

Board of Directors (Public) Item 3.5

Board Report

Subject: Infection Prevention and Control Quarterly report
Date of meeting: 28th July 2015
Prepared by: Nicola Best (Infection Prevention nurse specialist)
Presented by: Dr Raph Perry (Director of Infection Prevention and Control)

Data Quality Rating	BAF Ref	Impact on BAF Risk Rating
Silver	2,3	Nil

1. Executive Summary

This paper provides information and an update on infection prevention and control issues for the time period 1st April - 30th June 2015. Previous papers have covered the period up to the end of March 2015.

2. Background

High standards of infection prevention and control are essential to ensure that people who use health care services receive safe and effective care. The *Health and Social care Act 2008: Code of Practice on the prevention and control of infections* identifies that good organisational processes and a robust assurance framework are essential to ensure effective infection prevention.

In order to demonstrate that infection prevention is integrated into the assurance framework one recommendation is that the Board of Directors receives regular updates from the infection prevention and control team, including information on alert organisms, outbreaks, cleanliness standards and audit information. This report provides such an update.

3. Issues

3.1 Surveillance and Alert organisms

3.1.2 Mandatory reporting

There is a requirement that bacteraemias (positive blood cultures) caused by certain bacteria and also *Clostridium difficile* infections are monitored and reported to Public Health England on a monthly basis. These cases are also reported to the Clinical Commissioning Group monthly.

	Number of cases April – June 15	Target for 2015/16	Comments
MRSA bacteraemias	0	0	

Staphylococcus aureus (MSSA) bacteraemias	3	Mandatory reporting but no targets assigned	Reviews indicate that all the patients were from the Surgery directorate. 1 patient had pericarditis. 1 patient had a thoracotomy/drain infection. For 1 patient the source of the bacteraemia was unclear
E. coli bacteraemias	4	Mandatory reporting but no targets assigned	2 patients had chest infections. 1 patient the source was possibly hepatobiliary. For 1 patient the source of the bacteraemia was unclear
Clostridium difficile infection	0	≤ 4	.

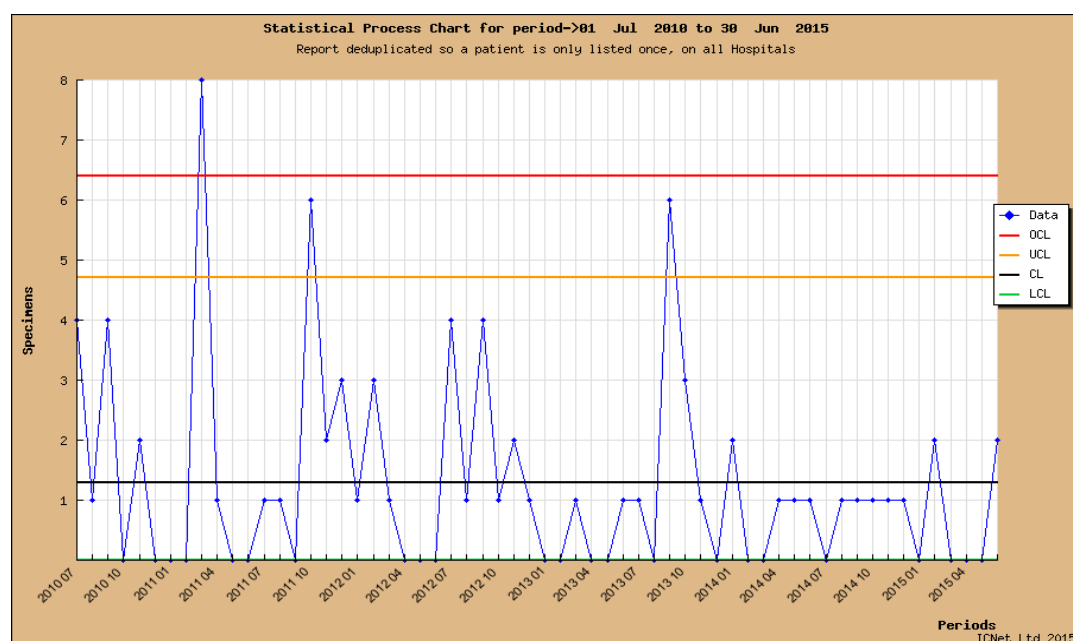
The reviews undertaken have shown that documentation related to wounds has improved in the patient flow sheets.

However documentation related to devices such as peripheral cannulae is inconsistent and sometimes poor. This has been feedback to the Heads of Nursing and an audit programme is underway.

3.1.3 MRSA – all cases

Cases of MRSA in the Trust are closely monitored to identify any increased incidence or outbreaks. The majority of cases in any given month are not Trust acquired.

The graph below shows all cases of patients with MRSA in the Trust, which have been designated as Trust acquired, including both colonised and infected patients.



The numbers of patients with MRSA that are classified as acquired in LHCH remain very low. Two cases occurred in this 3 month period, both in June. One patient was colonised only and one patient had a wound infection.

However the 2 cases appeared to be linked with both cases cared for in a surgical ward, in the same bay at the same time. Further contact screening took place but no additional cases were identified.

3.1.4 Carbapenemase Producing Enterobacteriaceae (CPE)

2 patients were identified with positive isolates. 1 patient had been identified prior to transfer from another Trust and isolation precautions were instituted upon admission.

The other patient was identified because of a routine critical care screen. Contact screens have been undertaken but not all results available at time of writing

The strategy for managing multi resistant organisms will be received by the Board in November 2015.

3.2. Hand hygiene

Clinical areas carry out weekly observational audits of hand hygiene in their area, with 1 audit in a peer review ward each month. Some areas have not submitted all the audits but this has been raised with the relevant managers and the results have been forwarded to the Heads of Nursing so they can monitor that the audits are performed according to the schedule.

	April	May	June
Results of Compliance Audits	99.5%	100%	98%
No. of Observations	617	554	763

3.3. Cleanliness

A standard monitoring tool is used by the Hygiene supervisors to assess environmental cleanliness. The target is an overall Trust score of 95%, with an individual score for clinical areas of 95% or above.

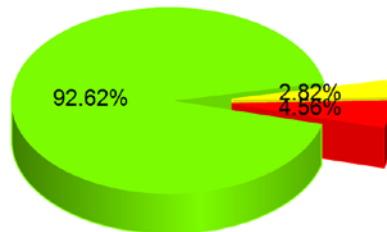
The overall monitoring scores for the Trust were:

	April	May	June
Results	99%	99.04%	96%

Clean Trace

The Clean Trace system is used to assess the cleanliness of equipment or the patient bedspace (prior to admission). This is used by all wards on a monthly basis. From April- June 15 461 samples across the Trust were taken and the results given below:

Pass Caution Fail



If any failures are identified the equipment is cleaned immediately and an email is sent to the manager for that area to inform them of the results. Monthly reports are sent to the managers and Heads of Nursing so that they can monitor progress and identify any trends.

3.4. Audits

Audits have been performed monitoring standards related to:

- Decontamination of equipment
- Waste and sharps management
- Linen management
- Hand gel availability
- Screening for *S. aureus* and MRSA before cardiac surgery

Audit scores and any issues identified were fed back to the wards and department managers and the relevant Heads of Nursing.

3.5 Mycobacterial Endocarditis

There have reported cases of invasive *Mycobacterium chimaera* infection in a number of European countries which they have attributed to transmission of organisms by aerosol from contaminated heater cooler units used in theatre during cardiothoracic surgery. Case numbers in all countries are very low but infections were severe, with some deaths.

A UK investigation was undertaken by Public Health England this year which reviewed a number of patients from 2007 to date and identified a number of probable cases (14) and a similar risk. The infection prevention team participated in this review and 2 of the probable cases had had cardiac surgery at this Trust.

Sampling of the water from the heater coolers in theatres was undertaken and did show the presence of Mycobacteria in some of the machines. A number of actions have been taken and a summary and plan submitted to the Infection Prevention Committee (see Appendix 1).

However the national investigation and review remains on-going and satisfactory conclusions regarding effective decontamination have not been reached. The infection prevention committee will monitor progress with this on-going issue. This has been reflected in the Trusts risk register as both clinical and corporate risk.

4 Conclusion

The surveillance of infections and routine audit data continue to be monitored and indicate no outbreaks. A new risk related to cardiac surgery equipment has been identified however an action plan has been identified and will be monitored by the Infection Prevention Committee. Work is on-going to ensure the annual programme is fulfilled and a robust audit programme is in place.

5 Recommendations

The Board is asked to note the contents of this report.

Appendix 1. Mycobacterial Endocarditis

Issue	Current status	Further Actions
Environmental sampling (water)	First sampling showed 6/8 positive samples from heater coolers. Second sampling showed 4/8 samples positive	Further sampling to be undertaken following new decontamination regime Sampling protocol to be finalised (IC/NB 31/7/15)
Environmental sampling (air)	Not performed as yet	To be agreed with RLBUHT if they can undertake (CNDP 13/7/15)
Decontamination of machine	New practices introduced	To finalise written protocol (IC 31/7/15)
Records of decontamination	Database developed	
Heater cooler to be positioned outside theatre	Unable to be done. Optimum positioning inside theatre in terms of theatre layout and ventilation discussed.	Optimum positioning to be identified in protocol (IC/DS 31/7/15)
Filtering mains water in perfusion room	Pall filters ordered	To be fitted (Estates 31/7/15) Suitability and costs of dedicated cold water tap in perfusion room to be assessed (Estates)
Replacement of accessories and products which may be potentially contaminated	Single use tubing used.	
Actions to be taken if results positive	No agreed actions/algorithm if positive samples obtained.	For further discussion, awaiting information and advice from national bodies.
Accurate diagnosis of new patients (up to 5 years post surgery)	Mr Oo has discussed with cardiac surgeons	
Duty of Candour - including consent issues	To be discussed by clinicians	