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NHS
Buckinghamshire Healthcare
NHS Trust

Infection Prevention and Control (IPC) Annual Report

1st April 2022 - 31st March 2023

Infection Prevention Control
Annual Report 2022/23

Introduction and Forward

I am pleased to present my third annual report on infection prevention and control (IPC) for Buckinghamshire Healthcare NHS Trust (BHT). Working with a dedicated and hardworking team who have received support from colleagues across the organisation has been a privilege. Working together, we have followed national guidance and best practices to achieve high infection prevention and control standards.

Despite the challenges faced over the past year, we can report that the Trust has made progress in reducing cases of Clostridiodes difficle (C*.difficile*). Our clinical teams have collaborated to improve antimicrobial stewardship, appropriate sampling, and patient placement. As we move to live with COVID-19, we aim to provide safe and efficient care with an emphasis on hand hygiene, personal protective equipment, cleanliness, and other infection prevention and control measures has been essential.

The vaccination program at BHT has played a vital role in managing the COVID-19 pandemic, and we are pleased to report that our colleagues have achieved a 59.5% uptake for the flu vaccine and 57.3% for the COVID-19 vaccine. BHT is the second highest among the Buckinghamshire, Oxfordshire, and Berkshire West Integrated Care System (ICS). This success is due to the hard work of our vaccine team.

Karen Bonner
Chief Nurse, Director of Infection Prevention Control

Infection Prevention Control Annual Report 2022/23

1. National Guidance and Key Legislation

This Annual Report follows the format of the Code of Practice (known as the Hygiene Code 2015), as required by the Health & Social Care Act (2008) and demonstrates the Trust's compliance with the requirements of the Hygiene Code. The yearly report confirms compliance and outlines our goals and strategies for improving infection prevention in 2023/24.

2. **Criterion 1: Systems to manage and monitor the prevention and control of infection.** These systems should use risk assessments to assess how susceptible service users are and any risks their environment and other service users may pose.

2.1 Governance and Monitoring

In May 2020, NHS England released an IPC Board Assurance Framework (BAF) to assist healthcare providers in conducting self-assessments of their compliance with national IPC guidelines. The framework also helps identify risks and serves as an internal assurance to uphold quality standards.

The IPC BAF offers a comprehensive overview of our adherence to the Code of Practice standards, outlining our accomplishments in the past year (2022/23) and identifying areas for improvement in the upcoming year (2023/24).

Upon review of the key lines of enquiry, it was determined that there are specific areas for further action to enhance assurance. The Trust's IPC Committee (IPCC) regularly monitors the IPC BAF and provides quarterly updates. Progress updates are shared through IPC reporting to the Trust's Quality & Clinical Governance and Executive Management Committees.

2.2 Infection Prevention Control Team (IPCT)

The IPC service is a multidisciplinary team comprised of specialist medical, antimicrobial pharmacy and nursing professionals. The IPCT is a team of specialist nurses with administrative support.

The Chief Executive Officer (CEO) is responsible for Infection Prevention at BHT. The Chief Nurse is the designated Executive Lead and Director of Infection Prevention and Control (DIPC), reporting directly to the Trust Board.

The DIPC collaborates closely with the Heads of Nursing for Infection Prevention and Control and the Infection Control Doctor (ICD), a Consultant Medical Microbiologist for the Trust. The IPC Team offers specialised knowledge and expertise in infection prevention and control to all services within the Trust.

In March 2021, the financial arrangement of the IPCT team underwent review, which resulted in an assessment of its establishment. Despite recruitment efforts, the Integrated Care Board (formerly CCG) Band 7 position has not been fulfilled since September. Additionally, the recently formed Integrated Care Board (ICB) has announced that it will withdraw funding from the IPCT.

IPCT currently consists of:

- Head of Nursing Infection Prevention and Control/ Deputy Director of Infection Control: (1.6 WTE) (until 1st April, then 1.2 WTE)
- Matron IPC (1WTE) Band 8a

- Infection Prevention & Control Nurse Specialist: (2 WTE) Band 7
- Infection Prevention & Control Nurse Specialist: (3 WTE) Band 6
- The Infection Control Doctor (0.2 WTE)
- Infection Prevention & Control Administrator (1 WTE)

The Outpatient Patient Antimicrobial Therapy (OPAT) team transitioned from the Integrated and Elderly Care division to the Corporate division in October 2022, with the Heads of Nursing for IPC assuming line management responsibilities.

The Trust employs antimicrobial pharmacists who work closely with the Antimicrobial Stewardship Lead, the Infection Control Doctor, and other members of the IPC team. There is robust management of antimicrobial stewardship throughout the Trust.

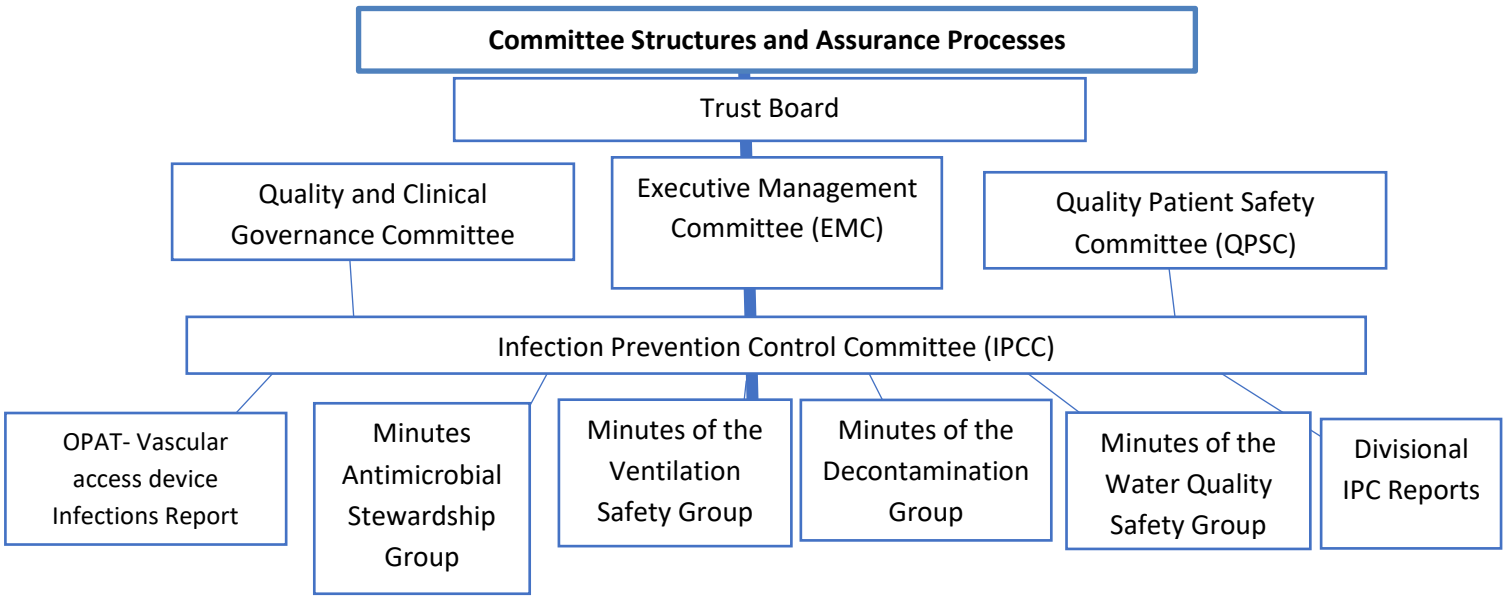
In November 2022, the IPC Link Practitioner group was relaunched to offer guidance and assistance and share information on IPC with colleagues in their respective wards/departments. Unfortunately, IPC lacks the resources to sustain ongoing support for the Link Programme. Redevelopment of the network is expected to occur in 2023/24.

2.3 Committee Structures and Assurance Processes

2.3.1 Infection Prevention and Control Committee (IPCC)

The Trust IPCC is chaired by the DIPC and held quarterly with representatives from all divisions and critical service areas. The committee structure for infection, prevention and control reporting is shown in Figure 1.

Figure 1 IPC Governance Structure and Assurance Process 2022/23



IPCT provides a monthly report on performance, good practice and concerns to the divisions that use the reports to create action plans presented to IPCC. The IPCT provide quarterly reports to the Executive Management Committee (EMC) and the Quality Clinical and Governance Committee (QCGC), which reports directly to Trust Board—attended by the DIPC. In addition, during the year, weekly reports to EMC on performance related to COVID-19 have been provided as requested.

2.3.2 Trust Board

The Trust Board must collectively agree upon and recognise its IPC responsibilities per the Code of Practice. At BHT, the CEO is responsible for infection prevention control. Moreover, the Trust has appointed the Chief Nurse as the Director of Infection Prevention and Control (DIPC). The DIPC is responsible for attending Trust Board meetings and providing comprehensive updates on infection prevent infection prevention and control updates.

2.3.3 Quality Clinical and Governance Committee (QCGC)

The QCGC is a sub-committee of the Trust Board and is the committee with overarching responsibility for managing organisational quality risks. The committee reviews high-level performance data about infection prevention and control, monitors compliance with statutory obligations, and oversees the management of the risks associated with infection prevention and control. QCGC is responsible for ensuring that there are processes for ensuring patient safety and continuous monitoring and improvement of infection prevention. IPC performance is reported monthly through the IPC Performance Dashboard to QCGC. The IPC team provides a monthly report on surveillance and outbreaks, which is reported to the IPC Committee and monthly to QCGC via the IPC Report.

2.3.4 CQC Assessment/ Infection Prevention Board Assurance Framework

The IPC Board Assurance Framework (BAF) was developed nationally to help providers assess themselves against the guidance as a source of internal assurance that quality standards are being maintained. The framework offers providers a way to continually review processes and respond evidence-based to maintain the safety of patients, service users and colleagues. The Trust adopted the BAF in 2021. Further versions of the BAF were released in April 2023, containing revised key lines of enquiry (KLOE) to include the formation of ICBs.

2.4 Mandatory Surveillance of Healthcare-associated Infections to UK Health Security Agency (UKHSA).

The following organisms are subject to NHS England (NHSE) mandatory reporting: Methicillin-resistant Staphylococcus aureus bacteraemia (MRSA), Methicillin-sensitive Staphylococcus aureus bacteraemia (MSSA), C.difficle, and Gram-negative bloodstream infections (GNBSI) (these include Escherichia coli (E.coli), Klebsiella species, Pseudomonas aeruginosa).

Trust level thresholds include all healthcare-associated cases (i.e., Hospital Onset Healthcare Associated and Community Onset Healthcare Associated). Trusts are required to reduce healthcare-associated infection rates (HCAI) under the thresholds set by NHS England and NHS Improvement.

The threshold for 2022/23 was worked out on the previous year's cases up to November 2021.

- C.difficile infection (CDI) - if the number of cases were 10 or less, the threshold would equal that count. For all others, the threshold was reduced by 1.
- GNBSIs – For E. coli, Klebsiella and Pseudomonas, if the number of cases were 10 or less, the threshold would equal that count. For all others, the point would be reduced by 5%
- MRSA – not specified in the contract, but to remain at zero tolerance

BHT continues to comply with all internal reporting requirements. The Executive Management Committee (EMC) and Quality Clinical Governance Committees (QCGC) receive monthly updates via Integrated Performance Review reports and quarterly via the IPC Quarter report –

Figure 2 BHT HCAI (YTD) Cases

Healthcare-associated cases (Community onset Healthcare Associated + Hospital onset Healthcare-associated)	Totals 2022/23	% Threshold
Clostridioides difficile Infections	47	87%
MRSA Bacteraemia	3	300%
MSSA Bacteraemia	21	N/A
E-coli Bacteraemia	64	79%
Pseudomonas Aeruginosa	24	240%
Klebsiella spp	37	108%
CPE Bacteraemia	0	N/A
VRE Bacteraemia	0	N/A

2.4.1 Definitions

Hospital onset healthcare-associated (HOHA): cases where specimen date is >3 days after current admission (where the day of admission is 1)
Community onset healthcare associated (COHA): cases that occur in the community (or < 3 days after admission) when the patient has been an inpatient in the Trust reporting the case in the previous 28 days.

2.4.2 Healthcare-associated infection (HCAI) investigations

The IPCT conducts an in-depth Root Cause Analysis (RCA) in collaboration with the patient's multidisciplinary team to investigate all mandatory reportable HCAIs. RCAs are conducted regularly to identify best practices and areas for improvement. Post-infection reviews (PIR) are also conducted when necessary to identify any areas for learning. The Divisional Quality Boards have all been requested to develop and oversee an action plan to prevent HCAI.

2.4.3 Clostridium difficile

In the year 2022/23, the goal was to keep the cases of C. difficile under 54. However, this threshold has been exceeded as there were only 47 recorded cases.

Work continues to reduce the cases of C difficile, which relies upon appropriate antibiotic prescribing and advice, the earliest detection of possible C.difficile cases and prompt isolation of patients with diarrhoea. The IPC continues to conduct weekly C.difficile multidisciplinary rounds with ICD, antimicrobial pharmacist and clinical staff to review antimicrobial treatment and provides feedback to the relevant area and lead clinician. During Quarter 2, cases appeared to increase, and a multidisciplinary working group was set up.

Figure 3 BHT C. Difficile (YTD) Cases

Table	2020/21	2021/22	2022/23
Total C Difficile	36	56	47
HOHA (Hospital Onset Healthcare Associated)	29	47	31
COHA Community Onset Healthcare Associated)	7	9	16

2.4.4 Gram-Positive Blood Stream Infections (GPBSI)

Figure 4 BHT Number of Cases of GPBSI by Organism HOHA (Hospital Onset Healthcare Associated) COHA Community Onset Healthcare Associated)

	2020-2021	2021/2022	2022/2023
MRSA	**1**	**1**	**3**
Attributed to the Trust due to lapse in Care			**1**
MSSA	**23**	**33**	**21**

2.4.5 Methicillin-resistant Staphylococcus aureus (MRSA) Bacteraemia

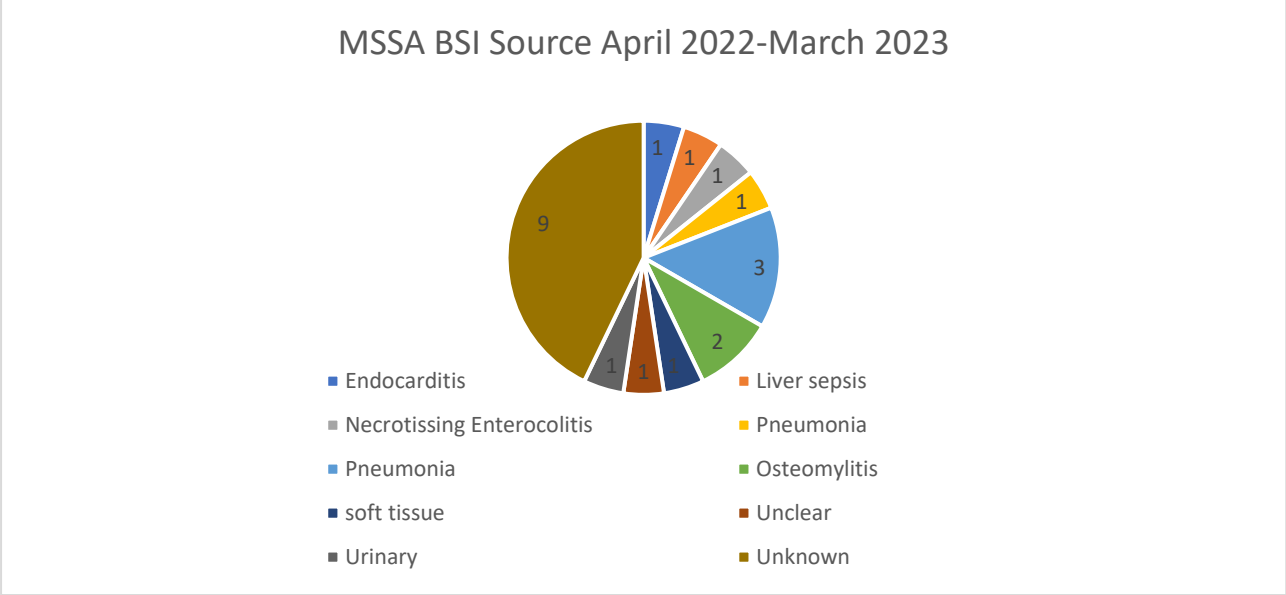
Although the bloodstream threshold was set at zero. Unfortunately, three cases of MRSA bloodstream infection were identified. To address this, post-infection reviews (PIR) were conducted to analyse the patients' journey and clinical practices. After investigation, two of the cases were found to be caused by a contaminant source. Areas of improvement were identified, including administering MRSA suppression therapy, prescribing chlorhexidine hair wash, providing patient information, and improving the ongoing care of invasive devices. Learning identified is shared with the clinical team and the wider organisation. A policy for the Management of MRSA and MSSA has been developed and will be implemented from April 2023, bringing us in line with national guidance and addressing the issues we identified.

2.4.6 Methicillin Sensitive Staphylococcus aureus (MSSA) Bacteraemia

21 MSSA bacteraemia cases were apportioned to the Trust for 2022/23. The Trust does not have a formal threshold for reducing MSSA bacteraemia cases; however, we strive to minimise preventable infections. All cases undergo a PIR. The bloodstream infection cases have been associated with the following sources of infection:

- skin and soft tissue infections
- peripherally inserted central catheter (PICC) line infection
- peripheral cannula
- discitis and pyelonephritis

Figure 5: MSSA BSI Sources



2.4.7 Gram-Negative Blood Stream Infections (GNBSI)

Figure 6 BHT Number of Cases of GNBSI by Organism			
	2020/21 Hospital Onset Healthcare Associated	**2021/22** Hospital Onset Healthcare-Associated (HOHA) Community Onset Healthcare-Associated (COHA)	**2022/23** Hospital Onset Healthcare-Associated (HOHA) Community Onset Healthcare-Associated (COHA)
E. coli	**32**	**85**	**64** ↓
Klebsiella	**22**	**36**	**37** ↑
Pseudomonas aeruginosa	**8**	**7**	**24** ↑
TOTAL	**62**	**62**	**125**

The year-to-date totals for GNBSI are E. coli 83 (79% of threshold), Pseudomonas aeruginosa 24 (240% of threshold) and Klebsiella sp. 37 (108% of threshold). In response to the high prevalence of Pseudomonas blood stream infections in Quarter 2, a review of the cases was completed, and the Head of Nursing for IPC presented the findings and recommendations to UKHSA. No further action was required with the UKHSA being satisfied with the robust process for reviewing of HCAIs and the proposed approach to reducing all Healthcare Associated–GNBSIs in adults. This included setting up a trust-wide working group led by the Consultant Microbiologist Infection Control Doctor to establish initiatives to reduce GNBSIs and consider trajectories to measure progress. Initiatives are planned to minimise GNBSIs, mainly by preventing urinary tract infections (UTIs) and catheter-associated urinary tract infections. (CAUTI). We continue to focus on reducing the incidence of Pseudomonas BSI with initiatives including optimal antimicrobial stewardship (focusing specifically on using the right choice of antibiotics and duration), rehydration of inpatients, and optimised urinary catheter care).

Figure 7: Pseudomonas aeruginosa BSI Sources

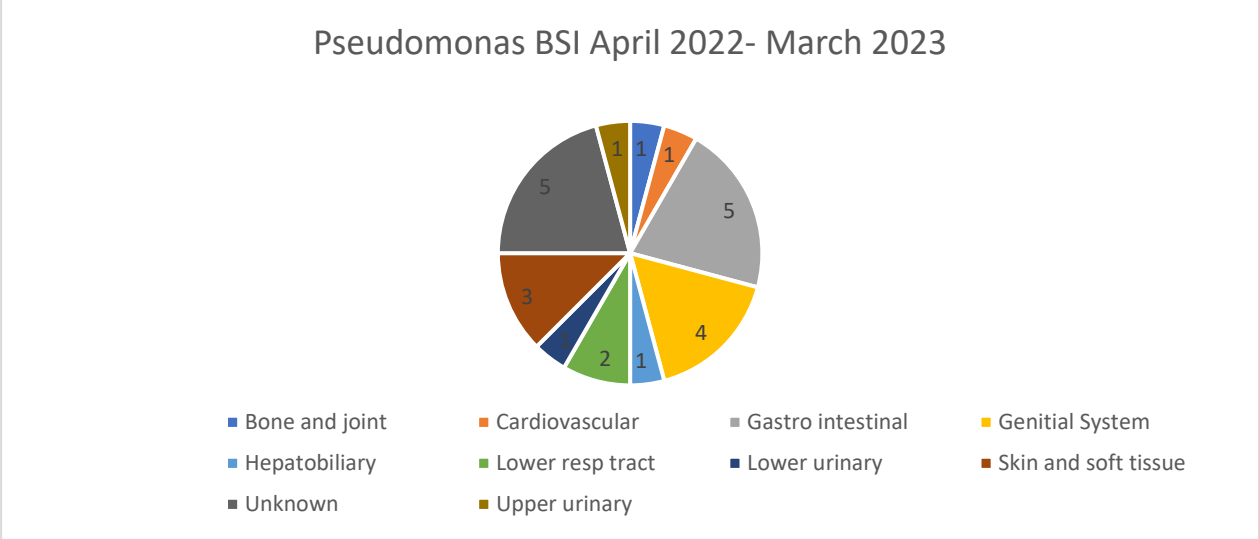


Figure 8: Klebsiella bacteraemia BSI Sources

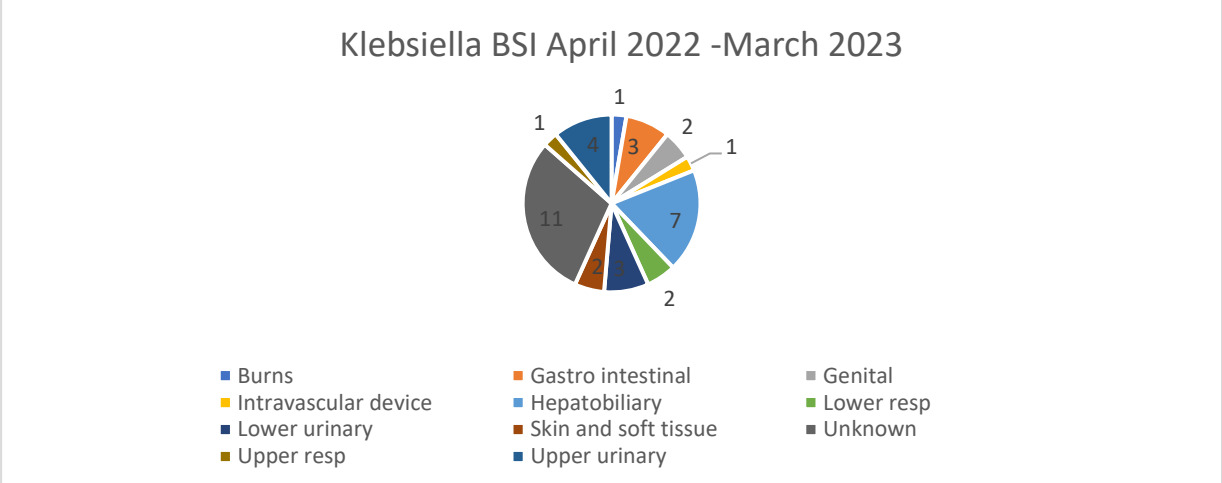
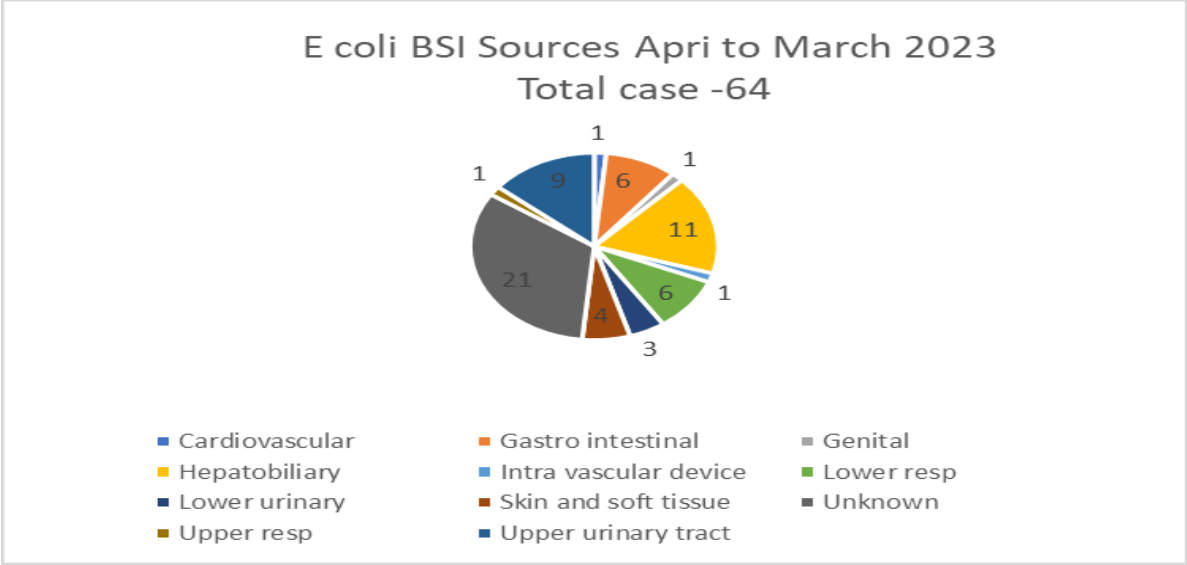


Figure 9: Escherichia Coli BSI Sources



2.5 Living With COVID-19

In May of 2022, the UK Health Security Agency (UKHSA) issued new COVID-19 guidelines to aid local decision-making on mask use and distancing as part of the reset and rebuild programme. However, in June, BHT removed masks for colleagues, patients, and visitors. Unfortunately, masks had to be reintroduced due to a significant increase in COVID cases within the community and hospital. The safe visiting guidance was updated and returned to pre-pandemic standards, while a revised infection risk screening template was introduced. Furthermore, COVID patient pathways have been adjusted to align with pre-COVID practices, and a winter planning process has been developed to guide patient placement, IPC precautions, and Personal Protective Equipment (PPE). Lateral flow testing for all colleagues was still supported, and successfully identified asymptomatic colleagues who tested positive.

2.5.1 Challenges of Living with COVID-19

The ongoing challenges of managing COVID-19 have significantly impacted the IPCT service. Although BHT has been following national guidelines for testing patients for the virus, there has been an increase in cases, particularly those acquired after admission, with an increase in probable or definite cases associated. Figure 10 shows the number of COVID cases detected through point-of-care testing and PCR using emergency and inpatient pathways and the total count. From 2022 to 2023, there were a total of 1507 cases of COVID-19. Of these cases, 966 (64.10%) were detected through screening and classified as community-onset. The remaining 541 cases, accounting for 35.8%, were nosocomial acquired. Figure 11 displays the number of COVID cases detected by NHS England Definition 2022-2023 compared to 2021-2022.

Figure 10: COVID cases categorised by NHS England definition April 22-March 23

BHT COVID Case by NHS England Definition					
22-23	Community 0-2 days after admission	Indeterminate 3-7 days after admission	Probable 8-14 days after admission	Definite 15+ days after admission	Totals
Apr-22	121	43	19	40	223
May-22	64	17	6	8	95
Jun-22	61	15	13	13	102
July -22	123	33	15	33	204
Aug-22	50	13	12	27	102
Sept-22	49	7	10	9	75
Oct-22	79	10	19	52	160
Nov -22	33	3	6	17	59
Dec- 22	46	7	13	35	101
Jan-23	50	20	26	42	**138**
Feb-23	32	33	37	40	142
March-23	36	21	16	33	**106**

Totals	**744**	**222**	**192**	**349**	**1507**

Figure 11: Total Cases of COVID-19 by NHS definition 21-23

BHT COVID Case by NHS England Definition 2021-2023					
	Community 0-2 days after admission	Indeterminate 3-7 days after admission	Probable 8-14 days after admission	Definite 15+ days after admission	Total
Total for 2022-23	744 ↑	222 ↑	192 ↑	349 ↑	1507 ↑
Total for 2021-22	731	178	94	161	1164

2.5.2 Learning from hospital-acquired COVID-19 infections in BHT

Figure 11 suggests a significant increase in patient safety incidents related to hospital-acquired COVID-19 this year compared to the previous year. This indicates that patients who require hospitalisation are still at a greater risk of contracting the virus.

Preventing the transmission of infections has been especially challenging due to delays in isolating suspected or positive cases leading to prolonged exposure to others in the ward or bay, increasing the risk of nosocomial acquisition and increasing the number of outbreaks declared see Figure 15. The IPCT continues to work with the site team to assess the level of risk posed by patients and prioritise those who require isolation in single rooms due to respiratory viruses such as COVID-19 and influenza. All infections acquired are reported on the Trust incident reporting system Datix and are reviewed based on BHT guidelines.

2.6 Influenza

In the 2022/23 flu season, there was a noticeable rise in influenza cases compared to previous years during the pandemic.

Figure 12: Influenza cases categorised by NHS England definition Nov 22-March 23

BHT Q4 FLU Case by NHS England Definition					
Month	**Community-acquired**	**Indeterminate**	**Probable**	**Definite**	**Total**
Nov (Partial) *	44	1	4	3	**52**
Dec	120	34	16	37	**207**
Jan-23	45	7	4	3	**59**
Feb-23	11	2	0	1	**14**
March-23	5	1	1	2	**9**

*Reporting began in November

Trust Vascular access device (VAD) bacteraemia's

Figure 13: BHT Yearly Vascular Access Device Bacteraemia

BHT Yearly Vascular Access Device Bacteraemia			
Year	**Central venous access devices**	**Peripheral Devices**	**YTD Total**
20 - 21	35	4	39
21 - 22	29	4	33
22 - 23	24	2	26

An RCA is carried out whenever a vascular access device infection is identified. If needed, OPAT leads a PIR with the MDT, which includes the IPC Doctor. During the process, learning and actions are identified. Divisions governance boards are responsible for reviewing the progress of the learning and actions. Any exceptions are reported to IPCC.

3. Criterion 2: Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections

3.1 Cleaning

National Standards of Cleanliness 2021

The National Standards of Healthcare Cleanliness (NSC), published in May 2021, are designed to drive improvement in healthcare organisations while allowing maximum flexibility. Adherence to these standards is mandatory and defined through the NHS Standard Contract 2022/23, with acute Trusts given a deadline of May 2022. However, BHT has yet to implement the updated NCS. To address this, BHT plans to undertake a multi-disciplinary review of the requirements using the implementation guidance provided by NHSE. This review will include a gap analysis comparing the 2007 NHS Cleaning Specification, engagement with colleagues internally and externally to apply functional risk ratings, evaluation of cleaning responsibilities, development of a cleaning policy and a trust-wide communication strategy. The standards are scheduled to be launched on April 1st, 2024, with support and approval at each implementation stage through the IPC committee.

3.2 Decontamination Group

Decontamination of reusable medical devices occurs in several areas, including the Sterile Services Department and the Endoscopy service across all sites and Urology based at Wycombe Hospital. The Sterile Services department scheduled a surveillance audit to ISO13485 with the externally approved body BSI in April 2022, with no non-conformances being raised.

The Endoscopy department undertakes monthly internal audits as part of the ongoing accreditation and quality management system. Anything raised follows the Quality Management System process of Corrective and Preventative actions. The next external accreditation audit is planned for in July 2023. Another area identified as carrying out local decontamination is the ear, nose, and throat clinics. A robust standard operating procedure, appropriate risk assessments, and training are in

place. The Decontamination group meeting now includes an audit of a pre-agreed area. It will be part of the group's work plan for the upcoming year as part of continued surveillance and monitoring.

Risks

One concern that still needs to be addressed is the lack of an authorised person for decontamination within the retained estate. Current mitigation actions are in place, and the Associate Director of Estates is developing a longer-term plan to resolve this.

3.3 Water Safety Group

The Water Safety Group (WSG) reconvened in March 2023 and will continue to convene quarterly. The group follows established governance guidelines with appropriate representation and up-to-date documentation, including a Water Safety Plan and water policies. Any identified legionella and pseudomonas issues are promptly addressed through active monitoring and capital delivery processes in collaboration with our PFI partners, across the BHT estate.

3.4 Ventilation Safety Group

BHT has an appointed Authorising Engineer AE(V) for ventilation, who provides independent expert advice. We established the Ventilation Safety Group (VSG) in March 2023 to further enhance our commitment to safety. The VSG will hold quarterly meetings to ensure compliance with ventilation policies and regulations, focusing on HTM, statutory compliance, requests for change of use, matters arising from the current operational use of spaces, and examination of potential new services in BHT.

The VSG's primary objective is to ensure safe patient, colleague, and visitor spaces. To achieve this, the group will address issues related to asset and compliance data checks, technical compliance, design advice, approval of capital designs, reviewing management processes, and organisational governance arrangements. We have also prepared the necessary terms of reference and Ventilation Policy documents to guide the VSG's work and ensure our facilities' highest safety and compliance.

3.5 IPC in the Built Environment

The Trust is dedicated to expanding and improving its facilities, and the IPC team plays a crucial role in achieving this goal. The team is actively involved in refurbishments and new developments across all sites, providing valuable support and guidance throughout the planning, design, and build stages to ensure compliance with Health Building Notes (HBNs) and Health Technical Memorandums (HTMs). The team also addresses human factors by collaborating with department users, facilities, project teams, and contractors on new projects. As projects near completion, the team works with the snagging team to ensure that the finished product meets all necessary requirements and safety standards.

4. Criterion 3: Ensure appropriate antimicrobial use to optimise patient outcomes and reduce the risk of adverse events and antimicrobial resistance

4.2 Antimicrobial Stewardship Group (ASG)

The Antimicrobial Stewardship Group (ASG) reports to the IPCC and Medicine Safety and Quality Group (MSQG). Its purpose is to develop and oversee the delivery of the Antimicrobial Stewardship (AMS) Programme for BHT, in line with the Government's UK five-year action plan to contain, control and mitigate the development and spread of Antimicrobial Resistance (AMR). This also provides assurance for Criterion 3: Appropriate antimicrobial use and stewardship to optimise outcomes and to reduce the risk of adverse events and antimicrobial resistance, of the Health and Social Care Act 2008: code of practice on the prevention and control of infections and related guidance (updated December 2022).

4.2 AMS Programme

The 2022/23 AMS Programme identified 4 priority areas:

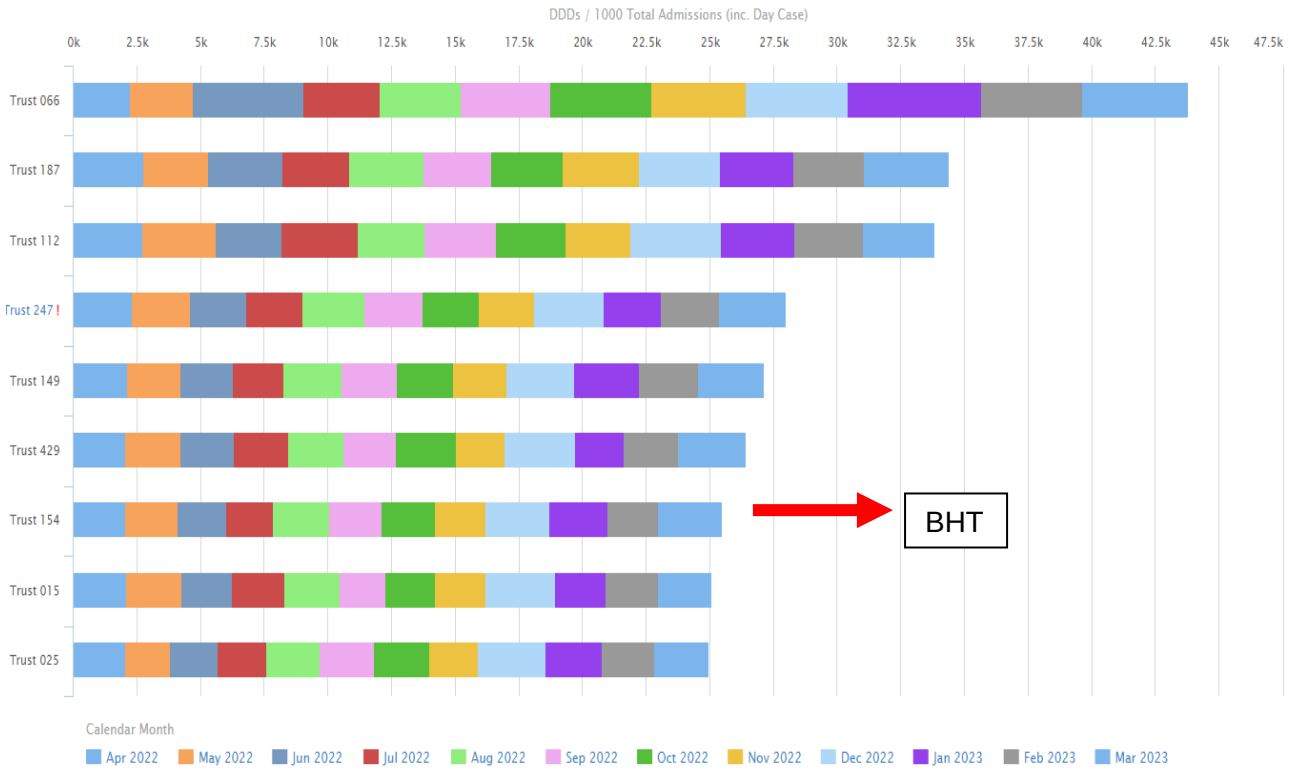
1. **Reduce the use of "Watch" and "Reserve" antibiotics (Refer to Figure 14)**
   Objective: Reduce usage by 4.5% from the 2018 baseline year by March 2023 and a further 6.5% by March 2024.
   Outcome: *Not achieved* – figures suggest no significant change compared to the baseline year. Actions taken: Measures to reduce Watch and Aware drugs were implemented, following which we hope to see reductions in the use of these antibiotics over the next

2. **To minimise the harm caused by poor gentamicin prescribing.**
   Objective: To reduce gentamicin Datix incidents to ≤ 2 per quarter
   Outcome: Not achieved a Total of 9 Datix reports relating to Gentamicin prescribing and/or monitoring in 2022/2023 (but these were all in the "low" or "no harm" categories).
   Actions taken: There was a focus on safe gentamicin prescribing during World Antibiotic Awareness Week at the end of November 2022 which provided an opportunity for all prescribers to gain detailed knowledge in this area.

3. **Improve documentation of penicillin allergy and opportunities for challenge and de-labelling.**
   Objective: Improvement seen on Antimicrobial Care Bundle audits
   Outcome: Partially achieved- 51.3% of patients had the nature of the allergy documented based on 144 responses, and 53.8% of patients wore a red wristband based on 130 responses. This is baseline data which can be compared with future audit results. A de-labelling protocol has been developed which will be implemented next year.

4. **Urine Track Infection (UTI) Commissioning for Quality and Innovation (CQUIN) This is a National Quality Improvement goal.**
   Objective: To achieve ≥60% of all antibiotic prescriptions for UTI in patients aged 16+ years that meet NICE guidance for diagnosis and treatment.
   Outcome: *Partially met (40-60%) There is a financial reward for meeting the targets; full payment if 60% or more is achieved; a lesser amount if the threshold of 40% is reached.*
      - **Q1 compliance: 51%**
      - **Q2 compliance: 52%**
      - **Q3 compliance: 42%**
      - **Q4 compliance: 49%** (figure to be confirmed by PHE Fingertips)

Figure 14. Usage of Watch and Aware Antibiotics 2022/23 (Regional comparison):



Highlights 2022/23

- Successful completion of the Department of Health and Social Care's Fleming-funded Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS) Extension fund to "Establish a Sustainable centre of excellence for Integrated AMS and IPC at Makerere University in Uganda"
- Three pharmacists from BHT, and one from BOB ICB, completed the Chief Pharmaceutical Officer's Global Health Fellowship.
- Continuation of the CwPAMS Health Partnership with Nottingham Trent University and Makerere University in Uganda to scale up interventions to strengthen antimicrobial stewardship in Wakiso District, Uganda. This partnership was awarded "Winner" at the Antibiotic Guardian Awards in the "Multi-Country Collaboration" award.
- A member of the antimicrobial steward's pharmacist team was shortlisted and commended for the Das Pillay Award at the Antibiotic Guardian Awards for his project: *Therapeutic Drug Monitoring (TDM) Workshops/Knowledge Cafés for Variable Dose Antibiotics during World Antimicrobial Awareness Week (WAAW) 2021.*

In collaboration with Oxford University Hospitals NHS Foundation Trust, the pharmacy team was accepted for a poster presentation at the British Society for Antimicrobial Chemotherapy Spring Conference - Using the Australian National Antimicrobial Prescribing Survey portal (to benchmark antibiotic prescribing within an Integrated Care Board a pilot point prevalence survey of two NHS trusts.

5. Criterion 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

5.1 Information for Service Users, Visitors and Carers

The IPC team ensures that information is up-to-date and works closely with the Communications department for accurate and wide dissemination via channels, including patient information screens, social media, and the Trust's website. The IPCT has worked with the Communications team to ensure documents are kept up to date on the Trust's intranet. The IPC team has made significant progress in updating policies and guidelines and information for patients and visitors to meet the Health and Social Care Act requirements. It is on track to achieve full compliance by the end of 2024.

6. Criterion 5: Ensure that people who have, or develop, an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of passing on the infection to other people

As part of our standard operating process, assessment tools are available to reduce the risk of transmitting infection, and our admission process includes the assessment of patients for signs of infection. Our Infection Prevention Team works closely daily with wards, our site management teams, and our cleaning teams, to ensure patients with infection are rapidly identified and placed correctly and additional cleaning is in place as required. During the last year, the IPC, where needed, provided a support service seven days a week to ensure expert support was always available to maintain patient and staff safety.

6.1 Patient Alerts and Surveillance of Alert Organisms e.g., MRSA, C. difficile

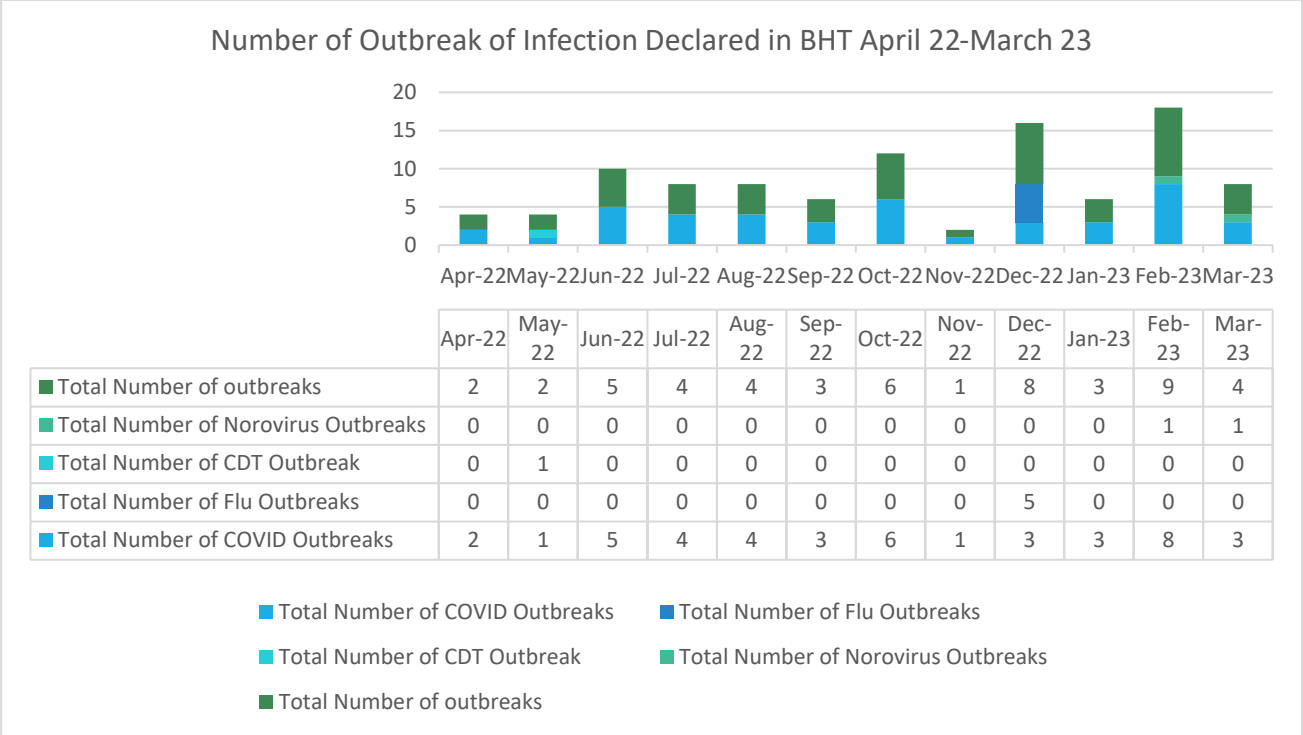
The IPC team uses a manual process to monitor patient alerts which assist in detecting a patient re-admitted with an alert organism/infection. All emergency and elective admissions for MRSA are screened for infection risk. Certain alert organisms are screened on admission and transfer, e.g., MRSA and CPE.

6.2 Managing Outbreaks of Infection

During the 2022/23 period, there were a total of 51 reported outbreaks, with 43 of them being COVID outbreaks outlined in Figure 15. This indicates that COVID-19 continued to pose a significant risk during that time. However, the lack of isolation facilities remains a major challenge in accommodating patients who are identified with a risk of infection. Isolation facilities are crucial in effectively managing and containing the spread of infections. The insufficient number of isolation facilities affects BHT's ability to manage cases of infection safely, and this risk is recorded on the IPC risk register; the IPC risk register is reviewed each quarter by the IPCC. Another concern is the inadequate implementation of engineering solutions within ward settings to address infection risks. Specifically, ventilation systems lack appropriate airflow and ventilation to minimise the spread of airborne infections, thereby increasing the risk of transmission within the ward environment. The increasing demand for healthcare services in BHT has increased capacity in most areas, increasing the above-mentioned challenges. As more patients require care, effective infection control measures and adequate isolation facilities become even more critical.

The information provided highlights the importance of addressing infection prevention control challenges across all areas. It emphasises the necessity of having sufficient isolation facilities and implementing engineering solutions, such as improved ventilation systems, to reduce the risk of infection spread within BHT. With the increasing demand for services and capacity in most areas, it has become more challenging to mitigate the risk of transmission of infection. Identifying and recording potential risks on appropriate risk registers is crucial. Regular reviews of these registers by the IPCC, health and safety committee, and ventilation safety group are necessary to ensure comprehensive oversight.

Figure 15 Number of Outbreak of Infection Declared in BHT April 22-March 23



	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Total Number of outbreaks	2	2	5	4	4	3	6	1	8	3	9	4
Total Number of Norovirus Outbreaks	0	0	0	0	0	0	0	0	0	0	1	1
Total Number of CDT Outbreak	0	1	0	0	0	0	0	0	0	0	0	0
Total Number of Flu Outbreaks	0	0	0	0	0	0	0	0	5	0	0	0
Total Number of COVID Outbreaks	2	1	5	4	4	3	6	1	3	3	8	3

6.3 Incidences

Group A Streptococcus

In Quarter 3, BHT received a notification from UKHSA regarding the high rates of invasive Group A Streptococcus (iGAS) infection, especially in children. In line with many other trusts, BHT witnessed a surge in admitted cases and an increased demand for assessment in our Paediatric Decision Unit, especially during out-of-hours care.

Viral Haemorrhagic Fever (VHF)

The IPCT has reviewed and enhanced protocols for patient care and staff support in suspected cases of VHF.

Investigation of a single potential case of Legionnaires Disease associated with Wycombe Hospital

In September, the UKHSA reported a potential single legionnaire disease (LD) case associated with Cardiac Stoke Referral Unit (CSRU) Wycombe Hospital. IPCT, with the support of the Estates and Property service teams, has investigated to identify potential sources within the environment. Routine water testing in August identified legionella in CSRU in two samples taken on 3/8/22. In line with the Trust's water safety policy, further water testing was undertaken to include all water source points across the CSRU unit. After discussion with the Consultant in Communicable Disease (CCD) UKHSA, it was agreed that the patient's probability of acquiring the Legionellae whilst attending CSRU was low. The urine sample has been sent to the reference lab, and UKHSA will inform us of the result. The case will be reviewed at the Trust's next Water Safety Group to see if there is any learning which requires additional action to be undertaken.

An investigation a single case of bloodstream infection of Listeria monocytogenes

Listeria monocytogenes were identified in the in-blood culture sample taken in January 2023. The patient died of Listeria septicaemia, being reported on part 1a of the death certificate. Therefore, the case is considered hospital-acquired, the Serious Incident process was initiated, and the UKHSA was notified.

The UKHSA led an investigation into this case which identified that the case was part of a regional outbreak, with a probable food source being the infectious agent. Further investigations are being carried out focusing on off-site production facilities of sandwich supplies. UKHSA informed NHS England of the cases and findings. A letter was circulated to all NHS providers in February via NHS Estates, which builds on the organisation implementing the national health standards for food and drink (November 2022).

Monkey Pox (Mpox)

Since the start of the Monkeypox (Mpox) virus outbreak, the Trust's Sexual Health Service (SHS), has identified five positive cases – none of which required hospital admission. A further case was identified in March 2023 following admission to Stoke Mandeville Hospital. UKHSA was notified of the result. To date, 260 first and 105-second doses Mpox vaccine have been given by the SHS. Vaccination has played a crucial role in protecting people and reducing case numbers. UKHSA recently announced that due to a sustained reduction in Mpox case numbers across England, the vaccination programme is no longer needed as an outbreak control measure and will be wound down.

6.4 Serious incidents

Four serious incidents have been related to Infection Prevention and Control (IPC). Three of these incidents involved patients acquiring COVID-19 while staying at the hospital. The Trust's Serious Incident Policy was followed, and appropriate procedures were taken to address the incidents. Each Divisional Governance Board is responsible for supervising the implementation of recommendations and actions to respond to the incidents.

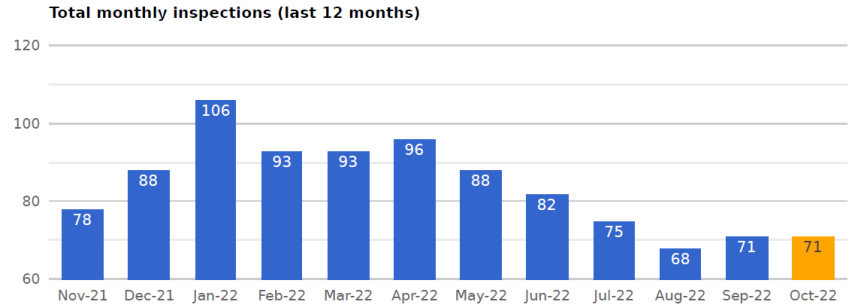
6.5 Audit Programme to Ensure Key Policies are Implemented

The IPC audit programme is fundamental in monitoring and measuring IPC policies and compliance with standard infection control precautions (SICP) and Transmission based precautions (TBP). Where audit deficits are identified, areas are responsible for producing action plans to address these issues. Once the action plan has been developed, it is monitored locally via the Divisional governance arrangements to ensure action has been taken. Should any challenges hindering the completion of action plans be identified at a local level, they are escalated to the IPCC.

Hand Hygiene and Personal Protective Equipment Audit (PPE)

All clinical areas report Hand Hygiene and PPE compliance as directed by BHT hand hygiene/PPE guidance. Each area is responsible for conducting its audits and reporting them through its directorate governance structure with action plans to address non-compliance. From November, the PPE and hand hygiene audit has been split into two separate audits.

Figure 16: Audit compliance with hand hygiene and PPE audit

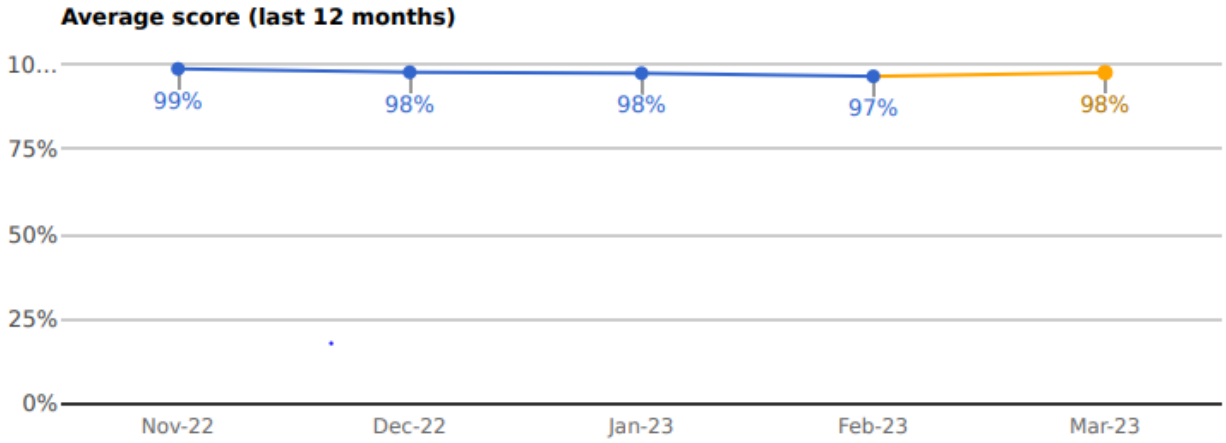


The average score was 99% for this period.

Hand Hygiene Audit Compliance

Since November 2022, the hand hygiene audit is now standalone; in Quarter 4, the number of audits undertaken has steadily increased, with 118 in January, 129 in February and 133 in March 2023, with an average audit score for the quarter being c. 98% Weekly hand hygiene audits are also carried out in clinical areas when there is an outbreak or Period of Increased Incidence of Infection (PII).

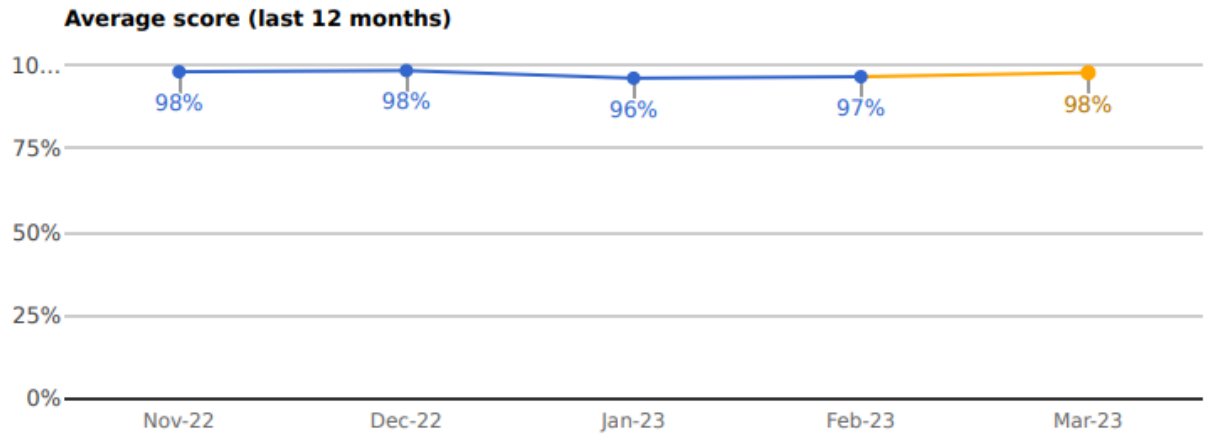
Figure 17: Average Hand Hygiene Audit Compliance



PPE Audit Compliance

Since November 2022, the PPE Audit has been standalone and used during outbreaks, PII and spot checks of practice. The average score is 98%. The IPCT has asked divisions for their assurance on the completion of this audit and what measures are in place to monitor

Figure 18: PPE Audit Compliance



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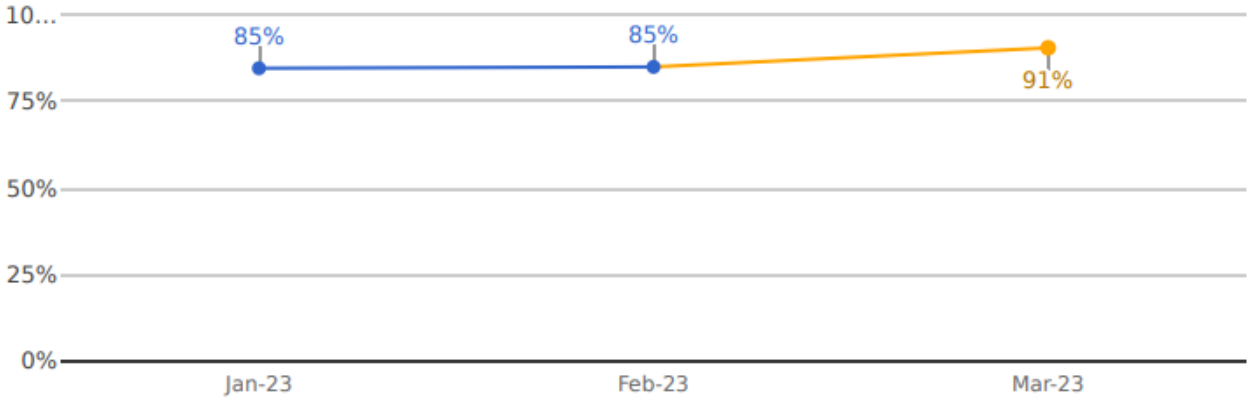
Peer-reviewed infection prevention and control audits

Peer-reviewed infection prevention and control audits and observation of standard infection prevention and control practices that form part of the Clinical Accreditation standard commenced in January 2023. The figure shows the compliance demonstrated across 17 audits carried out by IPCT. Where required, Divisional Governance and Performance groups develop and oversee action plans. If needed, areas are reaudited.

Figure 19: Ward Accreditation Audit Scores



Indwelling Urinary Cather (IDU) Ongoing Care Audit

Preventing Catheter-Associated Urinary Tract infections (CAUTI) is a critical objective for ensuring patient safety. Urinary catheters are a source of E. coli bloodstream infections, and many of these infections are suggested to be avoidable by minimising the use of indwelling urinary catheters (IDUC) or removing them as soon as possible.

The audit findings have highlighted the importance of implementing measures to reduce CAUTIs, particularly focusing on evidence-based best practices and considering the implementation of the NHS passport.

6.6 Surgical Site Infection Surveillance (SSIS)

In July 2022, UKHSA wrote to BHT as it had identified that the Trust had not participated in the mandatory data collection for monitoring surgical site infections (SSI) from 2021 to 2022. Due to a lack of resources in the IPC team, Trust will likely continue not to participate in 2023/24.

The IPCT has submitted a business case for an SSI specialist nurse and coordinator to focus on SSI monitoring and prevention in the Trust. The SSI team would work with all divisions and disciplines where surgical procedures happen across the Trust.

An SSI Prevention Policy has been developed and implemented across the organisation during 2023/24.

In Maternity, the MDT working group is still reviewing the caesarean section pathway (both elective and emergency). A repeat audit is planned for 2024. The action plan developed following a possible cluster in 2021 has been almost completed, with one outstanding action regarding skin preparation. This is ongoing and is overseen by the maternity and obstetric governance structure to improve the patient pathway and reduce the risk of SSI.

7. Criterion 6: All care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection

All colleagues, including volunteers joining the Trust, must attend or undertake IPC training.
The training department monitors compliance with IPC training. Figure 16 provides compliance for IPC Mandatory training across the Trust as of the end of March 2023. Whilst the Trust has exceeded its threshold for hand hygiene, further work needs to be undertaken to ensure that the Trust achieves its threshold of 90% for overall IPC mandatory training compliance.

Figure 20: Mandatory Training Compliance as of 31/3/23

Statutory and Mandatory Compliance for Infection Prevention Control				
	Sum of Required	**Sum of Achieved**	**Sum of Non-Compliant**	**Compliance %**
Hand Hygiene - 2 Years	4515	4074	441	90.23%
Infection Prevention and Control Level 1 - 1 Year	1534	1247	287	81.29%
Infection Prevention and Control Level 2 - 1 Year	4515	3679	836	81.48%
Grand Total	**10564**	**9000**	**1564**	85.20%

7.1 Infection Prevention and Control Team/Team Development

Members of the IPCT are encouraged to undertake training within the speciality as part of development. One of the members of the IPCTs completed their master's degree in IPC this year; two colleagues further continued their master's level studies.

7.2 Link Practitioner Network

In November, the IPCT re-launched the link practitioner network with a cross-Trust study day. The theme was back to basics, and the day saw the National IPC Manual launched within the Trust. All members of the IPCT presented, and the guest speaker was Rose Gallagher, IPC lead from the Royal College of Nursing. Unfortunately, as the IPCT has remained on business continuity staffing, it has not been possible to carry out further activities during the winter period. – this is covered elsewhere in the report

8. Criterion 7: Provide or secure adequate isolation facilities.

The Trust faces challenges in assigning isolated side rooms to patients with infection risks due to the limited availability of side rooms. This has been escalated to IPCC and Health and Safety Committee.
The lack of secure and adequate isolation facilities and inadequate ventilation are on the estate's risk register. The IPCT continue to advocate for increased isolation and improved infrastructure for caring for patients with infections and protecting colleagues from infection.

9. Criterion 8: Secure adequate access to laboratory support as appropriate.

Laboratory services for BHT are located at Stoke Mandeville Hospital. The microbiology laboratory has full Clinical Pathology Accreditation (CPA). The microbiology laboratory sends a daily list of all positive samples, including sensitivities. This enables all patients to receive the appropriate treatment/antibiotic therapy and prompt isolation if required. As serology has been incorporated back into microbiology, the Trust has started applying for UKAS accreditation as a joint laboratory. Work has been ongoing to validate rapid molecular screening methods for MRSA and CPO. Laboratory-based molecular testing for Covid, Flu and RSV (as a triplex test) has been validated, and point-of-care testing using the IDnow has been introduced for Covid/Flu and RSV.

10. Criterion 9: Have and adhere to policies designed for the individual's care and provider organisations that help to prevent and control infections.

BHT has implemented the National IPC Manual. In line with the Health and Social Care Act (2008) code of practice on preventing and controlling infections (update 2022). BHT remains non-compliant with the current policy list. The IPCC oversees progress toward compliance and it is expected that BHT will be fully compliant by the end of 2024.

11. Criterion 10: Providers have a system in place to manage the occupational health needs of colleagues in relation to infection.

11.1 Immunisation COVID and Flu

The Autumn vaccination program 2022/23 for Flu and COVID-19 built on the experience and knowledge gained over the last two years. It aimed to deliver a programme that supported the offer of both the Flu & COVID vaccinations to colleagues while allowing operational and clinical choices to meet their needs.

Both vaccinations were offered to 100% of all BHT colleagues, with a final uptake of 59.5% for Flu and 57.3% coming forward for the COVID vaccination. Flu vaccinations started two weeks after winter COVID boosters due to the vaccine's availability and delivery; from that point, 38.3% of all vaccines given were co-administered and were offered consistently at every session.

Occupational Health is committed to protecting all Trust employees as part of policies and guidelines. As part of the Recruitment and Selection Policy, all colleagues are assessed for fitness for work and infection control risk. Occupational Health also supervises the Trust's policy for preventing and managing Sharps injuries and body fluid exposure incidences as part of their Infection Prevention Control remit.

As mandated by the Health and Social Care Act 2008 and Department of Health Guidelines, Occupational Health is responsible for evaluating the immunisation status of all Trust employees. We also regularly review the immunisation status of existing healthcare workers and administer necessary vaccinations following the Green Book to minimise the risk and spread of vaccine-preventable diseases. The vaccines depend on workplace risk and consist of Mantoux / BCG, Hepatitis B, Hepatitis A, Tetanus/Diphtheria/Polio, Measles/Mumps /Rubella, Typhoid and Varicella.

11.2 Exposure to bloodborne viruses

Exposure to bloodborne viruses can pose a significant threat to healthcare workers. To ensure the safety and health of these colleagues, Occupational Health works in tandem with Health and Safety Legislation to prevent, reduce, and control the risks of healthcare-associated infections and manage occupational exposure to bloodborne viruses, including post-exposure prophylaxis. The assessment and follow-up of bloodborne virus exposure incidents during departmental opening hours and emergency departments outside of hours fall under the responsibility of Occupational Health. During 2022/23, the number of exposure incidents reported to Occupational Health was 150 compared to 157 the previous year. Out of these cases, the majority occurred during a procedure on the patient before the safe needle device had been activated.

Most colleagues exposed to blood or body fluids are dealt with through testing of the source patient. Where this is not possible, follow-up blood tests are organised for six months through the Occupational Health Department.

11.3 COVID-19 Risk Assessments

COVID-19 Risk Assessments are mandated for all colleagues in the Trust. Changes to the risk from COVID have resulted in Occupational Health only being directly involved in staff who fall into the high-risk category.

11.4 Fit Mask Testing

Fit Mask Testing for clinical colleagues transferred to the Occupational Health remit in 2022. Compliance has been maintained at 90% or over, and plans have been developed to capture re-testing as advised by NHS England at two yearly intervals.

11.5 Lateral Flow Testing and Isolation

Lateral Flow testing and Isolation have had multiple changes to the advice provided to NHS colleagues. Occupational Health updated the advice at the end of 2022/23 to reflect moving away from lateral flow testing and replacing it with isolation based on symptoms only.

This report has been complied with contributions gratefully received from the IPC Team plus colleagues from Microbiology, Pharmacy, Estates and Facilities, Decontamination, occupational health, and all divisions.