

**Infection Prevention and Control (IPC) Annual Report  
 Covering the period 1st April 2020 to 31st March 2021**

**Public Board**

**30 September 2021**

<b>Presented for:</b>	Information
<b>Presented by:</b>	Lisa Grant, Chief Nurse and Director of Infection Prevention & Control
<b>Author:</b>	Dr Nicola Young, Consultant Microbiologist and Lead Infection Control Doctor
<b>Previous Committees:</b>	Infection Prevention & Control Sub-Committee. 23 July 2021 Quality Assurance Committee, 8 September 2021

<b>Trust Goals</b>	
The best for patient safety, quality and experience	✓
The best place to work	
A centre for excellence for research, education and innovation	
Seamless integrated care across organisational boundaries	
Financial sustainability	

<b>Risk Appetite Framework</b>				
<b>Level 1 Risk</b>	(✓)	<b>Level 2 Risks</b>	<b>(Risk Appetite Scale)</b>	<b>Risk</b>
Workforce Risk		Choose an item.	Choose an item	Choose an item.
Operational Risk		Choose an item.	Choose an item	Choose an item.
Clinical Risk	✓	Infection Prevention & Control Risk - We will manage the risks related to infection prevention and control to reduce the transmission of infection in our hospitals.	<b>Minimal</b>	↔ (same)
Financial Risk		Choose an item.	Choose an item	Choose an item.
External Risk		Choose an item.	Choose an item	Choose an item.

<b>Key points</b>	
1. To inform the Infection Prevention & Control Sub-Committee of the achievements in 2020-21 and the forthcoming challenges for 2021-22	Information
2. To comply with the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance.	Governance

## **1. Summary**

The purpose of this paper is to inform the Board of how the Trust's Infection Prevention and Control team (IPCT) has engaged in Health Care Associated Infection (HCAI) Prevention and Control during the period 2020-2021.

The annual report seeks to provide assurance to the Board on our progress against the annual programme which is set against the 10 criteria of the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and the COVID 19 Board Assurance Framework (BAF) released by NHS England/Improvement ( NHSE/I) on the 4th of May 2020

The 2020-21 Annual Report is provided as a supplementary paper to this document.

## **2. Background**

To comply with the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections, the IPCT assist the organisation in the development of an annual programme. In addition on the 4th of May 2020 NHSE/I also devised and released a Board Assurance Framework (BAF) for the management of COVID 19 in NHS hospitals to complement the already established assurance and governance processes for HCAI. The content of the Annual Report highlights the organisation's progress against both national legislative assurance tools and related infection prevention guidance from other national bodies. The Annual Report also identifies areas of focus for the financial year 2021-22.

## **3. Proposal**

It is proposed that the Annual report is accepted by the committee as robust assurance of the Trust's performance in the financial year 2020-21 and that the committee supports the areas of focus highlighted within the body of the report for financial year 2021-22.

## **4. Financial Implications**

Whilst it is widely accepted that Hospital acquired infection carries both a human and financial cost there are no financial implications resulting from this paper.

## **5. Risk**

The Infection Prevention and Control (IPC) Sub Committee provides executive oversight of the Trust's IPC programme, reporting to the Quality Assurance Committee. There was no material change to the risk appetite statement related to the level 2 risk category (Healthcare Associated Infection) and the Trust continues to operate within the risk appetite for the level 1 risk category (clinical risk) set by the Board.

## **6. Communication and Involvement**

This report is developed by the Infection Prevention and Control Team. Review, assurance and actions where agreed are undertaken at Trust and CSU level where required and monitored through the various boards and committees outlined above..

## **7. Equality Analysis**

This is not a new proposal as such and the paper documents process in line with Public Health England, NHSE and Trust HR guidance

## **8. Publication Under Freedom of Information Act**

This paper has been made available under the Freedom of Information Act 2000

### **9. Recommendation**

The Board is asked to:

- Receive the IPC annual report 2020-21 and note the key successes in regard to Infection prevention at LTHT
- Be assured on progress related to lowering LTHT nosocomial SARS-CoV-2 rates
- Be assured that the IPC team are striving to keep reducing the rates of *Clostridium difficile*, MSSA, MRSA and Gram negative blood stream infections.

### **10. Supporting Information**

The following papers make up this report:

Supplementary paper: Infection Prevention and Control (IPC) Annual Report  
Covering the period 1 April 2020 to 31 March 2021- Author: Dr Nicola Young, Consultant  
Microbiologist and Lead Infection Control Doctor

Adele Dyche  
**Matron, Infection Prevention & Control**  
8 September 2021

## APPENDIX 1

**The Leeds Teaching Hospitals NHS Trust (LTHT)  
Infection Prevention and Control (IPC) Annual Report  
Covering the period 1st April 2020 to 31st March 2021**

### 1. INTRODUCTION

This report demonstrates how the Trust Infection Prevention and Control (IPC) team has engaged in Health Care Associated Infection (HCAI) Prevention and Control during the period 2020-2021.

It is fair to say that the financial year 2020-2021 has been, without doubt, a most challenging year for our team and also for the Trust, dealing with the SARS-CoV-2 pandemic. The Leeds Way of working has been at the forefront of our minds through this period of time.

### 1.2 EXECUTIVE SUMMARY

Our team has worked incredibly hard through the pandemic so far. Through the initial two waves of COVID-19, guidance from Health Protection England regarding infection and control (IPC) continued to change, often on a daily basis, whilst staff in all areas of the Trust had to deal with either COVID-19 illness themselves (including the IPC team) or the effects and shortfalls that came with staff absence and the required self-isolation.

Much time was spent on working through guidelines and helping to translate them into messages for the Trust. Our already stretched team (40% vacancy rate) were extremely grateful for the secondment of additional staff to help with the volume of work that had to be done both to keep the wards safe for general IPC advice and to review and write guidelines as well as help with fit testing of FFP3 masks for staff, prior to the roll out of this fit testing to the CSUs.

The Gold, Silver and Bronze command structure (meeting twice daily at the peaks) has continued this year as required, with IPC fully co-operating and contributing. We have worked alongside the clinical advisory group (CAG) as well as several tactical work streams including critical care, testing, outpatient, diagnostic, socially distancing, PPE and workforce. From May 2020, the Infection COVID-19 Recovery Meeting was formed - chaired by the Lead IPC doctor and attended by multiple members of the wider Trust Infection Team. Ad hoc attendees were invited as required. The purpose of this multi-disciplinary group was to advise the Trust over COVID-19 related issues and these queries were raised internally from within the IPC team or sent to us from other groups within the Trust including from CAG, the tactical work streams and from Occupational Health. A tactical Trust operational IPC group was formed in December 2020 to help with operationalizing the multiple complex interactions required across the Trust.

The IPC COVID-19 board assurance framework (BAF), published 4th May 2020 was rapidly discussed at CAG on 11th May and presented to the Trust Infection Prevention and Control Committee on 2 June 2020 and the Trust Quality Assurance Committee at its July meeting. Our team presented a paper to the Quality Management Group in November 2020 on IPC themes and trends including operational pressures related to COVID-19, and incorporated measures identified to ensure the Infection Prevention and Control Team were supported to focus on the Healthcare Associated Infection (HCAI) actions needed during the second surge. In addition it identified the learning from the recent COVID-19 outbreaks and RCA investigations for hospital onset COVID-19 infection. IPC provided details of the IPC Pandemic response as part of the CQC Emergency Support Framework review 16th July 2020. LTHT asked NHSE/I to conduct an external review to share any learning obtained from other organisations which took place on the 12th November 2020.

The Trust has developed a robust process for reviewing all patients who have died with COVID-19 within 28 days. These are medically reviewed at a weekly quality safety meeting and learning is disseminated trust wide. The Duty of Candour process was implemented in the first wave where our inpatients acquired this infection within our care.

As with most similar sized centres in the UK, a proportion of our inpatients unfortunately acquired nosocomial SARS-CoV-2. Our nosocomial rates diminished as the pandemic progressed, reflecting the national nosocomial picture and drop off in community transmission. We held root cause analysis meetings and outbreak meetings where lessons could be learnt and disseminated Trust wide, often via the Chief Medical Officer's regular newsletter, but also via internal messages to e.g. Head of Nursing/Matron/Clinical Director and Lead Clinician groups

Diagnostics and reagents for the LTHT diagnostic Virology laboratory were in short supply at times. This was a national problem, and very occasionally had a knock-on effect on the ability to test patients in a timely fashion. The Virology laboratory, supported often by the Microbiology laboratory staff, continued to alter working hours and shift patterns as required by the Trust to be able to test patients. This helped diagnose the infection clinically and also helped with prevention of nosocomial infection with SARS-CoV-2 by following the PHE national testing strategy and, by laterally testing admissions at day 0, 1, 2, 3, 4, 5 then twice weekly. In order to encourage this testing schedule, we worked closely with digital colleagues to enable this swabbing request to be displayed on the ward whiteboards.

The IPC team had to risk assess what, of the routine work, would be replaced in the short term by COVID-19 work and what needed to continue. The New Year 2021-2022 will see much of this work re-established, along with continuing to support the Trust operational COVID-19 recovery plans as we did 2019-2020.

MRSA screening and CPE screening in the pre-admission setting halted due to lack of a socially distanced area to perform the screens and to avoid face to face contact where possible. To this end MRSA decolonisation was more widely used than might otherwise have been the case. Mupirocin resistance rates will continue to be monitored.

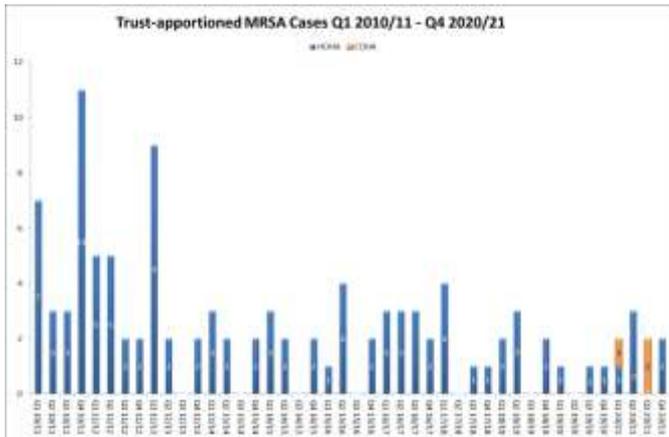
The Team, from within both IPC and Microbiology, have been heavily involved with, and have spent a great deal of time, with our digital experts to be sure to get the correct specifications for the new version of ICNet, our digital IPC surveillance system. The Trust has happily agreed to fund this improvement. We are very excited indeed about this venture and hope to take its' multiple functions forwards once commissioned.

## **2. PERFORMANCE IN 2020-2021**

In May 2020, Public Health England (PHE) introduced a further change to the attribution algorithm for mandatory reportable HCAI cases. This change had already been introduced in 2019-2020 for cases of *Clostridioides difficile* infection and has been further extended to include our other mandatory reportable organisms, namely MRSA, MSSA and Gram negative bloodstream infections. The effect of this change is that cases are attributed to the Trust utilising the following criteria - Hospital Onset Healthcare Associated (HOHA) and Community Onset Healthcare Associated (COHA). COHA cases are where the sample has been taken in a community setting but there has been prior discharge from the Trust in the preceding 28 days.

MRSA bacteraemia

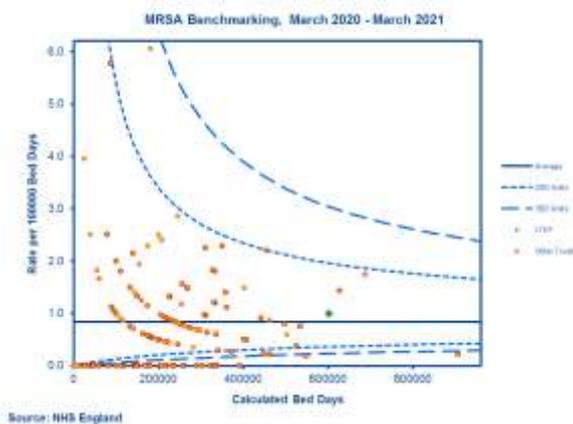
Figure 1



Mandatory MRSA bacteraemia (BSI) surveillance has been undertaken since April 2001 by all NHS Trusts in England. As an organisation we have a zero-tolerance approach to avoidable healthcare associated infections (HCAI). LTHT data for each quarter since Q1 2009-10 is shown in Figure 1. In 2020-2021, we recorded 9 cases; the introduction of the new attribution algorithm has seen our cases triple from the number recorded in 2019-2020

As in previous years, each case is investigated internally using Root Cause Analysis (RCA) followed by a Post Infection Review (PIR) with our commissioners. Utilisation of the PIR process allowed for the identification of areas that may require improvement and highlighted opportunities for education. Issues identified were addressed through the delivery of local education and creation of detailed action plans for implementation in the clinical areas identified. Bloodstream infections caused by both MRSA and MSSA continue to remain important foci of our HCAI Faculty Quality Improvement Group.

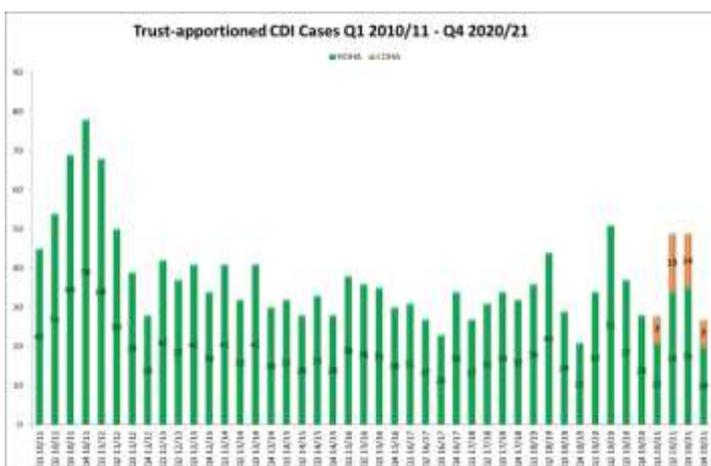
Figure 2



Even without the change in attribution, it is extremely disappointing to see a rise in the number of these cases compared to the last year. Our position against our peer group, as recorded nationally, has moved to just above the average amongst acute trusts as shown in Figure 2. Although we have seen an increase in the number of cases this year, we have seen a notable reduction in the burden of MRSA bloodstream infections at the Trust in line with other acute hospital trusts for more than a decade.

Clostridioides difficile infection

Figure 3

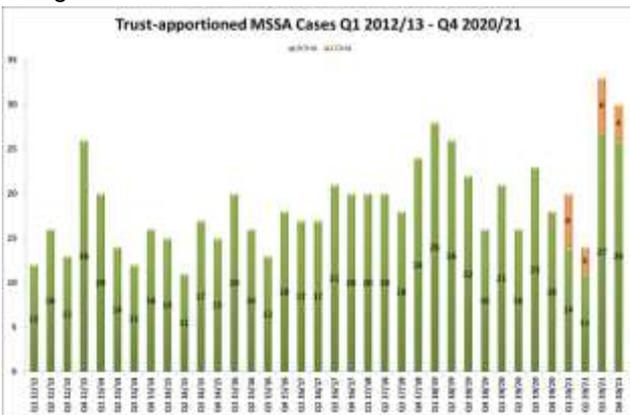


Due to the national response to the COVID-19 pandemic, there were no nationally set objectives received from NHSEI for 2020-2021. As part of our continued focus on quality improvement we took the pragmatic approach to introduce an internal 10% reduction on the set trajectory of 259 for 2019-2020, giving an objective for 2020-2021 of no more than 233 cases. The total number of *C. difficile* infection (CDI) cases with an “onset” within LTHT in 2020-2021 was 153

against an internally set objective of no more than 233 cases. Figure 3 demonstrates the improvements that have been made by the whole organisation over the past few years in reducing the number of patients who suffer this infection. There was a change in the attribution algorithm introduced in 2019-20 which accounts for the overall increase in cases from that year onwards. Readers are also asked to note that as a result of the on-going pandemic, there was a reduction in the number of hospital admissions in Q1 and Q2 coupled with a significant reduction in the level of surgical activity. There was a shift to more normal admission levels in Q3 and Q4 including during the second COVID-19 surge from January 2021 onwards.

MSSA bacteraemia

Figure 4

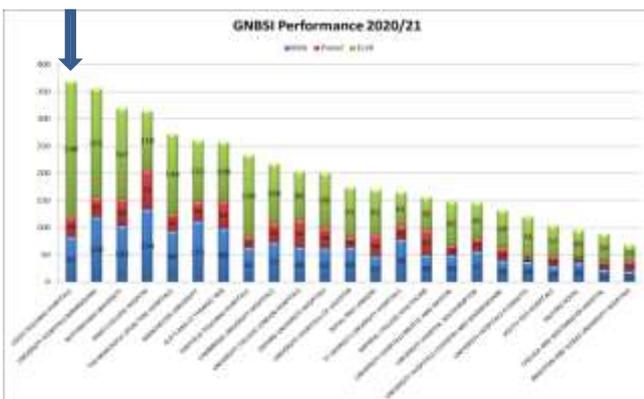


Methicillin-susceptible *S. aureus* (MSSA) bacteraemia are nationally reported but in contrast to MRSA BSI there is currently no specific annual objective for individual acute hospital trusts. We do, however, as part of our quality ambition, set an internal quality improvement objective and in 2020-2021 this was to have no more than 70 cases. Unfortunately, there were 97 cases attributed to the Trust (Figure 4), with the change to the attribution process adding to the escalating position. *S. aureus* is a significant pathogen and any BSI with this organism contributes to

increased morbidity and mortality, lengthens patient stay and antibiotic requirements. Bloodstream infections caused by both MRSA and MSSA continue to remain important foci of our HCAI Faculty Quality Improvement Group.

Gram-negative blood stream infections (GNBSI)

Figure 5



There is a national ambition to reduce by half the number of healthcare associated Gram-negative bloodstream infections (GNBSIs) by 2024. In 2020-2021 we recorded a total of 369 LTHT-attributable GNBSIs; of those there were 248 *E. coli* BSIs, 83 BSIs with *Klebsiella* species and 38 with *Pseudomonas aeruginosa*. Figure 5 shows LTHT's performance compared against our peers.

Although the larger proportion of GNBSIs is non-Trust attributable, there is evidence to suggest that a proportion of the non-Trust-attributable cases have had interventions in the acute care setting prior to acquiring an infection and a proportion of these are now captured with the change in reporting algorithm. There is a need to refocus on the work that commenced with our clinical teams in order to help us to identify and prevent avoidable cases.

E. coli

Figure 6

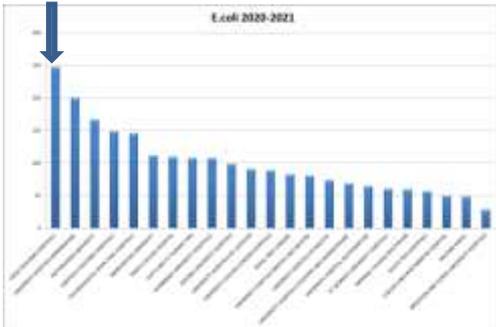


Figure 6 shows LTHT *E. coli* performance against our peers for the period 1st April 2020 to 31st March 2021. It can be seen, as indicated by the arrow, that we are the poorest performing Trust amongst our peers. It is also relevant to note that *E. coli* remains the most frequent cause of bloodstream infection in the UK and we will continue with our work to identify the themes and trends to prevent avoidable infections and to improve our position nationally.

Pseudomonas aeruginosa

Figure 7

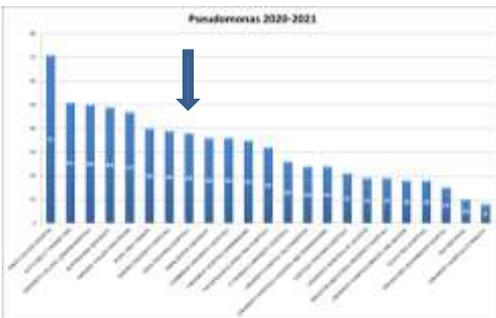


Figure 7 shows LTHT-attributable *Pseudomonas aeruginosa* bloodstream infection performance against our peers for the year 2020-2021 with the arrow indicating how we compare.

Klebsiella spp.

Figure 8

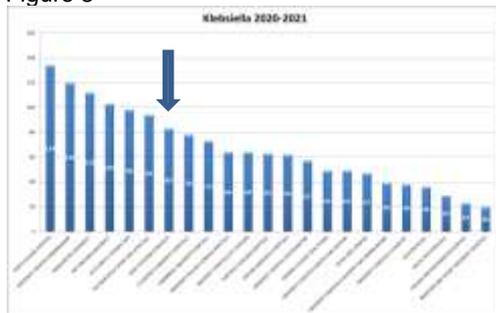


Figure 8 shows that our *Klebsiella spp.* performance against our peers for 2020-2021 is broadly similar to that for *Pseudomonas* in terms of how we compare.

**3. OUTBREAKS AND OTHER COMMUNICABLE DISEASE INCIDENTS**

**Multi-resistant *Pseudomonas aeruginosa* outbreak in haematology unit LTHT**

This outbreak was opened in December 2020 following the identification of a small number of matched isolates of multi-resistant *Pseudomonas aeruginosa* (MRPA) in haematology patients occurring since 2016. Between 1 April 2020 and 31 March 2021, a further seven cases were identified (taking the total to 17). Two of these cases died within 28 days of infection diagnosis. Five patients received treatment for the multi-resistant organism (including the two who sadly died), two patients were colonised with the organism but had no infections from it. All patients had attended multiple wards in Bexley wing in the months prior to MRPA detection.

Outbreak meetings were held on 1 June, 22 July, 16 September, and 20 October 2020 with catch up discussions taking place in January 2021. Patient screening was performed in September 2020;

this did not reveal any new cases. A review and support of good IPC practices has taken place repeatedly since the outbreak opened, including multiple ward visits by the IPC team and microbiologist.

Extensive environmental review, outlet sampling and water testing has been performed repeatedly since the outbreak was opened in order to seek the origin of the organism. Sampling demonstrated MRPA in the water samples of a shower in J93 matching the outbreak strain, and in drains from bathrooms of known cases. The shower in J93 was removed and replaced with a new outlet including heat disinfection tap. A large number of other water/environmental samples were tested for the outbreak strain and were negative; these results were interpreted by the water group to be sufficient evidence to exclude a central water source of the organism and the drains were thought to be the more likely source. Disinfection of the drains on J88/J89 (and the shower on J93) was completed in September/October 2020. An extraordinary meeting of the water group was arranged to discuss the outbreak on 30 September 2020; a number of actions were drawn from this meeting. Antibiotic stewardship was supported by a consultant microbiologist throughout the year and neutropenic sepsis guidance has been revised. Educational sessions were proved to staff and signage to inform patients about correct use of water outlets was put up. Outside advice was sought from Public Health England, who also communicated to neighbouring trusts about the outbreak. PHE have also provided expert environmental microbiology advice and supported a case-control study to assist the investigation. By March 2021, a four month period without a case had occurred, drain swabbing on J88/89 showed no evidence of MRPA, the case-control study was at the stage of data collection and the outbreak remained open pending results. Unfortunately, further cases occurred at the end of May 2021 and investigations and actions are on-going at the time of writing the annual report.

#### **Pseudomonas aeruginosa on the Intensive Care Unit**

We had an outbreak of *Pseudomonas aeruginosa* involving 9 patients with 2 different typed strains. Five patients were associated with COVID surge capacity expansion into a theatre area the other 4 patients were associated with one of the traditional ICU areas. Practice was scrutinised, including hand hygiene, changing of ventilator tubing, inappropriate use of ice for patient cooling, equipment cleaning and assurance, and sessional use of gowns (as recommended at that time for COVID-19 AGP areas). Water sources tested were found to be negative on microbiological sampling. Antimicrobial stewardship within the unit continued to perform well. The outbreak was kept open for over 5 months however this was because we assurance of 2 clear calendar months with no new cases in order to close the incident.

#### **National outbreak of *Burkholderia aenigmatica/contaminans* - Leeds Radiology (Ultrasound) implications**

There had been a Public Health England (PHE) alert on 7 December 2020 alerting a national outbreak of *Burkholderia aenigmatica/contaminans*.

PHE had shown a very strong association with ultrasound procedures - either linked to patients having ultrasound guided biopsies or linked to blood stream infections or line infections and also respiratory infections in critical care. Focus turned to products used for ultrasound procedures, in particular, possible ultrasound gel contamination.

There had been one case of *Burkholderia aenigmatica/contaminans* from a bacteraemic child locally. This organism has not been identified from a specific source in any trust, including ours, but was epidemiologically linked to ultrasound procedures and line insertions.

Related to this national outbreak, LTHT had 4 patients with the same strain of *B.cepacia* within a second outbreak which was also found in the ultrasound gel samples locally that were sampled. Meetings held were held with radiology colleagues to understand the implications locally.

Learning was escalated via the CSU and H&S cascades and IPC observed different radiological procedures to feedback on practice points.

Through collaborative investigation and co-operation, LTHT helped identify the source of a national outbreak. Departments involved were empowered by IPC to implement an immediate change of practice from re-usable ultrasound gel containers to single use non-sterile bottles for non-invasive

procedures, and individual sterile single use sachets for invasive procedures, avoiding potential further harm to patients in our care.

### **SARS-CoV-2 Outbreaks**

During the financial year 2020-2021 we had multiple outbreaks of SARS-CoV-2, both within staff areas as well as patient areas. These outbreaks were managed by full collaboration between IPC and the “ground” and Tri teams from within the CSUs. Other departments were invited to join as and when required. There were also multiple incident meetings called to discuss staff track and trace incidents in many patient and non-patient facing areas, again, involving close working between the CSUs, IPC and often the Trust executive team and corporate colleagues, especially if there was a risk to service continuity. These incident meetings helped to prevent further staff-staff, staff-patient transmission and outbreaks. No LTHT CSU escaped either a staff or ward outbreak or a track and trace incident. The themes, challenges, learning and assurances from these incidents and outbreaks were fed back at the daily IPC safety huddles, operational and COVID-19 IPC meetings and were also regularly presented in papers, authored by the deputy DIPC and the IPC Matron, to the Trust Quality Management Group. Outbreak Trust wide learning was also shared in e.g. Dr Phil Wood’s Chief Medical Officer’s Trust wide information briefs “The Operational Update”. LTHT participated in a weekly Integrated Care system DIPC meeting where national updates were shared and each Trust described their current position and learning from outbreaks as it unfolded.

### **HCAI Investigations**

Patients in LTHT who develop a bloodstream infection with *S. aureus* (MRSA and MSSA), reportable Gram negatives, or have a *C. difficile* infection will have a Root Cause Analysis (RCA) or Stop the Line investigation to try and determine what happened and how we can improve grow and learn. Meetings are managed as a multi-disciplinary collaborative process with input from all relevant stakeholders ensuring that any “lessons learnt” can be disseminated rapidly Trust-wide to keep our patients safe. 2020-2021 saw a total of 626 HCAI RCAs undertaken.

**Table 1**

<b>Organism Name</b>	<b>Total</b>
Escherichia coli	248
Clostridium difficile toxin	153
Covid19	115
Staphylococcus aureus- MSSA	97
Klebsiella	83
Pseudomonas	38
Staphylococcus aureus - MRSA	9
Total	743

### **SARS-CoV-2**

In May 2020 the IPCT included all COVID 19 cases as an organism that required further investigation. Two investigation tools were developed to reflect the following criteria as directed from NHSEI. IPCT attendance at COVID-19 RCAs was prioritised.

The number of RCAs undertaken (excluding those cases involved in COVID-19 outbreaks) is as shown in Table 2 below.

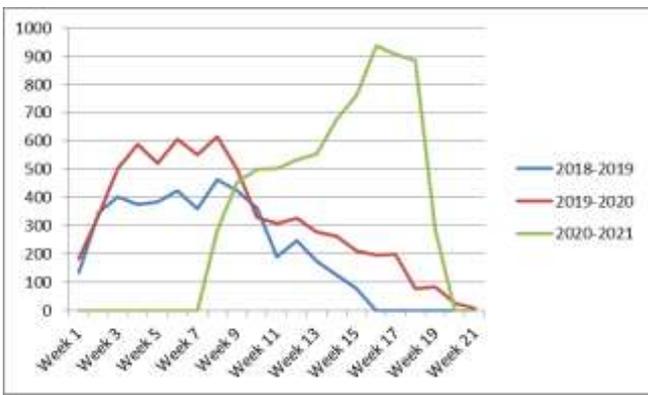
Table 2

Criteria	Number of RCA's Excluding Outbreaks
Hospital-Onset Probable Healthcare-Associated - First positive specimen date 8-14 days after admission to trust	26
Hospital-Onset Definite Healthcare-Associated – First positive specimen date 15 or more days after admission to trust	89
Total	115

**Virology Testing**

**Influenza**

**Numbers of Roche Liat Flu tests performed at LTHT**



Influenza Point of Care Testing (POCT) at LTHT via the Roche Liat was implemented for the third consecutive year within the emergency departments and infectious diseases unit. Over 7,278 point of care tests were performed on patient samples within LTHT between 22 December 2020 and 14 March 2021 compared to 7300 in 2019-2020 and 4,500 in 2018-2019.

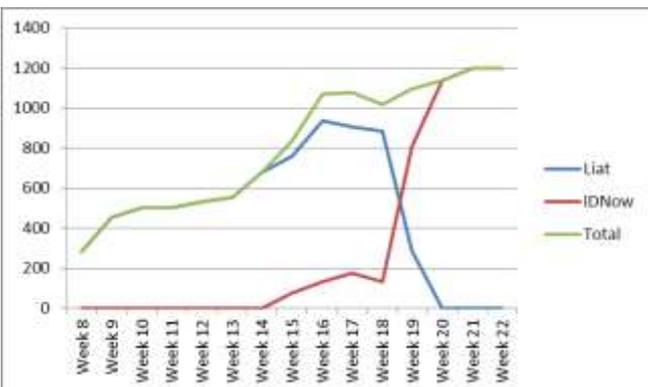
However given the COVID-19 Pandemic, and the resulting impact nationally on seasonal flu, positivity rates this year were 0% compared to

30% in the 2 preceding years

**SARS-CoV-2**

At the start of April 2020 the Virology Laboratory at Leeds was performing 200 tests a day using the PHE RdRP assay, a manual laboratory developed assay, which had been implemented at LTHT on 17 February 2020. On 6 April we moved to the more sensitive Altona assay, which like the preceding PHE assay, was highly manual. In May 2020 LTHT was informed by NHS England that we would have an allocation of the Hologic Panther SARS-CoV-2 TMA assay which provides an automated end to end sample to result system. The virology team performed an extensive evaluation of this assay involving 613 historic and current samples to allow implementation on 8th June 2020. In total LTHT has evaluated 12 SARS-CoV-2 testing platforms, with 4 failing verification. We currently run 6 laboratory based testing platforms: a mix of high volume platforms with longer turn-around-times and low-volume rapid platforms for urgent testing. This increased our testing to an average of 1400 per day with a median turnaround time of 12 hours at the end of March 2021.

Local testing with faster turnaround times positively impacted on LTHT’s ability to diagnose and implement appropriate IPC precautions to mitigate the risks of onward transmission. During the period 1 April 2020 to 31 March 2021 242,547 LTHT patients were tested. The overall positivity rate during this time was 4% but this varied significantly during periods of high and low prevalence. At a maximum 81 (11%) LTHT patients tested positive on 13 November 2020.



Numbers of Roche Liat and Abbott IDNow COVID-19 tests performed at LTHT

In addition to our laboratory testing platforms the Virology Laboratory has supported the POCT team in verifying and implementing 2 SARS-CoV-2 POCT (Roche Liat and Abbott IDNow) which were located in the Emergency Departments at both sites and the CAT unit at the LGI. The use of specific POCT platform was driven by availability, due to demand out stripping supply internationally.

Overall positivity was 12% for the period during which the Roche Liat was in use and 8.5% when we switched to the Abbott IDNow.

The point of care testing (POCT) was essential in the LTHT response to COVID-19. It greatly assisted in ensuring patients were effectively placed with appropriate IPC precautions in place to prevent further transmission; and improved patient flow allowing patients to be swiftly and appropriately placed as soon as results were available.

### **Tuberculosis Update**

Patients with active TB are predominantly managed as out-patients. 57 cases of TB were notified in the Leeds clinic between 1 April 2020 and 31 March 2021, 36 of which were pulmonary disease. This is less than the previous year when 90 cases were notified. There is concern that due to COVID there may be some delayed presentations of disease which may be contributing to the reduction in numbers. LTHT personnel continue to contribute to improving the diagnosis, management, and control of TB within Yorkshire and beyond. The TB laboratory in LTHT has increased the number of patients getting rapid testing, in the last year, with suspected TB. This uses rapid nucleic acid amplification testing. This enable a quicker diagnosis which in turn allows quicker treatment and infection and prevention measures to reduce onward transmission.

## **4. SURVEILLANCE**

LTHT participates in the mandatory Public Health England Surgical Site infection Surveillance scheme. Between April 2020 and March 2021, repair of neck of femur surveillance was completed each quarter by the Orthopaedic/Trauma team with infection rates ranging from 0.6 to 1.1%. This is within the benchmarked rates for other trusts nationally. The results were fed back locally to the Trauma and Orthopaedic teams.

The Infection Prevention and Control team did not carry out any additional surveillance as the IPCT were carrying 40% vacancies and also the COVID-19 pandemic hit in March 2020. These two factors resulted in the Infection Prevention team not having capacity to carry out any additional surveillance categories.

The programme of surveillance of catheter-related bloodstream infections (CRBSI) also remains on hold due to the continued vacancies and additional workload generated by the COVID-19 pandemic.

## **5. ANTIMICROBIAL STEWARDSHIP**

Antimicrobial stewardship (AMS) is ensuring the best outcomes for patients with infections whilst minimising patient harm (e.g. *C. difficile* infection) and antimicrobial resistance. The SARS-CoV-2 pandemic from March 2020 significantly impacted on the AMS programme. All quality improvement targets set with the NHS Contract and CQUINs were suspended for financial year 2020/21. In addition, all efforts were focused on COVID-19 pandemic and the antimicrobial stewardship programme was giving less emphasis and most of the work programme was suspended for the year.

### **Antimicrobial Stewardship CQUINs and NHS Standard Contract**

For the financial year 2020/21, the antimicrobial objectives from Antimicrobial Resistance CQUINs and NHS contract targets were suspended, but on-going effort was sustained to meet these as the

UK AMR National Action Plan aimed to reduce hospital antimicrobial usage by 1% per year over the 5 year plan.

The NHS standard contract target of 1% reduction in antibiotics prescribed per admission. It counts antibiotics prescribed for both inpatients and outpatients, but only counts inpatient and day case admissions as the denominator. It is estimated that around 30% of antibiotic use is for outpatients. LTHT ended the financial year with an 11.0% increase in total antibiotics per admission compared to the baseline year 2018/19. However, total antibiotic use (without denominator) fell by 24.4% overall. This is partly because admissions dropped by 29% which were mainly cancellations of elective admissions who are low users of antibiotics. Outside of the COVID-19 wards, the growth in antibiotic use remained mainly in surgical areas, and the introduction of electronic prescribing and observations has made it more challenging to review patients as comprehensively on a rapid ward round. The increase in the default duration of empiric IV antibiotics from 3 to 5 days in 2018 due to safety concerns continued to see longer courses in surgery. However, there has been much activity across many surgical specialties to improve the reviews. Medical specialties generally decreased their consumption: this was partly assisted by the on-going use of a blood biomarker procalcitonin which allowed stopping after a single antibiotic dose in 65% of patients with community acquired pneumonia where infection was not overt on the chest X-ray. It was also incorporated into the COVID-19 pneumonia pathway which allows antibiotics to be stopped where procalcitonin levels were low. The NICE In-patient COVID-19 pneumonia guideline (NG191) did not recommend the routine use of this biomarker, and stated that hospitals already using it should contribute to a commissioned call for research. The University of Leeds is co-leading on this NIHR research (PEACH study) and early evidence shows that hospitals using procalcitonin in COVID-19 to guide antibiotics use had one day shorter courses than hospitals that do not. Paediatrics managed to decrease their antibiotic usage by 6.5%.

#### **AMR CQUINs**

All AMR CQUINs were suspended for this year.

#### **Reduction in broad spectrum antibiotic use**

The UK AMR national action plan has set targets to use less broad spectrum antibiotics in hospitals over a 5 year plan. LTHT reduced its proportion of access (narrow spectrum) antibiotics by 1.1% from 47.8% to 46.7% driven by national guidance to use broad spectrum antibiotics in those admitted with COVID-19 infection. Our IV broad spectrum antibiotic use increased by 24.8% per admission, but decrease by 15.5% overall.

Despite this growth in broad spectrum antibiotic use, there was a reduction in carbapenem (last line) prescribing by 15.7% per admission, or 44.5% overall. This was predominantly due to reduction in Cystic Fibrosis who use around half of the LTHT carbapenem use.

#### **Infection Treatment and Prophylaxis Guidelines**

LTHT has the most comprehensive suite in the UK. These are the mainstay of our stewardship programme and provide evidence based “pathways” covering diagnosis, investigations and treatment. These remain the most frequently visited guidelines on Leeds Health Pathways (LHP) with 193,500 views between April 2020 and March 2021. There are 207 antimicrobial guidelines on LHP, with 153 specifically written for LTHT. Antimicrobial guidelines uploaded to the internet from June 2019 to enable those without access to the LTHT intranet to reach them including many other hospitals within the NHS who adapt them for their own use.

#### **Antimicrobial stewardship rounds**

During COVID-19, much of the advice was given remotely, but many AMS rounds continued to optimise the treatment of patients with infections. This includes changing therapy, switching IV antibiotics to oral and stopping treatment when necessary. Evidence shows that switching IV antibiotics to oral shortens patient stay by up to six days, saves £32 per patient and reduces nursing workload by 70 minutes per day, as well as decreasing HCAI such as *C. difficile* and *S. aureus* bacteraemia.

### Report identifying patients currently on antimicrobials

The report of patients currently prescribed antibiotics continues to be used. It lists all patients on antibiotics, the type of infection they are being treated for and the duration of therapy to date. This allows better targeting of patients for review on board and wards rounds. The HCAI Faculty collaborative working on improving the review of IV antibiotics at 48-72 hours was suspended for most of the year because of COVID-19. This will restart in FY2122.

### Home IV antibiotics service

The adult CIVAS programme has been targeting patients who would be appropriate for treatment with IV antibiotics at home. In 2020-2021, there were 284 referrals and 174 patients accepted and treated (66 less than last year) at home avoiding 19.1 days in hospital per patient. Overall, 3328 bed days (648 less than 2019-2020) were saved (equivalent to 9 beds per day).

### Audit and feedback

The antimicrobial prescribing standard is audited each month using data from the electronic prescribing system for empiric prescribing of antibiotics, and the 48-72 hour review (focus) element by auditing five patients per ward still on IV antibiotics at day 3 by the ward pharmacist every month. The 48-72 hour review focus had to be suspended for April and May 2020 and February and March 2021 due to staffing levels because of COVID-19. The audit highlighted that improvements had been seen in the rate of stopping or switching to oral antibiotics where criteria were met.

The annual mandatory antibiotic prescribing audit took place in Quarter 2 when CoVID-19 rates were lower. It highlighted good practice in starting best guess (empiric) antibiotics but areas still requiring improvement were blood cultures not routinely sent in a quarter of cases, but a large improvement (22%) showed almost nearly all results (98%) were acted on within 24 hours. For the empiric IV antibiotic review at 48-72 hours, more courses were stopped (17%) or changed to another narrower spectrum antibiotic (24%) than in previous years. There is still room for improvement in documenting the rationale for continuing the same antibiotic in 27% of cases and despite 89% recording an antibiotic review, the outcome of applying the IV to oral switch tool was only 12%. These areas will be a focus for 2021-2022.

### Antibiotic awareness events (European Day and World Antibiotic Awareness Week)

COVID-19 contact restrictions required the Pharmacy Infection Team to become innovative and grasp the use of various digital platforms to reach as many people as possible in order to publicise the key messages for antimicrobial stewardship campaign this year. Each day of the World Antibiotics Awareness Week focused on a key message:



- Stop the spread,
- Diagnostics make the difference,
- Empirical prescribing,
- Day 3 antibiotic reviews
- Directed therapy.

The promotion of the 5 key messages used Staff Connect, Start the week, LTHT Facebook page, and daily email from the pharmacy infection team. A MS Teams backdrop was created for WAAW and used within meetings and as profile pictures. Medicines Management and Pharmacy Facebook updates were personalised with a WAAW filter to show support and raise awareness about becoming an antibiotic guardian. There were daily Twitter messages, including joining the twitter storm on Wednesday 18th November, a virtual medical Grand Round on Antimicrobial

stewardship (being smart with a precious resource) and an AMS newsletter emailed within pharmacy highlighting activities everyone could get involved.

### **New virtual ways of working for Antimicrobial Stewardship Committee**

The new monthly 1 hour format using MS Teams was continued and saw an increase in virtual attendance. The agenda content has been set on a three month rolling basis to cover: operational needs, strategic needs and a quarterly review against the annual program for antimicrobial resistance and stewardship.

### **Working with other partners**

LTHT continued working virtually with others throughout the year with other providers, commissioners and Leeds City Council on AMS to implement the NICE AMS guideline for changing patient and public behaviour. LTHT continues to work with other trusts in our ICS area and West Yorkshire to share best practice on improving antibiotic prescribing. We have been supporting the AMR@Leeds campaign and the University of Leeds. Many of our committee members have supported the development of national guidance around COVID-19.

## **6. ENVIRONMENT**



Despite the challenging year with SARS-CoV-2 COVID-19 pandemic, we continued to monitor and demonstrate compliance with the Public Available Specification planning, application, measurement and review of cleanliness services in hospitals (PAS 5748) requirements.

However there were a number of assurance recording systems introduced along with some brand new cleaning services that supported the reduction in the spread of COVID-19. The recording systems included new daily High frequency cleaning touch points, weekly patient shared equipment recording system. The new cleaning system included wiping of new plastic screen curtains (between patient beds), the

cleaning of communal ward toilets in between patient use on 19 high risk amber wards, the changing of all curtains on patient discharge for 26 high turnover/high risk amber wards. The environmental decontamination methods continue and the use of hydrogen peroxide vaporisation technology (HPV) remained available, but was used less frequently than normal, during the pandemic. However the team, with other Facilities staff, continued to support the joint Estates and Facilities environmental upgrades on both SJH and LGI. This enabled the programmed cleaning of vents, radiators as well as small environmental improvements to make the wards easier to clean.

## **7. DECONTAMINATION**

The Trust continues to develop its Decontamination Strategy and commenced a review to ensure it remains relevant to current statutory requirements and any proposed changes to decontamination guidance.

The Strategy includes a management structure with the Director of Estates & Facilities as Decontamination Lead for the Trust supported by the Senior Decontamination Manager. Decontamination management and mitigation of risk is also achieved through the Infection Prevention & Control Committee IPCC (now IPC Sub Committee) with reporting to the Trust Board via the Chief Nurse.

Supporting the Senior Team and a key achievement of 2020-21 was the re-establishment of the Trust Decontamination Management Group (DMG) and Decontamination Operational Group (DOG). The purpose of the DMG is to provide a governance arrangement for the Organisation that ensures effective and safe delivery of decontamination management and mitigation of risk through

both internal and external review. The DOG is responsible for providing assurance to the DMG on the implementation within operational areas of decontamination policy, procedures and processes to ensure safe, properly managed and effective practices are adopted for all re-usable medical devices, equipment and environments. Both Groups are chaired by the Senior Decontamination Manager.

Other achievements in 2020-21 were:

The commencement of Infection Prevention Society (IPS) audits of local decontamination areas. These audits are a key part of the management and mitigation of risk through internal review and had been delayed due to COVID-19 pressures/ restrictions. In addition to the 3 main endoscope decontamination hubs a number of areas continue to decontaminate locally non-lumened endoscopes e.g. naso endoscopes, ultrasound probes and other specialist equipment.

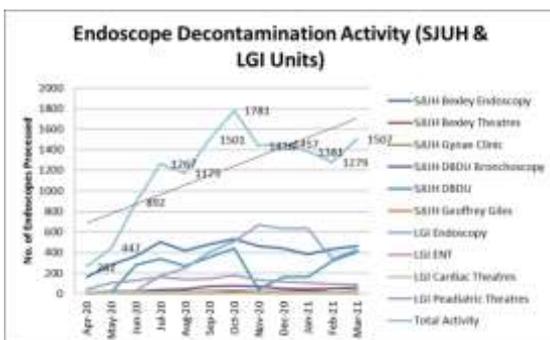
Completion of the IHEEM Decontamination audits by the Trust’s independent Authorising Engineer (Decontamination). These are a requirement of continued JAG accreditation (next assessment June 2021)

The transfer of the Paediatric Theatre satellite decontamination area to the LGI central Endoscope Decontamination Hub, which completes the planned centralisation of services and ensures a fully compliant service for all lumened flexible endoscopes used on the Leeds General site.

A full audit of the management of Cardiac Theatre Heater Cooler Units (HCU) which through joint working with the Clinical Perfusion Team is leading to improvements in decontamination processes and a reduction in associated risk.

Good progress was also made, by the LGI & SJUH Endoscope Decontamination Hubs, towards the implementation of a quality management system ISO13485. Accreditation is expected in 2021/22 pending confirmation of any new/additional requirements post BREXIT and access to audit (easing of COVID-19 restrictions). Accreditation would allow the Hubs to expand their Service to include external customers.

Figure 10

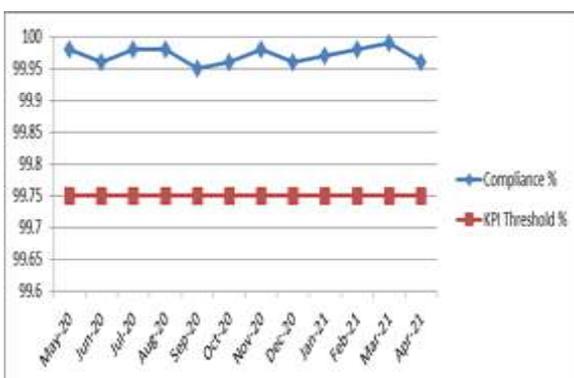


Activity for the LGI & SJUH Endoscope Decontamination Hubs is as shown in Figure 10 with an upward trend noted:

A focus across the Organisation, going forward, will be ensuring that staff involved in decontamination processes are part of a continuous competency assessment and development programme. With this in mind, on-line training packages were reviewed with the intention of starting trials in 2021/22.

Sterile Services:

Figure 11



The Trust works collaboratively with Bradford Teaching Hospitals and Calderdale and Huddersfield Foundation Trusts in procuring an outsourced service for the decontamination of surgical instruments from B. Braun Sterilog. The 3 organisations continue to monitor the service that is being provided to ensure that it complies with current standards relating to surgical instrument

decontamination. To support the monitoring of the service that is provided and to act as a link between B. Braun and the clinical teams the collaboration employs the services of a Contract Manager who actively manages the contract on behalf of the Trust. An option to extend the current contract by 5 years was approved by the Trust Board and a working party will start to explore the options for service delivery from 2027.

The quality performance measure of defect free product return from B. Braun Sterilog was consistently met with a very limited number of defects reported and the BBS contractual defect free product returns from May 2020 to April 2021 are as shown in Figure 11 above.

## **8. RIDDOR and COVID-19**

### RIDDOR: Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

RIDDOR places duties on employers, the self-employed and people in control of work premises (the Responsible Person) to report certain serious workplace accidents, occupational diseases and specified dangerous occurrences (near misses).

#### Reporting under RIDDOR

The process for making a report under RIDDOR is fairly straightforward and the responsible person/ line manager will be responsible for the gathering of information and liaising with the Trust's Health and Safety team.

There are specific scenarios that the HSE has outlined where a report will need to be made under RIDDOR with regard to employees carrying out work related activities and Covid-19. This has been subject to debate at local, regional and national level and has resulted in revisions to the guidance during the course of the pandemic.

In Leeds Teaching Hospitals NHS Trust it is the Health and Safety team that submit the RIDDOR report to the HSE. The management role is to obtain the required information from the staff member and make contact with the Health and Safety team if they believe from the information gathered from the employee and their own knowledge that a RIDDOR report may be applicable.

### Cases of Occupational disease: Exposure to a Biological Agent: SARS-CoV-2, COVID-19

The circumstance that requires a report under RIDDOR would be a diagnosis of Covid-19 in a staff member attributed to an occupational exposure to a biological agent, as set out in the RIDDOR guidance that was published during the early stages of the pandemic and subsequent revisions.

The debate related to RIDDOR reporting has centred on the identification of workplace exposure with certainty, within the context of a global pandemic where community prevalence is high. For example, an employee who has a history of residing in the same household as a confirmed case of Covid-19 or contact outside of work with a confirmed case and they have been within 2 metres of that contact 14 days before developing their own symptoms would not require reporting. An employee who has travelled abroad to an identified country/area that requires quarantine on return and develops symptoms during the quarantine period would also not require RIDDOR reporting.

It can be very difficult to establish whether an exposure occurred within work, particularly when the disease is so prevalent within the general population. Some of the factors that need to be considered when determining whether a report is necessary will include:

- Whether the employee's work activities increased their risk to exposure
- Whether or not the person was given the necessary personal protective equipment and
- Whether other control measures in line with national and local guidance were in place to keep employees safe.

The HSE are looking for evidence of the person's work activities increasing the risk of them becoming exposed to coronavirus, as opposed to someone not in the workplace and general societal exposure. This includes whether or not the person's work brought them directly into contact with positive Covid-19 patients without effective control measures. If this is not the case then a RIDDOR report is not required.

For an incident to be reportable there must be a clear and reasonable evidence to confirm the link between the exposure and the work- related activity. It would not be enough, for instance, for a person to simply be exposed to Covid-19 whilst at work. Rather, there must be a specific work-related activity that results directly in infection.

If a staff member receives a positive test result for Covid-19 then the Trust Test and Trace team will follow their standard operating procedure (SOP) which will assist with obtaining the required information to determine whether the member of staff is required to self-isolate, liaising with the IPC team and Occupational Health department who will carry out a more detailed risk assessment process with the staff member.

There have been no cases to date of occupational disease being submitted by Leeds Teaching Hospitals Trust to the HSE, which is consistent with a number of partner organisations following communication through regional network health and safety leads.

A paper was presented by the Director of Human Resources and Organisational Development to the Executive team, which gave an overview of the current position in relation to RIDDOR reporting. A report was presented to Quality Management Group which included an update on RIDDOR reporting as part of the governance assurance process in November 2020. The subject has also been discussed with WYAAT Trusts and other local organisations to understand RIDDOR reporting profiles during the course of the pandemic. It has been discussed with the Trust's CQC Engagement Lead and commissioners at NHS Leeds CCG, noting that the criteria for reporting has been discussed at regional and national level, to establish a consistent approach to reporting that is proportionate during the pandemic.

### **A Dangerous Occurrence**

An accident or incident at work that causes or could cause the release of SARS-CoV-2, COVID 19 must be reported as a Dangerous Occurrence. This will only be applicable if a specific event led to exposure or the possible exposure of Covid-19. Employers must make a reasonable judgement as to whether the specific circumstances of the event gave rise to such a risk.

An example of a reportable Dangerous Occurrence might be a sample from a patient who has tested positive for Covid-19 breaking in transit leading to spillage or a laboratory worker accidentally smashes a vial containing coronavirus on the floor (i.e. outside of a microbiological safety cabinet), leading to people being exposed. There have been no reported cases of an incident of this nature in LTHT to date.

### **Work related deaths**

The death of an employee as a result of occupational exposure to a biological agent is reportable under RIDDOR.

For a death to be reportable there must be reasonable evidence that the death was caused by an occupational exposure to Covid-19. Not only must the person have had Covid-19 at the time of their death, but it must have also been a significant cause of death, e.g. listed on line 1 or 2 on the death certificate. RIDDOR reporting only applies to employees rather than patients or service users. There have been no cases to date of a work-related death involving LTHT employees that meet the criteria for reporting to HSE via RIDDOR.

The Health and Safety Executive (HSE) conducted a programme of national HSE Covid-19 spot checks on 17 acute hospitals, in 13 NHS Trusts in England and 2 NHS health boards in Scotland and Wales during December 2020 and January 2021. Leeds Teaching Hospitals NHS Trust was not included in this sample, however the HSE have produced a helpful report and summary of their findings that is being examined as part of the Trust 'Social Distancing Group' activities to see where the learning from this exercise can be implemented locally. The Health and Safety team are an integral member and contributor to this group which was formed in May 20 with the aim of developing the 'Working Safely with Covid-19 Workplace Assessment' for use within the non-clinical aspects of the Trust.

## **Blood & bodily fluid contamination via inoculation injuries**

During the period 1st April 2020 to 31st March 2021 there were 7 staff-related high risk sharps injuries reported via RIDDOR to the HSE.

The Health and Safety team continue to support those responsible for the completion of RCAs with the aim of understanding how incidents are occurring and implementation of any remedial actions as a result. The findings of the RCAs continue to be an agenda item at the Trust Inoculation Injury and Safer Sharps Group meeting (II&SS) and also at the Infection Prevention and Control Committee meeting (IPCC). These types of injuries have decreased during the pandemic, which is possibly attributed to reduced ED attendances and reduced elective surgeries where these types of injuries would typically be sustained.

No HIV, Hepatitis B or Hepatitis C infections have been reported by those staff sustaining high risk inoculation injuries

## **9. EMERGING KEY ISSUES**

The rapid changes to PHE Guidance regarding COVID-19 resulted in the team having to quickly review emerging guidance and advise the Trust on the changes required. These changes were shared through the regular COVID-19 operational bulletins and at the Trust's Tactical meetings.

## **10. IPC ORGANISATION AND MANAGEMENT**

### **Staffing Developments**

The Infection Prevention Team expanded its senior leadership team with the introduction of two further IPC Matrons to provide a consistent senior nursing leadership presence.

Despite recruitment campaigns we continue to experience vacancies within the IPC Nursing team; it is, however, recognised nationally that there is a lack of experienced IPC specialist nurses. The difficulties with recruitment led to the development of secondments at band 6 level which were successfully recruited to. This will give secondees valuable experience which, once the secondment is completed, will be taken back to the CSUs.

### **Policies and Guidelines**

The IPC team continued to review and revise the Trust's 37 IPC policies/clinical guidelines during 2020-21. Due to the on-going response to the pandemic, we were granted extensions to the clinical guideline review dates. This also takes into account any changes to national publications and in March saw the introduction of a number of COVID-19 related publications.

### **Ask the Experts**

We held a Trust wide TEAMS IPC Q&A session, to help answer IPC questions that staff may have had which involved the IPC Matrons, the two Trust IPC doctors and the COVID-19 medical lead. The Trust communications were involved through all processes during the pandemic helping with both internal and external communications.

### **Vaccination Centre & Staff Testing**

Our IPC team were asked to help set up and advise on the Harrogate Nightingale centre and the Elland Road vaccination centre. The Leeds Dental Institute helped the pandemic effort locally by taking charge and manning the local staff testing 7 days per week when required.

## **11. TRAINING AND EDUCATION**

The IPC team has continued to contribute to the delivery of the mandatory training programme at LTH during 20/21, however, with the emergence of SARS-CoV-2 in late 2019 and the declaration of a global pandemic in January 2020 the IPC team have adapted to providing virtual training sessions. Despite national restrictions we have still continued to sustain compliance rates of 90% and over - see Table 3

**Table 3**

IPC.	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
<b>IPC Clinical</b>	79.69%	89.90%	94.50%	92.50%	94.00%	93.00%	90.69%	91%
<b>IPC Non Clinical</b>	85.17%	93.40%	90.10%	95.30%	96.00%	94.00%	94.21%	89%

The team has always been committed to delivering sessions outside of our regular timetable however due to mounting a pandemic response and adherence to national guidance this has not been possible. This particularly impacted our ability to provide training to graduate and post graduate nursing students and students on our IPC Module through Leeds Beckett University.

## 12. CAMPAIGNS AND FURTHER ACHIEVEMENTS

As in previous years, the IPC team have been involved in a number of innovative campaigns to prevent infections and improve their management. With the emergence of SARS-CoV-2 (COVID-19) our focus within IPC changed, and our campaigns and other non-essential business were placed on hold. The team however were instrumental in a number of educational campaigns to support the pandemic response which included producing/ participating and the development of trust briefs, development of educational posters and production of an instructional video to support clinical and non-clinical areas with rapid changes in infection prevention and control guidance on SARS-CoV-2.



In addition the team in the first two quarters of 20/21 provided a Fit Test service and facilitated Fit Test training to the clinical service units, receiving mutual aid from other disciplines to ensure that training could be supported 5 days a week. This due to demand was then outsourced.

### Key Achievements in 2020-21

As part of the Pandemic response the IPC Team worked collaboratively with Informatics to produce data related to COVID-19 screening for access by CSU's. This included daily reports regarding who required screening and weekly performance reports - this information was crucial in supporting prevention of onwards transmission.

In addition a COVID- 19 RCA and outbreak report tracker was developed and shared weekly with the CSU's to ensure clinical areas were holding RCA's and outbreak meetings in a timely manner allowing for themes and trends to be identified and shared

In February 2021 the HCAI collaborative was reinstated having temporarily been paused as a result of the pandemic. In March 2021 a trial of intervention 4 - Early Device Removal - Cannula and Urinary Catheters began with a number of wards participating.

In March 2021 the IPC team successfully submitted a business case to Purchase ICNET Lab and Surgical package. ICNET is used by the IPC team to monitor alert organisms .The current system was to be decommissioned in April 2021. The purchase of ICNET will allow the team to monitor HCAI's and be responsive to both known and emerging infections and potential outbreaks in a timely manner. In addition the

The purchasing of the surgical package will enhance with the identification, investigation, prevention, and reporting of SSIs. Training for the new systems is due to commence in September 2021.

## 13. CHALLENGES AND OPPORTUNITIES FOR 2021-2022

As SARS-CoV-2 continues to challenge healthcare globally, it is unclear what further impact it will have in 2021-22. We currently do not, as yet, know whether the government will recommend booster doses but we do hope most of our local adult population will be doubly vaccinated against SARS-CoV-2 by the government targeted dates, and with this, there will be less pressure on our beds being occupied by SARS-CoV-2 infected patients, and also therefore less pressure for staff

working in the continued required recovery of services requiring IPC input. We hope that all the efforts we have expended thus far in the pandemic, supporting our clinical teams will have paid off, wrt nosocomial transmission and acquisition of SARS-CoV-2 from both a patient and staff perspective.

Other respiratory viruses such as Respiratory Syncytial Virus and Influenza A may prove to be challenging in the paediatric and adult settings, and may impact earlier than winter. This may prove to be a challenge after having had a “quiet” year in 2020-21 with these winter viruses and with the continued focus on SARS-CoV-2. Similarly the impact of Norovirus was not felt last year and we need to be ready for any larger impact this winter.

We look forward to seeing our new ICNet come to fruition in the autumn and getting to grips with the newer functions compared to the version we have at present. We are hopeful that our surgical colleagues will be pleased to use the surgical site surveillance tools available so that they can start to be informed and in charge of their own data to drive improvement in surgical site infections through many surgical areas of the Trust.

#### **14. RECOMMENDATIONS**

The Trust Board is asked to:

- receive the IPC annual report 2020-2021;
- be assured on progress related to managing to keep our nosocomial SARS-CoV-2 rates low and be assured that the IPC team are striving to keep reducing the rates of *Clostridium difficile*, MSSA, MRSA and Gram negative blood stream infections.

**Report compiled by the Lead Doctor for Infection Prevention and Control, with contributions gratefully received from the IPC Team (Nursing and Administration), plus colleagues in Microbiology, Virology, Pharmacy, Estates and Facilities, Decontamination and Health & Safety.**