

Board of Directors (in public)

Item 2.4

Subject: Director of Infection Prevention and Control (DIPC) Q3 Report
Date of Meeting: 7th February 2023
Presented by: Dr Raphael Perry – Medical Director/DIPC
Purpose of Report: To Note

BAF Reference	Impact on BAF
BAF 1	Assurance on infection prevention and control within the Trust

Level of assurance (please tick one) To be used when the content of the report provides evidence of assurance					
✓	Acceptable assurance Controls are suitably designed, with evidence of them being consistently applied and effective in practice	<input type="checkbox"/>	Partial assurance Controls are still maturing – evidence shows that further action is required to improve their effectiveness	<input type="checkbox"/>	Low assurance Evidence indicates poor effectiveness of controls

1. Executive Summary

This paper provides information and an update on infection prevention and control issues for the 2nd quarter of this financial year, 1st October until 31st December 2022. Previous reports have covered the period up to the end of June 2022.

This paper provides assurances that surveillance systems, audit and governance programmes are in place to monitor and prevent healthcare associated infections. A number of audits have been performed across the Trust which identified some issues which have been fed back to the relevant managers to address.

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

There is a requirement that bacteraemias (blood stream infections) caused by certain bacteria and also Clostridium difficile infections are monitored and reported to UKHSA (UK Health and Security Agency) on a monthly basis. In addition, the infection prevention team continuously monitor other antibiotic resistant organisms or organisms of concern.

3.2 Mandatory Reporting – Bacteraemias (Blood cultures)

	Attributable cases October 22- December 22 (Year to Date-Trust attributable)	Threshold
MRSA bacteraemias	0 (0)	0
MSSA bacteraemias	1 (5) Oak ward	8 (internal)
E coli	2 (4) CCU, CCA	6
Klebsiella sp.	2 (3) CCA, Birch	1
Pseudomonas aeruginosa	0 (3)	1

Post infection reviews have been undertaken for all these patients, in conjunction with Oak, CCU, Birch and Critical Care any issues and actions required have been identified. (See below for summary)

The relevant divisional governance meetings discuss these patient reviews and oversee any associated action plans that have been developed.

Month	Bacteraemia	Area	Summary	Learning Points
Oct	MSSA	Oak	Probable source of the bacteraemia was an intercostal drain inserted following surgery.	To ensure accurate documentation of wounds and drain sites. To send swabs in a timely manner, if indicated. To remove peripheral cannula when not required. Additional audits related to care of lines introduced on CCA
	Klebsiella pneumoniae	CCA	Probable source was central line related blood stream infection	
Nov	Klebsiella pneumoniae	CCA	Source was not identified. No other positive samples for Klebsiella.	To ensure appropriate blood culture sampling To ensure samples (sputum) are sent when indicated To ensure fluid balance charts completed. To
	Klebsiella pneumoniae	Birch	Probable source – UTI not catheter related	

	E coli	CCA	Probable source UTI – catheter related	ensure urine samples sent and treatment commenced when signs of UTI To ensure blood culture samples labelled correctly To ensure results reviewed promptly and catheter reviewed and changed if indicated
Dec	E coli	CCU	Probable source UTI – not catheter related. This was not related to a catheter and the likelihood is that this was an unavoidable infection.	To ensure MEWS scoring completed. Issues noted with blood culture sampling.

3.3 CPE cases

There were 3 new patients with CPE attributable to the Trust within this time period. Although the patients were in hospital for extended periods of time there was no direct overlap i.e., they were not cared for in the same bays/areas.

3.4 MRSA cases (all isolates)

Although a number of patients were identified as MRSA positive in this time period none were Trust acquired and the patients were identified as positive prior to, or on admission.

3.5 Clostridium difficile Infection

	Attributable cases Oct – Dec 22 (Year to Date)	Threshold for 22/23
Clostridium difficile infection (C. difficile toxin positive)	1 (2) ACU	9

A patient review has been undertaken and discussed at a governance meeting. No significant lapses in care contributing to infection were identified. Issues were noted with documentation of bowel movements for self-caring patients.

Information will now be displayed in patient bathrooms to highlight this.

3.6 VRE

There have been 7 patients in this period who tested positive for VRE having previously been negative, therefore these are designated as Trust acquired infections or colonisations. 3 of these patients overlapped on Critical Care at the same time. Additional audits have been carried out and a number of issues identified with the shared dirty utility rooms within ITU. A working group has been established to improve the environment, storage and cleanliness within those areas.

3.7 SARS CoV-2

A number of patients tested positive for SARS coV2 in this period and the breakdown is given below

COVID 19 Patients Oct – Dec 22	Numbers of Patients
Community-Onset – First positive specimen date <=2 days after admission to trust.	14
Hospital-Onset Indeterminate Healthcare-Associated – First positive specimen date 3-7 days after admission to trust.	6
Hospital-Onset Probable Healthcare-Associated - First positive specimen date 8-14 days after admission to trust.	4
Hospital-Onset Definite Healthcare-Associated – First positive specimen date 15 or more days after admission to trust.	3

There were 2 outbreaks in this period:

- October – Cedar Ward, involving 5 patients and 2 members of staff
- November – Birch Ward, involving 4 patients and 1 member of staff

These were reported to the national system and via the internal command structure. All actions were co-ordinated by the Infection Prevention team and Silver Command

3.8 Influenza

17 patients tested positive for influenza. 12 were community acquired and 5 tested positive more than 3 days after admission. The patients were not connected to each other.

All were isolated with precautions according to guidelines.

4 Audits

An annual audit programme has been developed and all clinical areas have been assessed against infection prevention standards using a national audit tool. All areas achieved the target score.

Ward/Department	November 2022 audit score
ROWAN	94%
BIRCH	95%
MAPLE	96%
CHERRY	93%
CEDAR	89%
CATH LAB	95%
CCU	98%
HOLLY	97%
ACU	94%
OAK	93%
POCCU	94%
ITU	93%
THEATRE	98%
OPD	96%

Ward/Department	November 2022 audit score
CARDIAC DIAGNOSTICS	94%

Other audits have been performed by the Infection prevention team within this quarter including:

- COVID- 19 screening compliance
- CPE screening compliance
- PPE compliance

Audits have been performed by ward and Critical care and ward staff assessing compliance with hand hygiene, Intravenous line care and care of urinary catheters.

Results and action plans have been feedback to wards and relevant areas and through the Infection Prevention committee

5 Cleanliness

A new audit tool and programme to monitor cleanliness across the Trust has been developed in line with the National Standards for Cleanliness. A multi-disciplinary group including infection prevention nurses, matrons and Hygiene service supervisors have performed the audits ensuring a collaborative and standardised approach to monitoring cleanliness.

All areas received a 4 or 5 star rating according to the policy standards.

6 Water Safety – Pseudomonas aeruginosa

Routine water testing on Critical Care is performed as part of the Water Safety plan.

During December 2022 a number of outlets on ITU tested positive, with significant numbers of Pseudomonas aeruginosa identified.

A meeting was called with the Infection Prevention team, Estates Department, Consultant Microbiologist and Critical care staff. Some remedial actions were instituted immediately, and an action plan developed.

Further testing was undertaken which demonstrated that Pseudomonas aeruginosa had been eliminated from the majority of the outlets however, currently 3 outlets remain positive. Work is ongoing to identify any issues and complete the actions. The action plan will be monitored by the Water Safety Group.

7 Surgical Site Infection (SSI)

Surgical site infection data is now accurately collated using the IcNet surveillance tool. This captures all site infections up to 30 days after discharge and for valve surgery patients up to one year post discharge. The data is available 4-6 weeks after the end of each month. The number of cases has increased over 2022 partly due to more accurate reporting. The SSI group meets regularly and has a wide ranging action plan to improve SSI. The action plan and data was presented to the January 2023 Quality Committee Meeting.

The SPC charts will be presented in future in this paper. The latest rate of surgical site infection for November 2022 was 4.9% which was an improvement over the October figure of 10.8%.

8 Summary

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

9 Recommendations

The Board of Directors is asked to note the contents of this report and the continued low incidence of reportable infections.