

**CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST  
ADDENBROOKE'S HOSPITAL**

**BOARD OF GOVERNORS – 3 DECEMBER 2009**

**INFECTION CONTROL UPDATE**

**Report of:** Dr Jag Ahluwalia, Medical Director, Director for Infection Prevention & Control  
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Dr Nicholas Brown, Infection Control Doctor/Consultant Microbiologist  
Mrs Angela Thompson, Assistant Director of Nursing

**Introduction and Key Issues**

- **MRSA bacteraemia:** There have been 14 cases of MRSA bacteraemia reported to the end of October 2009.

**Breakdown of Avoidable/Unavoidable MRSA Bacteraemias (since April 2009):**

Month	Avoidable for Trust	Pre-48 hour/Unavoidable	TOTAL
April 2009	0	1	1
May 2009	3	0	3
June 2009	1	2	3
July 2009	2	1	3
August 2009	1	0	1
September 2009	0	0	0
October 2009*	2	1	3
<b>TOTAL</b>	<b>9</b>	<b>5</b>	<b>14</b>

\*1 pre-48 hour classified as avoidable for Acute Trust

- **Care Quality Commission:** The unannounced visit by the CQC took place on the 22 October and the feedback from the team was favourable. The CQC report has been received by the Trust and is now available on the [CQC web-site](#). The inspection report states that "... we found no evidence that the Trust has breached the regulation to protect patients, workers and others from the risks of acquiring a healthcare associated infection." The CQC team provided feedback on some issues which, although not included in the formal report, would be used to inform next year's inspection. These included:
  - Cleaning of shower chairs
  - Sharps boxes
  - Storage
  - Commodes
  - Cleaning equipment
  - Linen trolleys
  - Risk Assessment of hand washing basins

The Trust's Infection Control Annual Priorities and Audit Programme 2009-10 has been reviewed to incorporate the issues raised during the CQC visit.

- **National Infection Control week (19-23 October 2009):** The Infection Control Team organised events during the week on the theme 'a multiplicity of viruses'. There were manned displays in the concourse area and ATC corridor providing advice and leaflets on viruses/infection control issues. In addition, a poster competition was held and an impressive range of posters submitted demonstrating how different departments were working to improve practice and patient care. First prize of funding for one person to attend the International Forum on Quality and Safety in Healthcare conference was awarded to the Emergency Department and second prize to the Estates and Facilities Department.

- **HCAI accreditation programme:** The Trust HCAI ward accreditation programme was piloted on four prioritised wards in September (D6 Neurosciences and Haematology, G6, C8 and MSEU). The programme includes five core assessments:
  - Insertion and management of PVCs
  - Insertion and management of urinary catheters
  - Aseptic dressing technique
  - Personal protective equipment and barrier nursing
  - Accessing and managing central venous access devices

The programme is being rolled-out on prioritised wards throughout the Trust with adaptations to the assessment tool for neonates and paediatrics. To date there are 55 trainers across various Divisions and 140 staff who have received training.

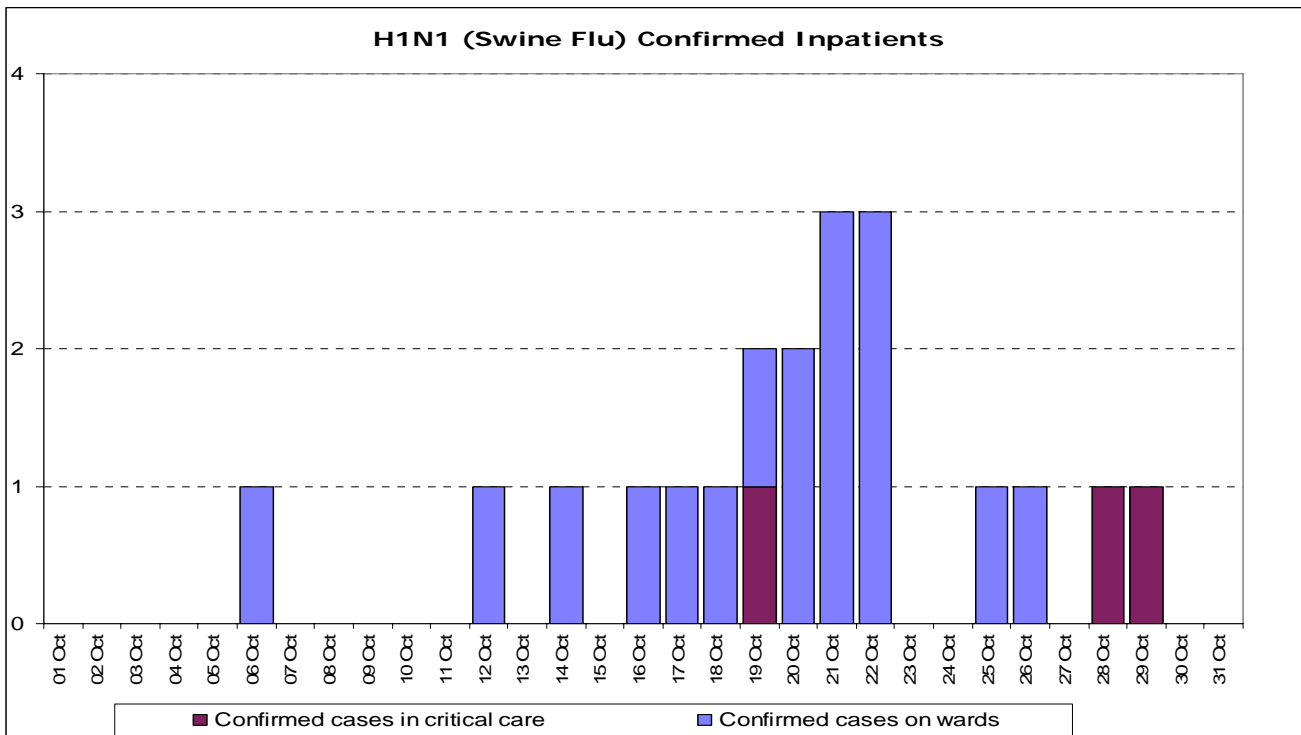
- **IV cannula audit:** The point prevalence audit of inpatient peripheral cannula care was undertaken in September 2009. The audit was undertaken by independent auditors this year who reported that practice generally was good but documentation had not been completed to evidence care given. The table below contains ward data only. There will be a full report detailing ED and Theatre compliance when data analysis has been completed:

	Sep-09	Nov-08	Feb-08
% of patients with peripheral cannulae/against number of available beds	27% (290/1070)	24% (243/1011)	25%
No. of cannulae	290	251	227
Line is secured with clean, dry, sterile, transparent dressing	87% (215/246)	98% (246/250)	98%
Date of insertion recorded	71% (205/290)	92% (229/250)	85%
Clean and dry site	86% (249/290)	93% (234/251)	95%
Needleless bung system in situ	94% (255/272)	92% (230/250)	96%
VIP score recorded daily	49% (107/219)	77% (128/167)	51%
Line accessed at least once in previous 24hrs	94% (230/245)	93% (212/227)	81%
Cannulae in situ with a continuing clinical need	87% (228/261)	89% (215/241)	92%

Actions taken as a result of the audit:

- Results feedback at Trust meetings and nursing/midwifery forums
- IV cannulae care is audited weekly as part of the nursing audit programme
- The IV cannulae care record is currently under review
- Standards of care have been reiterated
- The Aseptic Non-Touch Technique observational audit will be undertaken in November, this assesses IV administration practices and will further reinforce the standards.
- **Reporting:** Divisional Directors are responsible for achieving the targets set for their Clinical Departments and performance against Trust and Divisional targets is monitored within the monthly Infection Control performance reports at Trust and Divisional meetings. Divisional HCAI scorecards are provided for discussion at Divisional Directors meetings.

- H1N1 Swine Flu:** A summary of the number of H1N1 swine flu confirmed inpatients is now included in the monthly infection control performance report, the chart below shows the number of H1N1 confirmed inpatients during October 2009:



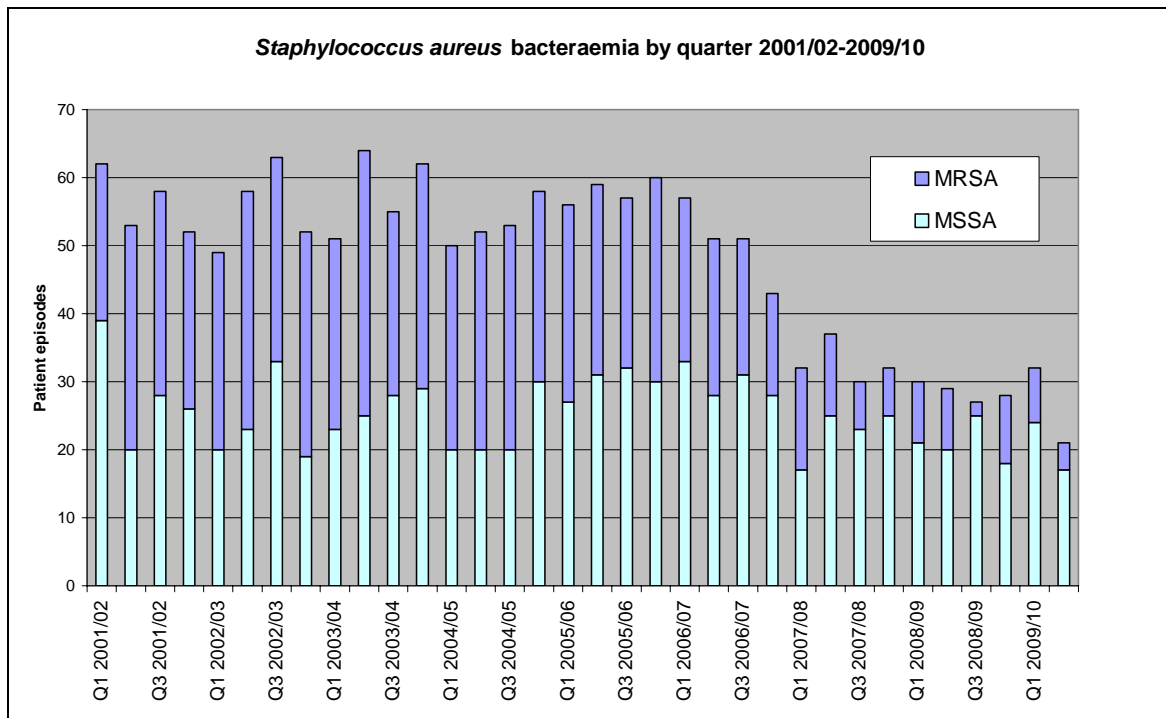
- Surveillance of organisms other than MRSA and *C difficile*:**

At the last Board of Governors’ meeting, information on other infections, such as E. coli and Acinetobacter was requested. For the following reasons, it is very difficult to produce comprehensive data on these:

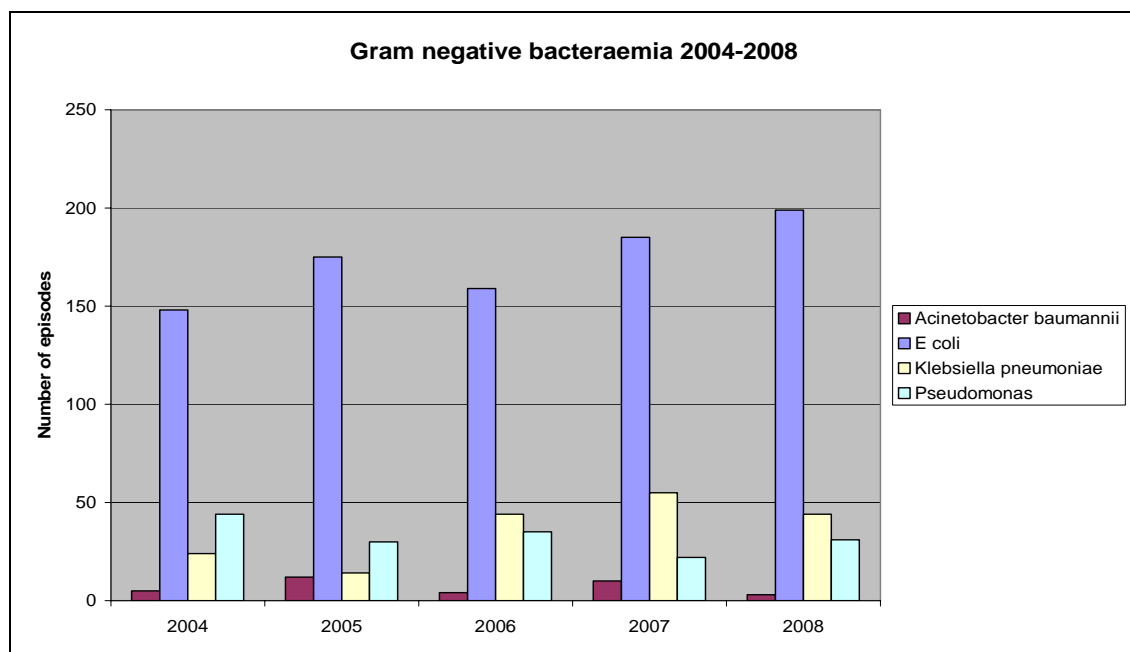
- There are no formal national mechanisms of surveillance of clinical infections due to organisms other than MRSA, *C difficile* and glycopeptide-resistant enterococci (GRE).
- Voluntary laboratory-based surveillance of positive cultures has been in place for many years and is based on transmission of data direct from laboratory IT systems. This is reasonably sophisticated and has value to monitor trends. However, it is based on organisms isolated, rather than clinical infections or information on specific antibiotic resistance problems (e.g. MRSA, ESBL etc), which are of more interest.
- Many of the organisms other than MRSA are isolated from patients in the community rather than in the hospital. For most organisms, there is not such a clear link to healthcare associated infection.

Nevertheless, it has been flagged as a national priority to establish a wider range of national surveillance than exists at present. Examples of five organisms are given.

**Methicillin-sensitive *Staphylococcus aureus* (MSSA):** Rather than just concentrating on MRSA, it is important to reduce all *S. aureus* infections. As can be seen in the graph, although there has been a dramatic reduction in MRSA blood stream infections in the Trust in the last four years, the impact on MSSA is much less. This is probably because over half of MSSA blood stream infections are in patients admitted directly from the community.

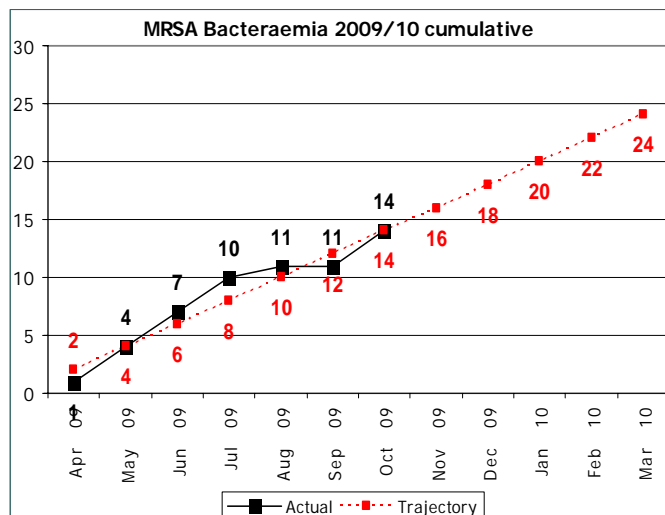


**Gram negative organisms:** such as *E coli* and *Klebsiella pneumoniae*, are an important cause of, mainly, community acquired sepsis. They are the most important cause of sepsis related to the urinary tract. The graph shows the number of blood stream infections identified each year due to selected Gram negative organisms. Because laboratory-based surveillance has not collected data on mechanisms of antibiotic resistance until recently, we are currently unable to produce information on, for example, extended spectrum beta-lactamases (ESBL), although work is in progress to try to do this.

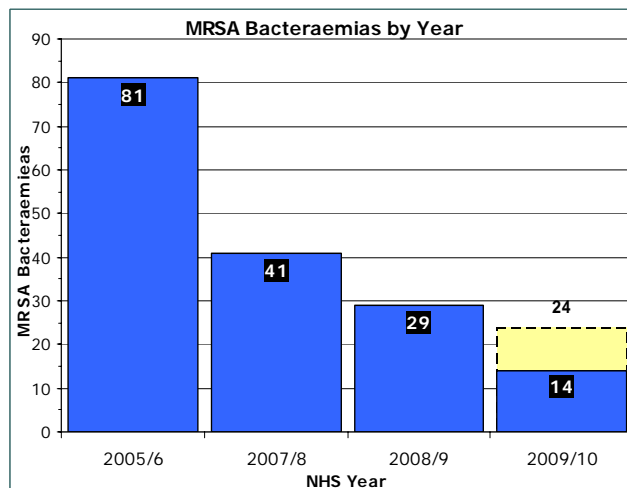


## MRSA bacteraemia (to October 2009)

### Cumulative MRSA 2009-10

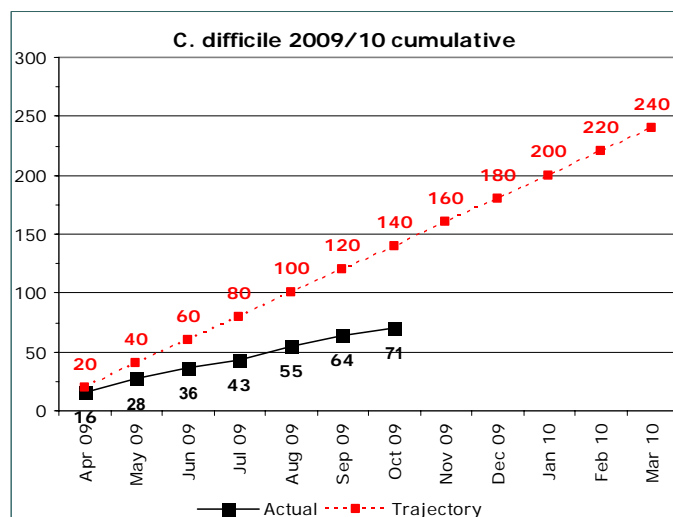


### MRSA bacteraemias by year 2005/06 – 2009/10

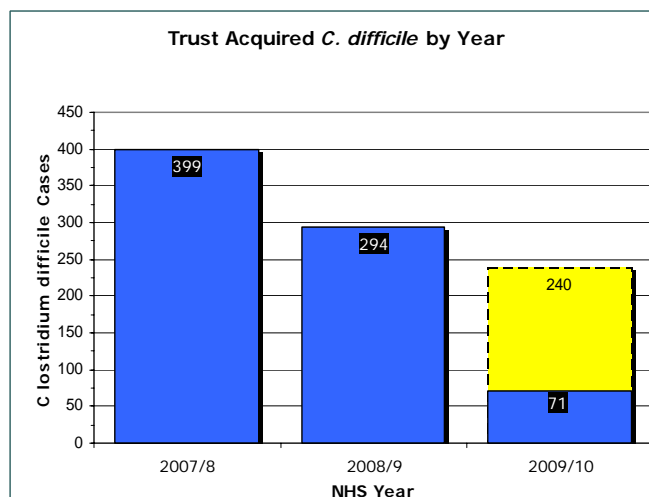


## Clostridium difficile (to October 2009)

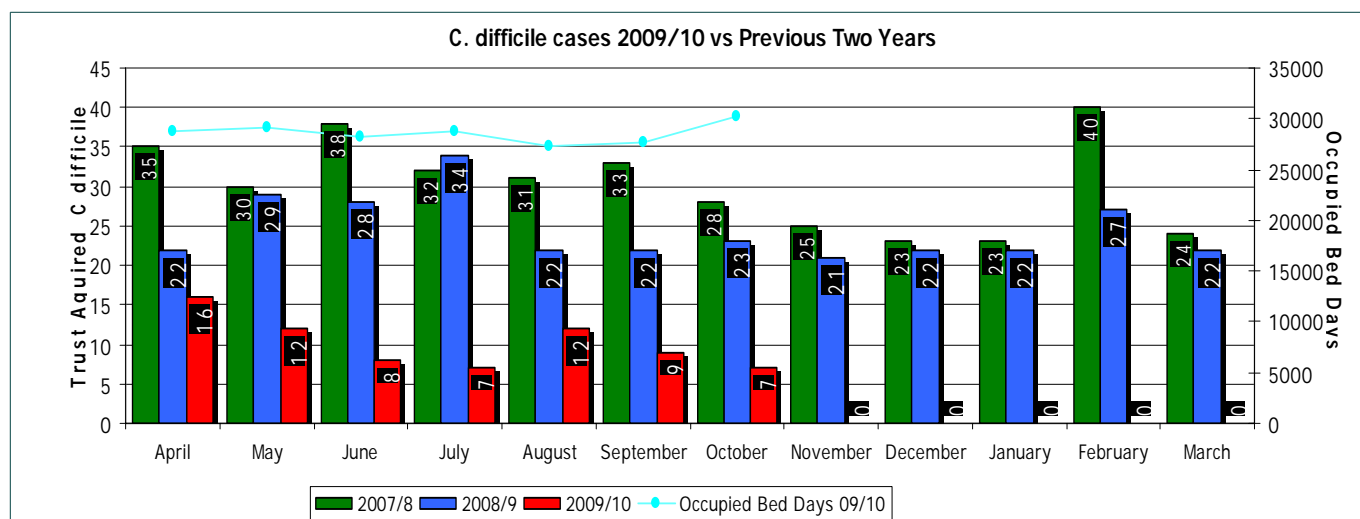
### Cumulative C difficile 2009-10



### C difficile by year 2007/08 – 2009/10

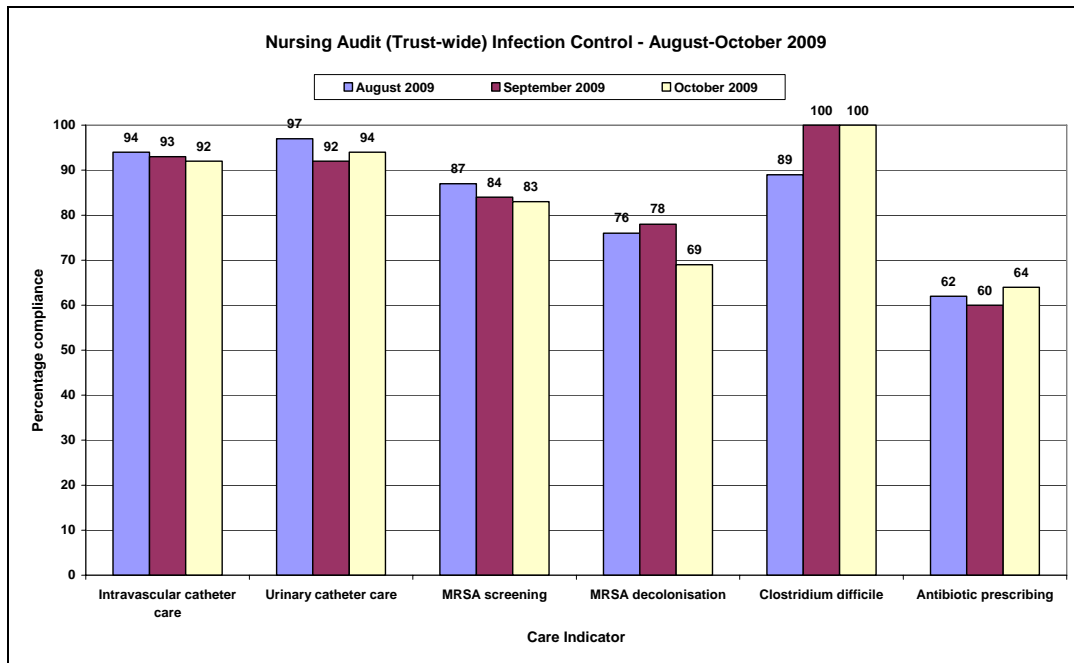


## C difficile cases 2009/10 –vs- previous two years



## Nursing Audit Programme - Audit Results to October 2009

The nursing audit programme comprising the nursing documentation audit and inpatient experience questionnaire continues to be undertaken on five patients on each inpatient ward each week. It should be noted that the audits are of completion of documentation and may not reflect care that has been provided but not documented. The results of the infection control related questions in the nursing audit for August-October 2009 are shown below (a breakdown of all audit results are reported within the monthly Nursing Quality Metrics report and in scorecards for each ward/Division):



### Actions as a consequence of the nursing audit results:

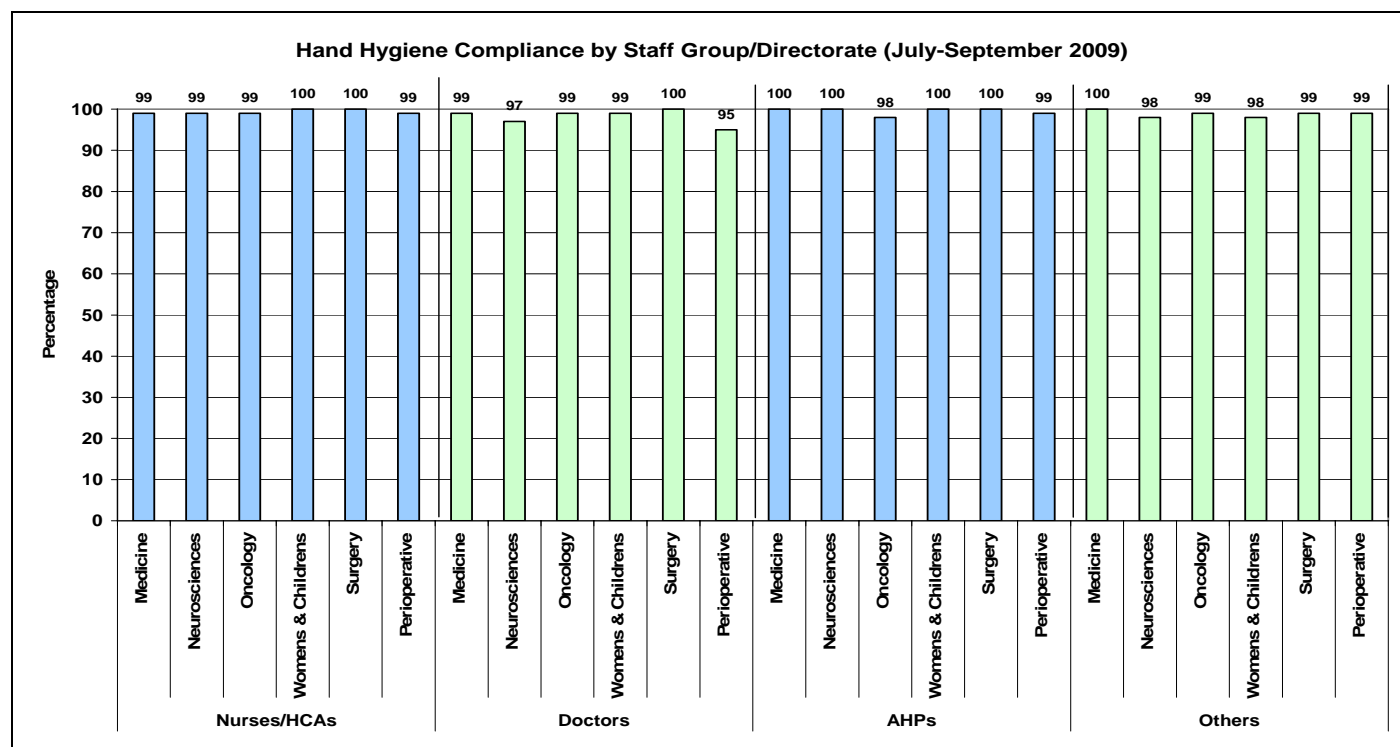
- Actions should be undertaken at the time of the audit 'real-time' by the nursing staff.
- Results and issues from the nursing audits and inpatient experience questionnaire are discussed at the weekly senior nurse meetings and the Control of Infection Committee.
- The HCAI teaching and assessment programme commenced in September 2009 for all nursing staff.
- Actions are identified in MRSA RCAs and fed back to relevant areas.
- The aseptic non-touch technique (ANTT) observational audit of practice will be undertaken in all wards in November 2009.
- A Documentation Steering Group has convened to review and update the nursing documentation to improve compliance of evidencing care given, eg MRSA decolonisation and completion of MRSA Integrated Care Pathway.

### Antibiotic Prescribing:

- The antibiotic prescribing section of the nursing audit tool audits the documentation by medical staff of the reason why the antibiotic has been prescribed and whether a stop or review date has been written on the inpatient prescription chart.
- The results of the Trust-wide audits have been discussed at the Control of Infection Committee and at Divisional level infection control meetings.
- Results are reviewed and discussed on ward rounds and specific antibiotic ward rounds are undertaken.
- Separate antibiotic audits are undertaken by the Antibiotic Pharmacist.

## Hand Hygiene Compliance

Summary of hand hygiene compliance by staff group/Directorate (July-September 2009)



Number of observations/compliance:

Period	No. of observations	Compliance %
April – June 2009	6,494	99%
July – September 2009	9,441	99%
October 2009 <i>[one month]</i>	3,266	99%

Between July-October 2009 the following wards have reported less than 95% compliance:

Month	Ward/Clinic	Compliance %	Staff Challenged
July 2009	J3/PSSU	93%	4 Nurse/HCA, 1 Other*
	A4	94%	3 Nurse/HCA
	Sara	91%	1 Nurse/HCA, 3 Others*
	M4	94%	1 Others*
August 2009	D9	94%	3 Nurse/HCA, 1 Doctor, 1 Cleaner
	IDA	90%	8 Doctors
	Main Recovery	75%	6 Nurse/HCA, 4 Doctors
September 2009	Clinic 3	82%	1 Nurse/HCA, 1 Doctor
October 2009	K3/CCU	94%	1 Doctor
	Lewin	85%	1 Nurse/HCA, 1 Ward Assistant, 1 Nutrition Assistant

\*Others = healthcare workers, eg Porters/Ward Assistants.