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

TRUST BOARD
26th May 2011

TITLE	Director of Infection Prevention and Control Annual Report 2010-2011.
EXECUTIVE SUMMARY	The Trust met the annual targets for both MRSA bacteraemia (5 hospital acquired cases versus 5) and Clostridium difficile (36 hospital acquired cases versus 67). This is a reduction of 85.5% of C difficile since 2007-8 and 32% since 2009-10.
BOARD ASSURANCE (RISK)/ IMPLICATIONS	Assurances are provided by the infection control audits reported on. However the annual targets for 2011-12 are much more stringent at a maximum of 4 for MRSA and 33 for C difficile and there is a potential 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 2011.
Decision:	For Noting.

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May 2011

Director of Infection Prevention and Control Annual Report 2010-2011

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 Specialis 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 2010 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. She meets monthly with the Chief Executive, Medical Director and Chief Nurse.

The Consultant Nurse in Infection Prevention and Control is a member of the Nursing & Midwifery Committee, Pandemic Flu Committee, Decontamination Committee and Product and Medical Equipment Group, Safer Needle Action Group and Health and Safety Committee. She attends the monthly Ashford and St Peter's Quality meetings and Matrons' Cleanliness meetings. With the DIPC she meets monthly with the Chief Executive, Medical Director and Chief Nurse.

Mandatory reporting

There continues to be mandatory reporting to the Health Protection agency of the following types of infection: MRSA bacteraemias (blood stream infections), glycopeptide resistant enterococcus bacteraemias, and Clostridium difficile infections identified in patients over 2 years of age, whether acquired in the hospital or community.
Since January 2011 there has also been a requirement to report MSSA (Meticillin sensitive Staphylococcus aureus) bacteraemias to the HPA via the DataCapture System although no targets have been set for these as yet.

MRSA bacteraemias

There were 5 hospital acquired cases diagnosed in the Trust in 2010-2011 plus 3 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 since April 2010. The target for 2010-11 for the Trust was 5, which was reached by July 2010. There were no more cases in 2010-2011 after this (246 days until the end of March 2011).

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:

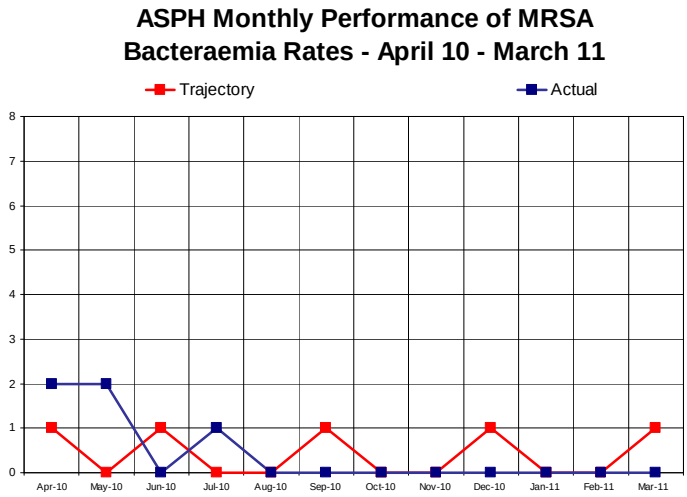
	2009-10		2010-11	
Likely source	**HA**	**CA**	**HA**	**CA**
IV line	**1**	**0**	**0**	**0**
Surgical site	**0**	**0**	**1**	**0**
Chest	**0**	**3**	**0**	**1**
Urine	**1**	**0**	**0**	**1**
Skin/soft tissue	**0**	**3**	**1**	**1**
Contaminants	**0**	**1**	**3**	**0**
Total	**9**		**8**	

One of the 5 cases (with soft tissue infection) was septic on admission but the blood cultures were taken 48 hours after admission. One patient had a post operative wound infection (colorectal) but the other 3 were difficult to analyse and may all have been contaminants (false positives). Two of the 3, although definitely showing signs of sepsis, responded to Tazocin which would not have treated MRSA, so may have had infections due to other organisms.

Since blood culture contaminants may be due to poor blood culture taking technique there has been a focus on training and competency testing for all people who have to take blood cultures. Since August 21st there has been a phlebotomy-led service in the day time and Clinical Site Nurse Practitioner led service at night.

The percentage of contaminants as measured by coagulase negative Staphylococci has remained low since then. (4% April to August 2010 v 1.8% September 2010 to March 2010). Excluding paediatrics which is not included in the phlebotomy service the figures are 2.8% and 0.56% (80% reduction). A business case is being developed to expand the role of phlebotomy to allow this service to be continued.
The target for 2011-12 is 4 hospital acquired cases.

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.



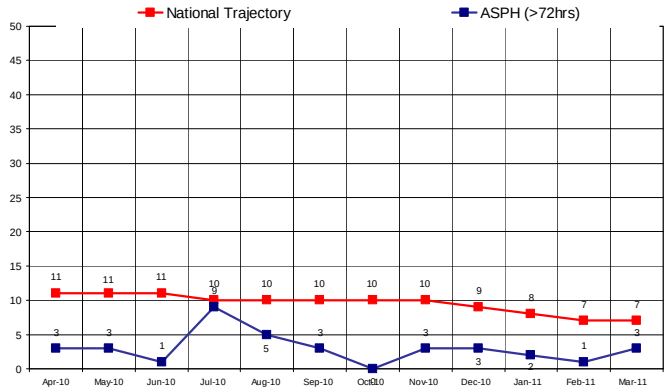
Clostridium difficile

There were 36 cases of hospital-acquired C difficile cases compared with the SHA target of 67 (and national target of 103). Next year's target will be 33. The graphs show the cases compared with the National and SHA targets respectively. There were only 6 cases in each of the last 2 quarters of the year, no cases at all in October 2010.

There was a cluster of 3 cases on 1 ward in December but most cases throughout the year were sporadic. Most but not all patients had had antibiotics prior to developing diarrhoea. Piperacillin/Tazobactam was a common antibiotic used in these patients.

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). 6 patients died in 2010-11 who had C difficile mentioned elsewhere on the death certificate compared with 13 in 2009-10.

ASPH Monthly Performance of Clostridium difficile acquired in ASPH - April 10 - March 11



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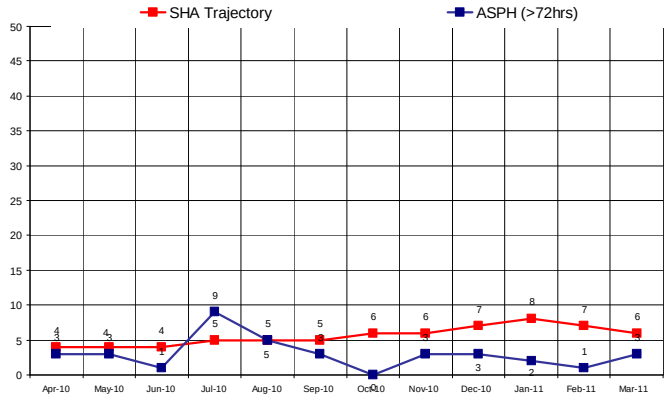


Glycopeptide-resistant enterococcus bacteraemias

There were only 3 cases of GRE bacteraemia in 2010-11.

Methicillin Sensitive Staphylococcus aureus (MSSA)

As stated above 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. A present these are being collected as a base line and the Trust has not been issued with any targets.

In January there were 3 MSSAs, 2 of them hospital acquired (1 probably a contaminant).
In February there were 4 MSSAs, 1 of them hospital acquired.
In March there were 8 MSSAs, 3 of them hospital acquired.

Hospital acquired bacteraemia, as for MRSA, is defined as a positive blood culture taken at leas 2 days after admission. It does not imply that the Trust was responsible for the bacteraemia Several of these cases were chronic or recurrent infections due to e.g. endocarditis, pacemake infection, or discitis. Unlike MRSA bacteraemias a high proportion of the MSSA bacteraemias have been in paediatric cases, especially neonates.

Escherichia coli: From June 2011 numbers of E coli bacteraemias will also need to be reported.

Other infections:

Influenza A

The 2009 strain of Influenza A (previously known as swine flu) returned in December 2010. 28 cases were confirmed among patients admitted with flu-like symptoms, compared with 13 in 2009. 4 cases died (14.3%) which is a better percentage than in 2009 when there were 4 deaths out of 13 (30.7%). The increased facility to transfer severely ill patients for ECMO (extracorporeal membrane oxygenation) saved several lives. There was no evidence of cross infection within the hospital.

Norovirus

There was a seasonal increase in norovirus nationally during the winter months. It was found on wards in the Trust predominantly between December 2010 and February 2011. It was controlled with the closure of individual bays and occasional brief closures of whole wards. 28 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.

Elective screening: There is a 100% target for elective screening (Monitor). This target was met by the Trust in 4 months: October and December 2010 and January and February 2011. We screened 97-99% in the other months.

Emergency screening: We have screened over 95% of emergency admissions since screening was fully underway in August 2010. We screened 97.9% in March 2011. Most of those missed had been on Ambulatory Assessment Unit and discharged within a few hours.

A national audit of MRSA screening is taking place in May 2011 which the Trust has been contributing too.

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. New prescription charts were introduced in September 2010.

Antibiotic Prescriber software was installed on Trust computers in September 2010. This advises on which antibiotic to use and takes into account allergies and renal function so that the correct dose can be prescribed.

Regular snap shots of compliance are performed by the ward pharmacists (See table below) and **quarterly figures of use of "diffogenic" antibiotics** are collated by the antibiotic pharmacist. This is based on the Defined Daily Dose (DDD), which is the assumed average maintenance dose per day for a drug used for its main indication in adults.

The results of the **snap shot audits** continue to improve each time – see table below. The stop/review date is still the weakest area but that and the documentation of the indication improved after the introduction of the new prescription charts. Medicine is the best at filling in the stop/review dates at 85% compliance. Cardiology was 90% compliant.

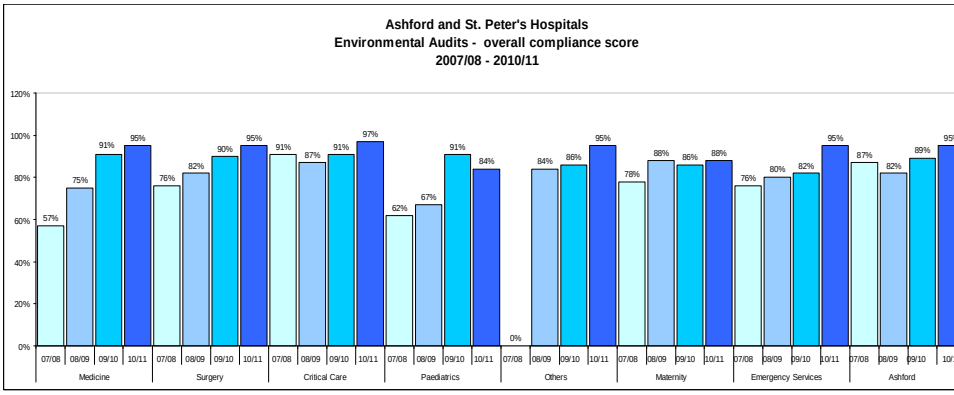
The last quarterly use of **diffogenic antibiotic audit** was for July to September 2010. Use of all the high risk antibiotics monitored (co-amoxiclav, cefuroxime and ciprofloxacin) continues to fall and is down compared with each of the last 3 years.

Piperacillin/Tazobactam usage and its resistance rate had been rising. In August 2010 the Antibiotic Guidelines was amended to recommend doxycycline for mild hospital acquired pneumonia in place of piperacillin/ tazobactam and temocillin was introduced as an alternative antibiotic for ESBL - producing (multi-resistant) coliforms. The use in September and October 2010 was then 27% down compared with August.

Antibiotic audits compliance rates					
	July 09 %	**Nov 09 %**	**May 10 %**	**Sept 10 %**	**Feb 11 %**
Allergy box filled in	90	98	90	90	95
Antibiotics prescribed in line with guidelines	91	92	93	95	97
Addition instruction box filled with indication	73	75	77	90	90
Start date filled in	99	99	99	99	99
Stop/review date filled in or number of days treatment	62	67	69	75	77
Surgical & orthopaedic patients: 1 pre-dose	100	100	100	93	100
Surgical & orthopaedic patients: Nil post dose	71	80	69	80	92

Other Audits

Environmental audits continue to be preformed by the Infection Control Nurses. Most areas show improvements in 20010-11 compared with previous years.



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 all the scores have been green in 2010-11 and all the scores have been an average of 95% or more since August 2010.

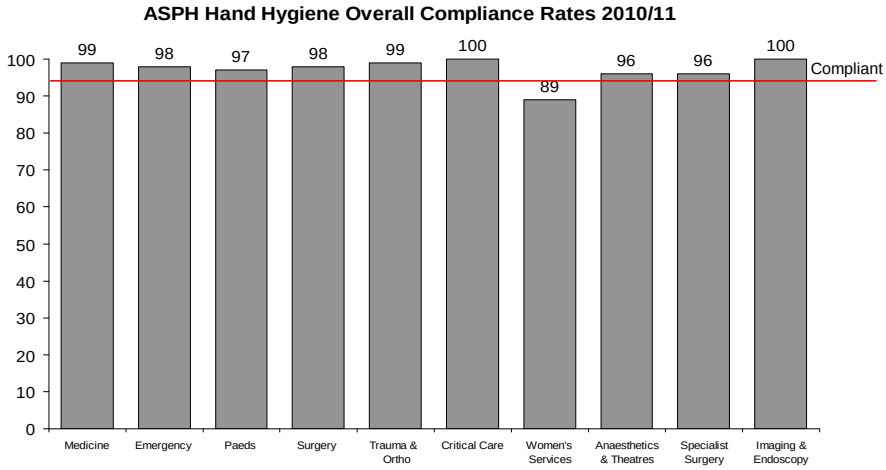
The few individual scores of less than 90% were nearly all due to lack of documentation or insertion of a peripheral cannula

High Impact Intervention Score
(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 C. diff
Apr-10	100%	99%	96%	96%	100%	100%	99%	100%
May-10	100%	98%	93%	98%	100%	100%	98%	100%
Jun-10	97%	99%	93%	99%	100%	100%	95%	100%
Jul-10	100%	100%	94%	99%	100%	100%	100%	100%
Aug-10	100%	99%	95%	98%	100%	100%	99%	100%
Sep-10	100%	99%	97%	99%	100%	100%	100%	100%
Oct-10	100%	99%	98%	99%	100%	100%	100%	100%
Nov-10	100%	99%	96%	98%	100%	100%	99%	100%
Dec-10	100%	100%	97%	100%	100%	100%	100%	100%
Jan-11	100%	98%	97%	100%	100%	100%	100%	100%
Feb-11	100%	100%	97%	100%	100%	100%	99%	N/A
Mar-11	100%	100%	97%	98%	100%	100%	99%	100%

Hand hygiene audits

The average score of hand hygiene audits have improved in most areas except Women's Services which fell from 95% to 89% and Anaesthetics and Theatres which fell from 97% to 96%.

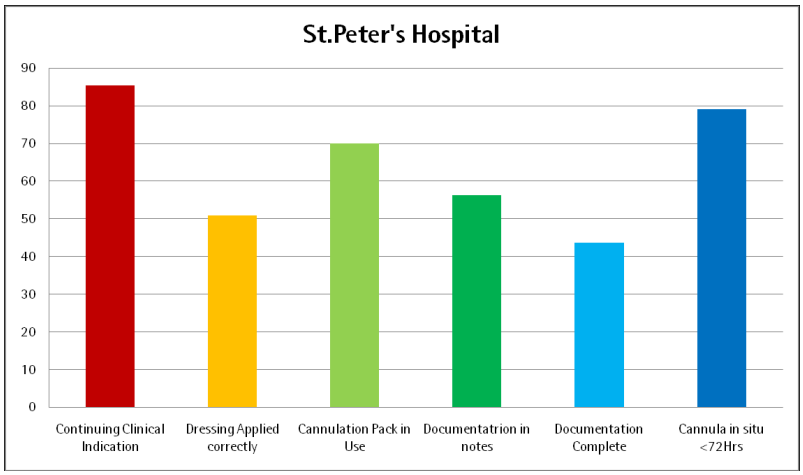


Peripheral Cannula Prevalence audits

A peripheral line audit was performed by Vygon in August 2011 (as we use the Vygon cannula pack for insertion). This showed some improvement in the use of cannula packs but weakness in the documentation of insertion, use of a Peripheral care plan and particularly in the checking and documentation of the insertion site at every shift (only about 60% in the latter case).

This audit has just been repeated by B Braun which has similar findings. Some wards (e.g Juniper and Maple) were 100% compliant across the board but others were <50% compliant in all areas audited.

B Braun peripheral cannula audit March 2011:



In April 2011 a VIP score audit was completed by the Infection Control Nurses which showed a big variation in compliance. 5 wards, including ITU, MHDU and CCU were 100% compliant However 4 wards were less than 25% compliant. This was fed back to the nurses and matrons.

Urinary Catheter Audits

A snap shot audit was recently performed by Bard Ltd on 6 wards. The overall catheterisation rate was high at 26.9%, the highest being on Falcon ward with 39%, However the rate o Catheter-related urinary tract infections was low at 3 cases (2.06% of all patients audited).

Surgical Site Infection Surveillance

There are no new results to report since my 6 monthly update report last year.

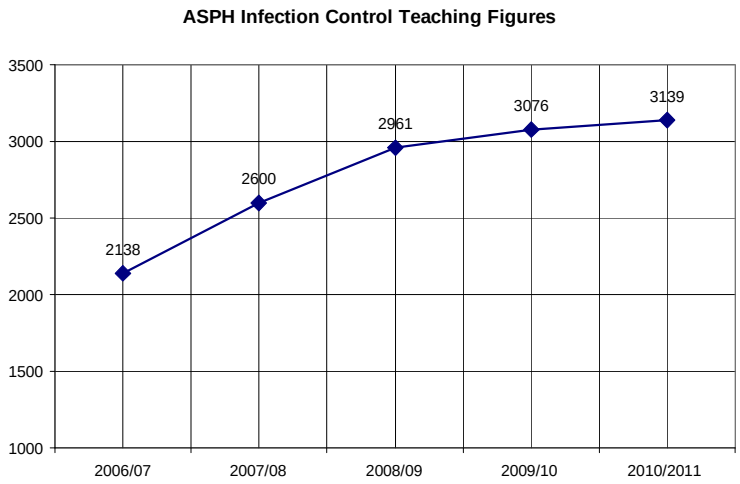
Colorectal surgery: The survey performed in April to June 2010 showed the rate had fallen to 17.1% from 25% in the previous two surveys. This compares with 10.8% nationally. 2% chlorhexidine plus alcohol skin preparation has been introduced and the survey will be repeated shortly.

Orthopaedics: Hip replacement surgery was surveyed in January to March 2010 and 1 out o 30 cases developed a wound infection (3.3%). We are waiting for the final results of the January to March 2011 survey. Patients are followed up for 30 days after surgery.

Vascular Surgery: Surveillance of vascular surgery was performed for the first time in July to September 2010. 23 operations took place at St Peter's Hospital during that quarter and there were no infections. This compares with 3.6% average in all other hospitals reporting.

Teaching

The numbers of staff undergoing Infection Control training in the Trust continues to rise each year.



Submitted by: Dr Angela C Shaw (Director of Infection Prevention and Control

Date: 11.5.11

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
- 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.

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.

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

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Revised July 2010