

**Director of Infection Prevention and Control Annual Report**

**April 2022 – March 2023**



**Director of Infection Prevention and Control (DIPC)**

**Annual Report**

**Executive Summary:**

Each year the Director of Infection Prevention and Control (DIPC) is responsible for producing an annual report. The purpose of the report is to inform the Trust Board of progress in delivering the Infection Prevention and Control (IPC) Programme within the Trust. This includes providing assurance to the Trust that appropriate measures are being taken to maintain the safety of patients, service users, staff and visitors and to agree the action plan for sustained reduction and improvements in Healthcare Associated Infections (HCAI). The following report provides assurance on the Infection Prevention and Control Programme and activity for 2022/23. Despite the last year being dominated by the COVID-19 global pandemic, the Infection Prevention and Control team (IPCT) have continued lead the Trust response whilst also undertaking important quality improvement projects and workstreams.

**Summary of key achievements:**

* Leading Trust wide response and management of ongoing COVID-19 global pandemic. The work of the IPCT continues to be significantly affected by the COVID-19 pandemic.
* The Trust remains compliant with the revised Health and Social Care Act: Code of Practice for Health and Adult Social Care on the prevention and control of infections and related guidance (The Hygiene Code) and CQC regulations 12 and 15.
* Continuation of mandatory surveillance reporting, and investigation for all organisms that are subject to mandatory reporting. These include MRSA (Methicillin-resistant *Staphylococcus aureus*), MSSA (Methicillin-sensitive *Staphylococcus aureus*), *Clostridiodes difficile*, invasive group A *Streptococcus (iGAS)*, and Gram-negative bloodstream infections (*Escherichia coli*, *Klebsiella* species, *Pseudomonas aeruginosa*). All cases of these infections have been investigated, reviewed via root cause analysis (RCA) and learning shared.
* New surveillance system implemented for health care acquired urinary tract infections and respiratory infection (others than COVID-19) within the eight community inpatient wards.
* New IPC dashboard created to facilitate reporting.
* Three new codes for healthcare associated infections (urinary, respiratory and wound infections) added to Ulysses to improve surveillance and to understand the burden of healthcare associated infections with the Trust.
* Completion of the first point prevalence survey of healthcare associated infections (January 2023) in community hospitals. These results will be used to inform future IPC and quality improvement projects. The survey will be repeated later in 2023 and will be reported on in next years’ report.
* New protocol for taking blood cultures devised to improve rate of blood culture contamination and to standardise practice.
* The IPC audits and the surveillance system have identified the Podiatry services as an area for IPC improvement. There is joint workstream between the Podiatry teams and IPCT in place to address this.
* All inpatient areas and other high-risk areas had annual infection prevention and control audits completed, which measured compliance with standards of infection prevention and control practice. Areas audited included: 33 inpatient areas, 9 Urgent Care areas, 14 Podiatry Clinics and 9 Dental Clinics. Audit results demonstrated sustained improvement.
* Resources and controls to support the prevention and control of healthcare associated infections are in place and the level of assurance is high. Assurance is provided through implementation of the annual work programme with quarterly reports and exceptions reported to the Infection Prevention Control and Decontamination Committee (IPCDC), Trust Quality and Clinical Governance and Quality Committee.
* Collaborative health economy meetings between partner organisations to discuss and review *Clostridioides difficile* infections (CDI) and MRSA/MSSA bacteremia’s to identify joint learning.
* Infection prevention and control education continues to be a priority. Mandatory training is being provided to all Trust staff as E-learning and/or online training via teams as per the training matrix. A full review of the current IPC mandatory training has been undertaken, and a new E-learning course has been devised (one for clinical staff and one for non-clinical staff).
* Implementation of a new ANTT (aseptic technique no touch technique) framework with a procedure and guidelines, which ensures compliance with the Health and Social Care Act. This was supported by a new online ANTT training course.
* Two funded ANTT study days sourced with external trainers. 44 ANTT leads attended the train the trainer days and are now the ANTT leads are responsible for disseminating training, assessing competencies and completing ANTT audits in their areas.
* The IPCT applied for and were awarded £15,000 funding by NHSE/I for an IPC innovation project. The project involves the development of IPC training programme using Virtual Reality technology.
* The IPCT undertake wider teaching including, care certificate, peer support and band 2-4 induction, intravenous therapy, application of Personal Protection Equipment (PPE) and IPC champions.
* Review and implementation of new Trust audit programme system (AMaT).
* Redevelopment of the IPC intranet pages to support easy access to information including generic email.
* Following retirement of an experienced band 7 IPC nurse (May 2022), the post was recruited to as a band 6 developmental IPC nurse (September 2022).
* Review and gap analysis of the updated Health and Social Care Act (issued December 2022).
* Project to improve patient hydration and reduce the risk of the development of urinary tract infections.
* With new community services being implemented (Children hospital at home) and with the feedback from our improved surveillance system the IPC team was able to identify areas for improvement within community services. During 2022 the IPC team was committed in increasing engagement with these services to understand the IPC risks and to expand the IPC support to all community services.

The report summarises the work of the IPCT to ensure we deliver the highest standards of patient care possible whilst preventing avoidable harm to patients from healthcare associated infections.

Marie Crofts Dr Helen Bosley

Chief Nurse Nurse Consultant

Director of Infection Prevention and Control Infection Prevention and Control

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1. Introduction

The Trust continues to have a comprehensive programme of IPC activities which have supported a declaration of compliance with 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, Care Quality Commission (CQC) regulation 12 and 15.

The Act requires that the Board of Directors have a Board-level agreement outlining the Boards’ collective responsibility for minimising the risks of infection and the general means by which it prevents and controls/reduce such risks.

# 2. Overview of infection prevention and control activities during 2022/23

The IPCT are led by the Director of Infection Prevention and Control (DIPC) and the team members are:

* Marie Crofts, Chief Nurse and Director of Infection Prevention and Control
* Helen Bosley, Nurse Consultant Infection Prevention and Control (1.0 WTE)
* Etelvina Ferreira, Lead Nurse Infection Prevention and Control (1.0 WTE)
* Sue Baldwin, Senior Infection Prevention and Control Nurse (1.0 WTE) retired May

2022

* Sarah Thorpe, Senior Infection Prevention and Control Nurse (0.6 WTE)
* Julia Marren, Infection Prevention and Control Nurse (0.8 WTE)
* Stephanie Shipway, Infection Prevention and Control Nurse (1.0 WTE) started

September 2022

* Lindsay Powell, Team Administrator (0.6 WTE).

The IPCT continues to work hard to strengthen and develop links with all services. This has resulted in raised awareness and improved knowledge of IPC across the Trust. The IPCT is responsible for the Trust HCAI surveillance system, and for devising and reviewing/updating the Trust IPC policies, procedures and guidelines. The team supports the IPC champions network, and the clinical and non-clinical services in all IPC matters. The IPCT is also responsible for providing IPC advice, formal and ad hoc education, dissemination of best practice, and monitoring of practice compliance with national standards. Out of hours advice and support is provided via a service level agreement (SLA) with Oxford University Hospitals NHS Foundation Trust (OUHFT). The SLA is for two sessions from a Consultant Microbiologist every week and 24hr/7day week on call microbiology service.

# 3. Governance arrangements

# 3.1 Reporting to the Trust Board

The IPCT provides weekly updates through the Healthcare Associated Infections (HAI) meeting (chaired by the DIPC or deputy DIPC) to the Trust and the weekly governance review meeting, chaired by the Deputy Chief Nurse. The DIPC also reports directly any issues, by exception, to the Trust Board or through the governance structure. Additional IPC reports are presented at the Trust Quality and Clinical Governance subcommittee and Quality committee if required.

# 3.2 Infection Prevention, Control and Decontamination Committee (IPCDC)

The Trust has an Infection Prevention, Control and Decontamination Committee (IPCDC) which meets every quarter. In 2022/23 it met on 28th April 2022, 28th July 2022, 20th October 2022 and 26th January 2023. The IPCDC is accountable to the Quality and Clinical Governance subcommittee.

IPCDC monitors compliance with IPC and decontamination requirements. The IPCDC also monitors the IPC annual work programme, ensures that infection prevention and control issues are addressed and that compliance with the Health and Social Care Act, the NHS Litigation Authority (NHSLA) standards and CQC regulation 12 and 15 are maintained. The IPCDC has terms of reference which are reviewed annually (appendix 1). Included in the committee membership are the DIPC, IPCT, Modern Matrons, Clinical leads, Pharmacy, Facilities and Estates managers, Service Leads, Occupational Health and other departments as required according to the agenda.

# 4. Policy and Procedures

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 details which policies and procedures are appropriate for regulated activities and provide a guide to what may be needed to demonstrate compliance. CQC regulation 12 and 15 outlines essential standards required.

Policies and procedures devised, reviewed, updated and approved during 2022-23 were: -

* Aseptic Non Touch Technique Procedure (July 2022)
* Prevention and Management of *Clostridioides difficile* Infection Procedure (July 2022)
* Laundry Procedure (July 2022)
* Infection Prevention and Control Standards for Clinical Environment Builds (July 2022)
* Decontamination procedure (October 2022)
* IF1 policy (January 2023)
* All these procedures and ‘At a Glance’ guides are available to staff via the Infection Prevention and Control intranet page.

# 5. Local service improvement

**5.1 Infection prevention and control intranet page**

The intranet page is continually being reviewed, updated and developed with new and relevant information and data for staff to access. It contains all policies and procedures, annual audit programme, relevant patient information leaflets, product information, quarterly IPCT newsletters, IPC champions resources, IPCT contact details and management of outbreaks information. It is promoted in mandatory training as an easily accessible resource for staff.

In response to the COVID-19 pandemic a dedicated COVID-19 IPC page was created which is reviewed and updated as required. The IPCT have continued to work closely with the Trust communications team to ensure all relevant information for staff is collated and held in one easy to find place. Direct links to the dedicated pages are available through the weekly (more frequently if required) communications bulletin in order that all staff have immediate access to any changes in IPC/ PPE guidance.

# 5.2 Adenosine triphosphate (ATP) testing

All community hospitals and older adult mental health wards (high risk areas) use the Clean Trace system for monitoring cleanliness of the environment and medical equipment. This system records the level of ATP (adenosine triphosphate) or energy produced by living organisms and provides robust timely data on the efficacy of cleaning taking place. It has been used in conjunction with the cleanliness audits which are conducted by the Matrons and Facilities Managers.

Access to the system often requires updating due to turnover of staff completing this task. This may lead to delays in completing the ATP testing and uploading any results. The IPCT and company continue to work closely with the ward to troubleshoot any issues and resolve them as quickly as possible. Ongoing work is in progress to strengthen reporting of data and close monitoring is in place to ensure any issues are being addressed.

# 5.3 MRSA screening

The Department of Health for England requires all NHS Trusts to screen patients using a focussed risk based screening programme. As a result, the Trust undertakes MRSA screening in all community hospital and older adult’s mental health wards, although robust monitoring of compliance remains difficult. This has been exacerbated by the loss of the IT patient records (carenotes) system. Data was only available for the first quarter (April-June 2022) and demonstrated 86% compliance. Weekly screening compliance for the older adult’s mental health wards is collated and monitored weekly by the IPCT, and quarterly reports provided to the directorates and IPCDC.

# 5.4 Health economy partnership

The Trust continues to develop and work collaboratively with other healthcare providers. The IPCT have been actively engaged in maintaining and expanding networks locally, regionally and nationally.

This has included:

* Regional and national meetings with NHS England and Improvement (NHSE/I).
* National and regional specialist mental health/community forums.
* System meetings across Buckinghamshire, Oxfordshire and Berkshire (BOB) integrated care systems (ICS) from 1st July 2022.

COVID-19 has raised the need to work collaboratively and at pace at all times with system partners. Improved communication and patient flow have highlighted the improved outcomes for patients and their families when the system works together.

# 5.5 Sepsis Pathway

The Trust continues to ensure that staff are aware of the risks of sepsis. NEWS2 documentation is embedded within the Trust with explicit reference to the Sepsis Six and its application in both community and inpatient settings. Sepsis awareness has been incorporated into the national eLearning NEWS2 training programme which has been rolled out in within community hospitals. Within community services sepsis awareness has been linked to the frailty workstream. The work streams have included appropriate action and escalation planning for complex patients. Staff have been undertaking a NEWS2 workbook which supports staff competency.

Due to the demands of the global COVID-19 pandemic, there was a pause in the development of a Trust ‘Sepsis strategy’, however there is a plan to restart this work in the forthcoming year. A designated task and finish group, including community and mental health services, will be established. The recognition of sepsis and appropriate responses will be tailored to each healthcare setting i.e. community, mental health, to ensure timely appropriate management and escalation. The sepsis training pack will also be reviewed and added to the new starters induction programme.

**5.6 Aseptic Non Touch Technique (ANTT)**

As part of a Quality Improvement project, the IPCT has been leading a Trust wide workstream to support and standardise Aseptic Non-Touch Technique (ANTT) practice across the clinical directorates. Initial work involved a detailed scoping exercise of current ANTT practice (GAP analysis) and included extensive engagement with community teams, physical health leads (mental health) and learning and development teams.

Following this review several actions were taken. These included:

* Introduction of a mandatory **eLearning course** via the Trust learning and development site for all clinical staff performing aseptic techniques: monitoring available via OTR.
* Two ANTT **study days** (May and September 2022)attended by 44 ANTT leads with an external trainer (train the trainer).
* New [ANTT **procedure**](https://ohft365.sharepoint.com/sites/IPC/SitePages/ANTT.aspx) **and guidelines** whichare available via the IPC intranet page.
* ANTT **competencies,** to be reviewed every 3 years, for all clinical staff performing aseptic techniques: monitoring available on OTR.
* Designated training resources for the ANTT leads.
* New annual ANTT **audits** available on [AMaT](https://oxfordhealth.amat.co.uk/trust/audit_ward/your_ward_audit/).

In addition a further 13 funded places were secured, via the BOB ICS, for clinical staff to attend the national ANTT conference.

# 6. Healthcare Associated Infections (HCAI’s) *–* surveillance organisms

# 6.1 MRSA bacteraemia

There have been no cases of MRSA bacteraemia this year, which is the same as 2021-22.

# 6.2 MSSA bacteraemia

There has been one Trust case of MSSA bacteraemia identified at Abingdon hospital and a full RCA was completed. The patient was transferred to the OUHFT where they passed away. A mortality review and IPC review meeting was held, and the likely source was a peripheral cannula. Further work has been undertaken to address the learning points identified. There were three cases in 2021/22- two Trust cases and one community acquired.

# 6.3 Gram negative organism bacteraemias

The increase in gram negative bacteraemia infections is a national concern and in response the Department of Health (2016) introduced mandatory surveillance of bacteraemia infections caused by gram negative organisms including: *E.Coli,* *Pseudomonas* and *Klebsiella*.

# 6.3.1 *E.Coli* bacteraemias

National targets have been applied to *E.Coli* bacteraemia cases to reduce the number by 50% by 2023-24. There were 14 cases of *E.Coli* bacteraemia patients identified in the Trust in 2022/23. Four cases were for inpatients, and 10 were community patients seen in EMU. The number of Trust cases is the same as last year. The root cause for this organism is extremely hard to determine. However, RCA investigations suggested in 9 cases the likely sources were urinary tract, and five cases were unknown. All cases were thoroughly investigated using the Department of Health RCA tool. The number of community cases last year (2021/22) was 11.

# 6.3.2 *Pseudomonas* bacteraemia

There was one community case in 2022/23 and the likely source was the urinary catheter. There were no pseudomonas cases in 2021/22.

# 6.3.3 *Klebsiella* bacteraemia

There were three cases of K*lebsiella* bacteraemia identified this year. One case was Trust acquired (Linfoot) and the likely source was abdominal. There were two community cases, where the likely sources were unknown and urinary tract. There was one case in 2021/22. Work continues into the root causes of these infections within the health economy.

# 6.4 Invasive Group A *Streptococcal* infection (iGAS)

The incidence of group A *streptococcal* infections has increased this year nationally and locally and has led to increased cases of scarlet fever, hospitals admissions and patient deaths.

There was an outbreak identified on Oxford Stroke rehabilitation Unit (OSRU). Two iGAS patients were identified and one patient, colonised with GAS, identified following discharge home. Actions were taken and enhanced surveillance was undertaken for 30 days as per UKHSA guidance. No further patient or staff cases were identified.

There was also a patient who was identified with iGAS on admission to the OUHFT from home. The patient was under the care of the district nurses for a long-standing leg ulcer and therefore a full and detailed review of the patient’s case and clinical practice was completed. No actions were identified.

# 6.5 *Clostridioides difficile* infection (CDI)

Oxford Health NHS Foundation Trust contributes relatively few cases of *Clostridioides difficile* to the overall Oxfordshire health economy totals.

Since July 2013 there has been joint reviews across the Oxfordshire health economy of all *Clostridioides difficile* Infection (CDI). This meeting includes representations from OHFT (Oxford Health NHS Foundation Trust), ICS, UK Health Security Agency (UKHSA), formerly Public Health England (PHE), and OUHFT. Full detailed RCAs for all patients identified in the preceding quarter with CDI across the health economy are presented. These meetings are cited as good practice and the Trust did not have a target number for CDI cases in 2022/23.

The final number of cases by the end of March 2023 was 12 cases. Six cases were attributed to the Trust and six were community onset (ICS). This is a slight decrease for Trust cases from the preceding year. Cases of CDI have increased during the pandemic and is likely to reflect increased antibiotic usage, and patient acuity. However nationally there is a focus on actively reducing CDI cases and more work is being planned.

In every CDI case, a comprehensive review of the care of the patient and the ward environment is undertaken using the Department of Health RCA tool and any learning fed back to the clinicians, wards and areas concerned. Antimicrobial prescribing is reviewed by the pharmacist and OUHFT Consultant Microbiologist to ensure appropriateness and any identified actions are taken. The RCAs are submitted to the Trust weekly clinical governance meeting for further review and discussion. On detailed investigation there were no causative issues identified and all cases were deemed unavoidable following external peer review.

# 6.6 Other infections

There was one patient identified with *campylobacter* on OSRU ward. A full review was undertaken by the ward, matron, and catering lead for the Trust. No further cases were identified, and it is likely the patient was admitted with this infection.

# 6.6.1 Norovirus

There have been no confirmed outbreaks of diarrhoea and vomiting in the Trust during 2022/23.

# 6.6.2 Respiratory infections

This winter has seen an increase, both nationally and locally, in the incidence of influenza A and B and Respiratory Syncytial Virus (RSV). The IPCT commenced enhanced respiratory infection surveillance (excluding COVID-19) in November 2022 (Table 1). The higher cases reflect the increase in community prevalence. All cases were closely monitored by the IPC team, and safe IPC management guidance provided.

**Table 1 : Number of positive respiratory specimens**

|  |  |  |
| --- | --- | --- |
|  | **Number of positive respiratory specimens (excluding COVID-19)** | **Trust cases** |
| Sep-22 | 1 |  |
| Oct-22 | 8 |  |
| Nov-22 | 14 | **1** |
| Dec-22 | 41 | **25** |
| Jan-23 | 11 | **1** |
| Feb-23 | 4 | **0** |
| Mar-23 | 0 | **0** |
| **Total** | **82** | **27** |

# 6.6.3 Blood Cultures

A review of blood culture specimens was undertaken. Data analysis identified 5.4% of cultures taken were possibly contaminated (Table 2). This rate is not unsimilar to the previous year (5.3%) and slightly below the national rate of 6%.

**Table 2 : Summary of blood cultures**

|  |  |  |
| --- | --- | --- |
| **Blood Cultures 2022/23** | **No.** | **%** |
| Total blood cultures (positive and negative) | 734 |  |
| Total positive blood culture | 68 | 9.3% |
| Positive blood culture for a recognised pathogen | 28 | 3.8% |
| Positive blood culture for a common skin contaminant | 40 | 5.4% |
| Negative blood culture | 665 | 90.6% |

To reduce contamination, and in response to this finding, a new blood culture protocol was devised in collaboration with the GPs and clinical teams to provide standard guidance. The ANTT workstream will also target improving sampling techniques when collecting blood cultures.

# 7. COVID-19 Pandemic

The COVID-19 pandemic was declared by the World Health Organization (WHO) on March 11th 2020. For the past three years, the Trust has been actively responding to the COVID-19 pandemic, and the IPCT has provided a flexible service to support staff and patient safety, when required to meet service demands. The Performance and Information team continue to rely on the IPC team for daily updates, which ensures accurate data of COVID-19 cases is provided for reporting to external organisations.

In response to the COVID-19 global pandemic, multiple actions have been implemented by the Trust. This response has been reviewed, updated regularly and in line with UKHSA guidance at all times including regional and national imperatives. Both national guidance and local Trust guidance is available on the intranet designated COVID-19 pages.

# 7.1 Reporting and escalation

Oversight and governance of the IPC response to the COVID-19 pandemic has been through:

* Weekly HAI meetings from May 2020 with DIPC, Deputy Chief Nurse, Heads of Nursing, and other services.
* Weekly governance review meeting, chaired by Deputy Chief Nurse.
* IPCD Committee.
* Quality and Clinical Governance Sub Committee.
* Quality Committee.
* Trust webinars with content to address changes and updates in IPC and PPE guidance.

The IPC Board Assurance Framework (BAF), produced by NHS England and Improvement (NHSE/I) was first introduced in June 2020. There have been several updated versions by NHSE/I since then, which have been sent to the CQC, Health and Safety Executive (HSE), Clinical Commissioning Group (until 30th June 2022) and NHSE/I, who requested copies. The BAF is currently being revised again by NHSE/I.

# 7.2 Actions and IPC response to COVID-19

The Trust has adhered and followed national UKHSA guidelines throughout the pandemic. All actions have been implemented, along with regular updated guidance in response to NHS England and Public health recommendations. The IPCT review all new and updated national guidance to ensure the Trust is up to date.

A summary of key actions is below, however a significant amount of work has taken place throughout the pandemic and cannot be underestimated.

**A summary of responses by the Infection Prevention and Control Team include:**

* Managing the Trust COVID-19 surveillance system and ensuring accurate reports (internal and external).
* Leading on post infection reviews and supporting with action plans based on learning.
* Involvement in Serious Incidents reviews and investigations.
* Ongoing reviews of all national IPC guidance and implementation within all areas and services across the Trust – ensuring it is fit for purpose for all our settings.
* Management and advice on personal protection equipment (PPE), including product review and evaluation.
* Review of alternative products to meet demands.
* Development of a significant number of educational and guidance documents to support staff in regard to IPC and PPE measures.
* Close, frequent and timely contact with clinical services to support clinical practice and safe patient management, including daily review of specimen results. This includes additional support for community care services i.e. care home support.
* Regular external collaboration with ICS, NHSE/I, UKHSA, secondary acute care colleagues and national teams, including attendance at various working groups and meetings.
* Review and completion of IPC BAF, with updates as required.
* Participation in regional and national working groups and forums to review IPC, PPE, testing and develop guidance to align with the output of these groups.
* Support of the matron- including reviewing and updating of matrons’ IPC checklist to support local practice, IPC adherence and patient and staff safety.
* Review of governance reporting to ensure appropriate escalation and discussion of IPC issues.
* Ongoing support of PPE champions to ensure safe IPC management and application of PPE. This included meetings, and continued production of training resources (videos, teaching presentations, information).
* Oversight and contribution to IPC advice for clinical services.

# 7.2.1 Specific Actions

# *7.2.1.1 Standard Infection Prevention and Control Guidance*

IPCT have produced and issued multiple versions of guidance, in response to and based on national UKHSA advice, ensuring this is easily accessible on the intranet. This continues to be reviewed weekly for any changes to the guidance.

# *7.2.1.2 Patient management / cohorting*

* Triage assessment tool has been developed to identify patients with possible respiratory infections. This includes influenza and respiratory syncytial virus (RSV), which will enable staff to isolate and manage patients safely.
* Use of Lateral Flow Devices (LFD) to triage patients and to manage patient leave (particularly in mental health).

# *7.2.1.3 Staff cohorting where appropriate*

* Where possible designated cohorts of staff have been assigned to care for patients in isolation/cohort rooms/areas.
* Ongoing work with flexible workers/agencies to minimise staff movement and decrease risks of transmission during outbreak situations including screening using LFD prior to start of shift.
* From the 1st September 2022, NHS England introduced a pause to routine twice weekly staff testing. However, during outbreaks twice weekly staff testing is recommended and is carried out within the Trust .

# *7.2.1.4 Cleaning of environment*

* Routine environmental cleaning, with a hypochlorite-based product, is being used for all wards during outbreaks.
* Increased cleaning (at least twice daily) of ‘frequently touched’ surfaces such as door/toilet handles, locker tops, over bed tables, bed rails, by domestic staff is in place in COVID-19 outbreak wards.
* All areas have been de-cluttered to ensure they are free from non-essential items and equipment.
* Terminal decontamination is undertaken following transfer, discharge, or once the patient(s) is no longer considered infectious. Records are kept as per normal practice.

# *7.2.1.5 Decontamination of equipment*

* Single-use items are in use where possible.
* Dedicated, reusable, non-invasive care equipment is in use and decontaminated between each use and prior to use on another patient.
* Green clinell wipes are available for easy cleaning in all areas.

# *7.2.1.6 Personal Protective Equipment (PPE)*

* Specific advice and clear guidance provided re the appropriate use of PPE as per national guidance.
* In 2022, the Trust appointed a designated FFP3 mask FIT testing Trust lead. This was a new dedicated post to oversee, co-ordinate and deliver FIT testing across all clinical services. External support for FFP3 mask fit testing remains in place from an external company until 31st March 2023. Additional support will be required after this date.
* The Trust continues to fit test all clinical staff who may be involved with aerosol generating procedures or caring for patients with potential respiratory infections.
* The Trust PPE team have secured supplies of PPE including several types of FFP3 masks.
* The IPC champion role continues to be strengthened to support PPE competencies.

# *7.2.1.7 Hand hygiene*

* Hand hygiene posters are on display in all wards, clinical and non-clinical areas to ensure appropriate hand hygiene.
* Staff undertake hand hygiene as per WHO 5 moments, using either alcohol-based hand rub or soap and water.
* Hand hygiene audits are in place to monitor compliance and recorded using the Trust AMaT audit system.

# *7.2.1.8 General guidance*

Several sets of general guidance have been produced over the last 12 months including:

* Use of air-cooling systems (July 2022).
* Guidance on patient management for community hospitals and mental health wards (September 2022).
* Minimising risk of transmission of possible viral airborne infection in non-inpatient areas (September 2022)
* Hierarchy of Controls (September 2022).
* Guidance on visiting (updated February 2023).
* Staff guidance (updated February 2023)

# *7.2.1.9 Collaboration*

* IPC attendance at bimonthly meetings hosted by NHSE/I IPC regional lead.
* Attendance at relevant national webinars, and specialist meetings.
* Twice weekly outbreak meetings as required.
* Attendance at BOB IPC leads meetings.
* Network meeting with other mental health and community Trusts.
* Bimonthly meetings with IPC leads in neighbouring Trusts.

***7.2.1.10 Specialist and Expert advice***

* Ongoing support and advice to clinical services, including estates, clinical services (inpatient and community).

***7.2.1.11 Learning, assurance and improvement***

* Weekly IPC Healthcare Acquired COVID-19 meeting led by the Chief Nurse and DIPC with the Heads of Nursing, Estates and other senior operational colleagues.
* Review of transmission reviews, for possible sources, for patients acquiring COVID-19 more than 8 days after admission.
* Weekly site reporting for possible HCAI transmission is in place.
* Regional and national DIPC meetings to share learning.
* Monitoring of local PPE and IPC via audits, with the matrons and Heads of Nursing and cascading of any learning.

# 7.3 Classification and incidents of nosocomial infections

Daily data review is in place with verification provided by the IPCT, prior to any national reporting.

The Trust has followed the National guidance for case classification and onset.

* 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.

Since the beginning of the pandemic (2020) there have been 1,118 COVID-19 positive patients identified whilst inpatients on our wards. Further cases breakdown is provided in the following section for 2022/23.

# 7.4 COVID cases and activity

# 7.4.1 Cases

There have been 426 COVID-19 cases throughout 2022/23 of which 368 patients were identified as Trust onset and 58 patients were admitted as positive either from acquisition in the community or known positive on transfer from another healthcare providers.

Following the national classification there were 229 (62%) patients classified as definite hospital onset (see 7.3). During this time further COVID-19 omicron variants emerged which may have contributed to the transmissibility. Of the 368 positive patients, 179 patients were in mental health wards (Figure 1, Table 3 ) and 189 were patients in community hospitals (Figure 2, Table 4 ).

***Figure 1: COVID-19 positive cases in mental health inpatient wards***

Further detail of the incidence of COVID-19 cases is provided in Table 3.

**Table 3 : Summary of classification of COVID-19 cases in mental health inpatients wards in 2022/23.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Mental health inpatient wards** | | | | |
|  |  | **CO** | **HO.iHA** | **HO.pHA** | **HO.dHA** | **TOTAL** |
| Q1 | Apr-22 | 3 | 0 | 4 | 20 | 27 |
|  | May-22 | 0 | 0 | 0 | 12 | 12 |
|  | Jun-22 | 2 | 0 | 1 | 11 | 14 |
| Total per Q |  | 5 | 0 | 5 | 43 | 53 |
| Q2 | Jul-22 | 1 | 1 | 3 | 23 | 28 |
|  | Aug-22 | 0 | 0 | 1 | 6 | 7 |
|  | Sep-22 | 0 | 0 | 1 | 13 | 14 |
| Total per Q |  | 1 | 1 | 5 | 42 | 49 |
| Q3 | Oct-22 | 0 | 0 | 1 | 0 | 1 |
|  | Nov-22 | 0 | 0 | 0 | 1 | 1 |
|  | Dec-22 | 1 | 1 | 9 | 30 | 41 |
| Total per Q |  | 1 | 1 | 10 | 31 | 43 |
| Q4 | Jan-23 | 0 | 1 | 1 | 12 | 14 |
|  | Feb-23 | 1 | 1 | 2 | 19 | 23 |
|  | Mar-23 | 0 | 0 | 3 | 3 | 6 |
| Total per Q |  | 1 | 2 | 6 | 34 | 43 |
| **Total for year** |  | 9 |  |  |  | 179 |

There were nine (2.4%) Trust acquired inpatient deaths (community hospitals). Mortality reviews were completed for these patients. All the patients had pre-existing medical conditions or receiving end of life care and COVID-19 was not identified as the direct cause of death. However, as these patients died within 28 days of a positive COVID-19 result they met the national requirements for reporting all COVID-19 related deaths.

The number of cases in community hospitals is presented in Figure 2.

***Figure 2: COVID-19 positive cases in community hospital inpatient wards***

Further detail of the incidence of COVID-19 cases is provided in Table 4.

**Table 4 : Summary of classification of COVID-19 cases in mental health inpatients wards in 2022/23.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Community hospitals** | | | | |
|  |  | **CO** | **HO.iHA** | **HO.pHA** | **HO.dHA** | **TOTAL** |
| Q1 | Apr-22 | 4 | 3 | 6 | 23 | 36 |
|  | May-22 | 2 | 1 | 1 | 3 | 7 |
|  | Jun-22 | 0 | 0 | 1 | 1 | 2 |
| Total per Q |  | 6 | 4 | 8 | 27 | 45 |
| Q2 | Jul-22 | 6 | 3 | 11 | 17 | 37 |
|  | Aug-22 | 1 | 2 | 3 | 7 | 13 |
|  | Sep-22 | 1 | 6 | 7 | 9 | 23 |
| Total per Q |  | 8 | 11 | 21 | 33 | 73 |
| Q3 | Oct-22 | 9 | 1 | 5 | 10 | 25 |
|  | Nov-22 | 4 | 3 | 1 | 4 | 12 |
|  | Dec-22 | 13 | 4 | 4 | 13 | 34 |
| Total per Q |  | 26 | 8 | 10 | 27 | 71 |
| Q4 | Jan-23 | 6 | 2 | 4 | 5 | 17 |
|  | Feb-23 | 1 | 4 | 4 | 10 | 19 |
|  | Mar-23 | 2 | 4 | 2 | 5 | 13 |
| Total per Q |  | 9 | 10 | 10 | 20 | 49 |
| **Total for year** |  | 49 |  |  |  | 189 |

An overall summary of COVID-19 cases in the Trust (2020-23) is presented in Figure 3.

***Figure 3: Summary of COVID -19 cases for the years 2020-23.***

# 7.4.2 Outbreaks

There were a total of 51 outbreaks, 24 in community hospitals, and 27 in mental health inpatient wards (Table 5). This is an increase from previous years and may reflect the transmissibility of the variants and the removal of restrictions in the wider community settings.

**Table 5: Summary of COVID-19 outbreaks in 2022/23**

# 7.5 Outbreak Management Actions

* Daily management review by IPCT, with management timelines.
* Enhanced cleaning of wards (cleaning records).
* Outbreak checklists including notifications and communications.
* Twice weekly IPC led outbreak meetings (minuted) with ward staff, matrons, head of nursing, DIPC, estates/facilities.
* LFT screening of all patients at time of outbreak identification with exposure/contacts.
* Lateral flow testing for staff twice weekly for the duration of the outbreak.
* Restriction of staff movement, including flexible workers. This was identified as a challenge to the high number of staff required to fill shifts. Close liaison with staffing solutions when booking additional staff shifts, to try and provide continuity with staff placement.
* Additional training sessions for PPE champions for whole Trust, but specifically ensuring outbreaks wards had identified champions, who attended.
* PPE champions are completing PPE assessments of staff competencies.

# 7.6 Outbreak Learning

* Importance of ensuring adequate ventilation to improve air quality.
* Need to ensure clear communication and processes for planning ahead any bank shifts, to reduce staff movement.
* Importance of early identification of staff contacts.
* Importance of maintaining physical distancing for patients.
* Importance of staff physical distancing within communal areas and providing adequate space for staff to have breaks.
* Importance of reinforcing clear messaging for PPE usage and support from PPE champions.
* Regular outbreak meetings are supportive and helpful for staff, and provide clear oversight, support and actions which staff could work to.

**8. Antimicrobial Stewardship**

Antimicrobial stewardship (AMS) is a program of systems and processes that promote prudent use of antimicrobials, improves the safety and quality outcomes of patient care, contributes to reduction of antimicrobial resistance and decreases the spread of multi-resistant microorganisms.

The COVID-19 pandemic presented numerous additional challenges for health professionals managing patients with infections. AMS programs were impacted by the pandemic with a reduction in some routine AMS activities.

The national outbreak of group A *streptococcus* infections towards the end of 2022 was another event that posed significant challenges for antimicrobial stewardship. In response to the increased number of invasive Group A *streptococcus* (iGAS) cases, prescribers were urged to adopt a lower threshold for prescribing empirical antibiotics. This led to a spike in antimicrobial consumption in December 2022. There were also supply shortages of some antibiotics leading to increased use of alternatives which may not have been always optimal.

Continuing to raise awareness of the risks of antimicrobial resistance remains important to prevent serious infections as well optimising appropriate antibiotic use. The OHFT Pharmacy team are leading on work within the Trust to improve antimicrobial stewardship. This includes:

* Continuing to focus on tackling antimicrobial resistance and promoting prudent and optimal use of antimicrobials during COVID-19 pandemic.
* Providing prompt pharmacy support with the clinical screening of COVID-19 positive patients for eligibility for antiviral or neutralising monoclonal antibody treatments.
* Monitoring the overall antimicrobial consumption for the Trust and taking steps to tackle overuse.
* Implementing the key principles of the WHO Antimicrobial AWaRe recommendations and reviewing the Trust antimicrobial consumption against the AWaRe classification.
* Quarterly audits and reports presented at the IPCDC. Overall, there is generally good compliance with prescribing antibiotics within guidelines. However, areas of improvement have been identified and further work is planned.
* Supporting the implementation of relevant NICE / PHE antimicrobial guidelines.
* Pharmacists ensuring that prescribed antimicrobials are compliant with guidelines with respect to antimicrobial choice, dose, route of administration and duration and challenging any inappropriate prescribing.  They also ensure that timely reviews of antimicrobials are carried out and IV antimicrobials are switched to oral as soon as clinically appropriate.
* Signposting prescribers and staff to current relevant antimicrobial guidelines – OUH guidelines for inpatient settings and SCAN guidelines for out-patient settings both available on the MicroGuide platform as an app or on the website.
* Regular reviews of medication stock lists for the inpatient wards and Urgent Care units by the medicines management team, to ensure that only appropriate antimicrobials are available and that restricted ones are removed from the units.
* Collaborative partnership with regular attendance at the OUH Antimicrobial Steering Group and the regional South Central Antimicrobial Network.
* Induction for new doctors including guidance on the appropriateness of antibiotic prescribing as specified in the Start Smart – Then Focus initiative promoted by Department of Health, the use of local antimicrobial guidance, and legal requirements and good practice surrounding prescribing of antimicrobials.
* Reviewing antimicrobial prescribing for all *Clostridioides difficile* cases in the Trust and as required.
* Ensuring up to date Trust Antimicrobial protocol is readily available online.
* Attendance to the Health Economy meetings with the IPC Team.

# 9. Facilities

In July 2022, the Trust implemented the new and revised National Cleanliness Standards, which includes colour coding and specification. Cleanliness monitoring is completed monthly by the Facilities teams and by the modern matrons across the Trust. The responsibility for environmental cleanliness sits with the Ward Manager.

The results are monitored by Facilities and reports are provided for the directorates and the IPCDC committee. IPCT work closely with the Facilities team, and the Head of Facilities attends the IPCDC providing service reports. The IPCT attended, supported and participated in the annual PLACE (Patient Led Assessment of the Clinical Environment) assessments.

**10. Estates**

The IPCT continue to advise and support Estates with refurbishments and new builds within the Trust. This has required attendance at key design and planning meetings and the review of plans and minimum build standards. There have been fewer projects this year due to the pandemic.

Projects include:

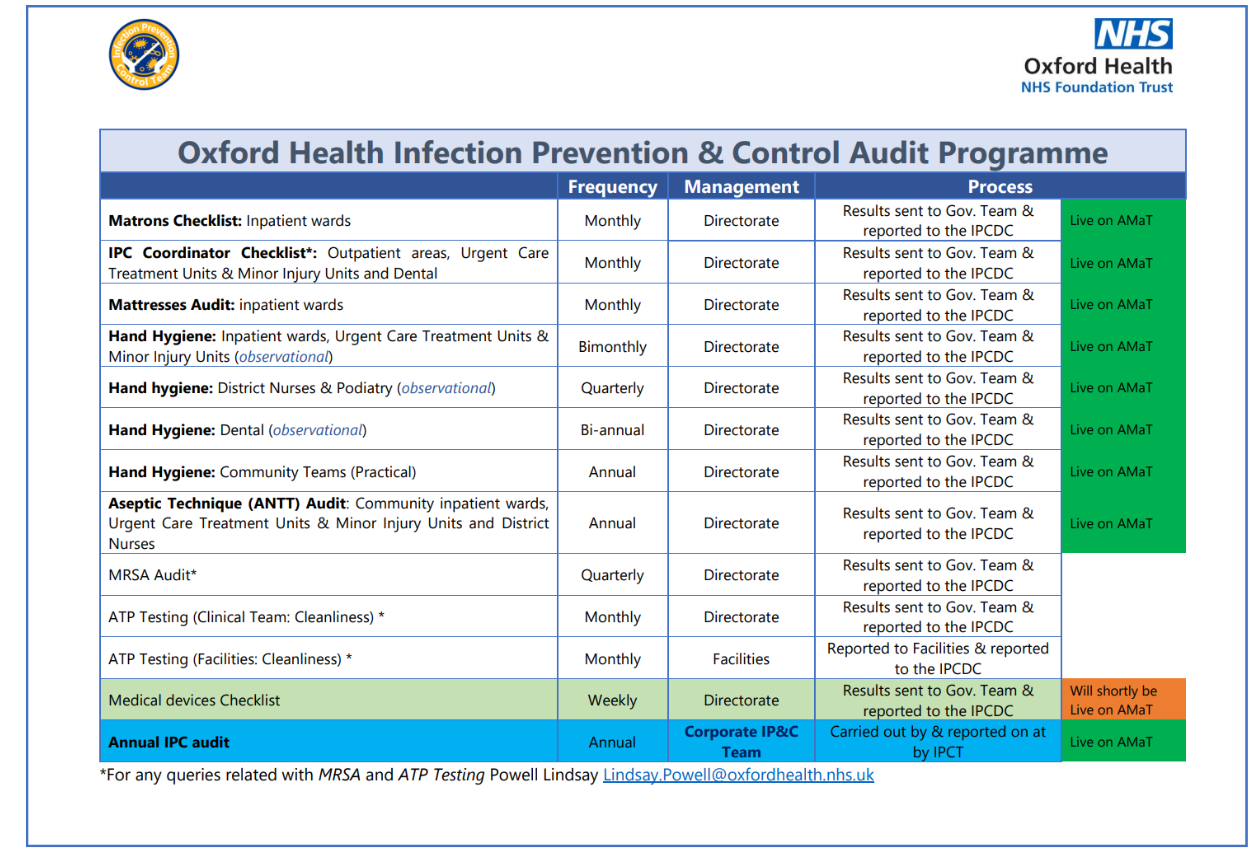
* PICU- new build at Warneford site
* Ketamine clinics – new service in POWIC building
* Mental health and wellbeing hub in Banbury within Castle Quay Shopping Centre
* New lab extension at the Clinical Research Facility.

# 11. Audits

**11.1 Audit Management and Tracking System (AMaT)**

In April 2022, the Trust introduced a new clinical audit assurance software to support quality improvement, known as the Audit Management and Tracking System (AMaT). IPC audits are now managed on this system including annual audits, hand hygiene, medical devices, mattress audits, matrons checklists (Table 6). Other audits are being added as part of the ongoing implementation in the Trust.

**Table 6: IPC audits completed on the AmAT system**

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**11.2 Infection Prevention and Control Audits**

There was a comprehensive and robust annual IPC audit programme for 2022/23, which consisted of IPC audits based on national standards. High levels of compliance have been maintained.

Following some areas self-auditing last year due to the demands of the pandemic, the IPCT prioritised the annual IPC audits and conducted site visits to all clinical areas. The audits which were undertaken included all community hospitals wards, inpatient mental health wards (total 33), urgent care (9), dental clinics (9) and podiatry services (14). All audits were completed during the audit year using adapted versions of the Infection Prevention Society (IPS) audit tools for monitoring IPC guidelines within the acute and community settings. The AMaT system records the audit and enable action plans to be developed for monitoring required actions. Areas of poor or non-compliance are followed up with the service by the IPCT.

Infection prevention and control (IPC) audits carried out during 2022/23 and included:

* Management of IPC
* Hand Hygiene Facilities & Practice
* Personal Protective Equipment IPC
* Decontamination: Clinical Rooms & Equipment
* Decontamination: Dental Dec. Room
* Environment: Dental Surgery IPC
* Environment
* Management of Linen
* Laundry
* Facilities: Housekeepers Rooms & Environment Cleaning
* Estates

Across the Trust the average results for inpatient wards was 96%. Facilities areas which fell below 85% have action plans in place. Community team audits have not been able to be completed this year. This is planned for 2023/4.

All audit results were reviewed, and reports provided for each directorate. Learning outcomes were shared with relevant staff directly and via IPC champions, service/ward managers and the IPC newsletter. A summary of the audits is presented to the IPCD committee quarterly and via an annual report.

# 11.3 Hand Hygiene audits

Hand hygiene observational audit in all clinical in patients wards, EMU and MIU departments, Podiatry Service, Dental Services, District Nursing, and in the Clinical Research Facility (Mental Health). All audits are reviewed and monitored by the modern matrons and the IPCT. During 2022/23 the compliance average was 98%. Compliance with bare below the elbows was 97%. Any areas falling below the acceptable level are followed up by IPCT and action plans developed for improvement.

A summary of the audits are presented to the IPCDC quarterly and via an annual report.

Hand hygiene practical assessments in community-based services based have been introduced on a risk assessment basis in:

* Children young peoples’ community services
* Vaccination Service (Immunisation and COVID-19 teams)
* Speech and language services
* Luther street medical centre
* Hospital at Home
* ECT Units (Mental Health)

# 11.4 ANTT Audit

Audits were introduced to monitor and support clinical practice and the correct use and management of invasive devices. Community inpatient wards, Podiatry Services and District Nurse complete annually, and results are evaluated and feedback to services by the relevant audit and governance teams. A summary of the audits is presented to the IPCDC quarterly and via an annual report.

Across the Trust the average result for the ANTT audit is 78.2%. This is the first baseline assessment prior to training being disseminated to identify the areas for improvement. The 44 ANTT Leads completed this base line assessment during 2022/23 and training is being disseminated. A training pack was created and saved on a MS Teams fodders to support learning and competencies assessment. Also, a required e-Learning ANTT module is available on OTR platform to be completed by all clinical staff undertaking invasive procedures.

# 11.5 Matrons checklists

The matron’s role within IPC has been reviewed and additional work undertaken to ensure this valued role is standardised in the organisation. Matrons are completing IPC checklist audits, which are reported via AMaT. These results are monitored by the directorate governance meetings, with any issues escalated to the IPCDC if necessary.

# 12. Decontamination

# 12.1 Decontamination arrangements

There is a nominated Trust Decontamination lead. The lead attends and provides quarterly update reports to the IPCDC regarding overall Trust compliance with decontamination requirements. The Decontamination lead and DIPC are members of the IPCDC which reports to the Quality and Clinical Governance Sub Committee. The vast majority of products used in the Trust are single use. However, podiatry uses reusable instruments, and these are decontaminated via an SLA with Synergy. Dental services reprocess instruments via local decontamination procedures which are compliant with HTM 01-05.

# 12.2 Audit of Decontamination

Audits of the decontamination of patient equipment are undertaken annually and are incorporated in the IPC audit programme. Any results obtained are reviewed and monitored by the IPCT monthly and quarterly reports produced and disseminated to the directorates. During 2022/23 the average score for ATP testing was 86%.

Mattress audits are also being completed monthly and the results recorded on AMaT for easy review and access. Mattress check records should be completed by all wards/areas. This is now managed by the wards and they report to the IPCDC quarterly.

Medical devices decontamination records should be completed by all wards/areas and reported to the IPCDC quarterly meetings. This audit will also be moved into AMaT in the first quarter of 2023/4.

# 13. Training activities

Training sessions are provided for clinical staff via online teams teaching sessions. This year the IPCT has reviewed and updated its core training content and has been working closely with the learning and development team to create an online programme. Then new programme will provide two training modules- one for clinical and one non clinical staff. This programme review is due to be concluded by 31st May 2023.

The final years training numbers for 2022/23 was 83.6%, against the Trust target of 95%. This data is collated by the learning and development department and the training is delivered by the following methods: online virtual classroom via MS teams, workbooks and E-learning. All forms of training and their content are annually reviewed and updated to meet the learning outcomes of the current UK Core Skills Training Framework and training requirements of staff.

In addition to standard training, the IPCT provides:

* Bespoke training on request including specialist IV therapy training sessions and PPE application.
* Monthly meetings and training sessions for the IPC champions on MS teams.
* Biannual training session for housekeepers
* Peer support and band 2-4 induction.

# 13.1 International Infection Prevention Week 17-21st October 2022

International Infection Prevention Week (IIPW), established in 1986, aims to shine a light on infection prevention each and every year. This week focused on the theme “The Future is Infection Prevention: 50 Years of Infection Prevention” and included three webinars: hand hygiene, antimicrobial resistance and occupational health. There was over 100 attendees.

# 14. Risks and future investments

There will continue to be ongoing support for the Adenosine Triphosphate (ATP) environmental testing system in older adult mental health wards and the community hospitals. This may be extended across the Trust to all clinical areas and will therefore require further ongoing funding and investment.

The IPCT will continue to work in partnership with other allied services in the Trust to promote safe practice, in particular Health and Safety, Estates and Facilities and Occupational Health teams. The pandemic has identified the importance ventilation and the environment plays in the transmission of airborne pathogens. Work continues to mitigate and improve the ventilation within the Trust estate.

The team will also continue to develop and work in partnership with external organisations to strengthen and support the patient pathway across the health economy.

More audit capacity is required to develop and expand hand hygiene practice assessments/audits in community services. Additional audit capacity is also required to manage medical devices decontamination compliance across the Trust.

IPC reporting and governance needs to continue to be embedded with clear standardised reporting and monitoring processes within the directorates. New infection codes included into Ulysses to improve surveillance and to better understand of the burden of HCAI.

The COVID-19 pandemic has put extreme pressure on the IPCT. However the pandemic has also identified other potential infections which have increased in prevalence within the population. This includes increased cases of group A *streptococcus* (Scarlet fever), respiratory syncytial virus, Influenzas A and B, *Clostridiodes* difficile, and gram negative bacteraemia.

# 15. Conclusion

This has been another exceptional year for IPC, and the vital role of a specialist IPCT has been recognised. The IPCT has continued to lead the Trust response to a global COVID-19 pandemic as well as maintaining the required ongoing core IPC programme. Work has still continued regarding the monitoring and investigation of mandatory reportable infections including *Clostridioides difficile*. There remains a challenge in achieving further reductions in cases and it is likely the Trust has reached the irreducible level. This has been demonstrated by the review process undertaken in the health economy review meetings.

The continued emergence of resistant organisms and antimicrobial resistance remains a real challenge in modern healthcare. The reduction of gram-negative bacteraemia infections is a constant challenge. Most cases of infection develop in the community rather than inpatient services and therefore further work nationally and locally is ongoing to understand the root cause and appropriate strategies to try and reduce the incidence. The focus for the IPCT and the Trust remains on improving and maintaining IPC practices, supporting patient care pathways across the health economy, and enhancing and improving safe clinical practice. The IPCT will continue to undertake robust reviews and scrutiny of each case of infection, working with colleagues and clinicians, to identify learning and ensure the continued high standard of patient care.

The COVID-19 pandemic has continued to place an enormous strain on IPC resources, and although some additional IPC nurses have been recruited, pressure on existing services remain high. Nationally there is a high demand of specialist IPC nurses and recruitment remains challenging. It is unclear what the future holds post pandemic, with possible increases in antibiotic resistance infections and new national initiatives to address the increase in gram negative infections. However, it is clear IPC specialists will be front and foremost in ensuring our patients and staff safety.

# Appendix 1

IPCDC terms of reference

**Appendix 2 Annual work and audit programme**