Ashford and St. Peter's Hospitals NHS
NHS Trust

TRUST BOARD
25th November 2010

TITLE	**Director of Infection Prevention and Control 6 monthly update for April to September 2010**
EXECUTIVE SUMMARY	MRSA bacteraemias are at the annual target of 5. The C difficile figures are within both the national and SHA Stretch targets.
BOARD ASSURANCE (Risk) / IMPLICATIONS	There is a risk of exceeding the MRSA bacteraemia target. BAF risk 1.3 relates.
STAKEHOLDER / PATIENT IMPACT AND VIEWS	There is a patient representative on the Control of Infection Committee
EQUALITY AND DIVERSITY ISSUES	N/A
LEGAL ISSUES	None known
The Trust Board is asked to:	To note the Report
Submitted by:	Dr Angela Shaw Director of Infection Control
Date:	5 November 2010
Decision:	For noting

Trust Board
25th November 2010
Director of Infection Control
6 monthly update

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 nurses in the Infection Control Team now consist of a Consultant Nurse in Infection Prevention and Control, a senior Specialist in Infection Prevention and Control and a Specialist Nurse in Infection Prevention and Control (development role).

The Control of Infection Committee has met in June and September 2010 and the Infection Control Team has met fortnightly.

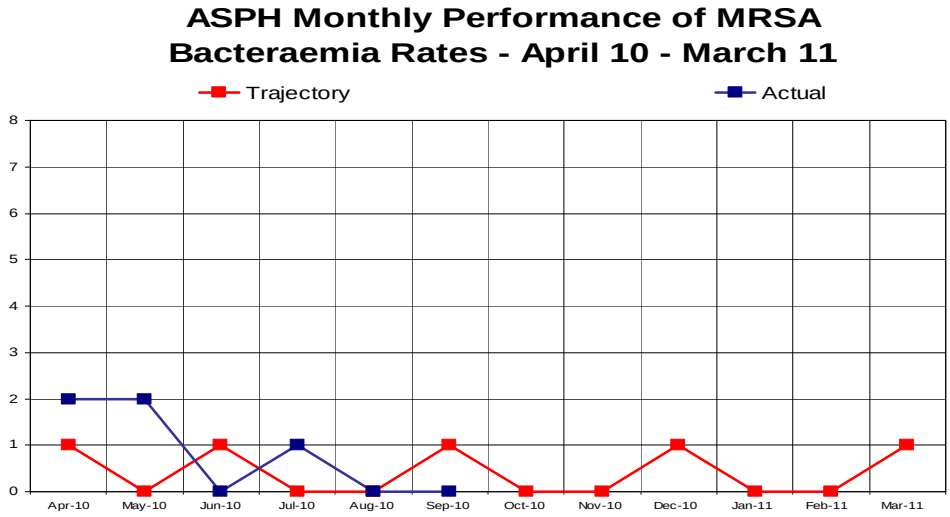
Mandatory Reporting

There is mandatory reporting to the Health Protection Agency of the following: MRSA bacteraemias (blood stream infections), Clostridium difficile infections in patients over 2 years of age and glycopeptide resistant enterococcus bacteraemias.

MRSA bacteraemias

The Trust has an annual maximum target of 5 acute cases in 2010-11. These are defined as cases where MRSA is grown from a blood culture taken 2 days or more after admission.

There were 2 such cases in April, 2 in May and one in July 2010.



There were also 3 community acquired cases, but these are no longer part of the Trust's target.

All cases are subject to root cause analysis, the hospital acquired cases by the consultant in charge of the patient, junior doctors, matrons and ward sisters plus members of the Infection Control Team and Trust managers. The Infection Control Nurse for the PCT also inputs to the RCA when there is a community component to the case.

The results of the root cause analyses are compared with the findings in 2009-10 in the table below:

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

	2009-10		*2010-11 (April to Sept)*	
Likely source	**HA**	**CA**	**HA**	**CA**
IV line	**1**	**0**	**0**	**0**
Surgical site	**0**	**0**	**0**	**0**
Chest	**0**	**3**	**0**	**1**
Urine	**1**	**0**	**0**	**1**
Skin/soft tissue	**0**	**3**	**2**	**1**
Contaminants	**0**	**1**	**3**	**0**
Total	**9**		**8**	

One bacteraemia was probably community acquired secondary to pressure sores but the blood culture was not taken until more than 2 days after admission. The importance of taking blood cultures within 48 hours of admission when patients are admitted with signs of sepsis, especially when they are colonised with MRSA was emphasised to clinicians.

One was likely to be secondary to a surgical wound infection that developed while on ITU post abdominal surgery in a very frail patient.

The other three were of uncertain origin but may have been contaminants as two of the patients responded to piperacillin / tazobactam, which is not active against MRSA and the other patient was asymptomatic after treatment for an E coli septicaemia. However there were other possibilities in each case, which were all complicated. The patient who had had the E coli went on to subsequently develop an MRSA bacteraemia thought to be related to an aortic graft infection that was found on admission to another Trust.

In view of the possibility of contamination (false positive blood cultures) there has been an extra push on **blood culture taking techniques**, although rates of contaminants as measured by coagulase negative staphylococci had already fallen dramatically since 2008. The use of blood culture specific request forms that had been used in A/E for the last year were expanded to the whole hospital other than paediatrics, and a rule put in place that only staff who had undergone

training and competency assessment could take cultures. Finally at the end of August 2010 we started a 6 month trial of the use of phlebotomists to take blood cultures 07.30 to 19.30 and CSNPs outside these hours in all areas other than Paediatrics and ITU. The use of these services had been monitored as has the effect on coagulase negative staphylococci in cultures, which is used as a marker of contamination.

In September 2010 there were only **2.3%** cultures growing coagulase negative staphylococci down from a maximum of **7.1%** in August 2008 and from **3.7%** in August 2010 (the US recommendation is <3%) and 6 out of the 9 were in Paediatrics, which is not included in the trial.

Since July there has been a push to test all clinical staff for **competency in aseptic techniques** to reduce the risk of infections due to these procedures. This is almost complete, although attendance of doctors at the sessions is poor compared with nurses, other than for blood culture technique.

MRSA screening

All **elective admissions** with certain exceptions must be screened for MRSA.
Monitoring of these has shown very few cases missed – only one in September 2010. Most of those missed are those who have come into A/E as emergencies but are told to come back in 1 or 2 days for a procedure like reduction of fracture. Trauma and orthopaedics have been made aware that these types of patient need to be screened.

Since July 2010 **emergency admissions** have been screened for MRSA too, and long stay patients will be re-screened monthly. This will be mandatory from December 31st 2010. The rate in September was 95%. Most of those missed only attended A/E Observation ward so this has been added to those areas where patients are to be screened.

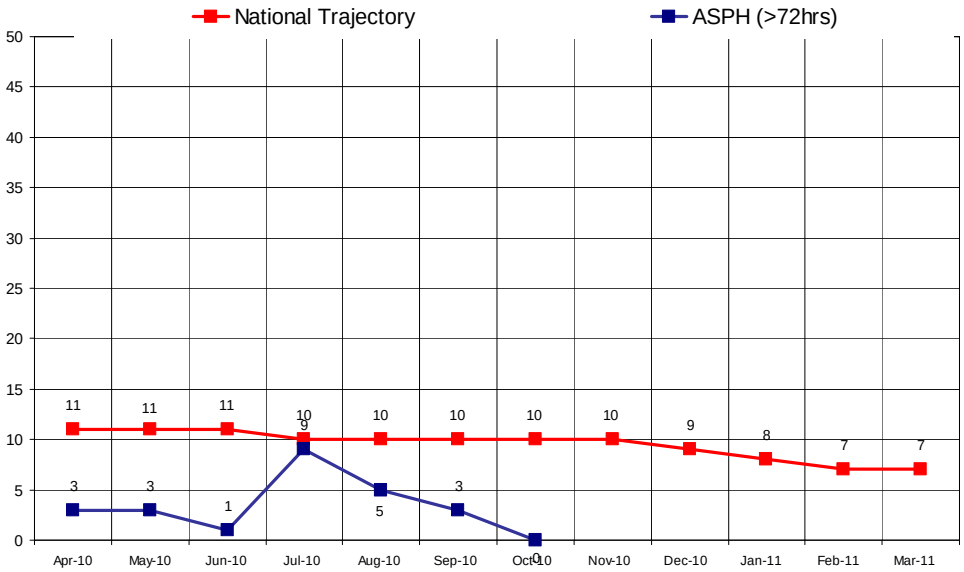
Department of Health team Visit

There was an informal visit by a Department of Health team plus representatives of the SHA and PCT at the Trust's invitation to see if there were anything more that the Trust could do to prevent breaching the MRSA target. There was verbal feedback which praised good standards of cleaning, antibiotic stewardship and staff loyalty and openness, but which gave a few suggestions for improvement which have been implemented. None of these were specifically related to MRSA bacteraemias but included the need to improve the cleaning of specific items like fans and use of storage on wards. The other issues discussed like testing competencies of staff and MRSA screening of emergency admissions had already been started at the time of the meeting.

Clostridium difficile infection

Our SHA target for hospital acquired cases of Clostridium difficile (C difficile) for 2010-11 is 67 (recently amended from 114) and the national target is 103. The top graph shows our rates of acute cases against the national trajectory and the lower one against the SHA figures. Despite the blip in July we are under both targets for the first 6 months. There was no obvious cross infection between the 9 cases in July. Although the numbers of acute cases has fallen since then, the number of community cases has been higher than usual which if admitted could put other inpatients at risk.

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



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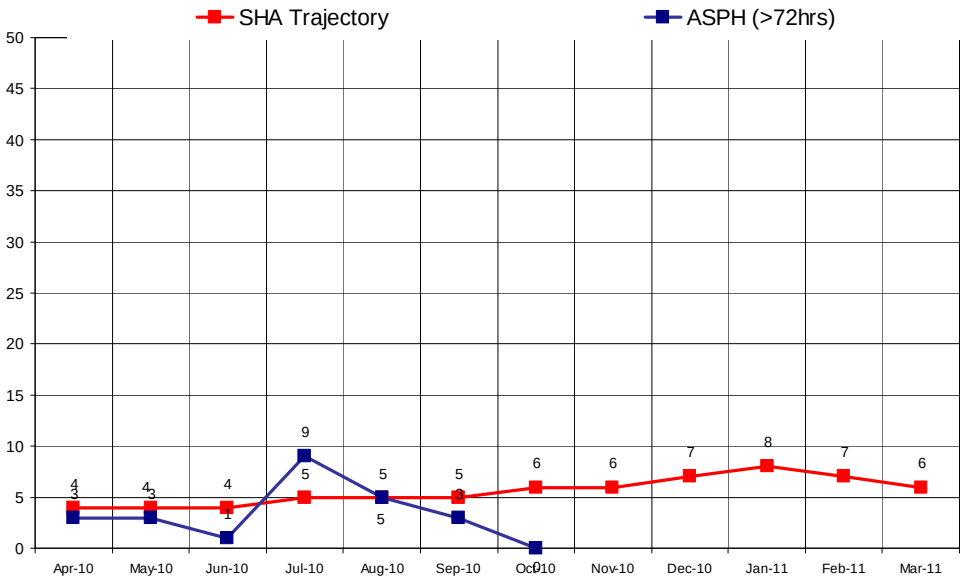


All hospital acquired cases are subject to root cause analysis by the nursing staff and antibiotic pharmacist. Where there are clusters of cases on wards the samples are sent for typing of the C difficile isolate to allow comparison of cases

Antibiotic use

The Antibiotic Guidelines were updated in June 2010 and a second version of the pocket card of the guidelines available since August. Antibiotic prescribing continues to be monitored by twice weekly antibiotics ward rounds by the Antibiotic Czar and Antibiotic Pharmacist. Antibiotic prescribing is also part of the annual consultant Mandatory training day,
Regular audits are performed. The last was undertaken in September 2010. The table below shows a comparison of results over the last 2 years.

Antibiotic audits compliance rates					
	Feb 09 %	**July 09 %**	**Nov 09 %**	**May 10 %**	**Sept 10 %**
Allergy box filed in	89	90	98	90	90
Antibiotics prescribed in line with guidelines	91	91	92	93	95
Addition instruction box filled with indication	71	73	75	77	90
Start date filled in	98	99	99	99	99
Stop/review date filled in or number of days treatment	62	62	67	69	75
Surgical & orthopaedic patients: 1 pre-dose	100	100	100	100	93
Surgical & orthopaedic patients: Nil post dose	77	71	80	69	80

The new prescription charts were finally put into full use in September 2010. As can be seen there has been marked improvement in filling in the indication for antibiotics and some improvement in filling in the stop/review date.

Glycopeptide resistant enterococcal (GRE) bacteraemias.

For the fourth quarter running there were no GRE bacteraemias.

High Impact Interventions

These care bundle audits are performed monthly by the nursing staff on the wards. Any failings are discussed by the Matrons and Sisters and action plans written.

For the average scores for April to September 2010 see the table below.

There has been considerable improvement overall since the same period last year, especially in continuing care of catheters. There is still some lack of documentation on insertion of peripheral lines despite a sticker for insertion in the notes being in the peripheral line packs. This is borne out by the peripheral line prevalence survey performed in August 2010.

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

	HII 1 insertion CVC	HII 1 continuing care CVC	HII 2 insertion Periph	HII 2 continuing care Periph	HII 5 Vent	HII 6 insertion Catheter	HII 6 continuing care Catheter	HII 7 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%

Peripheral cannula prevalence audit.

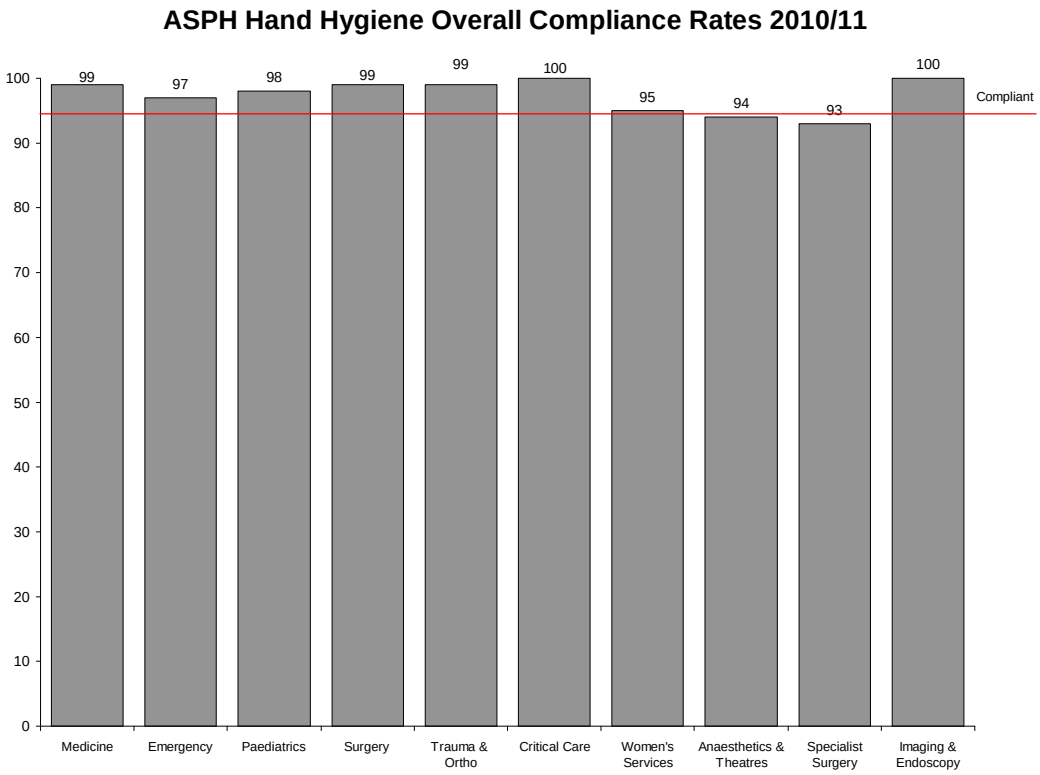
The last audit was performed in August 2010 by Vygon.
The use of the cannula pack had increased to 70% (plus 26% not known) from 63% in March 2010 and 20% in March 2009. However in only 63% cases was the sticker in the pack used to document the insertion in the patient's notes.
Only 3% of cannulas were in for more than 72 hours compared with 11% in March 2010, which is good. Awareness of VIP scores was now good and the care plans were used in 66%, which is an improvement.

Hand hygiene audits

The results of the hand hygiene audits in April to September 2010 are shown below:

Compliance with submission of the audits has improved but 2 were missed. These account for the lower percentages in Theatres and Anaesthetics and Specialist Surgery. These would have both been 98% if those months were excluded.

Compliance with guidelines continues to improve in general.



Surgical Site Infection Surveillance

Colorectal surgery: A third survey of surgical site infection was performed in April to June 2010 and the rate had fallen to 17.1% from 25% in the previous two surveys. This compares with 10.8% nationally. A number of amendments to technique had been undertaken but during this time the recommended skin preparation (2% chlorhexidine plus alcohol) had not been used due to the cost implications. This will be introduced for colorectal surgery soon.

Orthopaedics: Hip replacement surgery was surveyed in January to March 2010 and 1 out of 30 cases developed a wound infection (3.3%).

Infection Control Week

It was the International Infection Control Week on 17th to 23rd October. The Trust participated in this by raising the profile of safe sharps disposal, drop in hand hygiene sessions, taking hand plates from various staff members and a “hand hygiene trolley dash” promoting hand decontamination at the point of care.

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

Date: 5.11.10