University Hospitals of Leicester

Meeting title:	University Hospitals of Leicester Trust Board (public)	Paper H
Date of the meeting:	6 October 2022	
Title:	UHL Infection Prevention Annual Report 2021/2022	
Report presented by:	Elizabeth Collins Lead Nurse Infection Prevention	
	Dr David Jenkins Lead Dr Infection Prevention	
Report written by:	Elizabeth Collins Lead Nurse Infection Prevention	

Action – this paper is for:	Decision/Approval	Assurance		х	x Update	
Where this report has been discussed previously	This report has been Committee and Qualit	pres ty Co	ented to the Trust Infection	on P	revention Assurance	

## To your knowledge, does the report provide assurance or mitigate any significant risks? If yes, please detail which

#### Impact assessment

This report summarises the current situation with regards to Infection Prevention practice within the Trust and highlights the significant work undertaken by the team to manage infection related risks. The IP service is provided through a structured annual programme of work which includes expert advice, audit, teaching, education.

#### Acronyms used:

All acronyms qualified within the document on first mention

#### Purpose of the Report

To describe Infection Prevention activity and results for the year 2021/2022

#### **Recommendation**

The Committee is asked to receive the report and note the contents of the work of the UHL Infection Prevention Committee

#### <u>Summary</u>

This Report reviews the 2021/22 Infection Prevention successes and challenges for UHL.

The Trust continues to be licenced to practise healthcare with the Care Quality Commission (CQC).

• SARS-CoV-2 (COVID-19), has been responsible for the declaration of a global Pandemic by the World Health Organisation in March 2020 after being initially declared a Public Health Emergency of International Concern

in January 2020. Management and containment systems and processes in line with national instructions were instigated and continued throughout 2021/2022.

- In 21/22 there was 1 Meticillin Resistant *Staphylococcus aureus* (MRSA) blood stream infection reported, against a trajectory of zero avoidable cases. For all cases a Post- Infection Review (PIR) on all patients who have a Trust or non-Trust apportioned MRSA identified was undertaken. This is in accordance with the standard national process and involves a multiagency review of the patients care to determine if there have been any lapses of care which would have contributed to the infection and where lessons maybe learned to prevent further occurrence
- As part of the United Kingdom Health Security Agency (UKHSA) previously Public Health England (PHE) action plan to reduce the number of cases of *Clostridioides difficile* infections (CDI) all hospitals are allocated a 12-month trajectory. UHL was allotted 108 cases from 1 April 2021 to 31 March 2022. The significant increase, rather than the usual yearly incremental decrease, in allotted cases is a result of the changes that were made to the CDI reporting algorithm (discussed within the CDI section).
- All NHS Trusts are required, by the Department of Health, to report cases of patients with Meticillin Sensitive *Staphylococcus aureus* (MSSA) bacteraemia, and as of April 2011 Trusts were also required to report cases of *Escherichia coli* (E coli) bacteraemia and UHL complies with this directive.
- We continue to undertake admission screening for MRSA and focus our elective screening on an agreed sub-set of patients where there may be a clinical benefit to screening in terms of reducing risk of serious infection for that individual. Admission screening is also implemented where applicable for Carbapenem Resistant Organisms (CRO).

University Hospitals of Leicester NHS Trust

# Infection Prevention Annual Report 2021/22



### **Infection Prevention Annual Report**

#### April 2021 - March 2022

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#### 1. Executive Summary

This Report reviews the 2021/22 Infection Prevention successes and challenges for UHL.

The Trust continues to be licenced to practise healthcare with the Care Quality Commission (CQC).

- SARS-CoV-2 (COVID-19), has been responsible for the declaration of a global Pandemic by the World Health Organisation in March 2020 after being initially declared a Public Health Emergency of International Concern in January 2020. Management and containment systems and processes in line with national instructions were instigated and continued throughout 2021/2022.
- In 21/22 there was 1 Meticillin Resistant Staphylococcus aureus (MRSA) blood stream infection reported, against a trajectory of zero avoidable cases. For all cases a Post-Infection Review (PIR) on all patients who have a Trust or non-Trust apportioned MRSA identified was undertaken. This is in accordance with the standard national process and involves a multiagency review of the patients care to determine if there have been any lapses of care which would have contributed to the infection and where lessons maybe learned to prevent further occurrence
- As part of the United Kingdom Health Security Agency (UKHSA) previously Public Health England (PHE) action plan to reduce the number of cases of *Clostridioides difficile* infections (CDI) all hospitals are allocated a 12-month trajectory. UHL was allotted 108 cases from 1 April 2021 to 31 March 2022. The significant increase, rather than the usual yearly incremental decrease, in allotted cases is a result of the changes that were made to the CDI reporting algorithm (discussed within the CDI section).
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- We continue to undertake admission screening for MRSA and focus our elective screening on an agreed sub sets of patients where there may be a clinical benefit to screening in terms of reducing risk of serious infection for that individual. Admission screening is also implemented where applicable for Carbapenem Resistant Organisms (CRO).

#### 2. Introduction

University Hospitals of Leicester is committed to minimising the risk of healthcare associated infections (HCAIs) in our patients, staff and visitors. This is demonstrated by our rates of HCAI which are generally amongst the best in England, despite the challenges posed by some of our estate and we continue to work with issues rising from the legacy of a terminated third party estates and facilities contract.

The COVID pandemic has exposed weaknesses across the NHS, including the defects in the structure and function of buildings, staff shortages, incomplete national planning for pandemics and lack of adequate social care facilities in particular. We regret the COVID infections acquired by some patients in hospital despite the best efforts of colleagues across the organisation to keep all of our patients safe. Lack of adequate numbers of social care facilities has led to more patients remaining in acute sector hospitals for much longer than is required, therefore exposing them to the risk of hospital/ healthcare associated infection (HCAI)

The UHL Infection Prevention team is committed to identifying and highlighting these weaknesses, redoubling efforts begun before the pandemic to work with colleagues at every level to improve the quality of NHS estate, resources and practice locally and nationally.

UHL continued to implement its infection prevention pandemic plan during 21/22 and I wish to pay tribute to all colleagues within the organisation for the extraordinary lengths they have gone to in order to keep patients, staff and visitors as safe as possible during this year as the pandemic continued. Staff within the trust have worked tirelessly in their commitment to safety. It has been a privilege to work with these colleagues and witness the extraordinary efforts that have taken place.

The Infection Prevention Team, working with all colleagues across the organisation has ensured that there has been on-going emphasis given to the implementation of national directives, guidance documents and the prevention of healthcare associated infection and I would like to thank the team for being truly reactive and responsive to challenges presented to them on an almost daily basis and for their unswerving support.

#### Elizabeth Collins, Lead Nurse Infection Prevention University Hospitals of Leicester

#### 3. SARS-CoV-2 (COVID-19)

Coronaviruses are a family of viruses common across the world in animals and humans. Certain types cause illnesses in people. For example, some coronaviruses cause the common cold; others cause diseases which are much more severe such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS), both of which often lead to pneumonia.

COVID-19 is the illness seen in people infected with a new strain of coronavirus not previously seen in humans. On 31 December 2019, Chinese authorities notified the World Health Organization (WHO) of an outbreak of pneumonia in Wuhan City, which was later classified as a new disease: COVID-19. On 30 January 2020, WHO declared the outbreak of COVID-19 a "Public Health Emergency of International Concern" (PHEIC).

The main symptoms of COVID-19 are a cough, a high temperature and, in severe cases, shortness of breath. As it is a new virus, the lack of immunity in the population meant that COVID-19 has spread extensively.

Among those who become infected, some exhibit no symptoms. Of those who develop an illness, the great majority have mild-to-moderate, but self-limiting illness – similar to seasonal flu. However, some people who acquire COVID-19 develop complications severe enough to require hospital care, most often with pneumonia. In a proportion of these, the illness leads to death

The NHS is required to plan for and respond to a wide range of incidents and emergencies that could affect health or patient care. These could be anything from extreme weather conditions to an infectious disease outbreak or a major transport accident or a terrorist act. This is underpinned by legislation contained in the Civil Contingencies Act (CCA) 2004 and the NHS Act 2006 (as amended). This work is referred to in the health service as 'emergency preparedness, resilience and response' (EPRR).

For the NHS, incidents are classed as either:

- Business Continuity Incident
- Critical Incident
- Major Incident

Each will impact upon service delivery within the NHS

A level 4 Major Incident was declared on 4 March 2020 whereby the management of emergency response and recovery is undertaken at one or more of three ascending levels: Operational, Tactical and Strategic. This is based around the concepts of command, control and coordination. https://www.england.nhs.uk/wp-content/uploads/2015/11/eprr-framework.pdf

Responses at Alert Level 4 will require national NHS England command, control and coordination of the NHS across England. Tactical command will remain with local responding organisations, as appropriate.



Table 1: Describes the Leicester, Leicestershire and Rutland (LLR) EPRR response

Business as usual within UHL ceased and it was recognised that under the Command and Control structure and while the NHS declared a level 4 incident, the Annual Infection Prevention Programmes for both the Trust and the IPT would be temporarily suspended. Mandatory data gathering and reporting of alert organisms to Public Health England continued. A scaled back Trust Infection Prevention Assurance Committee meeting quarterly was held and the creation of a weekly Infection Prevention Cell meeting (IP cell) established.

During the majority of the last quarter of 19/20 the UHL IPT embarked on an education and training programme designed to assist all UHL CMG in the preparation of our hospitals to receive patients suffering from COVID-19. This included but was by no means limited to Mask Fit testing, donning and doffing of and the correct use of PPE, walkthrough of clinical areas to redesign pathways for safe patient flow. Mask Fit Testing was subsequently undertaken by our Health and Safety Team to release the IPT to undertake other essential work streams. This support for the Trust continued into 2021/22.

Evidence from other countries around the world described a virus which had the potential to infect large numbers of people and overwhelm clinical services. The NHS across the whole of the UK developed plans of healthcare environments to deal with this.

#### 3.1 COVID-19

The Trust first began preparing for an outbreak of COVID-19 in mid-January 2020, with transmission being first detected in Leicester's Hospitals on 23rd February 2020. This pattern of transmission during 2021-2022 across UHL was broadly in line with the national picture and is reflected in the graph below, clearly illustrating a "wave" of infection,

- Peak number of COVID-19 patients was 273 (08/01/2022)
- Peak number of COVID-19 patients on ITU & ECMO was 26 (31/08/2021)



Table 2: Confirmed UHL COVID-19 Patients between April 2021 – March 2022



Table 3: Confirmed UHL COVID-19 Patients on ITU / ECMO between April 2021-March 2022

Guidance issued to all NHS Trusts from NHSEI on the 9 June 2020 required all organisations to instigate formal outbreak management processes where outbreaks of SARS-CoV-2 were identified.

In the event of a COVID-19 outbreak, NHS organisations were to follow existing Public Health England guidance on defining and managing communicable disease outbreaks <a href="https://www.gov.uk/government/publications/communicable-disease-outbreak-management-operational-guidance">https://www.gov.uk/government/publications/communicable-disease-outbreak-management-operational-guidance</a>

Public Health England (PHE) Guidance defines an outbreak as the following:

The term outbreak applied to COVID-19 is strictly defined in PHE guidance as two or more cases in a single setting (for example, in a single ward or having shared a location) that have become symptomatic or detected on screening on or after day eight of hospital admission.

The process instigated by UHL was as follows:

- A comprehensive 'Toolkit' was developed by the Infection Prevention Team (IPT) which upon identification of an outbreak was sent to the local leadership teams within the Clinical Management Groups (CMGs) (Appendix 1)
- This Toolkit was kept up to date with the latest Infection Prevention Guidance by the IPT
- Senior Leadership at all outbreak meetings was provided by the Chief Nurse/Deputy Chief Nurse or the Lead Infection Prevention Nurse
- For each outbreak an 'outbreak control team' within each CMG was established and to all meetings colleagues from NHSEI, UKHSA and the CCG were invited. The IIMarch sitrep was completed as per NHSEI guidance.
- Minutes and action logs were kept of all meetings

UHL instigated with the support of the informatics team an automated process by which COVID-19 patient infection numbers could be reviewed and analysed on a daily basis according to the nationally defined criteria;

The definitions of apportionment of COVID-19 in respect of patients diagnosed within hospitals are as follows (NHSEI CNO Letter (Ref No 001559) 19 May 2020):

**Community-Onset** (CO) - positive specimen date <=2 days after hospital admission or hospital attendance;

*Hospital-Onset Indeterminate Healthcare-Associated* (HO.iHA) - positive specimen date 3-7 days after hospital admission;

*Hospital-Onset Probable Healthcare-Associated* (HO.pHA) - positive specimen date 8-14 days after hospital admission;

*Hospital-Onset Definite Healthcare-Associated* (HO.dHA) - positive specimen date 15 or more days after hospital admission.

Where any outbreaks were identified, actions were taken as described above.

All Trusts were also requested to undertake root cause analyses (RCAs) for every 'definite' and 'probable' healthcare associated COVID-19 inpatient infection. UHL instigated a process to ensure these were completed by the IPT and this continues to date. Currently where these enhanced surveillance reports are required by our Medical Examiner's Office for reviews into patient deaths associated with COVID-19 these reports form the starting point for further clinical and patient management investigation.

At a Leicester, Leicestershire and Rutland (LLR) level all organisations providing NHS services meet on a weekly basis to discuss the local infection status.

UHL recorded 65 outbreaks for 2021/22 in line with the reporting framework notified to Trusts by NHSEI, these included incidents that occurred in non-clinical areas affecting staff only as well as incidents in renal dialysis satellite centres off the main UHL sites.

The number of outbreaks at any one time mirrored the number of patients admitted with a COVID-19 diagnosis, indicating the relationship between the caseload and risk of outbreak. What continues to be of further national investigation is the part asymptomatic carriage of COVID-19 in both patients and staff plays in the potential for cross infection. Where asymptomatic carriage was detected in either staff or patients, immediate action was taken to either isolate patients and screen any contact patients or ensure staff did not come to work and they were required to isolate for the required time period. Where such instances were identified as part of an outbreak situation, this was documented, monitored and managed as part of the outbreak control process.

An aggregated UHL SARS CoV-2 Outbreak report was produced and presented to the Trust Infection Prevention Assurance Committee in 2020, no additional themes or lessons were captured during 2021 / 2022

#### 4. UHL Governance and Assurance Framework

The Board of Directors has collective responsibility for keeping to a minimum the risk of infection and recognises its responsibility for overseeing Infection Prevention arrangements in the Trust.

The Trust Infection Prevention Assurance Committee (TIPAC) continued during 2021/22 and received reports and updates from the Infection Prevention Team and wider allied groups within UHL.

The TIPAC is chaired by the Chief Nurse, who is also the Director of Infection Prevention and Control (DIPC). UHL TIPAC receives assurance of the Clinical Management Group (CMG) Infection Prevention Programme implementation and monitors compliance with Trust policies.

The Trust CMG's are comprised of different clinical specialities – their management structures are bespoke around these and the IP management arrangements may vary between them. They continue the process of establishing assurance and monitoring processes into their committees and structures for the reporting and monitoring of infection prevention related activities.

A comprehensive assurance reporting framework is in place.

The Infection Prevention arrangements within the CMGs are reported and confirmed at the CMG Quality and Performance Management Committees and ultimately by exception to the Trust Infection Prevention Assurance Committee and Executive Quality Board.

An annual programme (Toolkit) is prepared by the Infection Prevention Team, which is agreed, each year, by the TIPAC and approved by the Executive Team and Trust Board. The annual programme runs from April to March. Progress against the Annual Programme is monitored by the TIPAC.

The programme of work is mapped to the duties of The Health and Social Care Act 2008: Code of Practice for health and adult social care on the prevention and control of infections and related guidance (2014) and incorporates elements of the Trust Commissioning Quality Schedule (where applicable) UHL Quality Commitment, National Institute for Clinical Excellence (NICE) guidelines and any relevant recently produced national guidance documents.

The IPT did not have any elements within the Commissioning for Quality and Innovation Initiatives (CQUIN) schedule for 2021/22

Monthly Quality and Performance Review reports on HCAI performance (including MRSA and *C.difficile* rates) are produced and presented to the People Processes and Performance Commitee and quarterly infection prevention and hygiene reports are produced by all CMGs which are presented to TIPAC

The DIPC provides the direct link to the Executive Quality Board (EQB) with issues, by exception.

As previously outlined during 2021/22 a series of scaled back TIPAC meetings were held and a subgroup of the command and control structure was established (The Infection Prevention Cell) whose agendas were primarily centred on COVID-19 national policy documents and their implementation. The Annual Infection Prevention programme and reporting frameworks were suspended. Reporting to the Trust board was via the DIPC.

#### 5. Leicester, Leicestershire and Rutland (LLR) Monitoring Framework

NHS Commissioning of services for LLR was divided into three separate commissioning groups. Leicester City, East Leicestershire and Rutland (ELR) and West Leicestershire respectively.

Infection Prevention advice to all 3 CCGs was provided by 2 IPN who were hosted by the ELR CCG.

The CCG IPN participates in the post infection reviews for all patients who develop MRSA bacteraemia in line with the NHS England guidelines for the management of cases. They also oversee the cases of CDI, reviewing all cases.

Infection Prevention across LLR has recently been strengthened by the development of an IP and Antimicrobial Multi-Agency Group. The remit of this group is to harmonise the approach to Infection Prevention, working together to ensure the delivery of standardised patient care across the county

Going forwards NHS England confirmed that Leicester, Leicestershire and Rutland's Sustainability and Transformation Partnership (STP) application to become an Integrated Care System (ICS) was approved. An ICS is a new, closer form of collaboration which builds on existing STPs. In it all parts of the NHS, as well as other partners such as local authorities and the voluntary and community sector, take on greater responsibility for working together and collectively managing resources. They aim to improve the health of residents by preventing illness, tackling inequalities and unwarranted variation in care, whilst delivering seamless services. The commitment to form ICS' was set out in the NHS Long Term Plan, published in January 2019 when the Government set out plans for a parliamentary Bill to put ICSs on a statutory footing. Infection Prevention will be integrated into the ICS.

#### 6. <u>Care Quality Commission Regulation</u>

The Code of Practice: *The Health and Social Care Act 2008 Code of Practice for health and adult social care on the prevention and control of infections and related guidance* applies to NHS bodies and providers of independent healthcare and adult social care in England, including primary dental care, independent sector ambulance providers and primary medical care providers.

The code has been revised to reflect the structural changes that took effect in the NHS from 1<sup>st</sup> April 2013 and the role of infection prevention (including cleanliness) in optimising antimicrobial use and reducing antimicrobial resistance.

The law states that the Code must be taken into account by the CQC when it makes decisions about registration against the infection prevention requirements. The regulations also say that IP/EC/2021/22 Page **10** of **27** 

providers must have regard to the Code when deciding how they will comply with registration requirements. So, by following the Code, registered providers will be able to show that they meet the requirement set out in the regulations.

The Code of Practice sets out criteria for the prevention and control of infections associated with healthcare delivery.

Compliance criterion	What the registered provider will need to demonstrate
1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.
2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.
3	Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.
4	Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/ medical care in a timely fashion.
5	Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.
6	Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.
7	Provide or secure adequate isolation facilities.
8	Secure adequate access to laboratory support as appropriate.
9	Have and adhere to policies, designed for the individual's care and provider organisations that will help to prevent and control infections.
10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.

In 2021/22 the Trust declared full compliance with the Care Quality Commission, Section 20 regulation of the Health and Social Care Act (2008) Outcome 8 Cleanliness and Infection Control.

This declaration was made with due regard to regulation 12 of the Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.

As discussed in the previous section the UHL IP Toolkit provides assurance against the code.

We have been asked to share our Toolkit with other organisations as an example of good practice in this regard.

The latest comprehensive CQC inspection of Leicester's Hospitals was between 10<sup>th</sup> September 2019 to 6<sup>th</sup> November 2019. Overall the Trust received a 'Good 'rating. Of particular note from the CQC was the comment

A copy of the CQC compliance reports for Leicester Hospitals is available on the UHL public and CQC websites.

During March 2020 NHSEI launched a COVID-19 Board Assurance Framework (BAF). It was developed to support all healthcare providers to effectively self-assess their compliance with PHE and other COVID-19 related infection prevention and control guidance and to identify risks.

The CQC indicated that this BAF would become the tool which would form the basis of their assessments of the performance of Infection Prevention within NHS acute trusts during the pandemic. Each CMG completed an individual framework in May 2020 and April 2021 and overarching reports were collated and presented to the Executive Quality Board and Quality Outcomes Committee. During June 2020 and June 2021 the CQC held virtual Transitional Monitoring Arrangement meetings with the DIPC and Director of Quality Governance to review the IP BAF. No areas of concern were identified.

#### 7. Infection Prevention Within UHL

University Hospitals of Leicester has a specialised Infection Prevention Team (IPT) that work across the three main acute hospital city sites and also across the UHL Alliance (Community hospitals and Day Surgical units) 7 Renal Dialysis sites across the East of England and the St Marys Birthing Centre at Melton Mowbray.

Lead Infection Prevention Nurse (LIPN).	Whole Time Equivalent Posts
Deputy Lead Infection Prevention Nurse (DLIPN)	x1 WTE
Senior IPNs	x 2 WTE
Specialist IPNs	x 5.8 WTE
IPN	x 1
CDI Specialist Nurse	x1
Audit and Surveillance Nurse	x 1
Senior Information Analyst	x1
Personal Assistant to IP	x1

#### 7.1 Infection Prevention Team

The Chief Nurse holds the role of Director of Infection Prevention and Control (DIPC) and a Consultant Microbiologist is the Lead Infection Prevention Doctor.

IPN qualifications range from Diploma, BSc to MA level and the team work to a set of core competencies developed by the Infection Prevention Society.

One of the Senior IPN works specifically within the Estates and Facilities Team providing specialist IP advice and support. We feel this is particularly important as the Trust embarks on an ambitious reconfiguration and transformation programme.

National standards and guidance with regard to Water Management, Ventilation system provision, aspects of Decontamination, New Build and refurbishment of existing estate both exist and continue to be developed. Providing guidance and working with both estate colleagues and external contractors ensures UHL works towards meeting these important standards designed to provide a safe environment for our patients.

The IPT coordinates and contributes to the Trust's priority to minimise the risk of infection to our patients, visitors and staff by:

- Providing advice on all aspects of Infection Prevention ensuring that UHL meets the requirements of The Health and Social Care Act (2008) Code of Practice for the Prevention of Healthcare Associated Infections
- Closely monitoring Microbiology results via the electronic reporting system to enable robust and timely patient management
- Managing outbreaks of infection
- Managing incidents that relate to Infection Prevention
- Improving Infection Prevention capability and capacity within Clinical Management Groups
- Developing and facilitating programmes of education and training
- Undertaking audit and developing a targeted surveillance programme where possible
- Formulating policies and procedures
- Interpreting and implementing national guidance at a local level
- Involvement with new building and equipment projects

There is an ever diminishing pool of Infection Prevention Specialists nationally, for which all organisations now compete. COVID-19 has seen many organisations invest in and expand their IP teams, with salaries at higher Agenda for Change (AFC) bandings not seen for many years. We have been successful in developing a business case for recruitment into the Infection Prevention Team to ensure succession planning and sustainability of the Infection Prevention Agenda within UHL and recruitment will commence from April 2022.

#### 7.2 Healthcare Associated Infection Surveillance

The recruitment described in section 7.1 also includes the reestablishment of a Surgical Site Infection Surveillance Programme. We are particularly excited about this as this re-establishes quality and safety Infection Prevention work stream within the organisation.

The Infection Prevention Team (IPT) undertakes continuous surveillance of alert organisms and alert conditions using the Nervecentre (our next generation electronic system partners). This system has been developed within UHL in collaboration with our IT System partners and we continue to work with them to further develop the programme.

#### 7.3 Alert Organisms<sup>1</sup>

- MRSA
- Clostridium difficile
- Group A Streptococcus
- Salmonella spp.
- Campylobacter spp.
- Mycobacterium tuberculosis
- Glycopeptide resistant Enterococci
- Multi resistant Gram-negative bacilli e.g. extended spectrum beta-lactamase (ESBL) producers
- Carbapenemase-producing Enterobacterales (CPE)
- Influenza
- Neisseria meningitidis
- Aspergillus
- Hepatitis A
- Hepatitis B
- Hepatitis C
- HIV

#### 7.4 Alert Conditions

- Scabies
- Chickenpox and shingles
- Two or more possibly related cases of acute infection e.g. gastroenteritis
- Surgical site infections

Since 2001 reporting of the numbers of significant organisms related to Healthcare Associated Infection (HCAI) has been mandatory. These are reported to the United Kingdom Health Security Agency (UKHSA) (previously Public Health England (PHE)) data capture system.

This began with Staphylococcus blood stream infection including resistant strains (MRSA), later extending to Clostridium difficile and subsequently E coli, Klebsiella, Pseudomonas blood stream infections.

During the past year we have continued to implement a root cause analysis process for MRSA, MSSA bacteraemia, *C.difficile* deaths and increased incidence of cases of *C.difficile*. This ensures we comply with the required external reporting arrangements, and provides us with a way of learning lessons from each case, enabling us to develop and change practice, all with the aim of leading to further reduction in infections and bacteraemias within UHL. MRSA bacteraemia and *C.difficile* are two of the performance management indicators used by the DH.

<sup>&</sup>lt;sup>1</sup> Alert organisms are organisms identified as important due to the potential seriousness of the infection they cause, antibiotic resistance or other public health concerns. This is a nationally recognised term; these organisms may be part of mandatory or voluntary surveillance systems and are used as indicators of general infection prevention and control performance.

#### 7.5 MRSA and MSSA Prevention and Reduction Strategies

*Staphylococcus aureus* is a bacterium commonly found colonising humans. Although most people carry this organism harmlessly, it is capable of causing a wide range of infections from minor boils to serious wound infections and from food poisoning to toxic shock syndrome. In hospitals it can cause surgical wound infections and bloodstream infections. When *Staphylococcus aureus* is found in the bloodstream it is referred to as a *Staphylococcus aureus* bacteraemia.

The implementation of measures, in recent years, has been designed to further reduce the numbers of cases of MRSA bacteraemia within UHL and these have continued during 2021/22

Examples of some of the on-going initiatives include:

- All adult patients being washed in Stellisept (an antiseptic body wash) and the use of nasal mupirocin (also called Bactroban, an antibiotic nasal ointment) where appropriate.
- Continued monitoring of patients with either known infections or patients that are colonised with an organism with the potential to go on to develop infections, by the IP team. This is particularly related to MRSA.

Compliance with MRSA and MSSA prevention using daily antiseptic skin washes continue to be monitored monthly using the ward metrics to maintain its high profile in patients care.

The UHL trajectory for MRSA bloodstream infections for 2021/22 was 0 avoidable cases. The Trust recorded 1 case for 2021/22

The Trust investigates every MRSA bacteraemia as an incident and undertakes a post infection review (PIR). These investigations are fed back to a multi-disciplinary group including the DIPC and members of the Clinical Commissioning Group (CCG) and are accompanied by an action plan where any lessons maybe learned. These are monitored through the CMG IP Groups.

There is absolutely no room for complacency with regard to our drive to prevent acquisition of infection within the hospitals. As these numbers become smaller, there will inevitably be a threshold beyond which a continued reduction will not be possible. Sustained management of systems and processes instigated in previous years will be crucial to our continued success and our teams work hard to maintain these low infection numbers.

#### 7.6 Clostridioides difficile Prevention and Reduction Strategies

Colleagues should note the nomenclature change of *Clostridium difficile* to *Clostridioides difficile*, based on adoption by the Clinical Laboratories and Standard Institute, (CLSI) and the following publication: Lawson P. A., Citron D. M., Tyrrell K. L., Finegold S. M. (2016). Reclassification of *Clostridium difficile* as *Clostridioides difficile* (Hall and O'Toole 1935) Prevot 1938. Anaerobe 40, 95–99.

We will therefore see this change in subsequent papers and readers should note you may/will see this terminology used going forward

Those dated before January 1, 2019 will retain the former organism name; those dated on or after January 1, 2019 may/will incorporate the new name

## Please note that the abbreviations CDI, CDIFF, and *C. difficile* will remain appropriate abbreviations after the change and will not be modified within UHL.

Mandatory surveillance for CDI in over 65 year olds has been undertaken since 2004. Since 2007 episodes of CDI in patients between the ages of 2 and 65 have also been reported.

For mandatory reporting purposes, all diarrhoeal stools submitted to the microbiology laboratory are examined for the presence of *C.difficile* toxin (it is the toxin released by the *C.difficile* bacterium that causes damage to the bowel).

Episodes are reported via the HPA mandatory enhanced surveillance system.

From 2019/20 cases reported to the healthcare associated infection data capture system will be assigned as follows:

- **Hospital onset healthcare associated (HOHA):** cases that are detected in the hospital two or more days after admission
- **Community onset healthcare associated (COHA):** cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous four weeks
- **Community onset indeterminate association (COIA):** cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous 12 weeks but not the most recent four weeks
- **Community onset community associated (COCA):** cases that occur in the community (or within two days of admission) when the patient has not been an inpatient in the trust reporting the case in the previous 12 weeks.

Acute provider objectives are set using these two categories:

- Hospital onset healthcare associated: cases that are detected in the hospital two or more days after admission
- Community onset healthcare associated: cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous four weeks.

**Reference:** Clostridium difficile infection objectives for NHS organisations in 2021/22 and guidance on the intention to review financial sanctions and sampling rates from 2021/22.

The agreed trajectory for this infection in 2021/22 applying the new trajectory was 91 cases of *C.difficile* in patients aged 65 and over. The year-end position for UHL was 114.

	Apr- 2021	May- 2021	Jun- 2021	Jul- 2021	Aug- 2021	Sep- 2021	Oct- 2021	Nov- 2021	Dec- 2021	Jan- 2022	Feb- 2022	Mar- 2022	Total
Healthcare Associated Infections	7	5	9	9	10	8	13	9	8	12	15	9	114

Table 4: The monthly number of Clostridium difficile reportable infections

Isolating each patient with *C.difficile* diarrhoea continues to be a priority, to prevent cross contamination. Patients with *C.difficile* are cared for in single rooms. Where patients were not isolated it was for over-riding clinical reasons in the vast majority of cases (e.g. on an Intensive Care Unit).

It is recognised that it is important to continually monitor and reinforce the messages to staff with regard to HCAI's. The Department of Health published guidance entitled '*Clostridium difficile* - How to deal with the problem' in early 2009. UHL has implemented this guidance across the Trust and a dedicated CD Liaison Nurse works across the three sites and continues to work with the Infection Prevention Team to ensure appropriate management of these patients and to provide specialist support to nursing and medical colleagues.

A weekly Multi-Disciplinary Team meeting takes place where there is a review of patients within UHL that are both positive and symptomatic with this infection.

Any Periods of Increased Incidence (two or more cases of Clostridium difficile infection within 28 days in the same clinical setting) automatically triggers a multi-disciplinary review of the patients and their environment to ensure that there are rigorous processes in place and policy is being adhered to, to prevent cross infection with this organism.

The Infection Prevention Team and the Antimicrobial Pharmacist continued to support trust colleagues with:

- Increasing hand hygiene awareness among staff, patients and visitors: using soap and water where *C.difficile* is present (as alcohol rub used on its own is ineffective against *C.difficile*). The roll out of the World Health Organisation '5 moments of Hand Hygiene'
- Continuing to improve antimicrobial prescribing, notably more regular recording of the reasons for antibiotics and stopping them as soon as the patient has completed the required course
- Worked with Facilities colleagues to develop a deliverable insitu deep cleaning programme which includes the use of hydrogen peroxide decontamination to clean isolation rooms and other clinical areas continued where possible.
- Weekly data reporting to identify problem areas
- Attendance at the Period of Increased Incidence meetings with colleagues supporting these areas with audit, inspections and helping staff to problems solve where necessary.
- Reinforcement of the use of the Care Pathway for Clostridium difficile
- Reinforcement of the message of the importance of a clean clutter free environment for patients in order to facilitate effective cleaning.
- Reinforcement of the use of Source Isolation precautions when caring for patients with infections



*Table 5: Trust apportioned by hospital associated Clostridium difficile infections by financial year per occupied overnight beds (per 100,000).* (please note this data is always retrospective by one calendar year)

#### 7.7 Gram Negative Blood Stream Infections

There was a national ambition to reduce healthcare associated Gram-negative blood stream infections (healthcare associated GNBSIs) by 50% by March 2021. As with other national ambitions proactive work on this this was suspended during 2021/22. As previously indicated we continued to collect the alert organism data and report this to the Data Capture System (DCS) at United Kingdom Health Security Agency (UKHSA).

These can be serious infections and often result in admission to critical care and in some cases mortality. We know GNBSI cases can occur in hospitals however, half of all community onset cases have had some healthcare interventions either from acute, primary or community care. Therefore, we can only achieve the reductions by working together across the whole health and social care sector. The establishment of the Multi-Agency LLR IP group and the work streams from this group are designed to support this national ambition.

#### 7.8 E coli (Escherichia coli) Bacteraemia

E coli is the leading cause of Gram Negative Blood Stream Infections (GNBSIs) and in accordance with the Department of Health (DH) Guidelines the IPCT commenced mandatory reporting of *E. coli* bacteraemia in June 2011.



 Table 6: Trust apportioned E coli infections by financial year per occupied overnight beds (per 100,000). (please note this data is always retrospective by one calendar year)

All *E. coli* post 48-hour positive blood cultures within UHL have a limited data set collected and returned to the United Kingdom Health Security Agency (UKHSA) data capture system. In 2016, The Secretary of State for Health set an ambition to reduce all E coli bloodstream infections by 10% and all healthcare associated Gram negative blood stream infections by 50% by April 2021. This ambition was suspended during the COVID-19 pandemic.

UHL anticipate that the DH would at some point introduce trajectory targets. To this end we introduced a surveillance programme to try to identify significant risk factors or interventions which could be potentially reduced the risk. A significant proportion of E coli BSI are secondary to urinary tract infections, and it was assumed nationally that many of these would be related to the use of urinary catheters. Our data however showed the most significant risk was in fact diabetes, information not widely recognised previously.

#### 7.9 Carbapenem Resistant Enterobacterales/Extensive Drug Resistance

Updated guidance was issued on the 27 July 2021 In 2014/15 by Public Health England PHE, now United Kingdom Health Security Agency (UKHSA). This predominantly concentrates on prevention: isolation of high-risk individuals and screening being of particular importance. The UHL focus is to identify, isolate, investigate, inform and initiate (the i5's of Infection Prevention) management of these patients and all patients that fit specific screening criteria are screened for these organisms. This enables identification and management of these patients to prevent further transmission.

#### 8 Mandatory Surveillance of Surgical Site Infections(SSI)

UHL participates in the UKHSA mandatory hip and knee surveillance programme. Orthopaedic data is submitted by hospitals following the mandatory surveillance requirement introduced by the Department of Health in April 2004 [1]. This requires all NHS trusts undertaking orthopaedic surgical procedures to carry out a minimum of 3 months' surveillance in each financial year in at least one of four categories (hip prosthesis, knee prosthesis, repair of neck of femur or reduction of long bone fracture). The Orthopaedic Team manage and submit data with support and advice from IPT, when required.

In 2021/22, UHL submitted data for knee replacement surgery for quarters 1, 2, 3 and 4.

#### 9 Outbreaks of Infection and Incident Reports

Outbreaks occur when there are two or more linked infections which may or may not be preventable. These events are recognised through surveillance, reporting or routine IP activities and are by definition unpredictable.

Infection Prevention incidents may not always relate directly to infection but be the consequence of further investigation required. If this has an operational impact then this in itself can be enough to trigger an incident response requiring a multi-disciplinary focus.

Every year the Infection Prevention Team recognises and responds to many incidents and potential outbreaks. Some are of significance. However others turn out to be chance clusters not caused by cross infection. The Infection Prevention Team has to be alert to all potential outbreaks.

Outbreaks and Incidents may be recorded in several different ways. UHL use a DATIX incident reporting mechanism and a monthly report is produced from this system to enable the Infection Prevention Nurses to feedback to the Clinical Management Teams at their Infection Prevention Group meetings.

Where an outbreak is considered to be particularly significant because of its size or the lessons learnt, this is managed as a Serious Incident (SI) and reported in line with the NHS Midlands and East Policy for the Reporting and Management of Serious Incidents in the East Midlands.

During an outbreak, the IPT provides a higher than usual level of support, information and training to the area affected, and works in close partnership with the clinical staff to try to prevent further spread of the infection, and to minimise service disruption.

After an outbreak, the IPT support the development of a report which is presented to the CMG IP groups and TIPAC. During 18/19 a revised outbreak pack was developed which included 'action cards' to support staff with time efficient working within the ward environments.

The table below identifies the incidents/outbreaks which were reported between April 2021 and March 2022.

Serious Incident, RCA or Increased Incident Investigations during 2021/22

2x CDT Deaths

#### 10. <u>Norovirus</u>

The winter season of 2021/22 saw no cases of Norovirus. This is unprecedented in recent years

In previous years and if necessary Management of Norovirus within UHL follows the national guidance within the 'Guidelines for the Management of Norovirus outbreaks in Acute and Community Health and Social Care settings'

The CMG IP groups, relevant UHL CMG Boards, NHS Midlands and East are all part of the reporting mechanism to ensure due process with regard to the management of Governance and Assurance.

UHL Commissioners are copied into a daily increased incidence/outbreak e-mail that is widely circulated across UHL and also sent to external partners to ensure that they are fully sighted to what is happening within the Trust. This e-mail identifies restricted areas and details actions required.

#### 11. Influenza

During 2021/22 winter season there were scarcely any community acquired Influenza cases and no hospital acquired Influenza cases identified within the Trust. Again this is unprecedented. This was replicated across the NHS in England and the national lockdown whereby people were socially distanced, the increased emphasis on hand hygiene and the wearing of face coverings are considered to have offered a protective effect and reduced transmission of this organism.

#### 12. <u>Policies Procedures and Guidelines</u>

UHL recognises the importance for staff to have ready access to a full range of infection prevention and control policies, procedures and guidelines. Through 2021/22 we have continued to revise Trust policies and guidelines and have included Infection Prevention Pathways to help staff quickly and safely manage patients with COVID-19 in particular. These are available on the Trust's Intranet site.

#### 13. Infection Prevention Clinical Audit Programme

The IP audit programme is compliant with The Health and Social Care Act: Code of Practice on the prevention and control of infections and related guidance. The audits include evidence based interventions to reduce the risk of infection to provide education and feedback to clinical staff.

The audit programme is part of the Annual Infection Prevention Toolkit with results included within the IP scorecard. The scorecard is reviewed as part of the CMG IP groups and within the Trust Infection Prevention Assurance Committee (TIPAC). Whilst the audit programme was suspended during 2021/22 as described in earlier sections of this report it should be noted that hand hygiene, social distancing and the use of Personal Protective Equipment (PPE) was extensively monitored by nursing colleagues and extensively audited as part of the control and outbreak management processes implemented across the organisation. At each outbreak meeting Hand Hygiene, Social Distancing, Ventilation, Screening compliance, Lateral Flow testing and vaccination of staff and patient screening was reviewed.

#### 13.1 Sharps Audit

An audit of sharps containers is usually conducted by Daniels Healthcare, the provider of our sharps bins. Due to COVID-19 restrictions our partner providers were not able to access the Trust. A formal audit will recommence as soon as is possible however in the meantime observational audits were undertaken by our ward/dept managers and matrons.

#### 13.2 Education

The IPT provide an extensive multi-modal programme of Infection Prevention education across the trust to support compliance with mandatory training and national guidance

In addition to this IP education is provided in response to data collection, identified need or upon request.

During 21/22 due to the ongoing effort to manage the Pandemic the team were not able to deliver over the full package of training. Face to face training was predominantly replaced with virtual interactive sessions. In total 105 training session were delivered. These included but not limited to UHL Trust Induction sessions to clinical and non-clinical staff. The IPT team have also continued to deliver Infection Prevention training to International students, medical students/Health Care Assistants/Midwifery Care Assistants/Theatre Support. These training sessions have been well received and the feedback is positive for content, style and pace of delivery.

These figures do not include locally delivered education by individual IP nurses who have provided a blend of in situ and virtual Infection Prevention training within their own CMG with ongoing support of COVID-19 or outbreak management.

In addition to education within UHL the IP Team liaise closely with Leicester and De Montfort Universities to ensure training delivered to medical and nursing students is in line with current guidance and UHL policies.

#### 14 Infection Prevention Link Staff

There is a robust IPLS training programme that can be successfully delivered by the IPT, which normally includes quarterly training days as well as individual support and workplace advice. The pandemic and outbreak management has taken precedent over the programme of education in particularly the IP Link Staff Study Days. However despite this the IPT have led and delivered a total of 6 dedicated virtual training days for our Infection Prevention link staff.

#### 15 Decontamination

Endoscopy decontamination is 85% conducted within temporary mobile decontamination units. These are operated to HTM 01-06 standards and all staffed are trained to this level. Clinical areas are responsible for the bed side clean (in line with the Endoscopy policy) and the dedicated specially trained decontamination staff are responsible for the pre clean (manual wash) and using the automated decontamination machines and low steam sterilisation equipment. All staff are assessed for competence every six months. The UHL centralised Decontamination Unit is due to open in October 2022

UHL have contingency in place if the decontamination units fail to ensure no service disruption

Sterilisation of surgical instruments is conducted by our third party partners (Steris) and a yearly external audit ensures they are compliant to HTM 01-01. As part of the yearly audit the decontamination lead attends the unit and conducts an inspection to give the trust assurance of the external findings. There is also a Bi monthly Joint Business Meeting where new equipment is discussed and any non-compliance is discussed and documented

The cleaning and decontamination audit described within the Infection Prevention UHL policy (B5/2006) includes guidelines for all staff in the correct cleaning of medical devices .The decontamination lead works closely with the procurement team to ensure compliance to the cleaning products listed within the policy for the use on medical equipment.

A yearly decontamination of medical devices audit took place in February 2022 and the results were shared with the Heads of nursing for each CMG. 150 areas sent responses compared to IP/EC/2021/22 Page 22 of 27

134 in 2021. Confirm and Challenge meetings have taken place with all areas and an action plan has been complied. Each CMG has taken the concerns from the audit to their Infection Prevention Operational Group (IPOG) meetings for discussion and escalation.

#### 16 Estates and Facilities Management

The LLR region has been heavily impacted by COVID-19, with infection rates exceeding the national norm throughout the year. The Trust's response to COVID 19 has been a major influence upon Estates and Facilities (E&F) services in all areas.

#### 16.1 Cleaning

During Covid, the cleaning service was an integral part of the Trust's overall management of the risk of Infection.

Across many areas of the Trust, E&F put in place enhanced cleaning regimes to minimise the risk of transmission of infections. Many of these enhanced cleaning requirements remain in place.

- As part of the UHL update, E&F have provided evidence to update the Trust Board Assurance Framework (BAF) document.
- Despite the increased demand in cleaning, Very High Risk and High Risk area formal audits have continued to be undertaken and completed.
- Significant Risk areas auditing recommenced in Q2 as part of E&F Restoration and Recovery.
- Facilities Managers now attend all CMG monthly IPOG Reviews.
- During 2021/22 where outbreaks were identified enhance cleaning provision continued. This also includes the separation of patient food services to ensure clear lines of responsibility between cleaning and food preparation. This also allows for more dedicated cleaning hours in the clinical environment.
- A dedicated portacount machine has been purchased to train E&F staff as access to the UHL mask fit testing proved challenging, particularly for staff who work outside normal working hours.
- A UHL Domestic Roadshow event took place in October 2021, along with a focused Social Media campaign for Domestic Recruitment. This was supported by the Recruitment and Comms teams and as a result of the event over 40 staff has been recruited. Recruitment continues to take place and regular recruitment meeting are taking place to try and speed up the recruitment process
- In Q3 turnover has stabilised.
- Domestic Managers continue to cover a 7 day week, working 5 out of 7 to improve cover.
- At the end of each quarter, domestic teams had been encouraged to take their pro-rata annual leave to ensure that staff have been suitably rested.
- COVID-19 funding was secured to enhance the Rapid Cleaning Teams at night at each of the three hospital sites. Funding has been secured to continue with this provision until March 2022 to support the E&F Winter Plans.
- Cleaning Managers and Team Leaders across UHL received external formal training for National Cleaning Standards Environmental Audits.
- In conjunction with IP leads all ward and department areas are being reviewed for their revised risk rating as part of the Trusts preparation for the new formal National Cleaning Standards. -This has now been completed ready to be implemented July 22,

#### Table 7: Cleaning scores 2021/2022

Average of Overall Score	Column Labels		
Row Labels	Very High	High	Significant
Apr-21	99.40%	98.16%	95.44%
May-21	99.46%	98.34%	95.92%
Jun-21	99.34%	98.63%	97.31%
Jul-21	99.09%	98.11%	96.88%
Aug-21	98.90%	98.27%	96.24%
Sep-21	98.44%	97.63%	95.47%
Oct-21	99.02%	97.80%	96.43%
Nov-21	98.73%	97.93%	96.11%
Dec-21	99.05%	98.26%	96.79%
Jan-22	98.91%	98.56%	97.01%
Feb-22	98.83%	98.25%	96.49%
Mar-22	98.80%	98.22%	97.03%
Apr-22	98.96%	98.18%	96.07%

#### Table 8: Quantity of cleaning audits 2021/2022

	Audit Risk Type Values							
	1.Very High Risk		2.High Risk		3.Significant Risk			
Pivot Month	Sum of Audits Scheduled	Sum of Audits Completed	Sum of Audits Scheduled	Sum of Audits Completed	Sum of Audits Scheduled	Sum of Audits Completed		
Apr-21	455	390	131	122	29	28		
May-21	547	532	131	112	11	11		
Jun-21	438	416	124	118	26	26		
Jul-21	450	400	124	112	51	37		
Aug-21	554	472	121	115	19	19		
Sep-21	410	379	129	115	65	62		
Oct-21	456	418	147	138	77	57		
Nov-21	669	619	126	120	24	24		
Dec-21	442	425	127	122	62	61		
Jan-22	453	434	128	123	35	35		
Feb-22	430	402	131	123	22	22		
Mar-22	433	410	140	133	86	85		
Apr-22	609	561	137	130	66	61		
Grand Total	6346	5858	1696	1583	573	528		



#### 16.2 Retail Catering

The catering services adapted throughout the year. The Trust implemented a restriction on visitors using the on-site retail catering facilities in order to protect staff from potential infections and revised layouts within the retail catering facilities to enable sufficient social distancing. Layouts were further revised and available floor space reduced as the Trust constructed vaccination centres on each of its three hospitals, to support the regional roll out of the Vaccine programme. During this time the retail service across the three sites operated a free meal service for the UHL staff. Whilst losing many staff to a combination of increased sickness (COVID related), self-isolation and increased levels of staff leaving the Trust, the retail team relied upon the dedication and commitment of other team members and also supporting patient catering colleagues. During 2021/22 there was an ongoing recruitment drive and agency staffing made up the shortfall to replace staff that have left or retired during the pandemic.

Work has started as part of the UHL retail catering recovery plan to increase accessibility of outlets across the three sites, whilst maintaining social distancing protocols. E&F instigated a trial of an outdoor catering provision for Emergency Department at the LRI for patients, staff & visitors. The Trust increased the capacity of outdoor seating in a number of locations across the three sites. During 2021/2022 the catering team explored the opportunities for additional outlets and retail capacity across the three sites.

The retail teams maintained mandatory HELM training levels above 90% and all staff maintained Food Safety level 2 (external) & Level 3 refresher training as applicable. A number of the team also undertook apprentice schemes (external) to enhance their knowledge and skill set during the pandemic.

#### **16.3 Patient Catering Services**

A bid for capital funding was been submitted for consideration to purchase dishwashers for wards that did not have them in ward kitchens.

Food Hygiene for Ward/Departmental Kitchen Policy was ratified by PAGG in Q2 2of 2021/22– and approved by UHL Policy and Guidance group and was subsequently implemented.

Patient Catering have replaced some beverage trolleys across the sites. During the final Q4 of 2021 and the first Q1 of 2022 a Review of the Food Safety Management System

#### 16.4 Water Microbiological Safety Committee

The Trust Water safety group meets quarterly and provides strategic overview of water safety arrangements within the Trust. The group provides a multidisciplinary team that includes Clinical Microbiology, infection prevention, estates and facilities, health and safety as well as an external Authorising Engineer (Water). This group reports to the Trust infection Prevention committee. The group is responsible for review of the Trust water safety policy and water safety plan.

A water task and finish group reports to the Water safety Group and meets monthly. This group forms the operational element of water management and has representation from Estates and facilities, Infection Prevention and Clinical Microbiology. A sub element of this group meets weekly to review all the water testing results.

A water microbiological testing programme is in place for Legionella across the trust and in addition Pseudomonas aeruginosa sampling within augmented care areas.

#### 16.5 Ventilation Safety

The Trust is supported in managing ventilation safety by an Authorising Engineer (Ventilation) and appointed persons within the Estates teams. All critical ventilation systems are verified annually by an external specialist contractor.

#### 16.6 Waste Management

Waste management during 21/22 has continued to be challenging at times with continued limited capacity within the national capacity to reprocess waste although towards the latter end of the year the situation improved considerably.

Continued activity due to covid 19 within the Trust meant that increased use of personal protective equipment required disposal.

An audit of sharps bins was conducted by Daniels healthcare on behalf of the infection prevention team with findings shared with the Clinical management groups

#### 16.7 Patient Led Assessments of the Care Environment (PLACE)

PLACE assessments were suspended throughout 2021/22 across the NHS to prevent the potential spread of infection.

#### 17 Vascular Access Committee

A Vascular Access Committee within UHL reports to the Trust Infection Prevention Committee on any matters that relate to Infection Prevention

#### 18 Occupational Health

Our Occupational Health (OH) service continues to be an integral part of our organisation and plays an ever-important role in supporting our staff and their managers with all matters relating to health and work. We protect the health of the workforce through vaccination against common infectious diseases, as well as those which may be specifically encountered in UHL as a workplace. This encompasses a wide variety of staff groups, from laboratory workers handling specific infectious agents, clinical staff who may be exposed to measles, chickenpox and tuberculosis for example, and staff in all areas of the hospital who may be exposed to influenza. The most well-known occupational vaccination programme continues to be for Hepatitis B, and demonstrating non-infectivity for Hepatitis B is mandatory for some occupational groups. We also undertake screening for other blood borne virus infections in clinical staff who undertake specific procedures e.g. surgery, midwifery.

All new staff members are offered vaccinations appropriate to their job role when starting in post, and some require appropriate clearance to start work following testing. Existing staff members are recalled where necessary.

The challenges for the service presented by COVID-19 have continued in the last year, especially through the winter period 2021-22 with the emergence of the Omicron variant. During this period we had to re-establish drive through testing for staff when the national system was unable to cope. The OH service has undoubtedly become the 'hospital helpline' for staff concerned about all matters relating to Covid-19 and we continue to operate an enhanced Duty Nurse helpline for this purpose.

We have continued to support the risk assessment of staff with vulnerabilities, as well as the vaccination campaign and have continued to collaborate with colleagues in the Infection Prevention and Control Team to assist with management of outbreaks in clinical areas, as well as providing strategic advice in the organisation.

The annual staff influenza campaign this year reached 51% of staff, which reflected the unique seasonal pressures on all staff over the exceptionally challenged winter period and the simultaneous delivery of the Covid-19 Autumn booster, alongside staff concerns about mandatory Covid-19 vaccination as a condition of deployment.

The Occupational Health service again retained its independent accreditation as a Safe, Effective, Quality Occupational Health Service (SEQOHS) following annual review in February 2022, and remains a centre for training in Occupational Medicine, being one of only three units in the UK able to support three medical trainees

As we look forward to the next year, we have exiting plans for the launch of online OH services (electronic referrals and clearance for employment) and growth within the OH Team. A recent move to a new telephone operating system and inclusion of video-consultations has brought improvements to our service.

#### 19 <u>Next Steps</u>

We have identified some key priorities for 2022/23

Continue to support the Trust with the restoration of services as the COVID-19 pandemic wains

- We want to further develop our Gram Negative Bacteraemia Reduction Programme within the Harm Free Care agenda, key elements of this are:
  - Development of a Catheter Associated Urinary Tract Infection reduction programme
  - Continue to support the UHL Endoscopy Project Group to deliver a centralised Endoscope Decontamination Unit.
  - Support vessel health and reduce bacteraemia through membership of the Vascular Access Committee
  - Support the 'Mouth care matters' initiative of which one objective is reduction of fungal mouth infections
  - Support The Nutrition and Hydration steering group where adequate hydration of patients supports reduction of urinary tract infections
  - Support the Antimicrobial Stewardship Programme within the Trust
- Reduce CDT to ensure we remain within trajectory
- Objective = zero MRSA. Post Infection Review (PIR) robustly implemented should any occur.
- To further develop IP and antimicrobial data collection systems within Nerve Centre
- For 2022/2023 the IPCT will continue to work with the Whole Health Economy and combine efforts to protect our patients from Gram –negative bacteraemia.
- To recruit to the Infection Prevention Team and recommence a Surgical Site Infection Surveillance Programme
- Complete adoption and roll out of the revised 2021 National Standards for Cleanliness Programme