance against specific infections/ alert organisms

#### 3.1 *Clostridium difficile*

<b><i>Clostridium difficile</i> cases attributed to GSTT (Internal Target &lt;80 GDH/PCR; External Target &lt;37 GDH/EIA positive cases)</b>						
	Target	Q1	Q2	Q3	Q4	Total
Acute Medicine	21	7(5)	9(4)	4(2)	8(5)	28(16)
Cardiovascular	20	4(2)	5(2)	1(1)	2(1)	12(6)
Children's	1	3(1)	1(1)	1(0)	0(0)	5(2)
Cancer Services	9	6(4)	3(0)	4(2)	3(0)	16(6)
PCCP	9	2(2)	8(2)	2(0)	6(3)	18(7)
Abdominal Medicine	17	5(2)	10(3)	3(0)	6(4)	24(9)
Surgery	3	1(1)	1(1)	1(1)	0(0)	3(3)
Women's Health	0	0(0)	2(2)	0(0)	1(0)	3(2)
Private Patients	0	0(0)	0(0)	1(0)	0(0)	1(0)
	<b>80</b>	<b>28(17)</b>	<b>39(15)</b>	<b>17(6)</b>	<b>26(13)</b>	<b>110(51)</b>

The number of GDH/PCR positive cases are shown first followed by the number of GDH/ toxin positive cases in parentheses. The GDH/ toxin test is less sensitive than the GDH/PCR test and hence there are different targets depending upon the diagnostic method employed. However, only cases diagnosed by the GDH/ toxin test are reported externally and are used to determine the Trust's performance against its annual DH objective.

GREEN = within target trajectory; RED = above target trajectory.

- 3.1.1 There have been 51 GDH/ toxin positive cases during the year against the objective of 37 set by the DH. Comparable data reported by London NHS teaching Trusts has shown that all (excepting St. George's), have exceeded their objective for 2014/15 to a similar degree. Of note, the 2015/16 DH objective is not to exceed 51 cases, consistent with a prevalent view that the Trust has reached its irreducible minimum number of cases.
- 3.1.2 All cases are sent for Ribo-typing at the Public Health England laboratory to identify transmission within hospital. This evidence has shown that 2 cases were related.
- 3.1.3 There have been 2 deaths in patients in which C.diff was identified as the primary cause of death. Formal investigation has determined that there were no lapses in care in either case.
- 3.1.4 The 6 lapses in care that have been identified have been related to antibiotic stewardship. This has been addressed through improvement notices to the directorates concerned and increased focus on these areas.
- 3.1.5 An external review of C.diff management at GSTT was conducted by Professor Wilcox (PHE). This confirmed that the Trust had good processes in place to prevent C. diff infection but some suggestions for improvement were made. An action plan is appended to this report (Appendix 1).
- 3.2.1 **MRSA blood stream infections (BSI)**
- 3.2.2 The NHS England approach for 2013/14 is a zero tolerance to MRSA BSI; therefore the Trust objective is zero. Any cases attributed to the Trust may incur a financial penalty.
- 3.2.3 There have been 2 episodes of MRSA BSI recorded this year that have been attributable to the Trust (plus 2 assigned cases). Formal root cause analysis

determined that one of the cases was a non-clinically significant sample “contaminant” in a severely compromised dermatology patient. However, this has led to a review of the blood specimen sampling technique to reduce the risk of contamination occurring in this group of patients. Another was in a patient known to have a spinal abscess due to MRSA and was determined to be “unavoidable”. No financial penalties have been imposed for the contaminated or attributable cases.

### 3.3 MSSA blood stream infections

- 3.3.1 Although cases are reported to PHE, there is no national objective MSSA BSIs at present. 95 cases were recorded (22 occurring 48 hours after admission to the Trust).
- 3.3.2 All MSSA BSI are investigated using the same process as for an MRSA BSI. Where deficits in care are identified actions are taken to improve standards, e.g. education of staff, training to improve intravenous device management or blood culture specimen collection technique.

### 3.4 *Escherichia coli* bloodstream infections

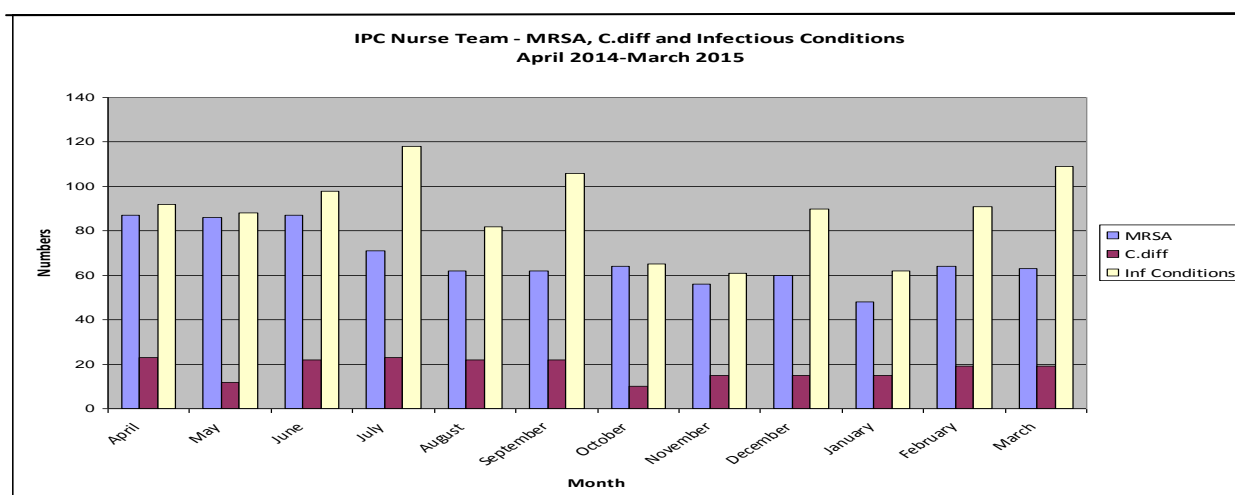
- 3.4.1 Although cases are reported to PHE, there is also no national objective *E.coli* BSIs at present. 235 cases were recorded: 72 occurring 48 hours after admission to the Trust (data for March currently unavailable.)
- 3.4.2 There is a national concern that approximately 40% of *E.Coli* BSIs are associated with urinary catheterisation. The Trust's Catheter Associated Urinary Tract Infection (CAUTI) working group is working in partnership with the South London Integrated Care group on reducing the incidence of CAUTIs across the region.

### 3.5 Carbapenemase Producing Enterobacteriaceae (CPE)

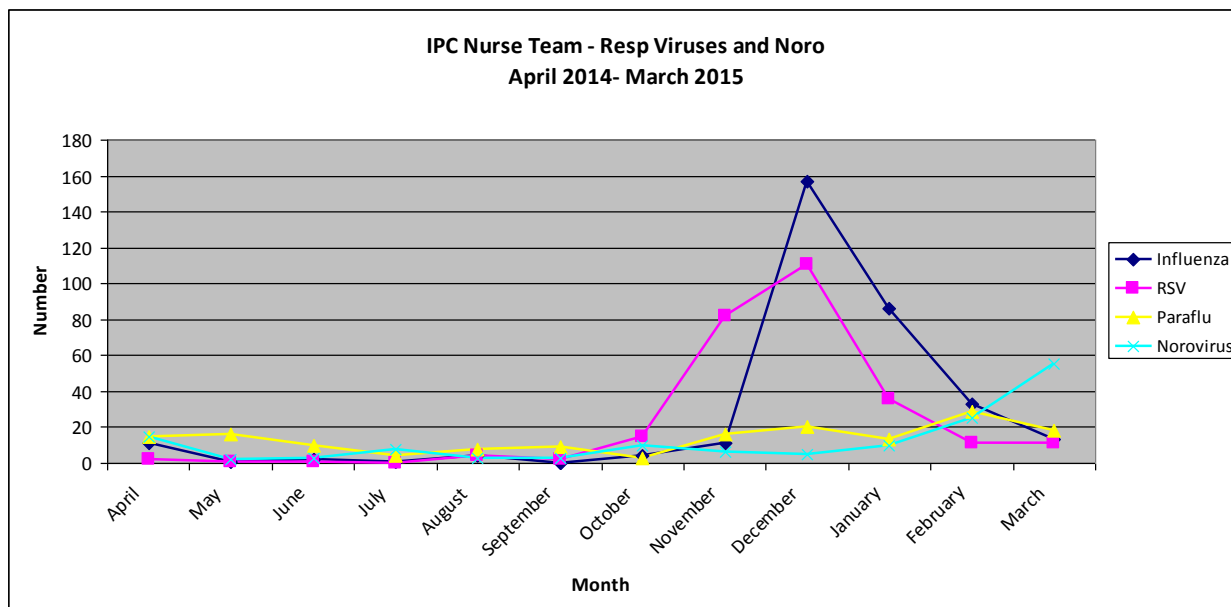
- 3.5.1 Sporadic cases of CPE have been identified which have been managed in accordance with the Trust policy. There have been no deaths directly associated with CPE, nor any any outbreaks identified. Trust policies for the identification and containment of patients with these organisms are in accordance with the current PHE guidance.

## 4.0 Clinical Activity and incidents

- 4.1 Whilst there is typical winter peak seasonal viral infections, the infection prevention and control team workload has remained consistently high throughout the year as shown in the graphs 1 and 2 below.



Graph 1 – IPC Clinical activity – MRSA, C.diff & other infectious conditions



Graph 2 – IPC Clinical Activity – Respiratory Viruses and Noro virus

#### 4.2 ***Bacillus cereus* incident.**

- 4.2.1 On the 30th May two babies in the Neonatal Intensive Care Unit receiving Total Parenteral Nutrition (TPN) had blood cultures taken due to deterioration in their clinical condition. Both blood cultures grew *Bacillus cereus*. Given that this is an unusual clinical organism and normally associated with environmental contamination, concerns were raised.
- 4.2.2 Previous experience of an outbreak involving this organism related to TPN in December 2013 raised further suspicion about the source. An immediate decision was therefore taken to stop the use of TPN and to undertake screening blood culture specimens on all babies receiving TPN, which revealed one further asymptomatic baby who remained well.
- 4.2.3 Following notification to the Lambeth Health Protection Unit, it became evident that this was part of a wider incident involving Trusts across SE England. Further investigation by Public Health England (PHE) led to a further 22 cases being identified. The epidemiological review led by PHE identified a likely source as TPN manufactured by a commercial company (ITH Pharma) with a likely exposure date of between the 27th May and 2nd June, with the focus on a specific component (Vitlipid Junior). ITH Pharma are a specialist manufacturer, the only UK company with the capacity to manufacture the required stock in the UK.
- 4.2.4 Amongst the 15 babies in total at St Thomas' who received the TPN batch in question, two babies became unwell with the *Bacillus cereus* bacteraemia. Very sadly both babies died. In both cases the cause of death was considered to be a result of their underlying co-morbidities
- 4.2.5 Due to the clinical need of babies and avoiding lipid products (initially considered to be the constituent of TPN associated with the highest), limited TPN use was recommenced in the weeks immediately following the incident. Subsequently, based on advice from PHE and assurance of processes at the manufacturers by the Medicines and Healthcare Products Regulatory Agency (MHRA), the Trust recommenced TPN with Vitlipid Junior, but with additional controls in place to reduce the risk of multiple babies being put at risk from any further potential source contamination.
- 4.2.6 There have been no further cases associated with the Trust.

- 4.2.7 The Metropolitan Police has opened a criminal investigation into the deaths related to the contamination of the parenteral nutrition feeds. This investigation is related to the production company, not the Trust use of the TPN. The investigation is ongoing.

#### **4.3 Diphtheria wound colonisation**

- 4.3.1 Three cases of non-toxigenic diphtheria wound colonisation have been identified in dermatology patients with Epidermolysis bullosa (EB). None of the patients have shown any clinical illness, or deterioration in their EB as a consequence of the wound colonisation. All patients have been effectively decolonised. The Trust has worked in close co-operation with Public Health England and the local Health Protection Unit to investigate and determine the cause/source of the cluster. To date it has not been possible to determine either. This is a complex investigation, with patients from all over the country, infrequently attending the Trust for treatment or management of their condition, but being seen in their own homes by the clinical nurse specialists. Approximately 20% of the total EB cohort has now been screened, with no new cases since November 2014. The investigation is on-going.

#### **4.4 Tuberculosis (TB)**

- 4.4.1 Since January 2014, 3 cases of confirmed TB have been identified in patients who dialyse at Camberwell dialysis unit (2 respiratory and one peritoneal). Two patients with suspicious respiratory symptoms were also identified, but subsequently determined not to have TB. Patients with renal failure are at a significantly higher risk of developing TB than the general population and following extensive investigation there is no evidence of any cross-transmission. The Camberwell unit have not identified any other cases of concern.

#### **4.5 *Microbacterium palaudicola***

- 4.5.1 During January 2015 two children, both on PICU, had an unusual environmental bacterium, *Microbacterium palaudicola*, isolated from peritoneal dialysis (PD), within 1 day of each other. Extensive investigation was undertaken including dialysis catheter insertion, care and use, equipment storage, ward environment and environmental screening.
- 4.5.2 No source of infection has been found, but it is likely that there was contamination of the PD catheters at some stage during their use on the ward.
- 4.5.3 Training and safety processes around PD catheter use on the unit have been revised and a number of environmental and process improvements, including new sinks, have been put in place.
- 4.5.4 Surveillance, but no further cases have been identified.

#### **5.0 Surgical Site Infection (SSI) Surveillance**

- 5.1 SSI surveillance continues in 10 clinical specialties
- 5.2 Episodes of increased incidence in SSI in adult orthopaedics, spinal surgery, paediatric general surgery, adult large bowel surgery and vascular surgery at various times through the year, have led to investigations. In most cases, these were triggered by minor fluctuations in SSI incidence that were not sustained. No specific failures in process have been noted and all areas have seen significant improvement in surgical site infection rates since. Work continues to ensure that best practice is maintained.
- 5.3 There are current ongoing investigations into rises in paediatric GI surgical, caesarean section and adult cardiac infection rates.

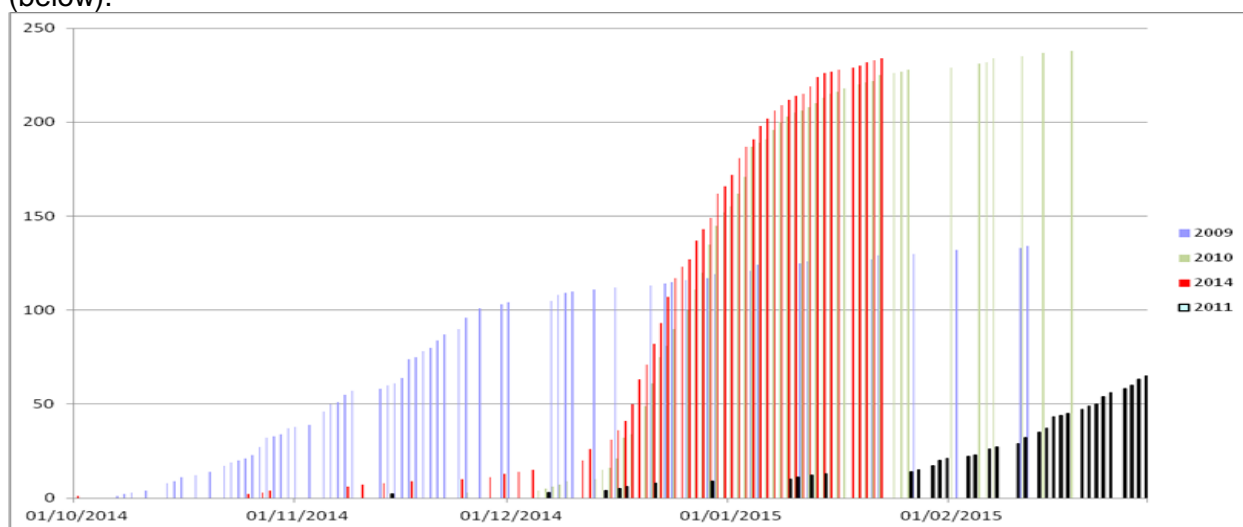
## 6.0 Viral infections

### 6.1.1 Ebola Virus Disease

- 6.1.1 The humanitarian crisis caused by Ebola Virus Disease (EVD) in West Africa (Sierra Leone, Guinea and Liberia) has required NHS Trusts to be prepared for possible cases in the UK. Of particular importance to GSTT, Lambeth and Southwark have the highest percentage of the UK population originating from Sierra Leone in the UK with approximately 5000 residents (25% of the total UK Sierra Leonean population).
- 6.1.2 The Directorate of Infection has played a leading role in raising the Trust's state of awareness and readiness to an appropriate level. This has involved multiple face-to-face staff briefings, Personal Protective Equipment (PPE) training, information and instructional videos for staff and regular update bulletins. A 24/7 rota of Infectious Diseases consultants and infection prevention and control nurses has also been formed to provide on-site care for suspected EVD cases.
- 6.1.3 The "Ebola Operations Group" was formed in August to deliver a comprehensive Trust-wide preparedness strategy, and has worked closely with the diagnostic laboratories and key clinical areas where the risk is considered greatest (e.g. A&E, Acute Medicine, Critical Care, ECH and Obstetrics). Other responsibilities have included approving clinical guidance and protocols, communicating with all staff effectively and conducting several mock clinical simulations. The latter have proven to be particularly valuable in testing the robustness of the processes that have been put in place and training staff. In addition, Directorates have also designated "Ebola Leads" to ensure effective dissemination of information and implementation at a local level. Important information for staff and instructional material may be found on the Trust Ebola intranet page.
- 6.1.1 It is currently predicted that the outbreak will not resolve before August 2015. To date, 10 patients have required assessment for possible EVD and 2 were admitted for further investigation with full infection control precautions. All were either determined to be no risk, or specific testing was negative. All cases have been managed safely, effectively and efficiently.

## 6.2 Influenza

- 6.2.1 This year has seen the busiest season for influenza at the Trust since the Swine flu epidemic of 2009. This has resulted in significant pressure on beds as shown in graph 3 (below).



**Graph 3. Comparative flu activity 2009 to 2014/15**



- 6.2.2 Delayed recognition has resulted in nosocomial transmission in some cases. However, a pilot of a rapid test for influenza and RSV based on Mountain Ward has enabled effective infection control measures to be more rapidly implemented. A full evaluation is being undertaken to understand its utility in relation to Trust wide pathways to meet future demand

### **6.3 Noro virus**

- 6.3.1 Noro virus has had a significant impact on many Trusts across the country. Within GSTT, several areas have required temporary ward closures to contain outbreaks. The infection prevention team have worked closely with the Site Nurse Practitioners to minimise disruption to services

### **6.4 Miscellaneous**

- 6.4.1 Middle East coronavirus remains a problem in the Middle East and there is ongoing concern about the risk of an imported case across the UK. In particular, the Infection Prevention and Control service works closely with colleagues from Critical Care to minimise the risk amongst the increasing number of tertiary care admissions for management of severe respiratory failure at the Trust.

## **7.0 Decontamination**

### **7.1 Decontamination incidents and corrective actions**

- 7.1.1 An incident in the Dental School resulted in a set of instruments being used on a patient without suitable decontamination. Specifically, the instruments were not been moved to the designated “used” work area after use and the dental student involved in the incident did not recognise that the set had previously been opened. The “donor” patient was tested (and found to be negative) for blood borne viruses. The Dental School has undertaken additional training of staff and improved the clarity of signage that separates “clean” from “used” areas. Additionally, a new instrument pack indicator that makes “used” sets easier to identify has been tested, and alternative packaging has been introduced.
- 7.1.2 Routine audit has indicated a failure to link surgical trays with the patient details. This has resulted in an occasional failure to track trays back to patients. The Trust audit department investigated the processes and produced a report with recommendations, which have been implemented. This includes additional staff training, introducing a second check as trays leave theatres and making the patient identification fields mandatory on the tracking software (Scantrack). A re-audit will be undertaken in Quarter 2, 2015.
- 7.1.3 “Urology one-stop shop” incident. An administrative error resulted in a lapse of the service contract for the endoscope drying/storage cabinets. Consequently the cabinets had not undergone preventative maintenance or validation for approximately 3 years. Additionally, the wash function of the endoscope washer disinfectors had been altered, potentially reducing the effectiveness of the decontamination process. All decontamination work was suspended whilst this incident was thoroughly investigated. The manufacturer undertook validation tests that did not reveal any excess risk of microbial contamination of the endoscopes. A detailed look-back exercise was not deemed necessary. Following a root cause analysis and improvements to the structure and governance of the decontamination unit, work has resumed.
- 7.1.4 An incident in the ENT Dept resulted in a naso-endoscope being used on a patient without appropriate prior decontamination. A root cause analysis was undertaken and work is currently being undertaken to improve education amongst clinical staff, the

management of the flow of patients in a high volume activity area and improved separation of “clean” from “used” scopes.

## 7.2 Decontamination audits and reports.

- 7.2.1 Apart from the specific and infrequent incidents described above, a comprehensive rolling-programme of local and central decontamination audits have not revealed any issues of major concern. Non-conformities are recorded on a register and corrective actions monitored.

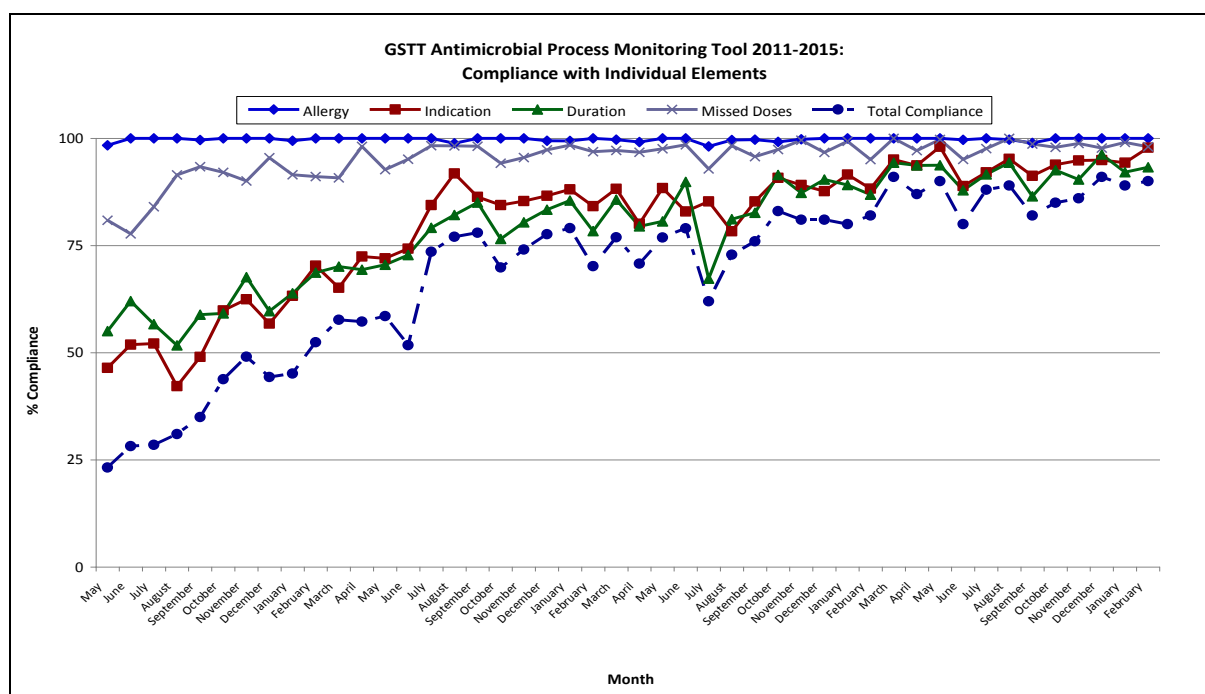
## 8.0 Community activity

- 8.1 The focus for the community has been on ensuring that facilities are fit for purpose and the workforce are trained to deliver the highest standards of infection control practice.
- 8.2 **Training.** A specific mandatory training programme for community staff has been introduced. Compliance figures are included in the total numbers at section 11.
- 8.3 **Clinical activity and incidents.** Since the detection of *Pseudomonas* from hand washing sinks at two renal satellite dialysis units in October 2013, an annual water testing programme was established. In 2014, *Pseudomonas* was again reported at one of the previous positive sites. Corrective measure were put in place and follow up tests have been negative. There are plans to move this unit from a temporary to a permanent building later this year. No harm to patients was reported from the incident.
- 8.4 **Hand hygiene** Staff remain compliant with an average score of 98% across Directorates. The accuracy of this is confirmed by a quarterly hand hygiene audit conducted by the Infection Prevention Nurses, which showed a compliance score of 97%.
- 8.5 **Antimicrobial prescribing stewardship** Compliance with antimicrobial prescribing guidance in the community is being monitored by the Clinical Commissioning Groups.
- 8.6 **Administration of Intravenous antibiotics in the community** To ensure that the provision and delivery of care for intravascular device management and intravenous antimicrobial treatment in the community remains safe and appropriate for all patients (district nursing and “@home services”) a programme of audit and service development is in place

Objective	Action taken/to be taken	Lead	Completion date
1. Insertion and care of all intravascular devices and the administration of antimicrobial agents are delivered by trained and competent staff. 2. All patients on long term antimicrobial agents are reviewed on a regular basis by the referring acute trust 3. Provide assurance on staff compliance with the standards for the management of all IV devices	1. Regular training and competency assessment district nurses and “@home staff” on the care of IV devices and monitoring compliance with best practice. 2. Ensuring guideline/ protocols are available and all patients receiving IV antimicrobial treatment are regularly reviewed by the referring acute trust 3. Maintain an updated log of all patients cared for with IV devices and submit monthly compliance audit reports	GSTT IV/ OPAT lead/Head of District Nursing	Ongoing

## 9.0 Antimicrobial stewardship

- 9.1** Antimicrobial stewardship in the England and in GSTT is guided by principles formalised by PHE and DH, in a document called “Start Smart, Then Focus”. This puts emphasis on appropriate initiation of broad-spectrum antimicrobial therapy aimed at covering all expected pathogens, with a subsequent clinical review and narrowing of antimicrobial spectrum based on clinical response and laboratory findings. Some process measures that are considered to be best practice sit alongside this, including consideration of allergy status, documentation of “indication” and “duration” and ensuring timely availability of antimicrobials.
- 9.2** The Trust currently monitors routine antimicrobial stewardship performance using a care bundle designed to measure the aforementioned process elements, in addition to more in-depth, and resource-intensive, patient-specific reviews. The Trust performance with the care bundle has been excellent over the past year (Graph 4 and Tables 1 and 2.)



Graph 4: Antimicrobial Process Compliance

Directorate	Dec	Jan	Feb	12 month Average
Abdominal	95	92	100	85
Cancer	89	89	91	90
Cardiovascular	100	97	95	97
Children's	98	93	89	86
Acute Medicine	82	91	76	85
PCCP	95	80	94	95
Surgery	71	88	96	84
Women's	85	78	73	76
<b>GSTT</b>	<b>91</b>	<b>89</b>	<b>90</b>	<b>87</b>

Table 1: Antimicrobial Process Compliance by Directorate

Sub-Directorate	Dec	Jan	Feb	12 month Average
GI Med & Surg	100	84	100	85
Renal/Urology	90	100	100	84
Medicine	94	85	78	86
Emergency Medicine	-	-	71	41
Older People's Unit	76	97	76	86
Plastics	17	80	86	74
Elective Orthopaedics	100	88	100	90
Trauma Orthopaedics	100	100	100	90

Table 2: Antimicrobial Process Compliance by Sub-Directorate

**9.3** Most Directorates are now showing consistently excellent performance, and where this is suboptimal performance, investigation shows this is often related to outlier patients, or issues with the data collection process. The introduction of electronic prescribing across the bulk of the Trust during 2014-15 has led to improvements in performance around prescription process. Data collection, validation and review are also much easier as a result.

**9.4** It is expected that, once Electronic Prescribing and Medicines Administration is fully rolled out across the Trust, monitoring of prescription performance will become more routinely embedded across wards/Directorates, and that the stewardship focus will shift towards monitoring the appropriateness of antimicrobial therapy and guideline compliance. This will assist in achieving new performance measures around overall antimicrobial consumption, and consumption of specific classes of antimicrobials, in particular Carbapenems. Revised PHE "Start Smart, Then Focus" and NICE antimicrobial stewardship guidelines will be published later in the year.

**9.5** The antimicrobial stewardship team has now increased to 3.5 WTE (with appointments of a new half-time junior pharmacist post for diabetic foot/vascular infections in July 2014 and a full-time paediatric ID pharmacist in October 2015). A total of 9119 restricted antimicrobial prescriptions for 3078 individual patients were reviewed in 2014-15. Routine workload also includes advice on antimicrobial use, appropriate drug monitoring, management of adverse events, investigation of HCAI incidents, providing education and training for all staff groups, and guideline review and development, working both within the Trust increasingly into the community sector.

**9.6** It is imperative that an electronic stewardship surveillance system ("ABx Alert") is introduced shortly and without further delays. ABx Alert will be able to interface with EPMA, EPR, WinPath, PACS, e-noting (in time), and ICNet NG, to provide a fully functional data analysis suite which provides alerting, reporting and monitoring capabilities beyond that currently available. Importantly, it will provide a mechanism for "flagging up" clinical reviews in real time, as opposed to the retrospective nature of alerting and review in current practice. ABx Alert will also provide better quality prescribing information, with better measurement of decisions and outcomes, for education and governance purposes.

## **10.0 Intravenous services and outpatient antibiotic therapy (OPAT)**

**10.1** Services provided by the IV therapy team include: insertion of cannulae into patients with compromised venous access; supervising the use and management of central venous catheters; "rescuing" blocked devices where appropriate and possible; minimising the risk to MRSA colonised patients from developing bacteraemia.

**10.2** The Outpatient Parenteral Antibiotic Therapy (OPAT) service activity has increased by 44% compared to the preceeding year in line with its annual plan. A total of 3822 bed days were saved equating to 173 patient episodes through OPAT in 2014/15 compared to 2845 days and 120 patient episodes in the comparable period the year before. This increase in activity can be explained by a 5 fold increase in activity supporting the vascular and diabetic foot services and two fold increase in paediatric OPAT. All OPAT related complications (line and drug) are recorded and reviewed. Despite the increase in activity there has been no increase in complications (rate 2014/15 vs 2013/14: 1.57 vs 1.74 line complications per 1000 OPAT days, 2.35 vs 2.1 drug complications per 1000 OPAT days). In the last year there has also been a focus on ensuring the appropriate governance around the monitoring of provision of high quality care for patients receiving courses of intravenous antimicrobial therapy during outpatient dialysis. These patients are now discussed in the weekly virtual board round and regularly reviewed by an Infectious Disease consultant while on dialysis. A new combined community and GSTT hospital nursing post with the remit of focusing on aspects of IV therapy administration in the local Lambeth and Southwark community as been appointed and started in post in March 2015.

### 10.3 Intravenous team activity

**10.3.1** A total of 4894 intravenous access devices were audited from April 2014 – March 2015. Overall compliance with evidenced based practice remains high

Dressing Intact	Date on Dressing	No Signs of Infection	PVC in situ < 72 hours	IVAD required
86%	83%	99%	97%	97%

#### 10.3.2 Audit and Surveillance

Concern	Action Taken / To be Taken	Lead	Completion Date
Compliance with insertion and continuing care documentation evident in root cause analysis of MRSA / MSSA bacteraemia	<p>All clinical areas have cannulation and blood culture packs.</p> <p>Ward Managers / Matrons / HONS provided with a copy audit paperwork including summary of finding and action plan as agreed with Ward Manager / Nurse in Charge.</p> <p>IV Lead Practitioner and Lead Clinician working with e-noting team to ensure IV access device documentation is included in the early phase of implementation</p> <p>Vascular Access Lead (VALS) link nurses to undertake audits in own clinical area and cross-over audits within directorate.</p>	Deputy DIPC Heads of Nursing	July 2015

### 10.3.3 Education

Concern	Action Taken / To be Taken	Lead	Completion Date
Effectiveness of new doctor induction with regard to training on IV cannulation/ management and blood culture technique.	<p>Production of instructional videos that cover IV cannula insertion and how to take a blood culture properly. These are essential viewing as part of the induction process.</p> <p>IV competency assessment is now mandatory and included in the Training and Education policy. Compliance with this will be expected in the August 2015 Induction</p> <p>Training deficiencies will be more visible because individuals that have not attended training will be identified on WIRED</p> <p>Stand alone sessions are provided for staff unable to attend scheduled sessions due to conflicting clinical commitments.</p>	Lead IV Practitioner	April 2014

Concern	Action Taken / To be Taken	Lead	Completion Date
Insufficient trained staff with competence in venepuncture and cannulation.	<p>Vascular Access Lead (VAL) link role established.</p> <p>Each clinical area has a minimum of one VAL to lead on competency assessment, education and training.</p> <p>Bi-monthly VAL updates continuing to provide "train the trainer sessions" for new VALS.</p> <p>Venepuncture and Cannulation study day running 2-3 times per month through to May 2015.</p> <p>Two sessions per month to run throughout remainder of the calendar year.</p> <p>150 staff nurses have attended training to date.</p> <p>Newly qualified staff have received training on the preceptor programme.</p> <p>Third year pre-registration students from Kings College London and London South Bank have attended training.</p>	Lead IV Practitioner/ DDIPC / Mags Jubb	Ongoing

## 11.0 Mandatory training

- 11.1** Monitoring of compliance with mandatory training requirements is through the WIRED programme, enabled by ET&D. Mandatory training comprises an update on important current issues and Trust expectations, a refresher on standard infection control precautions, and a face-to-face hand hygiene technique update. Additional focussed input is given to clinical areas where the HCAI risk is considered highest.
- 11.2** According to the training profiles held by the ET&D department, the staff groups in the table below are defined to have patient contact. Of note, recent changes to the training profiles of administrative and clerical staff in clinical areas (ward clerks and receptionists) now require them to receive annual clinical updates. As a result of this, there is a training back-log that is currently being addressed. The other group with new training requirements are consultants, who have the choice of attending the bespoke consultant training sessions or general corporate sessions.

Staff Group	Non-compliant	Compliant	Grand Total	compliance
Add Prof Scientific and Technical	117	409	526	78%
Additional Clinical Services	295	657	952	69%
Administrative and Clerical	56	80	136	59%
Allied Health Professionals	179	753	932	81%
Estates and Ancillary	112	603	715	84%
Healthcare Scientists	31	118	149	79%
Consultant	351	436	787	55%
Other Medical and Dental	238	708	946	75%
Nursing and Midwifery Registered	891	3273	4164	79%
Grand Total	2270	7037	9307	76%

Mandatory training compliance wef 17.03 2015

## 12.0 Budget allocation for infection prevention and control activities

- 12.1** The Directorate of Infection comprises of the Department of Infectious Diseases and the Department of Infection Prevention & Control. In 2014/15, the total pay and non pay budget for the Directorate of Infection was £3,362,000; broken down as follows:

- Non Pay Budget: £138,000
- Pay Budget: £3,224,000

## 13.0 Annual Work Plan

- 13.1** The annual work plan for 2013/14 was developed to incorporate the NICE Quality Improvement Guide (2012) for the prevention and control of HCAIs, and to meet progressive targets and the external standards of regulatory agencies including the Healthcare Commission, Monitor and the requirements of the NHSLA. The completed work plan is presented at Appendix 2.

#### **14.0 Recommendation**

The Board of Directors is asked to confirm the following:

- The reappointment of the Dame Eileen Sills, DBE, Chief Nurse and Dr Nicholas Price as the joint Directors of Infection Prevention and Control.
- Their commitment to ensuring infection prevention and control remains a foremost Trust priority with a commensurate resource to deliver this effectively.

**Appendix 1: Summary of Trust response to Department of Health *Clostridium difficile* objective for 2014/15**

**Appendix 2: Infection Strategic Work Plan 2014/15 (completed)**