

Board of Directors (in Public) Item 2.1.3

Subject: Director of Infection Prevention and Control (DIPC)
Quarterly Report
Date of Meeting: Tuesday 26th January 2021
Prepared by: Nicola Best, Infection Prevention Nurse Specialist
Presented by: Dr Raphael Perry, Medical Director
Purpose of Report: To Note

BAF Ref	Impact on BAF
WC1, AQ1	To provide assurance on the systems and processes in place to ensure high standards of infection prevention and control

1. Executive Summary

This paper provides information and an update on infection prevention and control issues for the 3rd quarter of this financial year 1st October till 31st December 2020. Previous reports have covered the period up to 30th September 2020.

This paper provides assurances that surveillance systems and audit 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. The COVID -19 pandemic has resulted in a number of challenges and a strategy has been compiled to address these.

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 is the update for Q3.

3. Issues

3.1 Surveillance

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.

Mandatory Reporting – Bacteraemias (Blood cultures)

		Attributable cases Oct– Dec 20 (Year to Date- Trust attributable)		Target for 20/21
	MRSA bacteraemias	0 (0)		0
	MSSA bacteraemias	6 (9)		7
Gram Negative Bacteraemias	E coli	4 (5)		
	Klebsiella sp.	0 (0)		
	Pseudomonas aeruginosa	2 (2)		

Reviews have been undertaken for the patients with bacteraemias.

MSSA bacteraemias

A separate paper (deep dive) on the patients with MSSA bacteraemias has been discussed at weekly executive meeting January 6th – attached as appendix.

E coli Bacteraemias

Patient reviews were undertaken and the probable sources identified as urinary tract infections. A quarterly audit will be performed to monitor urinary tract infections, antibiotic prescribing and appropriateness of samples and reported to the Infection Prevention Committee. A month of data will be examined every quarter.

Pseudomonas Bacteraemias

These 2 cases occurred on Critical care, reviews were undertaken and identified the probable causes which were found to be chest infections. As is recommended practice water test samples were obtained from the hand wash basins in the area where the patients were cared for. These samples were negative so there was no systemic problem. As with many bacteraemias from chest infections the precise origin of the offending organism remains unknown. The results of patient reviews have been discussed at the Critical Care Group

3.2 C. difficile Infection

	Attributable cases Oct - Dec 20 (Year to Date)		Target for 20/21
Clostridium difficile infection (C. difficile toxin positive)	1 (3)		4

A patient review has been completed and been sent to the relevant ward (Cedar). A number of issues were identified related to prescriptions, isolation and documentation and these have been discussed and actions agreed at surgical governance.

3.3 Trust Attributable MRSA (non-blood stream - all cases)

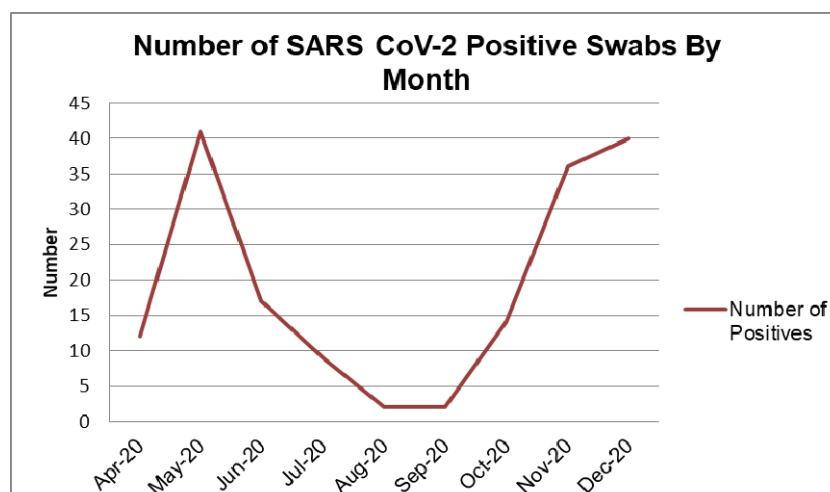
Although there were a number of patients with positive MRSA swabs, these were known to be positive before admission or tested positive on admission. There was only 1 patient who tested positive for MRSA that may have been Trust acquired. This was not a bacteraemia.

3.4 Trust Attributable Carbapenemase producing Enterobacteriaceae (CPE)

There were 2 patients who tested positive for CPE after admission, none of these cases were linked. All actions including screening and isolation were instituted following the positive results.

3.5 SARScoV2 (COVID-19)

A number of patients tested positive for SARS coV2 in this time period, which showed a significant increase from the previous quarter. Cases have been attributed according to the national definitions, as below. The majority of patients were known to be positive on admission because they were transferred in from neighbouring Trusts or they tested positive on admission but there has been some healthcare associated infections linked to both staff and patients.



COVID 19 Patients Oct-Dec 20 -Attribution	Numbers of Patients
Community-Onset – First positive specimen date <=2 days after admission to trust.	52
Hospital-Onset Indeterminate Healthcare-Associated – First positive specimen date 3-7 days after admission to trust.	29
Hospital-Onset Probable Healthcare-Associated - First positive specimen date 8-14 days after admission to trust.	22
Hospital-Onset Definite Healthcare-Associated – First positive specimen date 15 or more days after admission to trust.	16

A number of outbreaks have occurred over this time period affecting Birch, and Cedar. These involved both staff and patients. Outbreak meetings were called at the time and a number of actions instituted including:

- Cohorting of patients
- Contact tracing of patients and isolation
- Additional screening of patients
- Deep cleaning bays/siderooms/bathrooms/equipment
- UV-C decontamination
- Lateral flow testing for asymptomatic staff introduced. Also targeted testing of staff in specific areas using PCR was performed.
- Increased screening of patients
- Audits undertaken
- Schedules changed – e.g. increased cleaning of bathrooms
- Increased monitoring and oversight by Silver Command via daily reporting

The outbreaks have been reported externally according to the outbreak reporting system for the North West region.

3.6 Environmental Cleanliness

Due to the Covid- 19 pandemic the cleaning schedules have changed in line with the implementation of the Trust enhanced cleaning strategy

Cleaning regimes have been agreed with the Infection Prevention team, Silver and Gold command and include additional cleaning of communal and public areas. and deep cleaning within areas with suspected and confirmed cases of Covid-19.

The standard monitoring tool used by the Hygiene supervisors to assess environmental cleanliness has continued to be used. The target is an overall Trust score of 95%, with an individual score for clinical areas of 95% or above. Hygiene services have been under renewed pressure because of the increased frequency of cleaning and the number of areas requiring deep cleaning however the cleaning scores in patient and clinical areas have met the required standards as shown below.

	Oct	Nov	Dec
Results overall of Compliance Audits	100%	99%	99%

A cleaning group has been instituted to oversee issues related to environmental cleanliness and also a planned deep cleaning programme.

3.7 Audits

An audit programme is in place and a number of audits have been performed by the matrons and infection prevention nurses to assess compliance for the following standards:

- Hand Hygiene
- Cleaning of equipment
- Cleaning of frequently touched surfaces
- Correct wearing of PPE (personal protective clothing)
- Isolation practice
- Screening for MRSA, CPE and SARSCoV2

Results are reported through the Silver Command and the Infection Prevention committee and any issues highlighted to the individual areas.

4. Sepsis

The 19/20 annual sepsis report was presented at Quality Committee on 5th January 2021. This shows the KPI data and a copy is attached as an appendix. There has been an improvement in the management of sepsis with the principal KPIs either achieved or significantly improved. The most clinically important KPI, antibiotic delivered within one hour, is being consistently achieved. The data on blood cultures has been improved through a system of early validation and only reporting validated data. This KPI has been consistently achieved since Q2. Usage of the screening tool and the sepsis bundle has improved and screening fails are circulated to the individuals concerned. Good practice in treating sepsis is fed back to the staff concerned

The lead for sepsis Dr Al-Rawi continues to lead the sepsis group to ensure continuous improvement of the care of patients with sepsis at LHCH. The group comprises Dr Al-Rawi, Dr Alessandro Gerada, (consultant microbiologist), the infection prevention nurses, the sepsis audit analyst, outreach nurses, EPR representation and ITU staff

The drive continues to increase further the use of the screening tool and ensure all KPIs can be measured via EPR. The mortality from sepsis remains low. The weekly and year

to date screening data is presented in the executive harm report. High risk screens are identified and the KPIs presented for that subgroup. Data is fed back to the wards and areas and a clear line of responsibility established. Any fails of the KPIs are reviewed by the sepsis lead or the medical director to ensure accuracy and appropriateness.

There is a continued education program to deliver teaching sessions for junior doctors outreach and hospital coordinators. Trust wide reminders through screen savers and desktop backgrounds continue. There is a new sepsis eLearning package which is included in mandatory training for clinical staff.

5. Summary

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.

6. Recommendations

The Board of Directors is asked to note the contents of this report. Further updates on progress against the annual plan will be presented in Q4.