Ashford and St. Peter's Hospitals NHS
NHS Trust

TRUST BOARD
24th June 2010

TITLE	**Director of Infection Prevention and Control Annual Report for April 2009 - March 2010**
EXECUTIVE SUMMARY	The Trust met the annual targets for both MRSA bacteraemia (9 versus 14) and C difficile (53 versus 90). Only 3 of the MRSA cases were classed as hospital acquired (one of which came in with infection). There was a reduction of 78% from the number of C difficile cases in 2007-8. Audits showed a continuing improvement in all areas. The weakest areas shown in "antibiotic prescribing" audits are still use of stop/review dates and indications on the prescriptions charts, especially in surgery. The High Impact Intervention figures have improved markedly in the last 6 months of the year, probably due to the increased pressure on the Matrons by the Chief Nurse at the meetings. Hand hygiene figures are very good at over 90% but need to be better.
BOARD ASSURANCE (Risk) / IMPLICATIONS	Control of Infection is a major priority for all NHS Organisations. This is a specific risk included on the Board Assurance Framework
STAKEHOLDER / PATIENT IMPACT AND VIEWS	There is a patient representative as well as a representative from the Primary Care Trust on the Control of Infection Committee
EQUALITY AND DIVERSITY ISSUES	None. Equality and diversity is addressed in all Infection Control Policies
LEGAL ISSUES	None
The Trust Board is asked to:	Note and approve the actions of the Infection Control Team
Submitted by:	Dr Angela Shaw
Date:	May 2010
Decision:	For Noting

Trust Board
Director of Infection Prevention and Control Annual Report

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). A Senior Specialist Nurse in Infection Control left the Trust in 2009 and has not been replaced. 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 June 2009 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. 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 business units to the Clinical Governance Committee.

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, Surrey Healthcare Associated Infection Leads group and Antibiotic group. She Chairs the IV League (now merged with the previous Vascular Access Group) and fortnightly Infection Control Team meetings. She also attends the monthly Ashford and St Peter's Quality meetings, Standards for Better Health meetings, and South East Coast DIPC meetings among others. She meets monthly with the Chief Executive and Chief Nurse.

The Consultant Nurse in Infection Control is a member of the Nursing & Midwifery Committee, Pandemic Flu Committee and Health, Product and Medical Equipment Group and Safety Committee. She also attends Matrons' meetings, Cleanliness meetings, the Safer Needle Action group and Safety Services Group. With the DIPC she meets monthly with the Chief Executive and Chief Nurse.

Mandatory reporting

At present there is 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.

MRSA bacteraemias

There were 9 cases of MRSA bacteramia diagnosed in the Trust in 2009-10.

Our Strategic Health Authority maximum target for 2009-10 was 14 so we were well within the target.

All hospital acquired cases were subject to root cause analysis with the consultant looking after the patient, matrons and ward sisters as well as members of the Infection Control team and action plans written based on the findings. Community cases were analysed by members of the PCT or Health Protection Agency.

Only 2 cases were acquired within the Trust, although another case was counted as a Trust case by the SHA because the culture was taken just on 48 hours after admission, even though he was admitted with infection from a community hospital. A fourth case was thought to be a contaminant (blood culture taken through arterial line). The other 5 cases were all community acquired including one in Woking Community Hospital that was not admitted to the Trust at all.

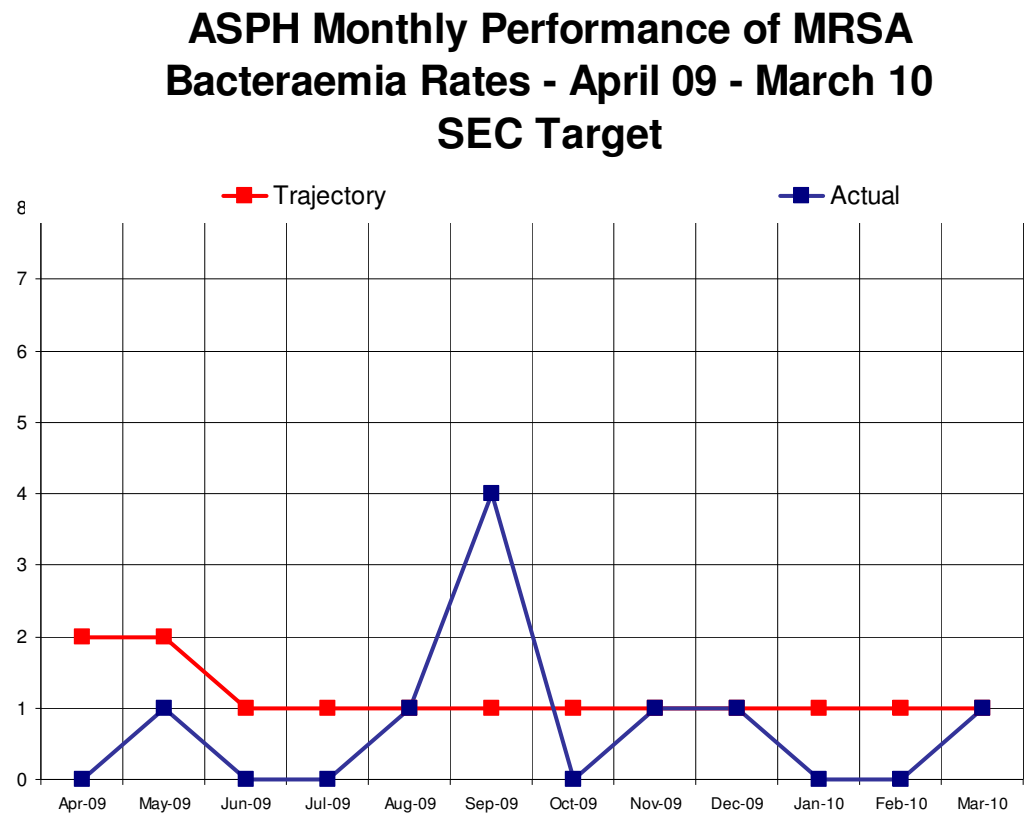
	2008-9		*2009– 10*	
Likely source	**HA**	**CA**	**HA**	**CA**
IV line	**2**	**0**	**1**	**0**
Surgical site	**1**	**0**	**0**	**0**
Chest	**4**	**4**	**0**	**4**
Urine	**0**	**3**	**1**	**0**
Skin/soft tissue	**2**	**2**	**0**	**1**
Others	**0**	**1**	**0**	**1**
Contaminants	**1**		**1**	
Total	**20**		**9**	

Of the 2 hospital acquired cases one was secondary to a central line infection in a surgical patient. The root cause analysis gave rise to an extensive action plan on preventing central line infections, including a central line pack for theatres and an updated policy which recommended that non-tunnelled lines should only be in place for 5-7 days.

The other hospital acquired case was more difficult to analyse but seemed to be associated with a urinary catheter becoming dislodged.

The “contaminant” was from blood taken through an arterial line on ITU. The root cause analysis of this also gave rise to a number of recommendations. It gave rise to the concern that positive blood cultures that would not be counted as bacteraemias by the “Matching Michigan” criteria still have to be counted for the purposes of this surveillance.

The target for 2010-11 is 5 hospital acquired cases.



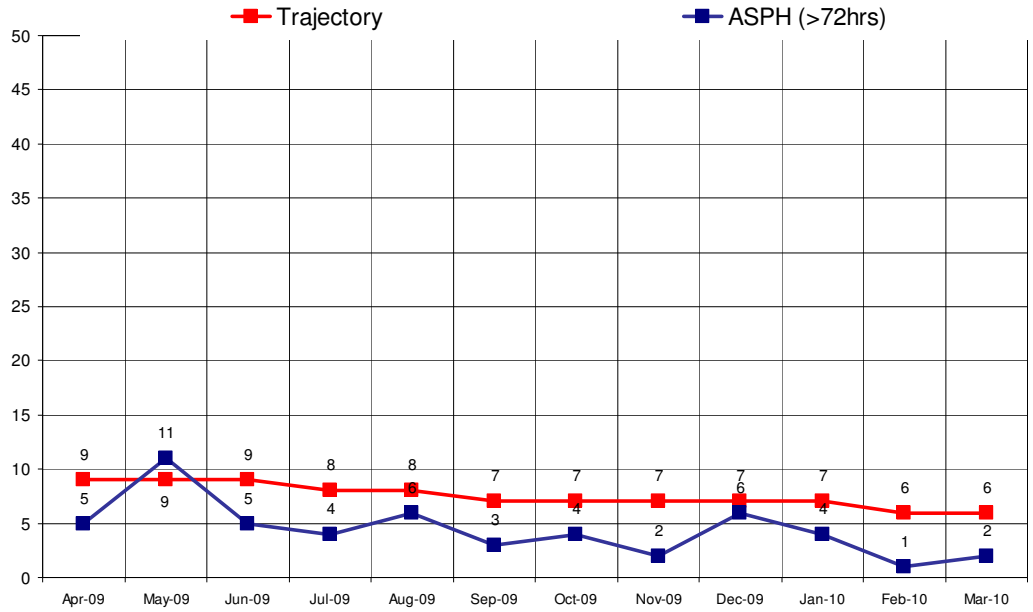
Clostridium difficile

The numbers of Clostridium difficile acquired in the Trust were well within the stretch target of 90, with 53 cases. This compares with 118 in 2008-9 and 248 in 2007-8. Despite the number of norovirus cases in the winter of 09-10 the numbers of C difficile cases were kept under control and the last quarter (January to March 2010) was our best since we started collecting records at only 7 cases (4 in January, 1 in February and 2 in March).

We have been following the Trust C difficile Action Plan for 2009-10, which has now been updated for 2010-11. Its key areas are prudent antibiotic usage, rapid isolation of cases, hand hygiene and environmental cleaning.

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 (indicating that it was the direct cause of death) compared with 4 in 2008-9.

ASPH Monthly Performance of Clostridium difficile acquired in ASPH - April 09 - March 10



Glycopeptide –resistant enterococcus bacteraemias

There were just 2 cases of glycopeptide –resistant enterococcus bacteraemias in 2009-10, compared with 8 in 2008-9.

MRSA screening

Since April 2009 all elective admissions, with certain exclusions, have to be screened for MRSA prior to admission. The Trust Information Department together with Pathology have found a way of monitoring compliance with this. The % screened has gradually increased to 98.4% by the March 2010. The target is 100%. By December 2010 emergency cases will have to be screened too. Contingencies are in plan to facilitate this.

Norovirus

The winter of 2009-10 has been a bad one nationally for the numbers of norovirus. Most wards have been affected at least once since November 2009, but it has mostly been controlled by closing individual bays at a time, and has had little affect on admissions, although it has made bed management difficult at times of pressure.

Antibiotic prescribing

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. A pocket hand book was printed and circulated in August 2009.

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. Since April 2009 the latter has been 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.

Compliance audits: The results vary according to specialilty. For example although the total percentage of prescriptions with a stop/review date was only 67% in November, in Medicine this was 85%.
It is hoped that the introduction of new Prescription Charts (with the printers at the time of writing) will help with compliance by containing space and prompts for the required information. The next audit is due to take place in May 2010.

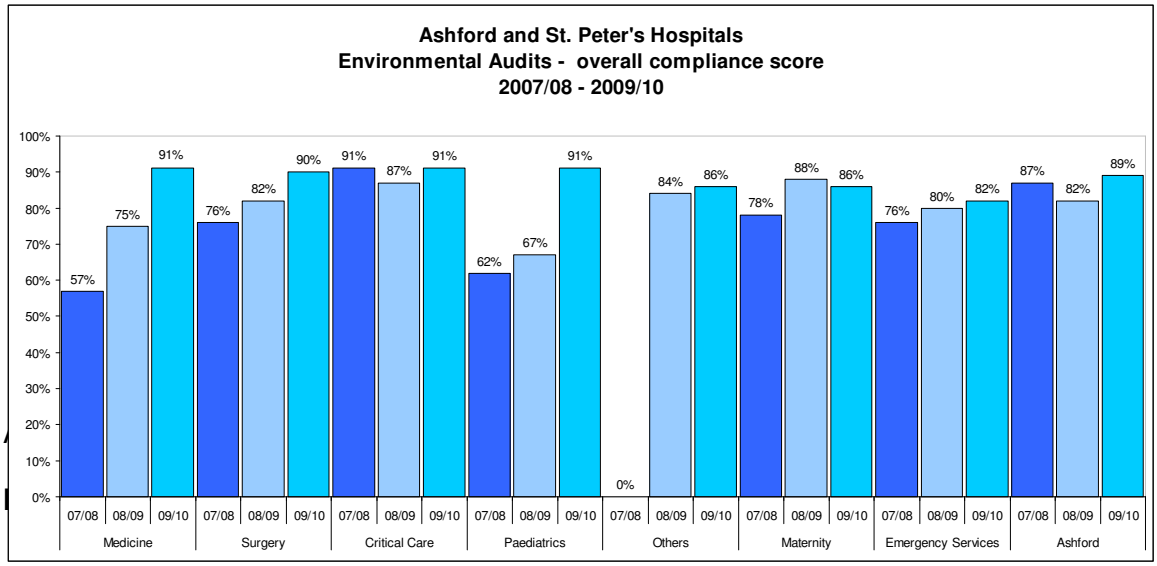
Compliance snapshot audits	Feb 09 %	July 09 %	Nov 09 %
Allergy box filled in	89	90	89
Antibiotics prescribed in line with guidelines	91	91	92
Addition instruction box filled with indication	71	73	75
Start date filled in	98	99	99
Stop/review date filled in or number of days treatment	62	62	67
Surgical & orthopaedic patients: 1 pre-dose	100	100	100
Surgical & orthopaedic patients: Nil post dose	77	71	80

Use of antibiotics audits: There has been excellent improvement in the use of high risk ("diffogenic") antibiotics since November 2007. The use of intravenous co-amoxiclav had increased slightly in October to December 2009 compared with the same period in 2008. This was due to its use in A/E which has been addressed. It is still 68% less than in 2007.

Audits of antibiotic prescribing in A/E were performed in December 09 and February 10. Overall compliance had improved from 65 to 76%. The main problems were misuse of co-amoxiclav and erythromycin and filling in allergy boxes. As most of these were associated with locums these are now provided with a one page summary sheet on antibiotic issues when their booking is confirmed

Audit (other than antibiotic)

Environmental audits continue to be performed by the Infection Control Nurses



High impact interventions

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 the average result for the weaker areas, such as peripheral line insertion and care had improved significantly in the last 6 months of the year.

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

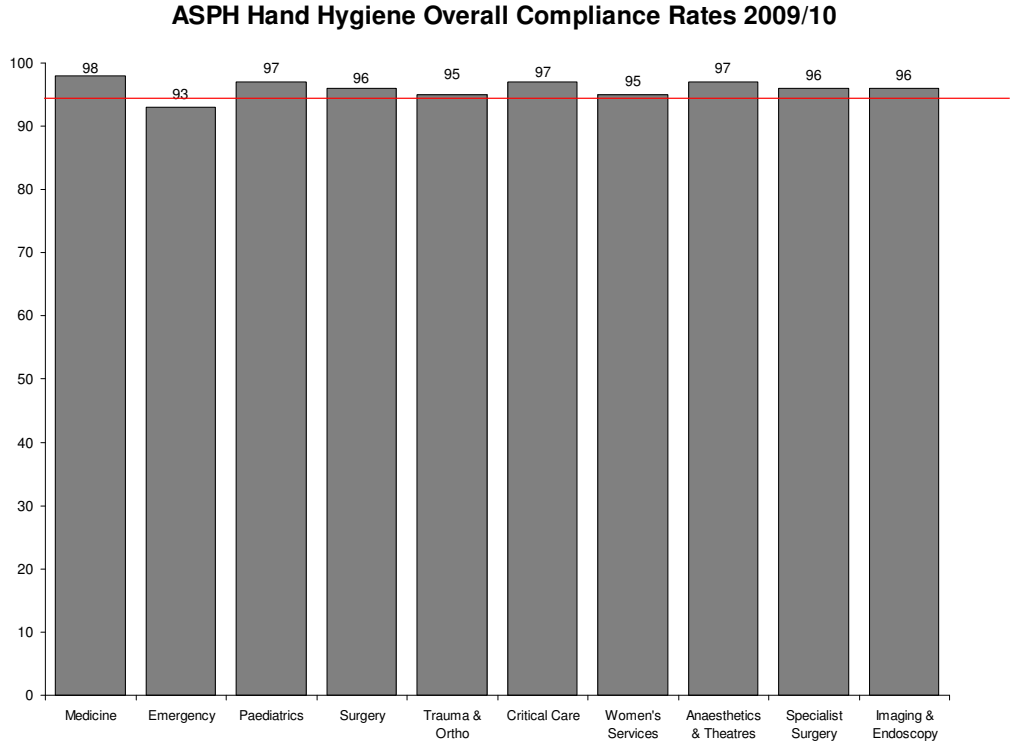
	HII 1 Insertion	HII 1 CC	HII 2 Insertion	HII 2 CC	HII 6 Insertion	HII 6 CC	HII 7 C. diff
Apr-09	100	92	83	85	94	98	80
May-09	100	95	85	88	99	97	100
Jun-09	100	92	86	86	100	94	100
Jul-09	100	94	88	90	99	93	100
Aug-09	100	90	85	93	100	97	100
Sep-09	100	92	85	90	100	97	100
Oct-09	100	92	93	89	100	100	100
Nov-09	100	100	91	92	100	95	100
Dec-09	100	96	92	92	100	100	100
Jan-10	100	92	94	94	100	94	100
Feb-10	100	99	95	96	100	99	100
Mar-10	100	99	97	95	100	100	100

HII 1	Central lines
HII 2	Peripheral lines
CC	Continuing care
HII 6	Urinary catheters
HII 7	C. difficile

Peripheral cannula prevalence audits are performed at least 6 monthly. There were audits performed in September 09, January 10 and March 10. There was gradual improvement in some areas for example the cannula pack was used in 62% cases (possibly more as 24% didn't know) compared with 20% in March 09. The use of the Bionector connection is up to 88%. There is still room for improvement in documentation e.g. of site inspection

Hand hygiene audits

The bar charts show the hand hygiene audits results by business unit. Although the annual average for all of them is over 90%, the target is due to rise from 95% to 99% next year. The figures exclude non-submission of results. However there were 100% submissions by March 2010.



Surgical Site Infection Surveillance

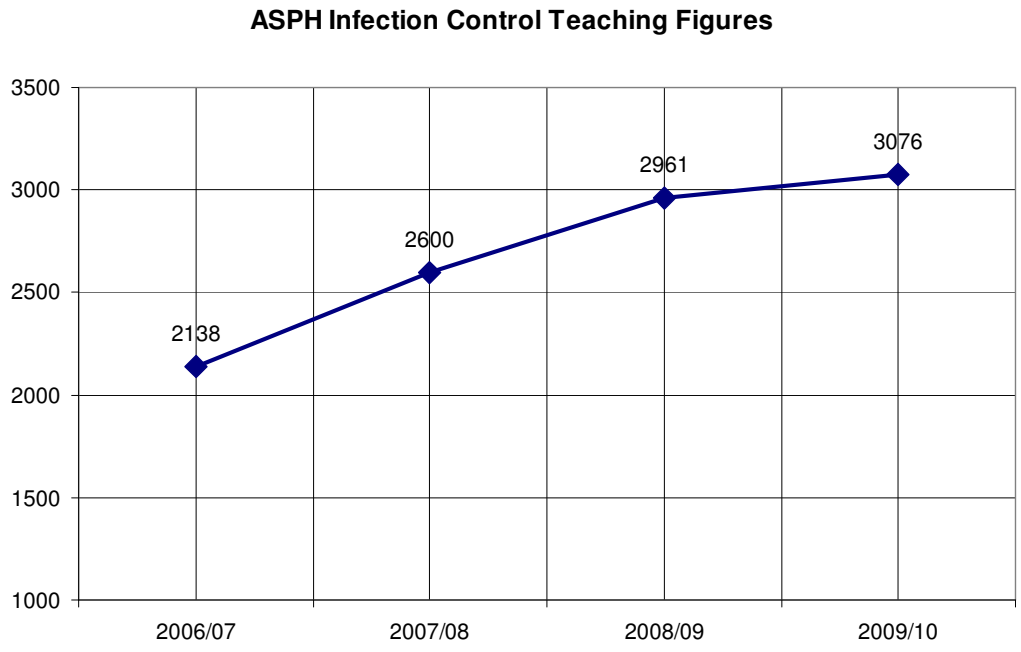
The wound infection rates in April to June 2009 were very similar to the rates in July-September 2008 at 24.6% versus 24.2% among inpatients. This compares with an average of 9.7% among inpatients nationally.

A comprehensive Action Plan was developed by the Colo-rectal surgeons, which was presented at a meeting in February 2010. An audit by a junior doctor showed that prophylactic antibiotics may not have been given at the optimal times prior to surgery and this has been addressed with the anaesthetists. Skin preparation prior to surgery was variable and has been standardised to meet with national recommendations. Other recommendations include using separate closure trays for wound closure and changing gloves prior to closing wounds.

The survey of rates is being repeated in April to June 2010

Teaching

As can be seen from the graph, the number of staff undergoing Infection Control Training in the trust has increased year on year.



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

Date: May 2010