

## Board of Directors (in Public)

### Item 2.4

**Subject:** Infection Prevention and Control Quarterly report  
**Date of meeting:** 28<sup>th</sup> November 2017  
**Prepared by:** Nicola Best (Infection Prevention Nurse Specialist)  
**Presented by:** Dr Raph Perry (Director of Infection Prevention and Control)

BAF Ref	Impact on BAF
1.2,1.3	None

### 1. Executive Summary

This paper provides information and an update on infection prevention and control issues for the time period 1<sup>st</sup> July– 31st October 2017.

### 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 of Bacteraemias and C Difficile infections

There is a requirement that bacteraemias (blood stream infections) 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.

Additional monitoring and reporting of 2 other types of bacteraemia have also been recently introduced i.e. *Pseudomonas aeruginosa* and *Klebsiella* species. Although this is voluntary reporting at the moment the Trust is participating with this programme.

## Mandatory Reporting to the National HCAI (Healthcare Associated infection) database

	July 17 – Oct 17 (Year to Date-Trust attributable)	Comments	Target
MRSA bacteraemias	0 (1)		0
MSSA bacteraemias	4 (7)	Patient reviews indicate probable sources were due to a peripheral cannula infection and surgical site infections following cardiac surgery	
E coli bacteraemias	0 (4)		10% reduction from previous year i.e. 8 cases
Klebsiella sp. bacteraemias	1 (2)	The patient had an ischaemic bowel post cardiac surgery and this was the probable cause of the bacteraemia	
Pseudomonas aeruginosa bacteraemias	1 (2)	The source of the bacteraemia could not be identified	
Clostridium Difficile infection	0 (1)		≤ 4

Patient reviews indicate that bacteraemias can be linked to peripheral cannula infections and surgical site infections. An audit programme is monitoring practice related to peripheral lines (see section 3.2.3). A surgical site infection group has been monitoring practices related to surgery (see section 3.4)

### 3.1.3 MRSA – all cases (Non- bloodstream)

All cases of MRSA in the Trust, including infected and colonised patients, are closely monitored to identify any increased incidence or outbreaks.

Although there have been a number of patients in the Trust with MRSA during this time period in the majority of cases these were identified before or on admission. However 1 patient did develop an MRSA infection whilst in the Trust. This is currently being reviewed.

### 3.1.4 Carbapenemase Producing Enterobacteriaceae (CPE)

5 new cases were identified. Upon review 4 were designated as not Trust attributable however 1 infection did develop whilst the patient was an inpatient. Contact patients were screened but none were identified as positive.

## 3.2. Audits

### 3.2.1 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, including the peer 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.

	July	August	Sept	Oct
<b>Results of Compliance Audits</b>	99.3%	99.5%	99.5%	98.9%
<b>No. of Observations</b>	752	575	592	704

### 3.2.2 Infection Prevention audits

An adapted national tool is used to audit all wards and clinical areas within the Trust 6 monthly. This audit is performed by the infection prevention nurse in conjunction with a representative (link staff member) from that area. All areas were audited in August/September apart from OPD and Cardiac Diagnostics who could not commit to a member of staff participating.

All areas achieved the target scores and received feedback and action plans to address areas of non-compliance. Common themes related to cleanliness and storage of equipment, and labelling and storage of waste bags and sharps boxes.

Other audits were performed by the infection prevention nurses, including compliance with the MRSA pathway and compliance with screening protocols. Generally good compliance was demonstrated across the Trust apart from one aspect of the screening programme i.e. screening and decolonisation for *Staphylococcus aureus* prior to cardiac surgery. Education has been provided to individual areas.

### 3.2.3 Care bundles for Peripheral Cannulae and Urinary Catheters

An audit programme related to the care and insertion of peripheral cannulae and the care and insertion of urinary catheters has been introduced whereby standards of care are monitored on a number of patients each month. A report was compiled by the Heads of Nursing which showed that although good practice could be demonstrated in some aspects of care there were some gaps in the data collection, leading to a lack of assurance in some areas. There was also difficulty collating data from across the Trust. Further work is required to develop a robust process which will provide adequate assurance and oversight for these processes.

### 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. National cleaning standards of 95% have been achieved in all areas, except for:

Public Corridors  
Holly Suite (Upholstered furniture failed)  
Theatre staff areas

Public areas cannot always be cleaned according to the schedule as clinical areas will be prioritised and staff continue to be redeployed due to the ongoing issue of high numbers of beds/rooms requiring cleaning between 4-9pm.

### 3.4 Surgical Site Infection Working Group

A multi-disciplinary working group has been convened to examine all aspects of the prevention of surgical site infection and an audit programme has been agreed and a number of audits completed. An action plan has been developed following the initial review and has been updated with additional actions following the results of some of the audits undertaken (See appendix for details). Some actions have not been completed, these will be monitored by the Infection Prevention Committee.

### **3.5 Water Safety**

A Trust wide water safety audit was carried out by an external contractor which identified number of areas of concern. An action plan has been developed to address these and this will be monitored by the Water Safety Group.

Recent water tests for Legionella have returned negative results. A small number of tests for Pseudomonas aeruginosa returned positive results and actions have been taken to rectify this.

### **4.0 Conclusion**

The surveillance of infections and routine audit data continue to be monitored and work is on-going to ensure the annual programme is fulfilled and a robust audit programme is in place.

### **5.0 Recommendations**

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

## Appendix 1

### Liverpool Heart and Chest NHS Foundation Trust Surgical site Infection – Working Group

**Updated 28/9/17**

Meetings have been held in March, April, May, June and August.

Topic	Actions	Date added	Timescale	Responsibility	Update September 17
<b>Pre-op prep</b>	Audit pre-op wash	March 17	30 <sup>th</sup> April 2017	NB/LTD	
	Audit pre-op hair removal				
	Audit pre-op screening and decolonisation				
	Review products for pre-op washes i.e single use	April 17	30 <sup>th</sup> June 2017	NB	
	Trial/evaluation of products	June 17	30 <sup>th</sup> August 2017	NB/LTD	Trial completed on 1 product. Ongoing for other.
	Hair removal – new poster, teaching sessions, cards for patients, competency	April 17	30 <sup>th</sup> June 2017	NB/LTD/CK/Ward staff	Awaiting input from ward staff-highlighted to HON.
<b>Decolonisation</b>	Development and introduction of PGD for decolonisation	April 17	31 <sup>st</sup> May 2017	NB/CK/pharmacist	Feedback from pharmacist that that this is now not a viable option to pursue
	Review with ANPs	April 17	30 <sup>th</sup> June 2017	LTD	
	Posters/education to wards re: correct screening and decolonisation	June 17	31 <sup>st</sup> July 2017	LTD/NB	
	Re – audit of decolonisation	Aug 17	31 <sup>st</sup> October	NB	Some improvement but a number of issues remain -to be discussed at IPC
	Option appraisal and costings for universal decolonisation of cardiac surgical patients	Sept 17	30 <sup>th</sup> November	NB/FA	

<b>Antibiotic prophylaxis</b>	Audit antibiotic prophylaxis	March 17	30 <sup>th</sup> March 2017	Pharmacist	
	Re-audit	Oct 17	30 <sup>th</sup> November	Medical student/Pharmacist	
<b>Theatre</b>	Audit theatre movement	March 17	30 <sup>th</sup> April 2017	YH/NR	
	Review of Scrub solutions/procedures	March 17	30 <sup>th</sup> April 2017	LM	Under review
	Review of scrub competency framework	March 17	30 <sup>th</sup> April 2017	YH/LM	Under review
	Audit theatre environment	March 17	31 <sup>st</sup> May 2017	YH	
	Review theatre ventilation parameters and reports	March 17	30 <sup>th</sup> April 2017	TN/Estates manager	.
	To ensure all remedial actions are completed to ensure compliance with ventilation standards	May 17	31 <sup>st</sup> July 2017	Estates manager	Repeat assessment/monitoring due Sept/October
	Review anaesthetic trolleys	May 17	20 <sup>th</sup> June 2017	AT	
<b>Treatment SSI</b>	Audit of treatment SSI	April 17	30 <sup>th</sup> April 2017	NB/LTD	
	Education programme for junior medical staff and ANP re; SSI treatment	June 17	30th August 2017	Microbiologist	Teaching programme in place. Policy under review. Quick reference guides planned.
<b>Patient information</b>	Review of information provided to patients regarding wounds and wound care	March 17	30 <sup>th</sup> April 2017	CK/JT	
<b>Post –op dressings</b>	Audit – dressing removal	April 17	31 <sup>st</sup> May 2017	JT/NB/LTD/KD	
	Education programme for wards re; dressing changes	June 17	31 <sup>st</sup> July 2017	JT/NB/LTD/KD	Planned rollout Oct 17
	Review information on sternal support	March 17	31 <sup>st</sup> May 2017	KD	Significant cost implication from current spend. Will not pursue at this time.
<b>Surveillance</b>	Review data with information team and	March17	30 <sup>th</sup> April 2017	DP/Information team	Data analysed according “low

<b>data</b>	explore different ways of presenting the data				risk” and “high risk” categories
<b>ANTT</b>	Ensure framework and competency assessments in place	June 17	30 <sup>th</sup> August 2017	Education team/HONs/IPT	Review of competencies has taken place. Further training for assessors planned. Rollout and full implementation expected date Jan 18.

**Group:**

Nicola Best (IPN),Lynn Trayer Dowell (IPN)Yvonne Heslop (Matron), Neil Rawlings (Charge Nurse), Linda Morris (Surgical Care practitioner), Christina Kenny (Matron), DrTim Neal (Consultant Microbiologist), Julie Tyrer (Tissue viability nurse), Kirsty Dudley (Matron –CCA), Mr Dimitris Pousios (Consultant Surgeon), Dr Omar al Rawi (Consultant intensivist)