Paper 5.5

Ashford and St. Peter's Hospitals NHS
NHS Foundation Trust

TRUST BOARD
28th May 2012

TITLE	**Director of Infection Prevention and Control Annual Report 2011-12**
EXECUTIVE SUMMARY	The Trust met the annual targets for both MRSA bacteraemias (2 hospital acquired cases versus 4) and Clostridium difficile (19 hospital acquired cases versus 33). This is a reduction of 92.3% of C difficile since 2007-8 and 47.2% since 2010-11.
BOARD ASSURANCE (RISK)/ IMPLICATIONS	Assurances are provided by the infection control audits reported on. However the annual targets for 2012-13 are much more stringent at a maximum of 1 for MRSA and 20 for C difficile and there is a high risk that these could be missed.
STAKEHOLDER/ PATIENT IMPACT AND VIEWS	There is a patient representative on the Control of Infection Committee.
EQUALITY AND DIVERSITY ISSUES	No issues. Equality and diversity is addressed in all Infection Control Policies.
LEGAL ISSUES	Not applicable
The Trust Board is asked to:	Note and approve the actions of the Infection Control Team.
Submitted by:	Dr Angela Shaw Director of Infection Prevention and Control
Date:	May 2012
Decision:	For Noting

Paper 5.5

TRUST BOARD
28th May 2012

Director of Infection Prevention and Control Annual Report 2011-12

Infection Control Statement

Infection Control is the responsibility of all healthcare workers. The Trust has a zero tolerance approach to healthcare associated infections.

Infection Control Arrangements:

The Infection Control Team consists of three Consultant Microbiologists, one of whom acts as the Director of Infection Prevention and Control (DIPC) and another as "Antibiotic Czar", a Nurse Consultant in Infection Control, a Senior Specialist Nurse in Infection Control and a Specialist Nurse in Infection Control (development role). In the last quarter of the year the previous Specialist Nurse in Infection Control (development role) has been appointed to the Senior Specialist Nurse in Infection Control role and there is a new Specialist Nurse in Infection Control (development role). The team holds formal meetings every two weeks. The team is available for advice 24 hours a day.

The Infection Control Committee is chaired by the Director of Infection Prevention and Control. The Terms of Reference were last reviewed in September 2011 and are attached (Appendix 1).

The Control of Infection Committee supports the work of the Infection Control Team and receives reports from the IV League, Antibiotic Group and the Decontamination Committee plus other individuals.

Infection Control Clinical Leads. There are infection control leads in all business units/ specialities. They are all members of the Control of Infection Committee and report to the committee as well as contributing to the 6 monthly reports of the individual Divisions to the Clinical Governance Committee. Most Divisional Directors chose to keep the current leads in place following the formation of the Divisional structure.

Links to other committees:

The Director of Infection Prevention and Control (DIPC) is also a member of the Clinical Governance Committee, the Decontamination Committee, Pandemic Flu Committee, Antibiotic group, Surrey Healthcare Associated Infection Leads group, and South East Coast DIPC forum. She chairs the IV League and fortnightly Infection Control Team meetings.

The Consultant Nurse in Infection Prevention and Control is a member of the Senior Nursing & Midwifery leadership Team Committee, Major Incident / Pandemic Flu Committee, Decontamination Committee, Health and Safety Committee and South East Coast DIPC forum. She attends the monthly Ashford and St Peter's Quality meetings and Matrons' Environmental meetings. She meets regularly with the Chief Nurse and leads on the SLA with Surrey Community Health.

Mandatory reporting

There continues to be mandatory reporting to the Health Protection Agency of the following types of infection: MRSA bacteraemias (blood stream infections), MSSA bacteraemias, Escherichia coli bacteraemias, glycopeptide resistant enterococcus bacteraemias, and Clostridium difficile infections identified in patients over 2 years of age, whether acquired in the hospital or community. Only MRSA bacteraemias and C difficile cases are subject to targets, which are separate for hospital and community.

MRSA bacteraemias

There were 2 hospital acquired cases diagnosed in the Trust (both in the same patient) in 2011-2012 plus 5 community acquired cases. Cases are defined as hospital acquired if the blood culture which grew MRSA was taken 48 hours or more after the patient's admission to the Trust.

Targets for Acute Trusts have been for Hospital Acquired cases only since April 2010. The target for 2011-12 for the Trust was 4. Until the first case in August 2011 the Trust had gone over a year without a hospital-acquired case.

All hospital acquired cases were subject to root cause analysis and community cases were analysed by the PCT. HA = Hospital acquired; CA = community acquired.

Root Cause analysis of cases of MRSA bacteraemia in last 2 years:

	2010-11		2011-12	
Likely source	**HA**	**CA**	**HA**	**CA**
IV line	**0**	**0**	**0**	**1**
Surgical site	**1**	**0**	**0**	**0**
Chest	**0**	**1**	**1**	**3**
Urine	**0**	**1**	**0**	**0**
Skin/soft tissue	**1**	**1**	**1**	**1**
Contaminants	**3**	**0**	**0**	**0**
Total	**8**		**7**	

The 2 hospital acquired cases occurred in a 91 year old man who was admitted with a blistering skin condition which became infected with MRSA a week after admission. A month later he developed another MRSA bacteraemia secondary to pneumonia and died.

The target for 2012-13 is 1 hospital acquired case.

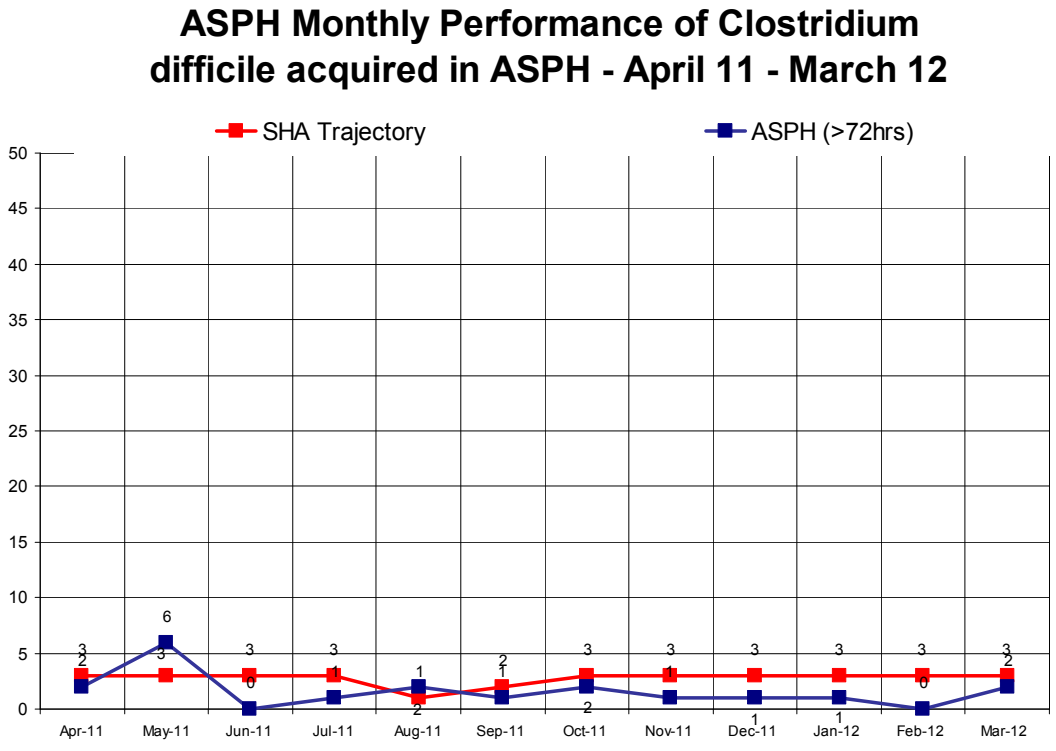
The South East Coast has a HPEC (Healthier People Excellent Care) pledge to have no avoidable cases of Healthcare associated MRSA bacteraemia which the Trust has signed up to.

Clostridium difficile

There were 19 cases of hospital-acquired C difficile cases compared with the SHA / national target of 33. The maximum target for 2012-13 will be 20. The graph below shows the cases compared with the monthly targets. There was a cluster of 6 cases in May 2011, but these were all on different wards and no evidence of cross infection was identified.

Most but not all patients had had antibiotics prior to developing diarrhoea. Piperacillin/Tazobactam was a common antibiotic used in these patients. To reduce the risk from the use of this antibiotics the guidelines were amended in November so that the first line for hospital acquired pneumonia in the Trust is now amoxicillin and temocillin which is believed to have a lower risk of selecting out C difficile.

Weekly C difficile ward rounds by the Antibiotic Czar, gastroenterologist, antibiotic pharmacist and Infection control nurse continue, which helps to ensure that cases of C difficile are optimally managed. Only one patient died with C difficile on part 1a of the death certificate (1a means that it is considered the main cause of death).



Glycopeptide-resistant enterococcus bacteraemias

There were 4 cases of GRE bacteraemia in 2011-12.

Methicillin Sensitive Staphylococcus aureus (MSSA)

Since January 2011 the numbers of hospital and community acquired MSSA bacteraemias diagnosed in the Trust have to be reported on the Data Capture System.
In April 2011 to March 2012 there were 39 MSSA bacteraemias, 9 of which were hospital - acquired (taken 2 or more days after admission).

Of these 9 cases, 8 were in babies on NICU. NICU is going to be the focus of the IV League for the coming year.

The other post - 48hour case was a discitis – a chronic infection in a patient who had first had a community acquired MSSA bacteraemia 5 months earlier.

Escherichia coli: E coli bacteraemias have had to be reported since June 2011 although we had been keeping records before that.

In 2011-12 there were 184 E coli bacteraemia of which 32 were taken > 2 days after admission. The commonest source of infection is urine infections, followed by biliary sepsis and other gastrointestinal causes.

Other infections:

Norovirus

There was a seasonal increase in norovirus nationally during the winter months. It was found on wards in the Trust predominantly between December 2011 and February 2012. It was controlled with the closure of individual bays and occasional brief closures of whole wards. 29 patients were confirmed as having norovirus on testing but only a sample of affected patients on each affected ward was tested following the normal protocol.

MRSA screening

Elective admissions (with some exceptions) have had to been screened for MRSA since April 2009 and emergency admissions since December 2010. We started screening the latter in July 2010. The target for both is 100%.

Elective screening: The average rate of screening for elective admissions in 2011-12 was 98.7%

Emergency screening: The average rate of screening for emergency emissions in 2011-12 was 93.6%.

A national audit of MRSA screening took place in May 2011. The results and guidance are still awaited.

Antibiotic Use

The Antibiotic Group meets quarterly and reports to the Control of Infection Committee. The Antibiotic Czar (Dr Grundy) and Antibiotic Pharmacist continue to perform twice weekly ward rounds and teach doctors of all grades and specialities. A module on antibiotic prescribing is also available on Training Tracker.

Regular snap shots of compliance are performed by the ward pharmacists (See table below).

The results of the **snap shot audits** continue to improve each time. In particular the stop/review date which has always been the weakest area has shown considerable improvement, reaching 90% in October 2011. The duration of treatment is a vital component in prevention of C difficile and development of resistant organisms so this is encouraging.

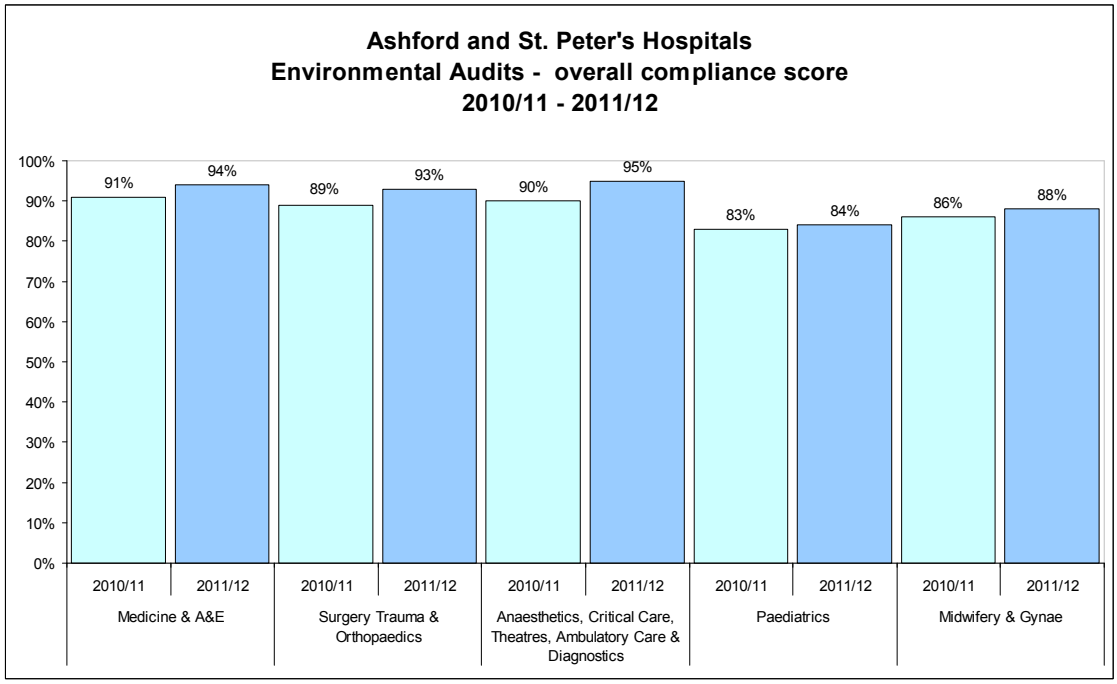
Junior doctors also perform antibiotics audits which are presented at the Antibiotic Group meetings.

Piperacillin/Tazobactam usage and its resistance rate had been rising. In view of this and its association with C difficile infections within the Trust recently the antibiotic guidelines were amended with the aim of reducing its use for hospital acquired pneumonia. The most recent change has been the introduction of amoxicillin and temocillin in combination as first line intravenous therapy for this condition.

Antibiotic audits compliance rates					
	May 10 %	**Sept 10 %**	**Feb 11 %**	**June 11 %**	**Oct 11 %**
Allergy box filled in	90	90	95	93	95
Antibiotics prescribed in line with guidelines	93	95	97	94	95
Addition instruction box filled with indication	77	90	90	94	94
Start date filled in	99	99	99	99	99
Stop/review date filled in or number of days treatment	69	75	77	83	90
Surgical & orthopaedic patients: 1 pre-dose	100	93	100	100	100
Surgical & orthopaedic patients: Nil post dose	69	80	92	79	82

Other Audits

Environmental audits continue to be preformed by the Infection Control Nurses. Most areas show improvements in 2011-12 compared with last year



High Impact Intervention Scores

These are care bundle audits performed monthly by nursing staff on the wards. High impact intervention (HII)1 and 2 are divided into two audits – one for insertion and one for continuing care of central / peripheral lines. HII5 is for insertion and care of urinary catheters and HII7 is for Clostridium difficile management. The RAG scoring is >90% green and >80% amber. As can be seen from the table below all the scores have been green in 2011-12.

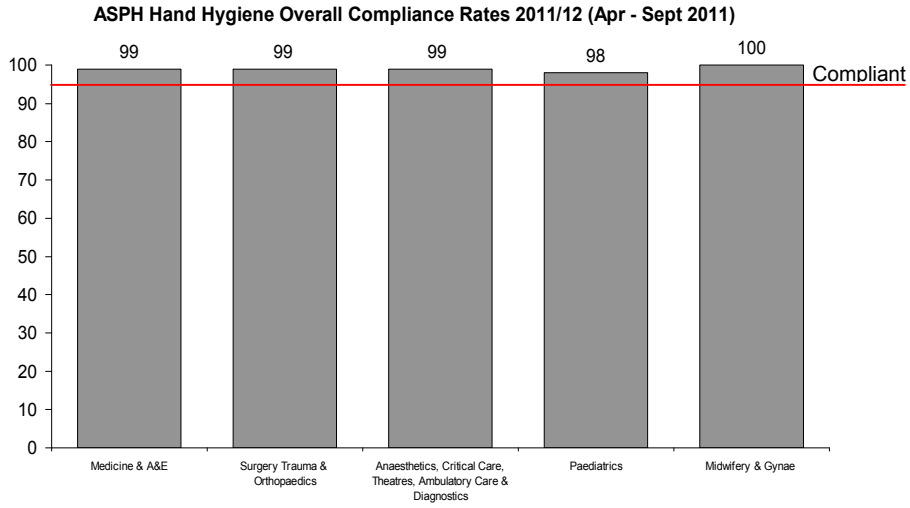
The few individual scores of less than 90% were nearly all due to lack of documentation of insertion and to a lesser extent care of a peripheral cannula.

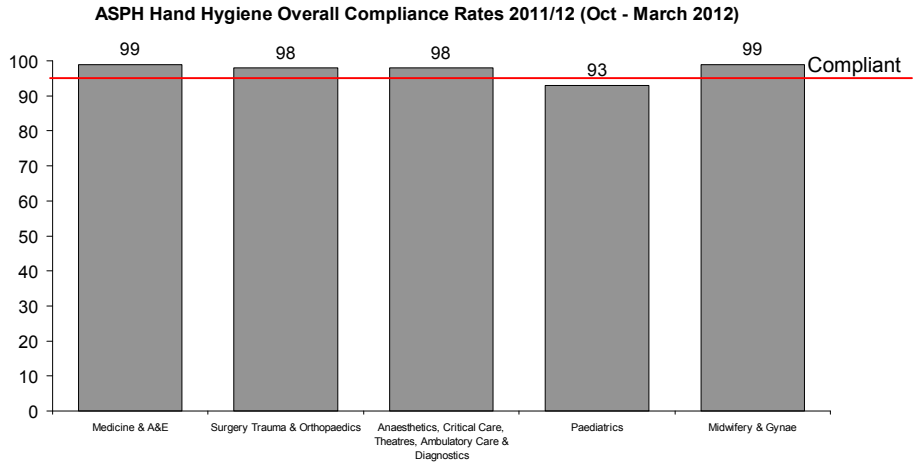
High Impact Intervention Scores
(average % per month of all providing data)

	HII 1 insertion CVC	HII 1 continuing care CVC	HII 2 insertion Perip	HII 2 continuing care Perip	HII 5 Vent	HII 6 insertion Catheter	HII 6 continuing care Catheter	HII 7 C. diff
Apr-11	100%	99%	96%	96%	100%	95%	95%	100%
May-11	100%	100%	94%	95%	100%	96%	95%	100%
Jun-11	100%	99%	97%	98%	100%	99%	100%	100%
Jul-11	100%	100%	99%	99%	100%	100%	100%	100%
Aug-11	100%	100%	94%	96%	100%	95%	96%	100%
Sep-11	100%	99%	99%	98%	100%	100%	100%	100%
Oct-11	100%	100%	99%	100%	100%	100%	100%	100%
Nov-11	100%	100%	98%	99%	100%	100%	99%	100%
Dec-11	100%	98%	98%	97%	100%	95%	100%	N/A
Jan-12	100%	99%	96%	96%	100%	100%	100%	100%
Feb-12	100%	99%	97%	95%	100%	95%	99%	100%
Mar-12	100%	99%	92%	92%	100%	94%	93%	100%

Hand hygiene audits

The average score of hand hygiene audits remain good in most areas. Paediatrics has slightly lower scores this year, particularly in January to March 2012.





Peripheral Cannula Prevalence audits

A peripheral line audit was performed in January 2012, following on the one performed in August 2011.

There have been gradual improvements in all areas over the last 3 years (see table). In particular the use of the Care Plan and documentation of the cannula site being check on every shift has improved dramatically since August 2011.

Peripheral Cannula Prevalence Audits						
	March 09	**Sept. 09**	**April 10**	**March 11**	**Aug. 11**	**Feb. 12**
Cannula pack used	20%	40%	74%	60%	69%	71%
Care plan used	-	33%	58%	-	43%	90%
Site checked & documented each shift	51%	44%	49%	45%	58%	85%
Cannula not in >72 hours	82%	88%	77%	89%	90%	90%

Urinary catheter audits

6 snap shot audits of numbers of patients with urinary catheters in place were performed in 2011. There was a significant fall in catheter use between January and May 2011 but the numbers have drifted up again since, though not to the base line rate. These figures can only show trends as there is no recommended rate of catherisation.

Results:

Jan 2011: 100

May 2011: 58

July 2011: 71

Aug 2011: 83

Sept 2011: 75

Oct 2011: 73

Surgical Site Infection Surveillance

Colorectal surgery: Previously a survey performed in April to June 2010 had showed the rate had fallen to 17.1% from 25% in the previous two surveys. This compared with 10.8% nationally.

This survey was repeated in October to December 2011.

The rate had risen again slightly to 19.1% compared with 11.2% in the same category nationally. This is 9 out of 47 patients. 2 of these had breakdowns of their anastomosis which is unrelated to infection control issues.

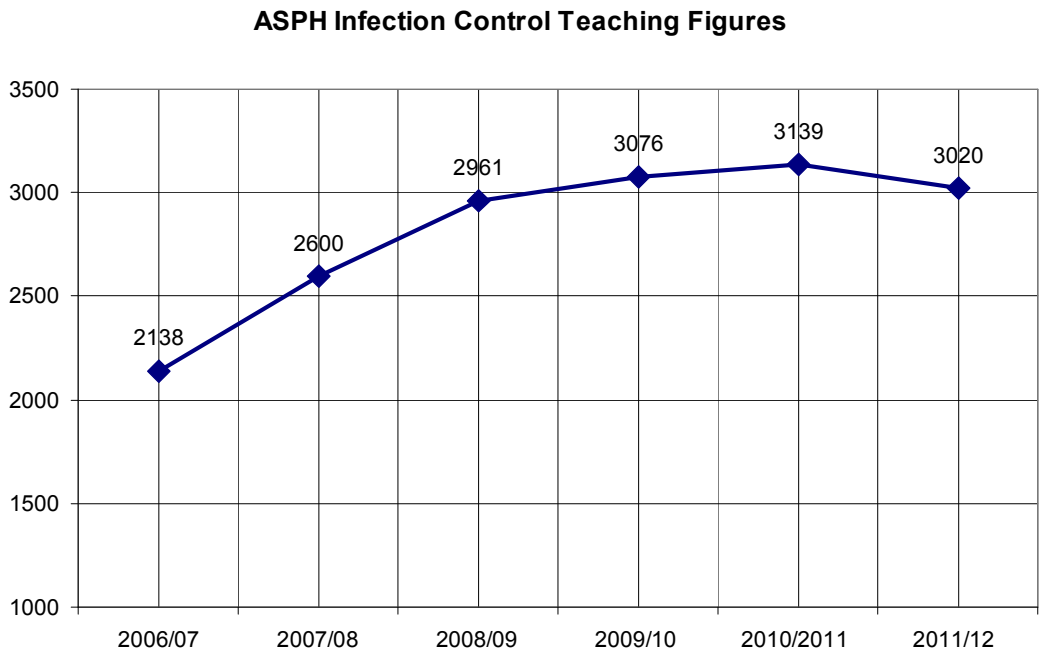
An action plan has been drawn up, and a change in antibiotic prophylaxis for colo-rectal surgery implemented. The change is from gentamicin plus metronidazole to gentamicin plus tigecycline, which should provide protection against gut flora for longer.

Other changes include ensuring that surgeons' gowns as well as gloves are changed for closing up.

The survey will be repeated in October to December 2012. Surgical nurses are to be trained to perform this so that it is prospective.

Teaching

The graph shows the numbers of staff undergoing training in the last 6 years.



Appendix 1

Control of Infection Committee

Terms of Reference

Constitution

The Trust Board hereby resolves to establish a sub-Committee to be known as the Control of Infection Committee.

Authority

The Committee is authorised by the Trust Board to investigate any activity within its terms of reference. It is authorised to seek any information it requires from any employee and all employees are directed to co-operate with any request made by the Committee.

Membership

- Director of Infection Prevention and Control (Chair)
- Consultant Nurse, Infection Prevention and Control / Deputy DIPC
- Consultant Microbiologist(s)
- Infection Control Nurses
- The Chief Executive or his nominated deputy with authority to represent him e.g. Chief Nurse
- Clinical & non-clinical Risk Managers
- Occupational Health Manager
- Clinical Infection Control Leads from all business units or a representative
- Chief Nurse or representative
- Heads of Nursing / Matrons
- Critical Care representative
- Operating Theatres representative
- A representative from Surrey PCT
- A representative from Surrey HPU
- Facilities General Manager
- Head of Hotel Services
- A patient representative from the Patient Panel

Attendance

Attendance at meetings is essential. In exceptional circumstances when a member cannot attend they must arrange for a fully briefed deputy of sufficient seniority to attend on their behalf. Members will be required to attend as a minimum, 50% of the meetings per calendar year.

Quorum

At least 10 members should attend each meeting and this should include the Director of Infection Control or her deputy (Consultant Nurse in Infection Prevention and Control or Antibiotic Czar).

Frequency and Conduct

Meetings will be held quarterly in December, March, June and September at the St. Peter's Hospital site.

Duties

- Report to the Clinical Governance Committee any serious problems or hazards relating to Infection Control (minutes of meetings will be sent to the Clinical Audit/Risk Manager).
- Liaise with the CCDC about the plan for responding to major outbreaks. Plan the Trust's response to major outbreaks in the community and monitor its implementation
- Advise on and approve Infection Control Policies before submission to the Clinical Governance Committee for ratification, and review their implementation.
- Discuss and endorse the annual Trust Infection Control Programme. Regularly review the progress of the programme, assist in its effective implementation and review the final results.

Key Responsibilities

- Advise and support the Infection Control Team.
- Consider reports on Infections and Infection Control Problems.
- Regularly review the plan for the management of outbreaks in the hospitals. Monitor its implementation and amend it as necessary in the light of experience.
- Review the annual report of the Control of Infection Committee.
- Review the annual DIPC report.
- Advise on the most effective use of resources available for implementation of the programme.
- Promote and facilitate the education of all staff in infection control procedures.
- Encourage communication between different staff groups in directorate teams about Infection Control issues.

- Encourage directorates to assume responsibility for infection control issues within their area of practice, with advice and support from the Infection Control Team.
- Review adverse incident reports relating to Infection Control.
- Review reports on targeted surveillance programme.
- Oversee compliance with the Health and Social Care Act, in relation to Hygiene code compliance, and regulation 12 / outcome 8 of the essential standards for quality and safety: - by reviewing hygiene code reports alongside information about infection control, cleanliness and decontamination, the committee is able to alert the Trust to any risks to patients, staff, and corporate compliance with regulations.
- Monitor staff training on Infection Control.

Reporting Lines

The Control of Infection Committee reports to the Clinical Governance Committee, which reports to the Trust Board. For matters of serious or urgent concern the Control of Infection Committee and Infection Control Team will report directly to the Chief Executive or appropriate Hospital Director. The IV League and Antibiotic groups also report to the Control of Infection Committee.

Monitoring

The Chairman produces an annual report for the Clinical Governance Committee.