

QUALITY ASSURANCE COMMITTEE

AGENDA REFERENCE:	QAC/24/07/XX											
SUBJECT:	Director of Infection Prevention and Control Annual Report											
DATE OF MEETING:	9 July 2024											
ACTION REQUIRED:	To note and approve											
Author	Lesley McKay, Associate Chief Nurse for Infection Prevention + Control											
EXECUTIVE DIRECTOR SPONSOR:	Alison Kennah Chief Nurse/Director of Infection Prevention + Control											
LINK TO STRATEGIC OBJECTIVE:	SO1: We will... Always put our patients first delivering safe and effective care and an excellent patient experience. SO2: We will ... Be the best place to work with a diverse and engaged workforce that is fit for now and the future. SO3: We will ... Work in partnership with others to achieve social and economic wellbeing in our communities.											
EQUALITY CONSIDERATIONS: (Please select as appropriate)	Please indicate who is impacted by the equality considerations: Are there any equality considerations linked to the general duties of the Public Sector Equality Duty and Armed Forces Act 2021:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Patients</th> <th style="width: 33%;">Workforce</th> <th style="width: 33%;">Public</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">✓</td> </tr> </tbody> </table>	Patients	Workforce	Public	Yes	No	N/A			✓	
Patients	Workforce	Public										
Yes	No	N/A										
		✓										
Further Information / Comments:												
EXECUTIVE SUMMARY:	<p>This report outlines the arrangements, activities and achievements of the Trust relating to infection prevention and control for the April 2023 to March 2024 financial year.</p> <p>The Covid-19 pandemic continued to place demands on the Infection Prevention and Control Team (IPCT) and had an impact of achieving the annual work plan as activity was redirected in response to the pandemic and other emergent issues including measles.</p> <p>There were: -</p> <ul style="list-style-type: none"> 13 Covid-19 outbreaks 166 Hospital onset/probable healthcare associated cases 198 Hospital onset/definite healthcare associated cases <p>Total HCAI case numbers for 2023/24 are comparable with</p>											

	<p>similar sized Trusts when benchmarked using UK Health Security Agency data.</p> <p>Totals for HCAs were: -</p> <ul style="list-style-type: none"> • 55 Clostridium difficile cases – 19 cases over threshold • 0 MRSA bacteraemia cases • 36 MSSA bacteraemia cases – no threshold • 81 E. coli bacteraemia cases – 27 cases over threshold • 28 Klebsiella bacteraemia cases – 10 cases over threshold • 11 P. aeruginosa bacteraemia cases – 9 cases over threshold <p>HCAI prevention plans are in place to prevent healthcare associated infections.</p> <p>Gratitude is extended to all members of the IPCT for their hard work over the year. Collaboration and successful engagement with colleagues across the Trust have contributed to the successes detailed within this report.</p> <p>This report builds on previous annual reports submitted to the Board of Directors to give a full year account of infection prevention and control activity.</p>		
PURPOSE: (please select ✓ as appropriate)	Approval	To note ✓	Decision
RECOMMENDATION:	The Quality Assurance Committee is asked to receive and note the report.		
PREVIOUSLY CONSIDERED BY:	Committee	Infection Control Sub-Committee	
	Agenda Ref.	ICSC/24/06/65	
	Date of meeting	20 June 2024	
	Summary of Outcome	Submit to Quality Assurance Committee	
NEXT STEPS: <i>State whether this report needs to be referred to at another meeting or requires additional monitoring</i>	Submit to Trust Board		
FREEDOM OF INFORMATION STATUS (FOIA):	Release Document in Full		
FOIA EXEMPTIONS APPLIED: <i>(if relevant)</i>	None		

QUALITY ASSURANCE COMMITTEE

SUBJECT	Infection Prevention and Control DIPC Annual Report	AGENDA REF:	QAC/24/07/XXX
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1. BACKGROUND/CONTEXT

Executive Summary

Organisation

Warrington and Halton Teaching Hospitals NHS Foundation Trust, sits within the mid-Mersey region in the northwest of England, providing healthcare services to Warrington, Runcorn, Widnes, and surrounding areas. The Trust has 3 hospitals across two sites and circa 520 beds, with over 4,400 substantive staff.

The Trust's mission is to be 'outstanding for our patients, our communities and each other', with a vision that 'we will be a great place to receive healthcare, work and learn'. Good infection prevention and control practices are a fundamental part of this mission and vision.

Infection Prevention & Control Strategy and Annual Work Plan

The Infection Prevention and Control Strategy was launched in June 2022 with three objectives: -

- Prevention of healthcare associated infections
- Strengthening antimicrobial stewardship
- Commitment to cleanliness

The strategy was updated in 2023/24 to include a 4th objective: -

- Sustainability

The Infection Prevention and Control Team (IPCT) worked towards delivery of the annual work plan. The Covid-19 pandemic and national measles incident had an impact on completion of all elements as efforts were appropriately re-directed.

A robust annual work plan ([Appendix 1](#)) which is linked to the Infection Prevention and Control Strategy, has been devised for the 2024/25 financial year. The work plan includes attendance at other committee meetings to ensure integration of infection prevention and control across the organisation; compliance with all mandatory surveillance requirements; monitoring of environmental cleanliness standards; audits of practice/policies; policy/guideline reviews and a programme of education and awareness raising events. An additional workstream has been created called Brilliant Basics in Infection Prevention and Control with a project implementation plan spanning the financial year. Quality Academy support will be provided to support the plan.

Covid-19 Pandemic

The Covid-19 pandemic continued to present challenges. Timely and integrated working took place between the infection prevention and control and operational teams to ensure safe patient placement to reduce the risk of Covid-19 transmission within the Trust. The Trust complied with recommendations for reporting outbreaks

of hospital onset cases, as detailed below, until guidance was provided to step down reporting: -

- 13 Covid-19 outbreaks
- 166 Hospital onset/probable healthcare associated cases
- 198 Hospital onset/definite healthcare associated cases

Code of Practice on Prevention of Healthcare Associated Infections

The Code of Practice on Prevention of Healthcare Associated Infections, which is linked to Regulation 12 of the Health and Social Care Act (2008), was updated in December 2022. The Trust is working towards full compliance with the 10 criterions. Revised assessment against the updated Code of Practice shows : -

- 7 are fully compliant
- 3 have minor non-compliances

These minor non-compliances relate to old estate i.e., lower number of side room facilities, and in a small number of areas, lower ratio of hand washing sinks to patient number than current guidance.

The annual Patient Led Assessment of the Care Environment (PLACE) occurred in November 2023 and achieved cleanliness scores above 99% for both sites.

Healthcare Associated Infections

NHS standard contracts include a quality requirement to minimise rates of C. difficile and Gram-negative bloodstream infections (GNBSI) to thresholds set by NHS England (NHSE). The approach to learning from HCAI events has been revised to align with the Patient Safety Incident Response Framework. Trust apportioned healthcare associated infection (HCAI) figures include hospital onset/healthcare associated (HOHA) and community onset/healthcare associated (COHA) cases. The Trust apportioned cases are detailed below: -

Table 1 HCAI Data and Trust Thresholds

Organism	Trust Apportioned (HOHA/COHA)	Total	Trust threshold
C. difficile	45 HOHA: 10 COHA	55	36
E. Coli bacteraemia	42 HOHA: 39 COHA	81	54
Klebsiella Spp. bacteraemia	12 HOHA: 16 COHA	28	18
MRSA bacteraemia	0 cases	0	Zero avoidable
MSSA bacteraemia	26 HOHA: 10 COHA	36	No threshold
P. aeruginosa bacteraemia	6 HOHA: 5 COHA	11	2

Actions in place to prevent C. difficile include; hand hygiene (staff and patients), environmental cleanliness and antimicrobial stewardship. An in-depth action plan called Brilliant Basics in IPC and project plan will be launched in 2024 to drive improvements in infection control.

This report outlines the arrangements, activities, and achievements during the 2023/24 financial year. The report builds on previous annual reports submitted to the Board of Directors to give a full year account of infection prevention and control activity.

Alison Kennah

Chief Nurse/Director of Infection Prevention and Control (DIPC)

June 2024

Acknowledgements

Lesley McKay	Associate Chief Nurse Infection Prevention and Control/Associate DIPC
Dr Zaman Qazzafi	Consultant Medical Microbiologist/ Infection Control Doctor/Deputy DIPC
Jacqueline Ward	Lead Pharmacist in Antimicrobial Stewardship
Kate Rainbird	Interim Lead Pharmacist in Antimicrobial Stewardship
Faye Smale	Interim Lead Pharmacist in Antimicrobial Stewardship
Julie McGreal	Head of Facilities
Claudine Reynolds	Lead Nurse Medical Care CBU

2. KEY ELEMENTS

Description of Infection Control Arrangements

Infection Prevention and Control Team

The Infection Prevention and Control Team (IPCT) is scheduled to meet fortnightly. Meeting frequency was affected as efforts were redirected to respond to the continued Covid-19 pandemic, increase in seasonal respiratory viruses and the national measles incident. The national increase in measles cases has been linked to low uptake of the measles, mumps, and rubella (MMR) vaccination. The IPC Team implemented actions for timely triage, isolation and testing of suspected cases, and worked with the Occupational Health and Wellbeing Department to review staff vaccination status and took action to promote vaccination.

The Infection Prevention and Control Team membership includes: -

- Consultant Medical Microbiologists: -
 - Dr Zaman Qazzafi (Deputy DIPC and Infection Control Doctor)
 - Dr Toong Chin
 - Dr Janet Purcell (0.6 WTE) – extended leave
- Associate Chief Nurse for Infection Prevention and Control: -
 - Lesley McKay (Associate DIPC)
- Infection Prevention and Control Matron
 - Carol Baskett (from June 2023)
- Infection Prevention and Control Nurses Band 7: -
 - Aalifha Mariadhas Margret
 - Louise Bale
 - Jessical Ford
- Infection Prevention and Control Nurses Band 6: -
 - Shaiby Coot (from June 2023)
- Lead Pharmacist in Antimicrobial Stewardship
 - Jacqueline Ward (extended leave)
 - Kate Rainbird (interim until February 2024)
 - Faye Smale (interim from January 2024)
- Infection Control Administrator: -
 - Amanda Mayor-Hughes
- Operational Estates Manager

- Kieran Beech

Infection Control Sub-Committee

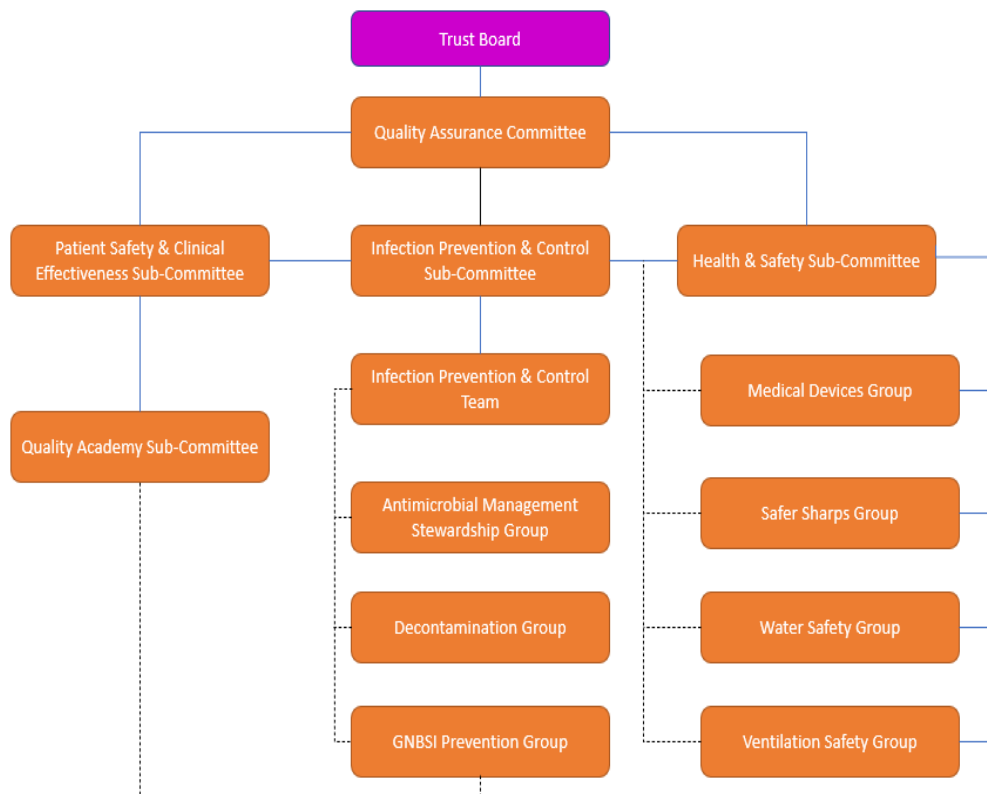
The Consultant Medical Microbiologist/Infection Control Doctor/Deputy DIPC chairs the Infection Control Sub-Committee, which met eleven times during the year.

Membership comprises of the Chief Nurse/DIPC, Operational IPCT, Lead Nurses or Matron from each Clinical Business Unit (CBU), Estates and Facilities Managers, Lead Allied Health Professional and an Occupational Health and Wellbeing representative.

The Lead Nurses for each CBU and the Lead for Allied Health Professionals and Estates and Facilities representatives, submit reports at each meeting as a standing agenda item. This allows the Infection Control Sub-Committee to give assurance to the Quality Assurance Committee and Trust Board of Directors on infection prevention and control activity within the Trust, compliance with the Health and Social Care Act 2008: code of practice on the prevention of healthcare associated infections, being maintained and that there is a programme of continuous improvement.

High level briefing papers are submitted by the Infection Control Sub-Committee Chair to the Health and Safety Sub-Committee and the Patient Safety and Clinical Effectiveness Sub-Committee. The reporting line to Trust Board is detailed in figure 1.

Figure 1 Reporting Line to Trust Board



There are links to the Medicines Governance Group via: -

- Consultant Medical Microbiologists
- Lead Pharmacist in Antimicrobial Stewardship
- Antimicrobial Management Stewardship Group

DIPC Reports to Trust Board

Reports and high-level briefing papers, which included compliance assessments against the Infection Prevention and Control Board Assurance Framework, key performance indicators, HCAI surveillance data and outbreak/incident details were submitted to the Quality and Assurance Committee with onward reporting to Trust Board as detailed below.

- IPC Board Assurance Framework Compliance Report/Action Plan – July 2023
- IPC Board Assurance Framework Compliance Report/Action Plan – January 2024
- IPC Healthcare Associated Infection Report Q1 – August 2023
- IPC Healthcare Associated Infection Report Q2 – November 2023
- IPC Healthcare Associated Infection Report Q3 – February 2024
- IPC Healthcare Associated Infection Report Q4 – May 2024
- DIPC Annual Report – July 2023

Annual work plan

The IPCT work plan was developed to give assurance that each element of the Code of Practice for Prevention of Healthcare Associated Infections, which underpins the Health and Social Care Act (2008) linked to Regulation 12, is adhered to and that appropriate evidence of compliance is available.

This work plan is underpinned by action plans for key performance indicators/prevention of mandatory reportable healthcare associated infections and a programme of audit that provides evidence of policy/guideline compliance. Progress against planned activity was impacted by Covid-19 cases, updating Trust guidance in line with frequently updated Covid-19 guidance, staff turnover and emergent IPC issues. The annual work plan has been revised for 2024/25 and is included at [Appendix 1](#).

Covid-19

Activity to respond to the Covid-19 pandemic continued. A Covid-19 cohort ward was maintained until the volume of patients requiring admission subsided and reverted to use of single side rooms on the Covid-19 Cohort Ward and additional wards when this capacity was exceeded. Admissions with Covid-19 peaked in October and January and hospital onset cases rose in line with these increases. Trust Covid-19 guidance documents were updated in line with national guidance.

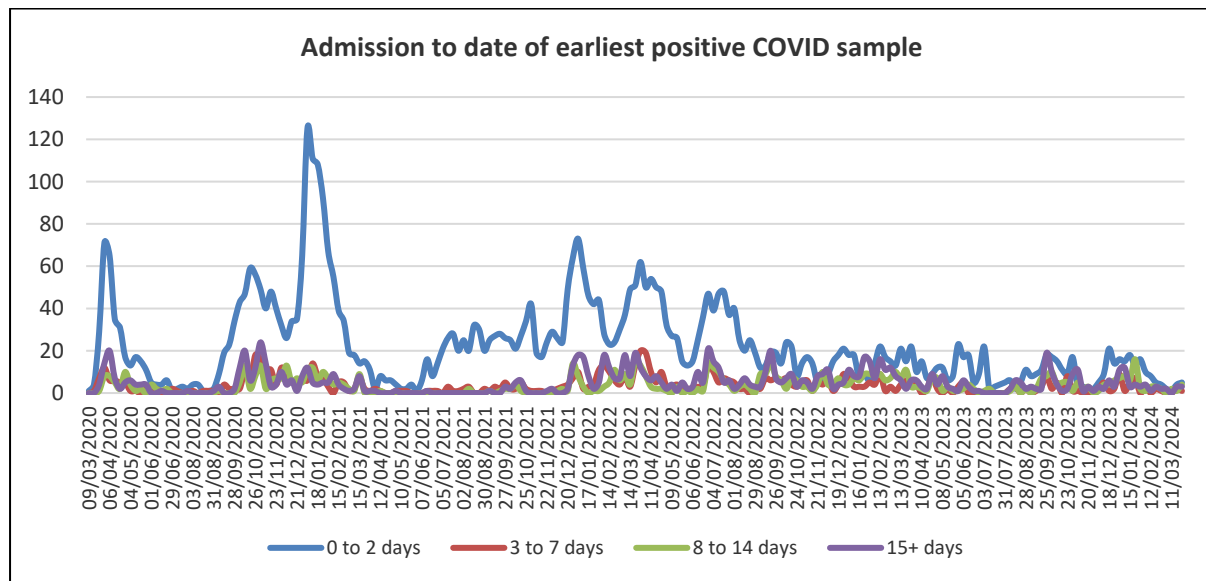
Covid-19 Nosocomial cases

The Trust reported hospital onset Covid-19 cases as per NHSE definitions of:

- Hospital onset/probable healthcare associated cases (days 8-14) = 166
- Hospital onset/definite healthcare associated cases (>15 days) = 198

Figure 2 shows inpatient cases according to NHSE definitions since the start of the pandemic.

Figure 2 Covid-19 Cases by NHSE definitions



The following Covid-19 related documents were developed and revised/updated throughout the year as per new/updated national guidance being published: -

- SOP for Non-Elective Patient Testing for Respiratory Viruses, Patient Placement & Infection Control Precautions
- Covid Self-Isolation and Routine Testing (Staff) SOP x2
- Non-elective patient testing for respiratory virus, patient placement & infection control precautions (Adults/Children) v21.
- SOP for Covid self-isolation and routine testing v13
- Revised SOP for Non-Elective Patient Testing for (Winter) Respiratory Viruses, Patient Placement & Infection Control Precautions (Adults/ Children)
- Face filtering piece FFP3 fit testing policy
- SOP for staff Covid-19 testing v14

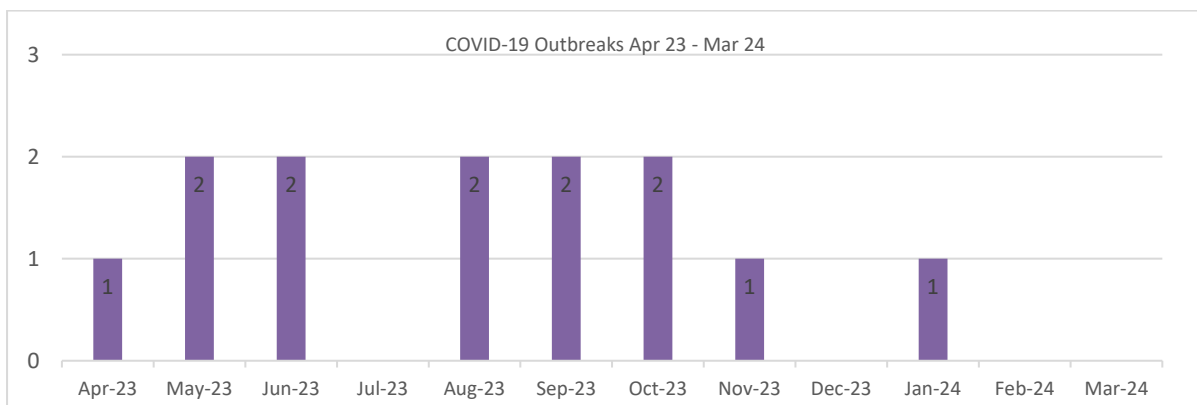
The programme of Fit Testing of Face Filtering Piece (FFP) 3 respirators, carried out by appropriately trained staff, continued throughout the year.

Covid-19 Outbreaks

The IPCNs conducted surveillance to detect Covid-19 clusters. Where outbreaks were declared, Outbreak Control Groups were established. A total of 14 Covid-19 outbreaks were reported to external partners including: - NHSE, UK Health Security Agency, Integrated Care Board Sub-Groups for Warrington and Halton, and the Care Quality Commission (CQC).

Figure 3 shows the Covid-19 outbreaks reported by month.

Figure 3 Covid-19 Outbreaks reported by month



Challenges to managing Covid-19 cases included: -

- Old estate – limited side rooms
- Patients movements
- Poorly ventilated bays/wards
- Bed pacing <2 metres
- Return to open visiting

Action taken included: -

- Testing in line with national guidance
- Communication on updated Covid-19 guidance
- Streaming of patients to Covid/non-Covid wards

Covid-19 Recovery

The IPCNs continued to provide an out of hours on call service to ensure timely placement of patients with Covid-19.

Health and Social Care Act (2008) compliance assessment

Compliance assessment against the 10 criteria, specified in the *Health and Social Care Act 2008: code of practice on the preventions and control of infections and related guidance* (updated in December 2022) are carried out biannually.

Revised assessment against the updated Code of Practice shows : -

- 7 are fully compliant

- 3 have minor non-compliances

The CQC uses this code to assess registered provider compliance with the cleanliness and infection control requirement set out in the regulations. Compliance with the revised code of practice and areas requiring further action are detailed in table 2.

Table 2 Compliance with the Code of Practice on prevention of HCAs

Criterion	Assessment	Action required/in progress
1. Systems to manage and monitor the prevention and control of infection.	Partially compliant	Solution being sought to strengthen surveillance using existing digital systems
2. Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.	Partially compliant	Upgrades to some hand washing sinks required (design and location). Audit of handwashing facilities scheduled with Estates Team Ventilation systems review to ensure all comply with HTM 03 01
3. Ensure appropriate antibiotic use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.	Compliant	
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.	Compliant	
5. Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.	Compliant	
6. Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.	Compliant	
7. Provide or secure adequate isolation facilities.	Partially compliant	Continuous liaison with the Patient Flow Team to optimise use of side rooms for appropriate patient isolation
8. Secure adequate access to laboratory support as appropriate.	Compliant	
9. Have and adhere to policies designed for the individual's care and provider organisations that will help to prevent and control infections.	Compliant	
10. Providers have a system in place to manage the occupational health needs of staff in relation to infection.	Compliant	

IPC Board Assurance Framework

The Infection Prevention and Control (IPC), Board Assurance Framework (BAF), was published by NHS England with the intention to replace the Covid-19 Board Assurance Framework and for organisations to use, to ensure compliance with IPC standards and assess measures set out in the National IPC Manual.

Compliance assessments are carried out biannually and an action plan is in place to: -

- Align IPC event reviews with the Patient Safety Incident Response Framework
- Ensure completion of action plans in relation to IPC audits
- Ensure efficacy audits include all members of the multi-disciplinary team
- Implement the NHS Waste Strategy
- Robust recording of competency assessments
- Recovery plan for IPC policies

Healthcare Associated Infection Statistics

The Trust participates in mandatory reporting of Healthcare Associated Infections (HCAI). There are 3 HCAI prevention action plans, linked to mandatory reporting requirements which were reviewed 3 times per annum.

Review of HCAI events was taken in line with the Patient Safety Incident Response Framework (PSIRF) and supported review of an action plans to promote learning from cases.

C. difficile

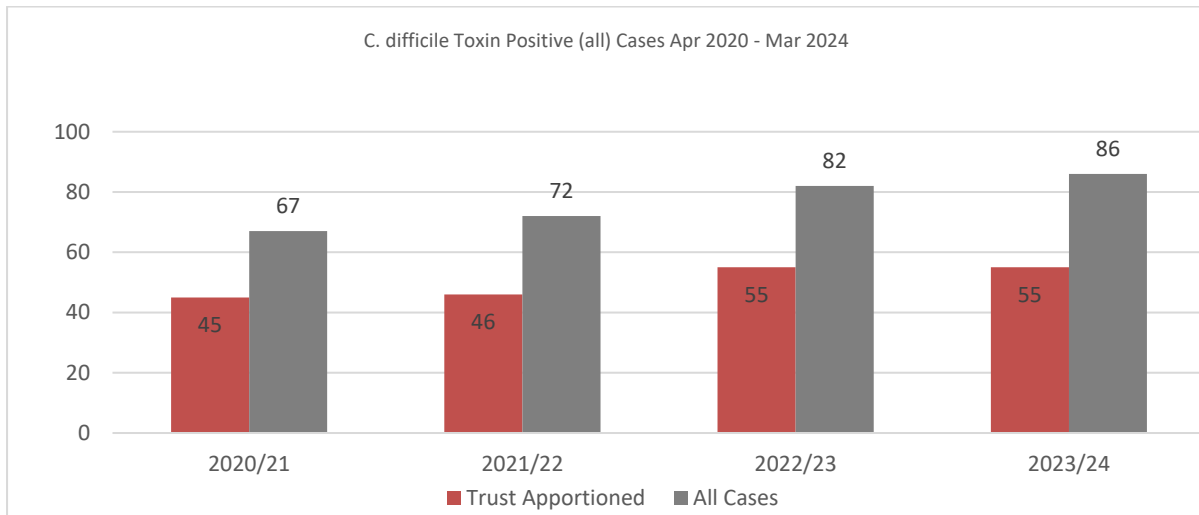
The Trust reported 86 C. difficile toxin positive cases with 55 cases apportioned to the Trust: -

- Hospital onset/healthcare associated = 45
 - Community onset/healthcare associated = 10
 - Community onset indeterminate association = 6
 - Community onset community associated = 25
- } 55 Trust apportioned

The NHSE threshold for C. difficile was set at 36 cases or less (which includes both hospital onset/healthcare associated, and community onset/healthcare associated cases). The Trust was 19 cases over threshold with a total of 55 cases.

Cases reported were unchanged from the previous year. A comparison with previous year's data is displayed in figure 4.

Figure 4 C. difficile Toxin Positive Cases (all) April 2020 – March 2024



The IPCT focussed activity on C. difficile prevention by: -

- Surveillance of cases/monitoring for periods of increased incidences
- Antimicrobial Management Stewardship Group
- Hand hygiene awareness raising events
- Promoting improvements to standards of environmental hygiene
- Use of hydrogen peroxide vapour for environmental decontamination
- Care Support Worker training to improve timely isolation and sampling

The Care Support Worker C. difficile training events, as shown in Figure 5, were well attended, and evaluated highly.

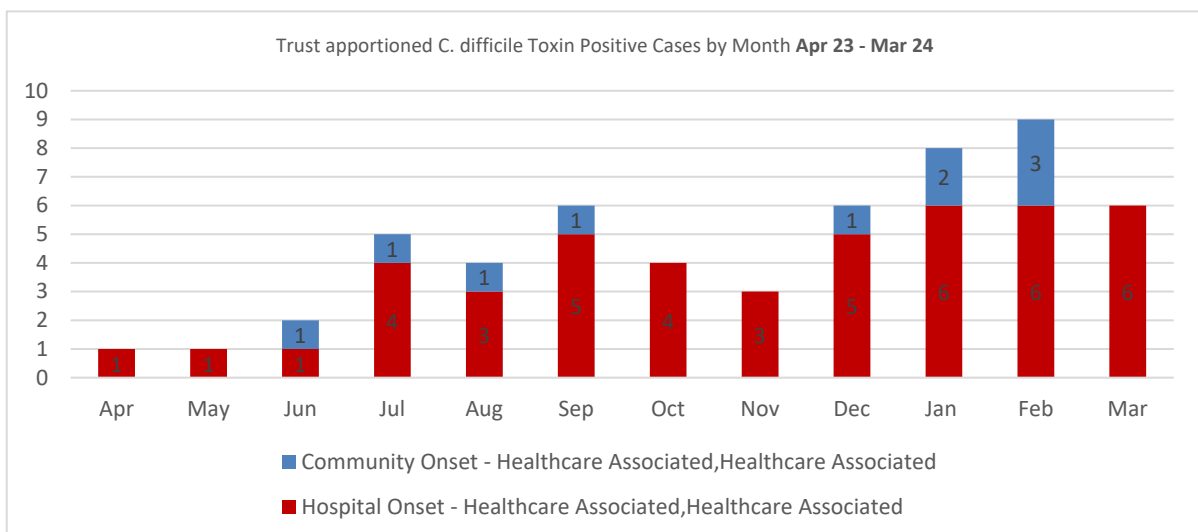
Figure 5 C. difficile Care Support Worker Training Events





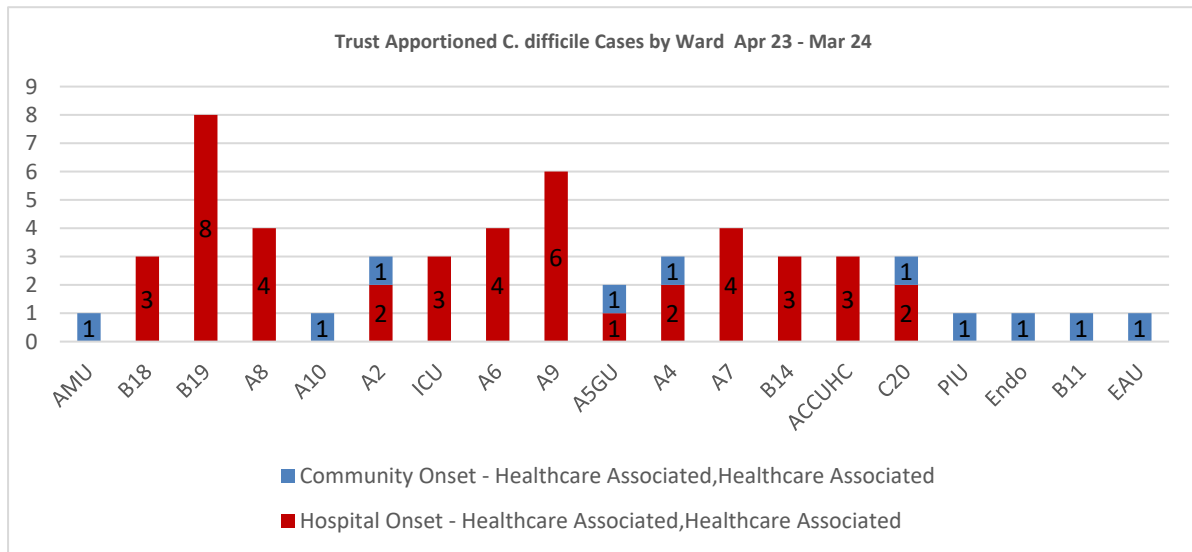
Figure 6 shows C. difficile toxin positive Trust apportioned (HOHA/COHA) cases by month.

Figure 6 Trust Apportioned HOHA/COHA C. difficile Toxin Positive Cases by Month



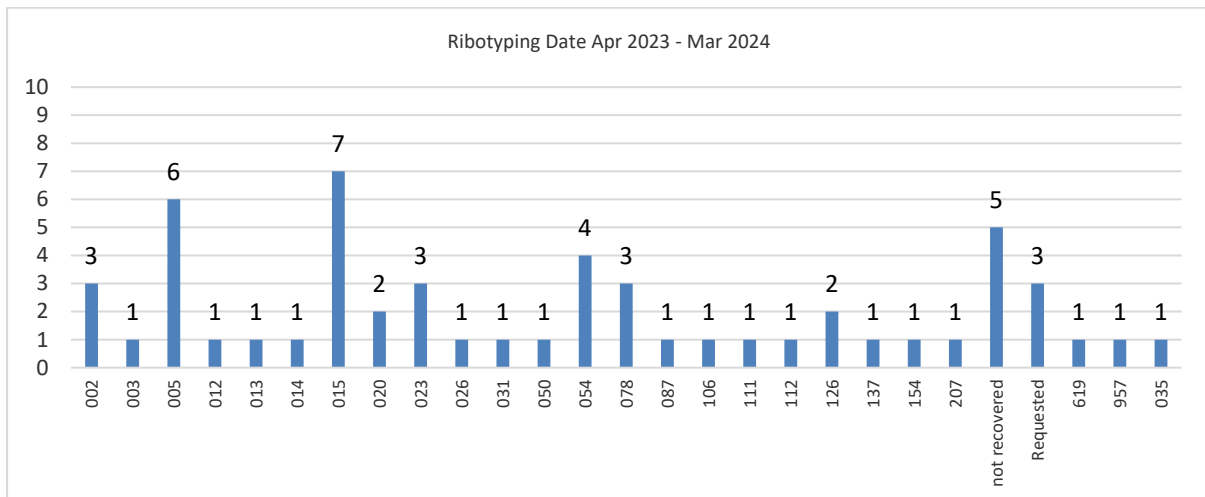
HOHA cases by location when the sample was taken and COHA cases by the discharging ward are displayed in figure 7. The location the specimens were obtained from is not necessarily where the infection was acquired as patients may have been on the ward/department for less than 48 hours when tested.

Figure 7 Trust Apportioned HOHA C. difficile Toxin Positive Cases by Location tested and COHA Cases by Ward/Department Discharged From



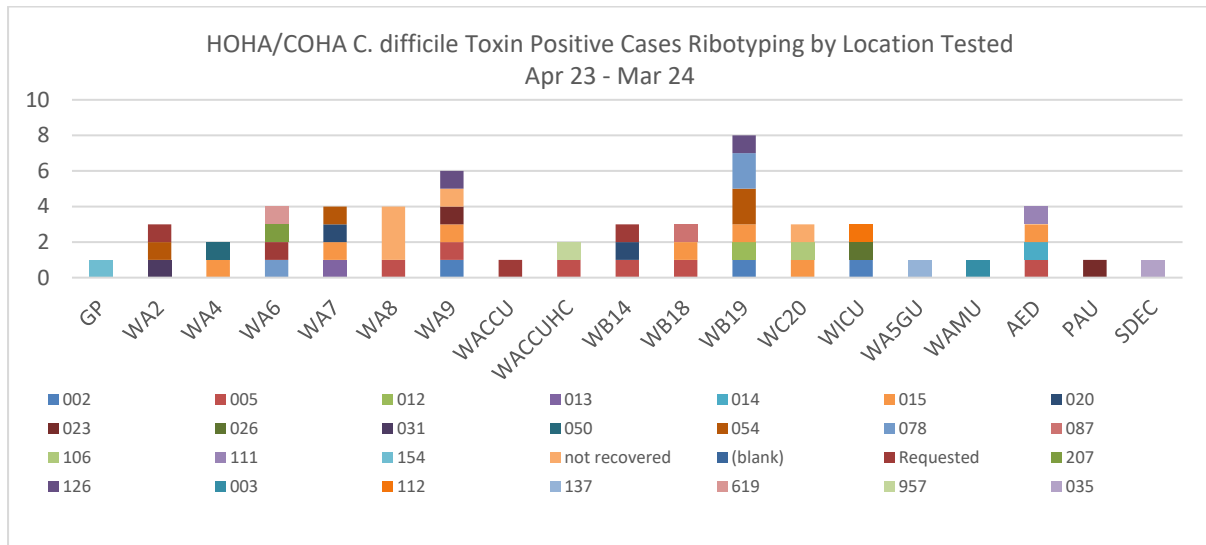
All Trust apportioned C. difficile toxin positive isolates are submitted for ribotyping. From the 55 isolates, 25 different ribotypes were identified. C. difficile was not recovered from 5 of the samples and 3 results are awaited at the time of writing this report. Ribotyping results are shown in figure 8 and demonstrate 015 and 005 ribotypes are seen more frequently.

Figure 8 HOHA/COHA C. difficile Toxin Positive Ribotyping Results



Ribotyping results by ward are shown in figure 9. Whilst Ward B19 has had a higher number of cases, with the exception of 2 case clusters, ribotyping results differed indicating that 4 of cases were not linked. There were 2 cases of 078 ribotype, which were confirmed link to each other by additional testing. Additionally, there were 2 cases of 054 ribotype, which occurred more than 28 days apart and may also be linked to each other, as this ribotype is seen less frequently in the Trust.

Figure 9 C. difficile Toxin Positive Ribotyping Results by Location



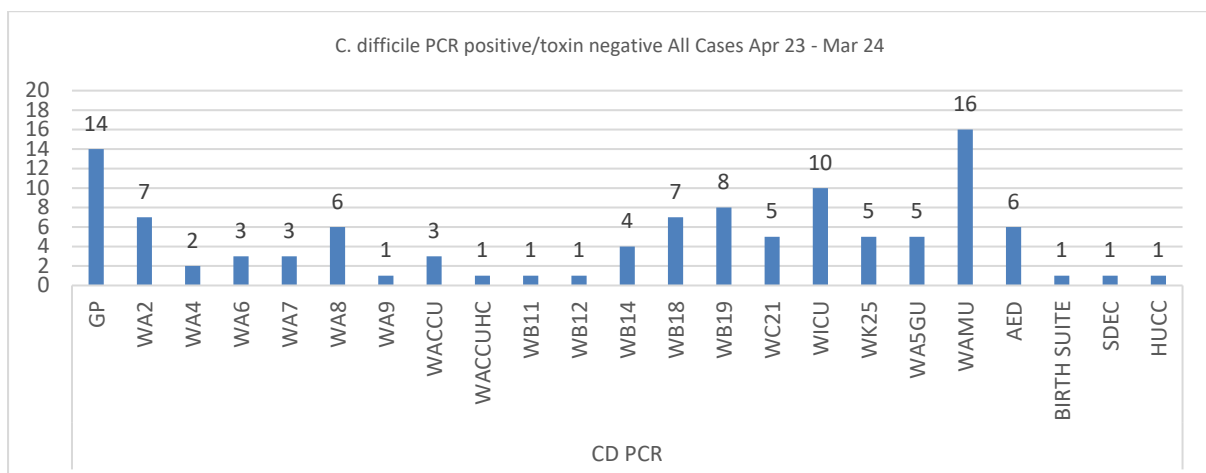
C. difficile (Toxin Negative/PCR Positive)

Diagnostic testing methods for C. difficile infection distinguishes between patients who are colonised with C. difficile (toxin negative/PCR positive), and those with C. difficile toxins present. Presence of toxins indicates infection is more likely.

The IPCT conduct local surveillance on the patients who are C. difficile toxin negative/PCR positive. These patients are at a higher risk of developing C. difficile infection than non-colonised patients. Inpatients falling into this category are reviewed and patients exhibiting symptoms are nursed in isolation and treatment advice provided.

Figure 10 shows the results for all patients (no apportionment) who were C. difficile toxin negative/PCR positive and location at the time of testing.

Figure 10 C. difficile PCR Positive/Toxin Negative cases (all) by Location Tested

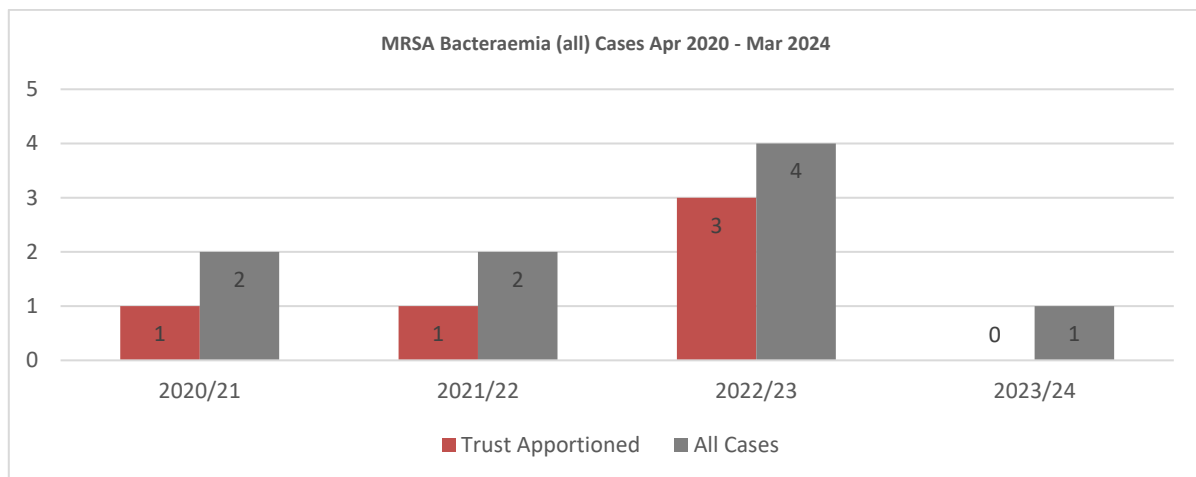


Meticillin resistant *Staphylococcus aureus* (MRSA) bacteraemia

The Trust reported one community onset/community associated bacteraemia case.

The annual threshold of zero avoidable cases was met and a reduction in 3 cases from the previous financial year achieved. Data for comparison with earlier financial years is shown in figure 11.

Figure 11 MRSA bacteraemia cases (all) April 2020 – March 2023



Meticillin sensitive *Staphylococcus aureus* (MSSA) bacteraemia

The Trust reported 93 cases of MSSA bacteraemia with 36 cases apportioned to the Trust.

- Hospital onset/healthcare associated = 26
 - Community onset/healthcare associated = 10
 - Community onset/community associated = 57
- } 36 Trust apportioned

This was an increase by 15 Trust apportioned cases from the previous financial year. Thresholds for the reduction of MSSA bacteraemia have not been set. Data for comparison with previous financial years is shown in figure 12.

Figure 12 MSSA bacteraemia cases (all) April 2020 – March 2023

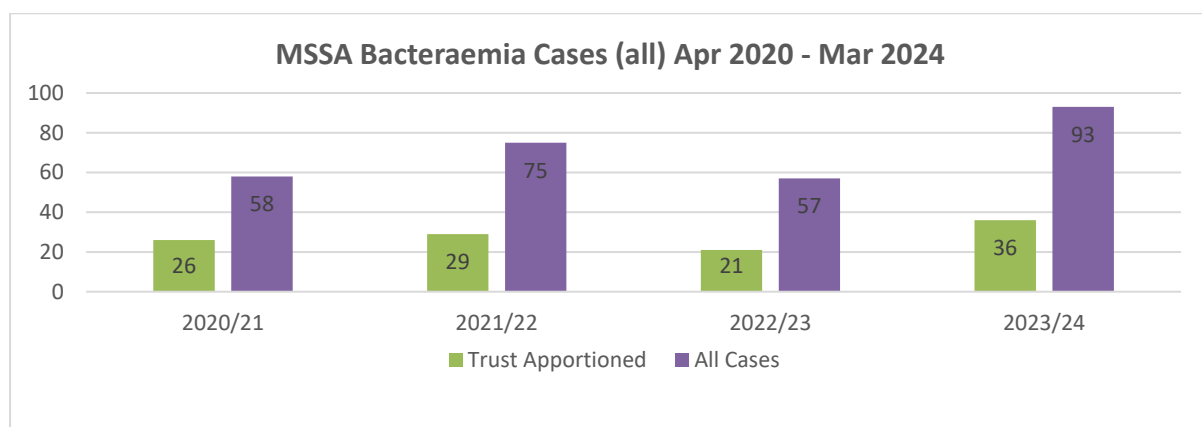


Figure 13 shows the Trust apportioned MSSA bacteraemia cases by month.

Figure 13 Trust Apportioned MSSA bacteraemia cases by month

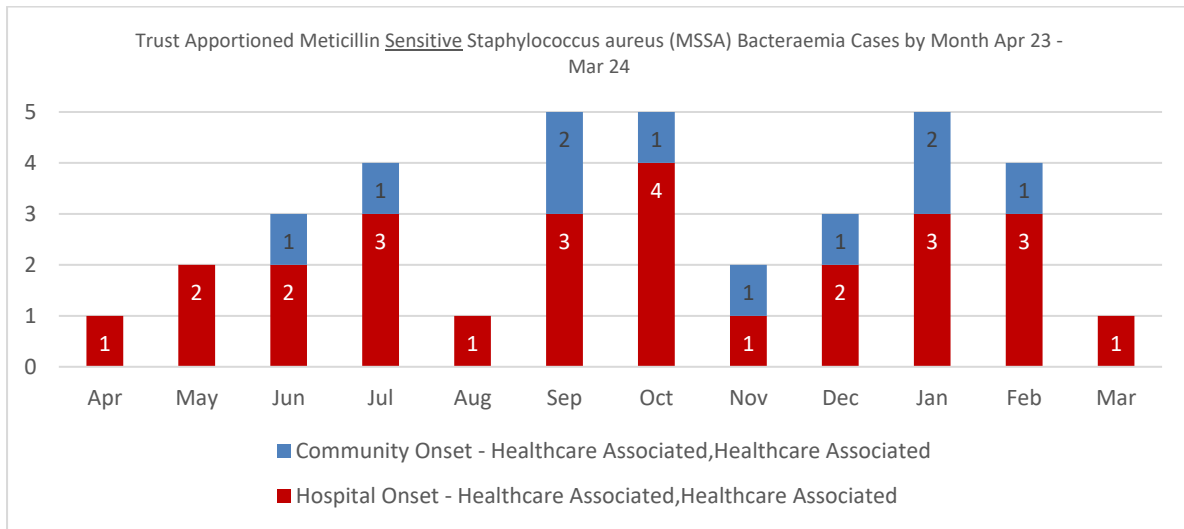


Figure 14 shows the patients' locations at the time the specimen was obtained for HOHA cases and discharging ward for COHA cases.

Figure 14 Trust Apportioned MSSA Bacteraemia Cases by Location

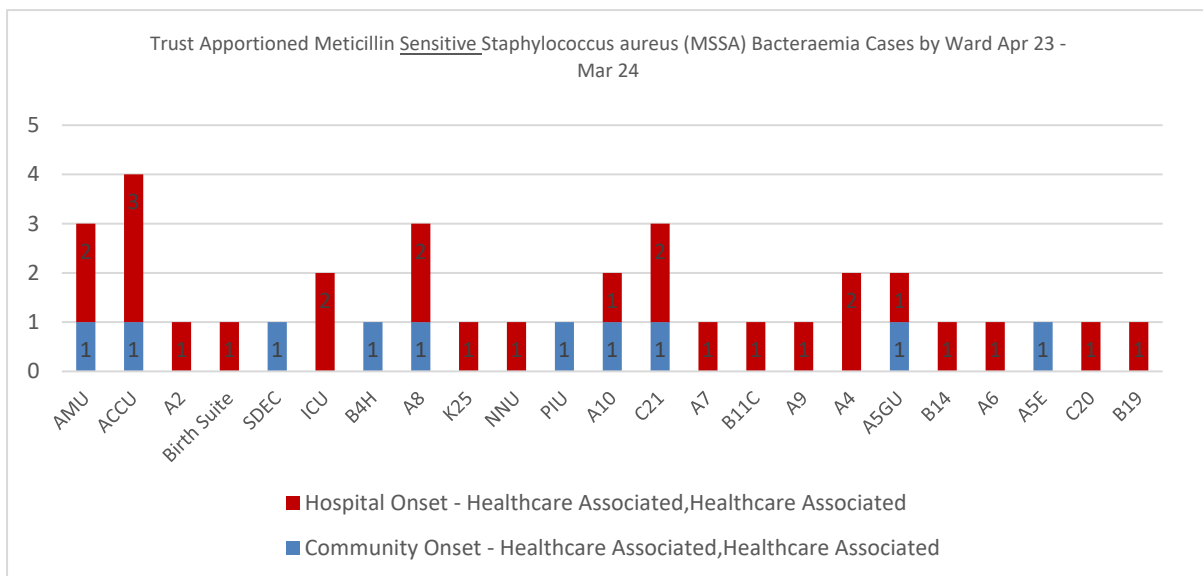
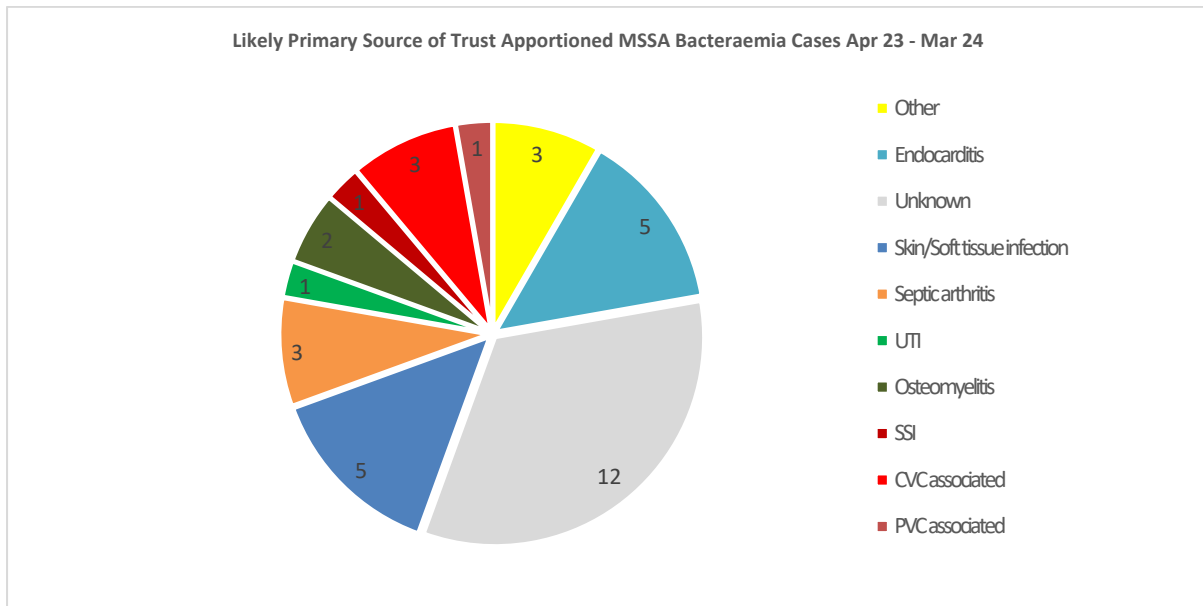


Figure 15 shows the likely primary sources of the Trust apportioned cases.

Figure 15 Likely Primary Source of Trust Apportioned MSSA Bacteraemia Cases



An action plan is in place that sets out the work required to prevent the risks of MRSA/MSSA bacteraemia cases.

Focus continues on Aseptic Non-Touch Technique training and care of invasive devices.

Gram Negative Bloodstream Infection (GNBSI)

A deep dive analysis of GNBSI cases was carried out and presented to the Quality Assurance Committee in April 2024. This analysis showed the challenging nature of the reduction thresholds against the background of an increasingly elderly population.

Additional audits were carried out on hepatobiliary source infections and the findings are under review against other audit data on gallbladder surgery on first presentation. Audits were also carried out into Pseudomonas aeruginosa cases, and urinary tract infection diagnosis and management. Learning from these cases is being used to inform prevention action plan updates for the next financial year.

E. coli bacteraemia Cases

The national target to reduce GNBSI (E. coli; Klebsiella spp. and Pseudomonas aeruginosa) published in the Tackling Antimicrobial Resistance 5-year plan (January 2019) remained in place.

The IPCT continued work with the Quality Academy to focus on hydration, continence management, reducing usage of urinary catheters and improving catheter care, hand hygiene (including patients) and urinary tract infection detection and management, however an increase in trust apportioned cases was reported.

The Trust reported a total of 241 E. coli bacteraemia cases, 81 of these were Trust apportioned cases. The threshold of 54 cases set by NHSE was exceeded by 27 cases.

- Hospital onset/healthcare associated = 42
 - Community onset/healthcare associated = 39
 - Community onset community associated = 160
- } 81 Trust apportioned

This was an increase by 14 Trust apportioned cases from the previous financial year. Data for comparison with previous financial years is shown in figure 16 .

Figure 16 E. coli bacteraemia cases (all) April 2020 – March 2024

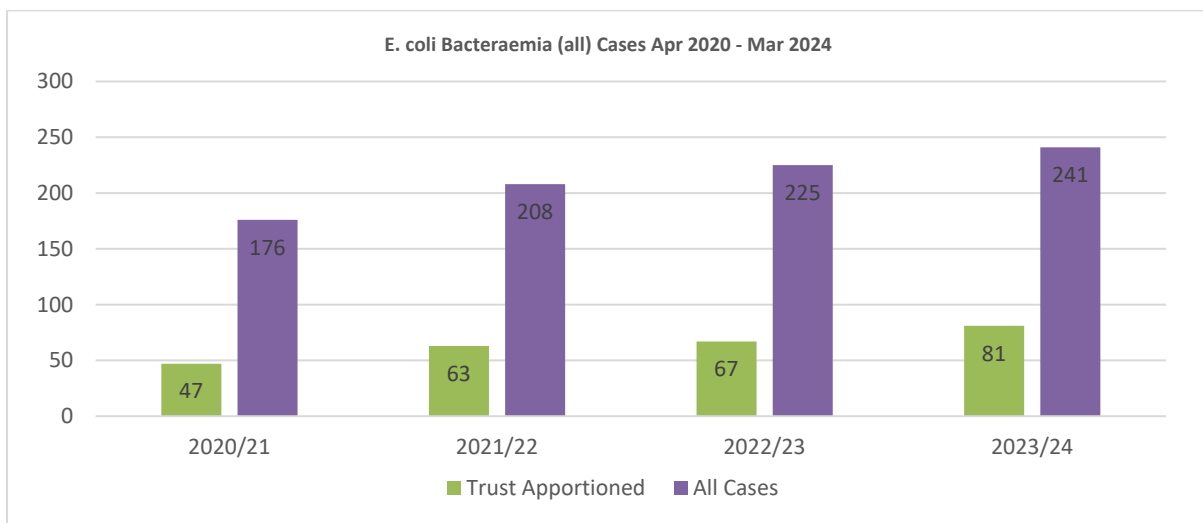
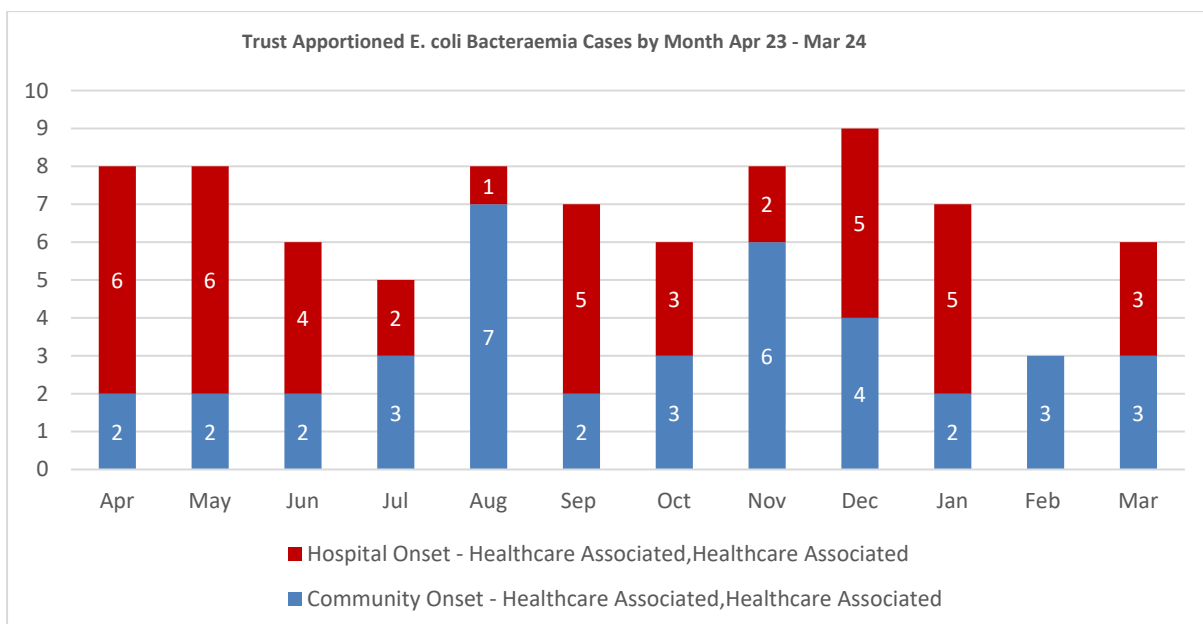


Figure 17 shows Trust apportioned cases by month.

Figure 17 Trust Apportioned E. coli Bacteraemia Cases by Month



The Trust apportioned E. coli bacteraemia cases by location where specimen was taken for HOHA cases and location discharged from for COHA cases are shown in figure 18.

Figure 18 Trust apportioned E. coli Bacteraemia Cases by Location

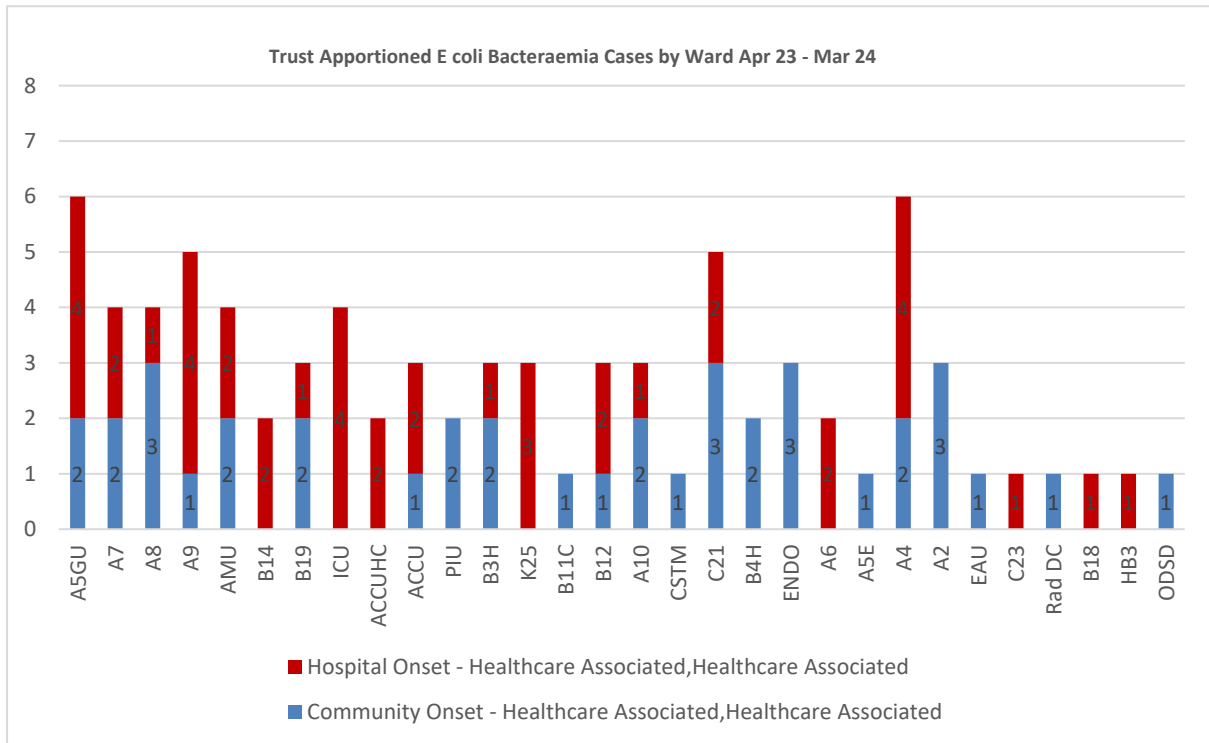
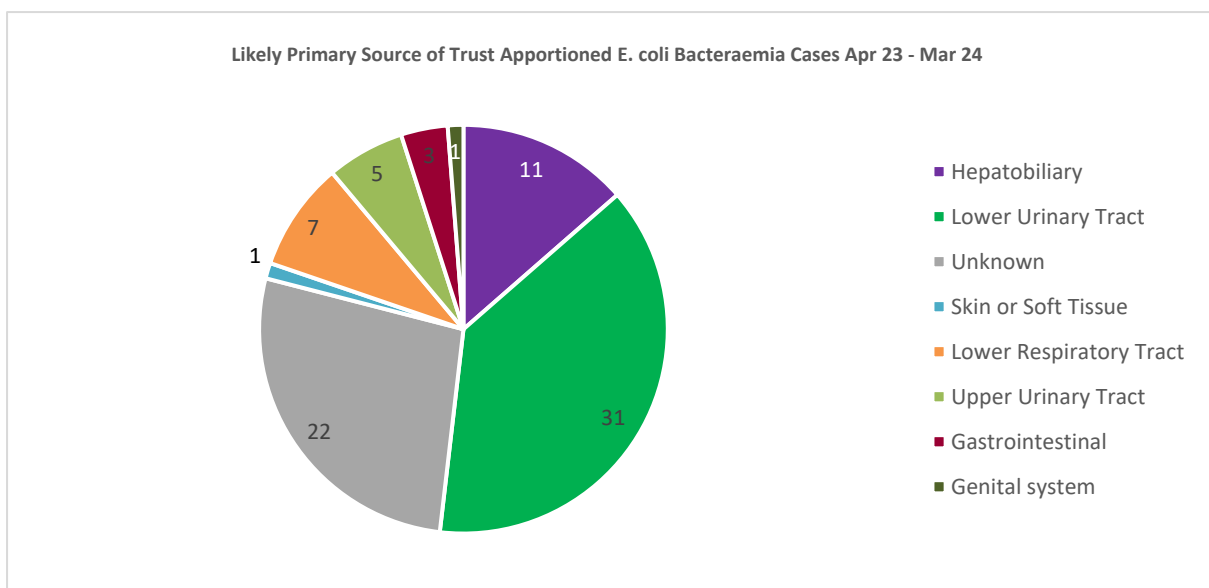


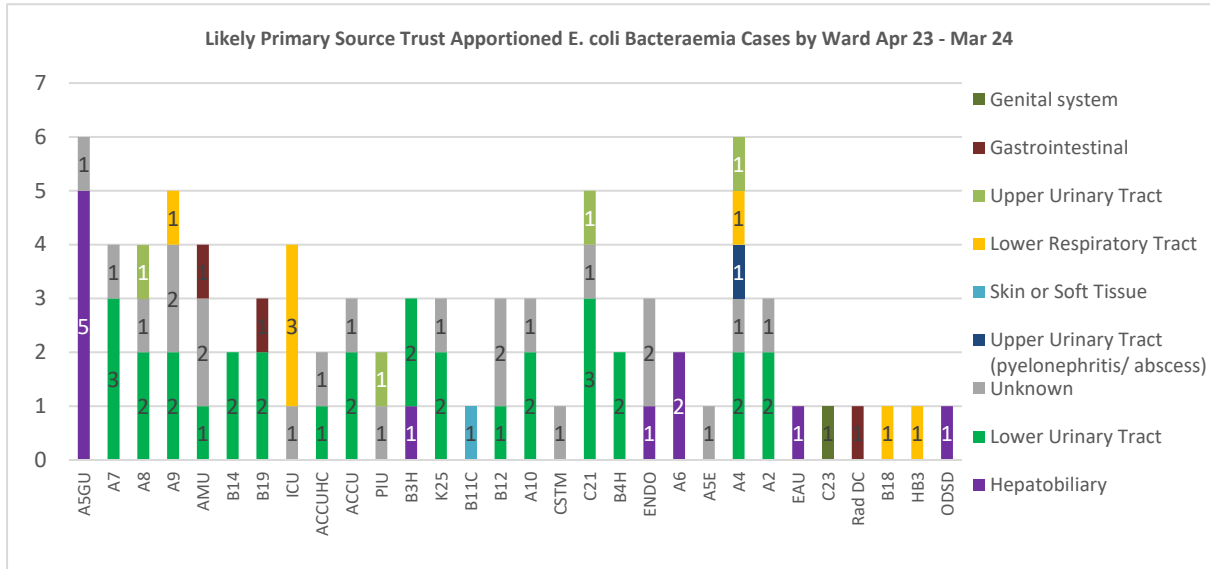
Figure 19 shows the likely primary sources of the Trust apportioned E. coli cases.

Figure 19 Likely primary sources Trust apportioned E. coli Cases



A breakdown of Trust apportioned cases to show likely primary source by location is shown in figure 20.

Figure 20 Trust Apportioned Cases - Likely Primary Source by Location



Klebsiella spp. Bacteraemia

The Trust reported a total of 65 Klebsiella spp. bacteraemia cases, 26 of these were Trust apportioned cases. The threshold of 18 cases set by NHSE was exceeded by 10 cases.

- Hospital onset/healthcare associated = 12
 - Community onset/healthcare associated = 16
 - Community onset community associated = 37
- } 28 Trust apportioned

A comparison with previous year’s data is shown in figure 21.

Figure 21 Klebsiella spp. bacteraemia (all) April 2020 – March 2023

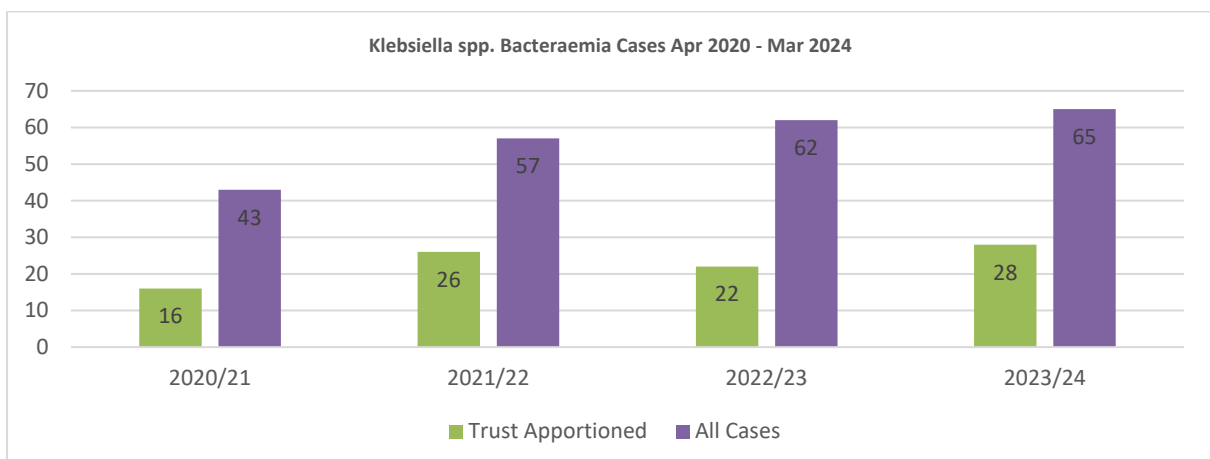


Figure 22 shows Trust apportioned cases reported each month.

Figure 22 Trust Apportioned Klebsiella spp. Bacteraemia Cases by Month

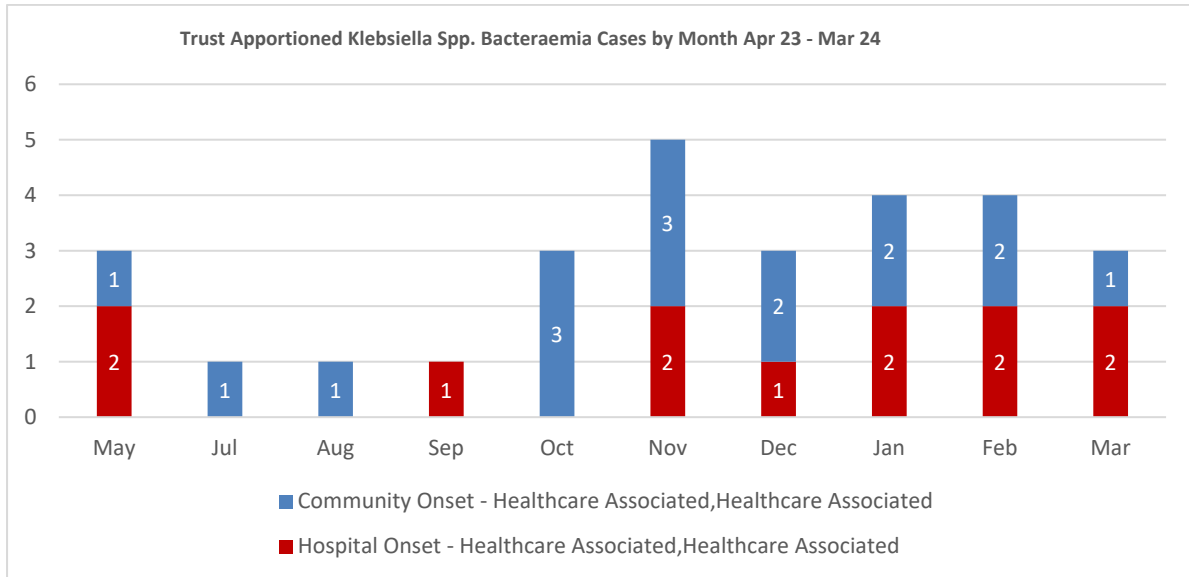


Figure 23 shows Trust apportioned Klebsiella bacteraemia cases by location where specimen was taken for HOHA cases and location discharged from for COHA cases.

Figure 23 Trust Apportioned Klebsiella Bacteraemia Cases by Ward Location

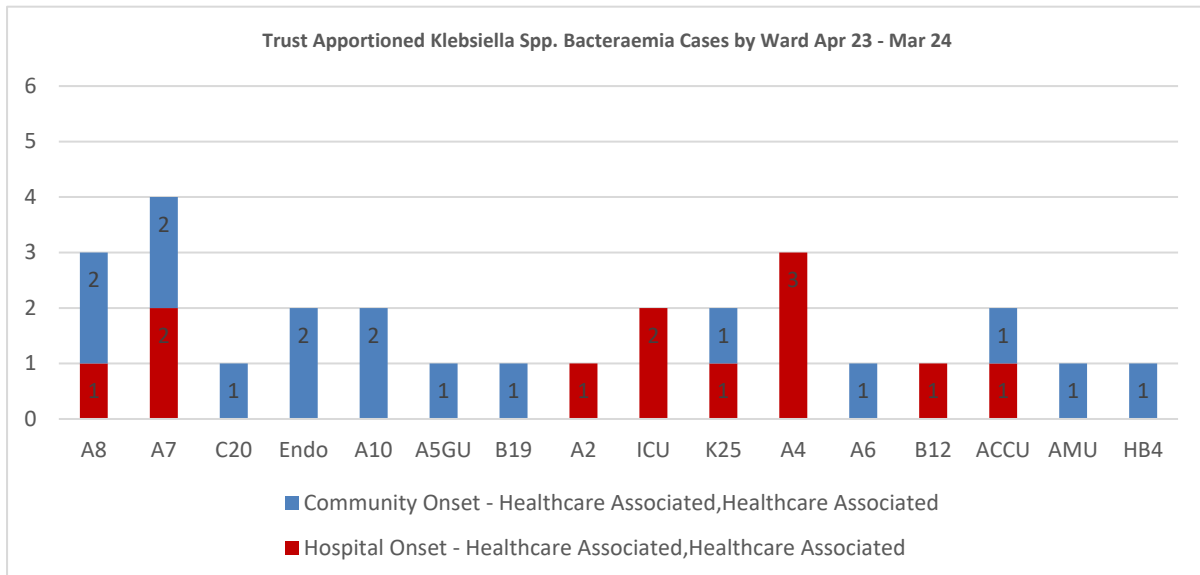
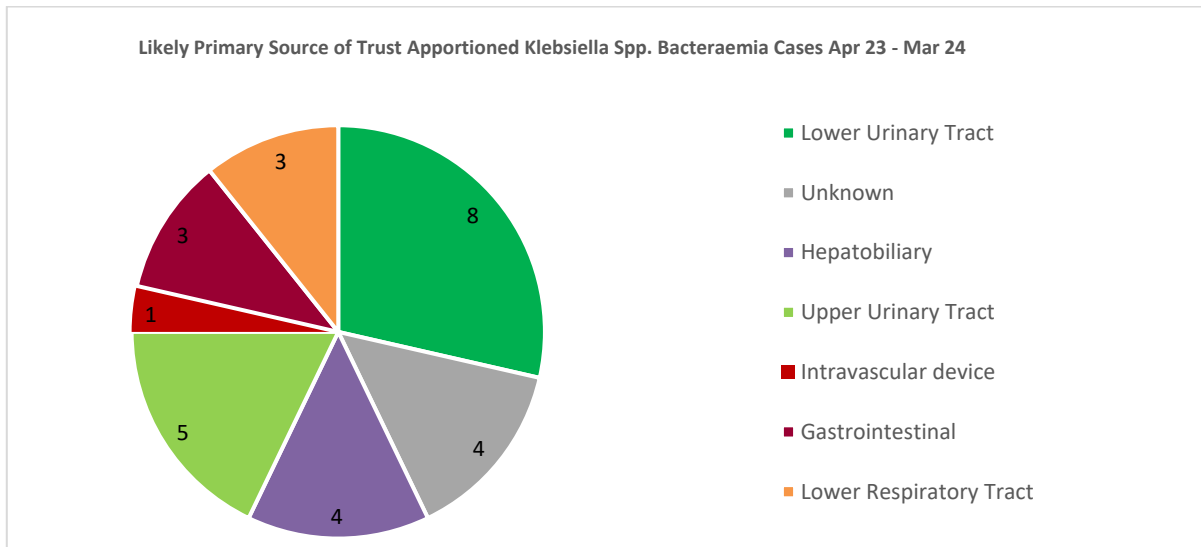


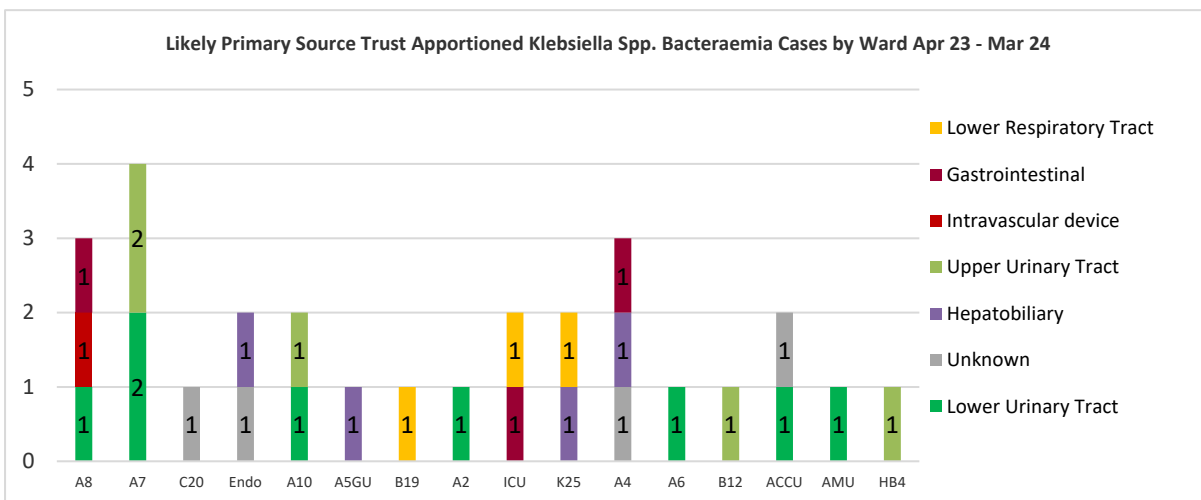
Figure 24 shows the likely primary sources of the Trust apportioned cases.

Figure 24 Likely primary sources of the 26 Trust apportioned cases



A breakdown of Trust apportioned cases to show likely primary source by location is shown in figure 25.

Figure 25 Trust Apportioned Cases - Likely Primary Source by Location



Pseudomonas aeruginosa bacteraemia

The Trust reported a total of 16 Pseudomonas aeruginosa bacteraemia cases, 11 of these were Trust apportioned cases. The threshold of 2 cases set by NHSE was exceeded by 9 cases and is an increase in 7 cases compared to the last financial year.

- Hospital onset/healthcare associated = 6
 - Community onset/healthcare associated = 5
 - Community onset community associated = 5
- } 11 Trust apportioned

A comparison with previous year's data is shown in figure 26.

Figure 26 Pseudomonas aeruginosa bacteraemia cases April 2020 – March 2023

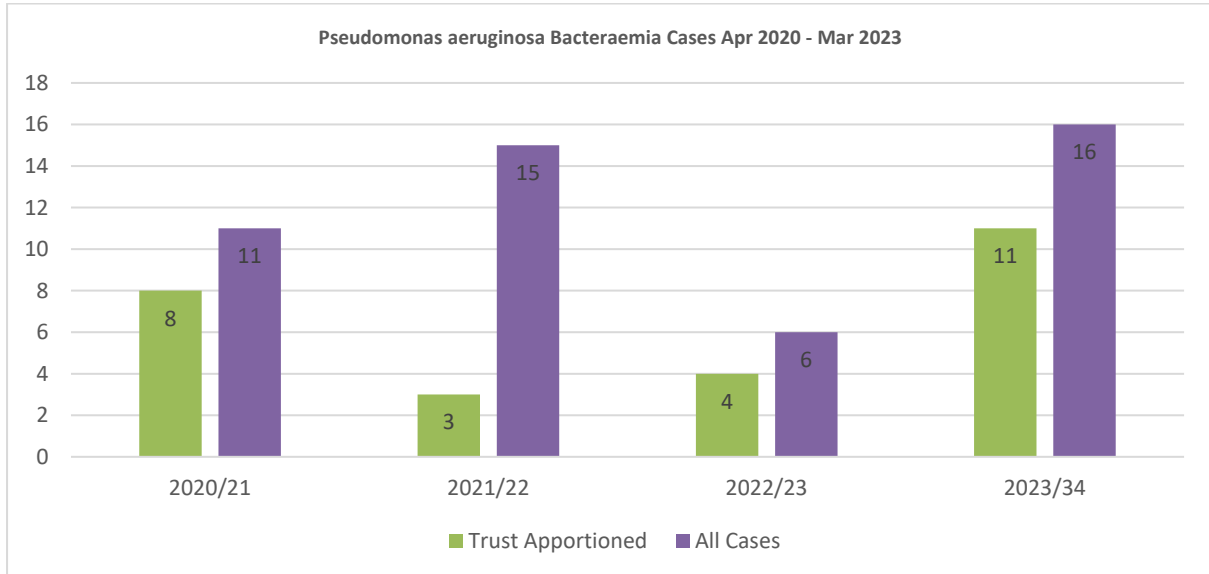


Figure 27 displays the Trust apportioned cases reported by month.

Figure 27 Trust Apportioned Pseudomonas aeruginosa Bacteraemia Cases by Month

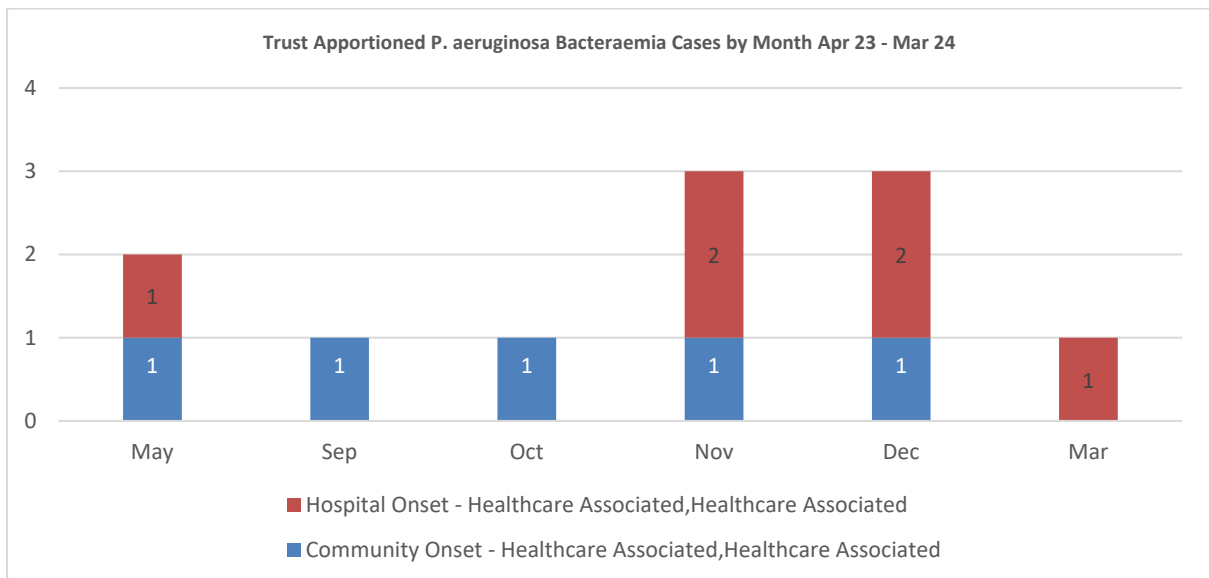
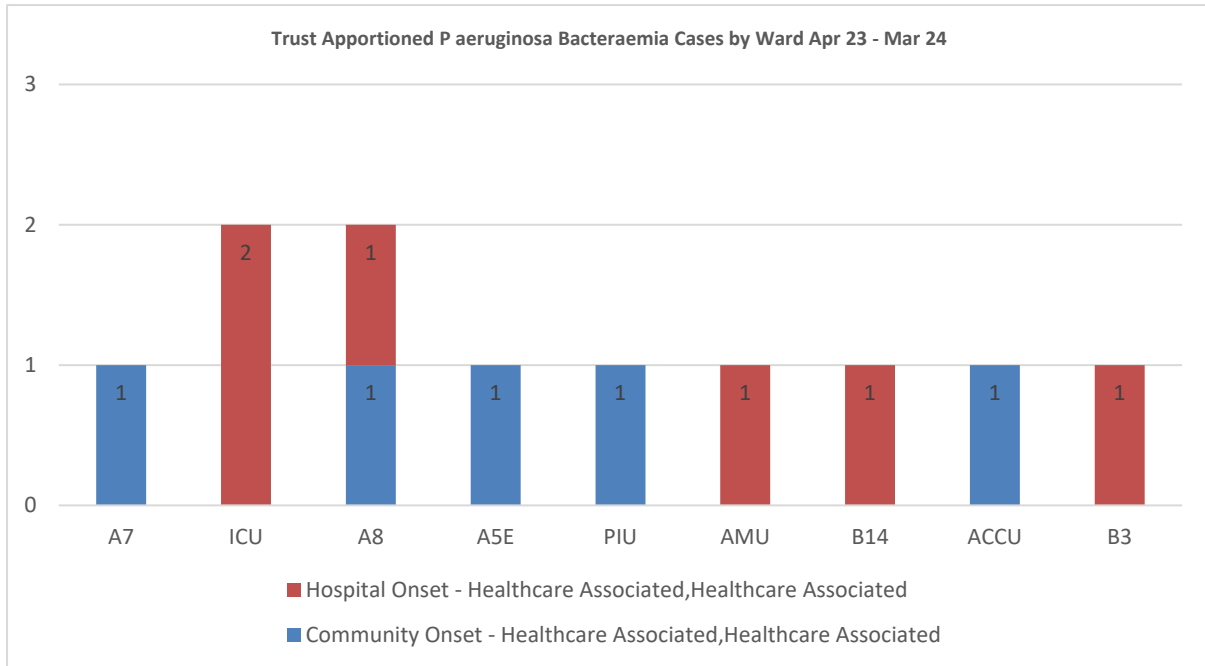


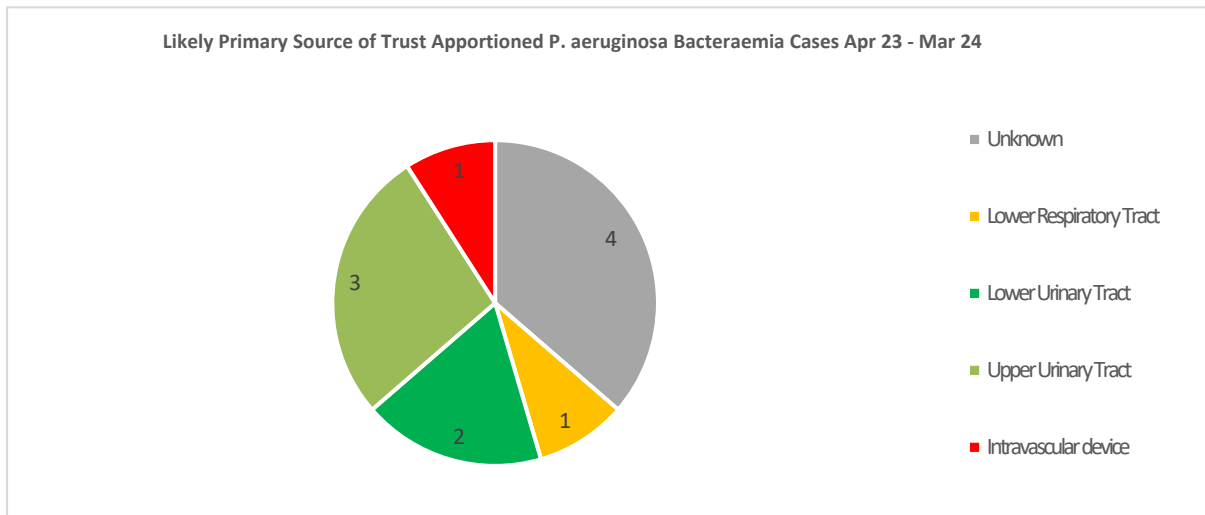
Figure 28 show Trust apportioned Pseudomonas aeruginosa bacteraemia cases by location where specimen was taken for HOHA cases and location discharged from for COHA cases.

Figure 28 Pseudomonas aeruginosa bacteraemia cases by location



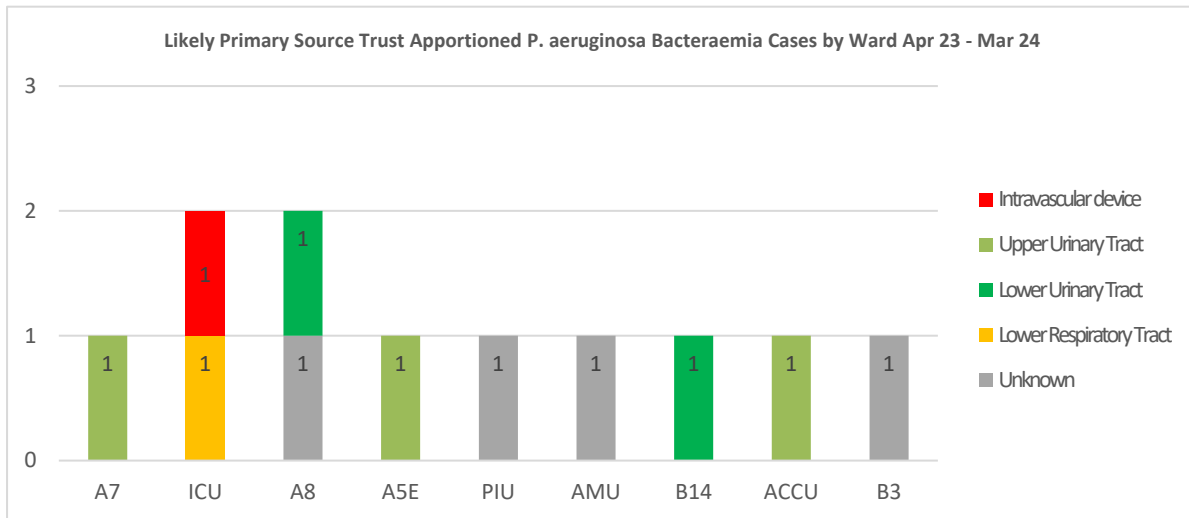
A breakdown of Trust apportioned cases to show likely primary source is shown in figure 29.

Figure 29 Likely Primary Sources of Trust Apportioned Cases



A breakdown of Trust apportioned cases to show likely primary source by location is shown in figure 30.

Figure 30 Trust Apportioned P. aeruginosa Bacteraemia Cases Likely Primary Source by Location



There is recognition in the National Action Plan on Confronting Antimicrobial Resistance 2024 – 2029, that the incidence of GNBSIs is projected to increase and there is limited evidence in the literature for interventions which work to prevent GNBSIs.

Learning from the deep dive into GNBSI cases and audit findings will be applied and the focus for the next financial year will continue and includes: -

- Patient hydration
- Reduction in use of urinary catheters
- Improvements to care of urinary catheters
- Competency assessments incorporating Aseptic Non-Touch Technique
- Patient hand hygiene strategy

Information on all mandatory reported HCAs is circulated weekly with up-to-date information on cases and learning from reviews. Dashboards are circulated monthly after data validation. Work is in progress with CBUs to ensure completion of action plans from HCAI events.

The IPCT continued to work with the Quality Academy and Clinical Business Units (CBUs) to prevent GNBSI cases.

Incidents/Outbreak Reports

Carbapenemase Producing Enterobacteriaceae (CPE) transmission B19

CPE are bacteria that are resistant to Carbapenem (considered last resort) antibiotics. In May 2023, a patient with CPE colonisation (not infection) was identified

in a bay on ward B19. The patient had been hospitalised abroad and was not admitted into a side room as per usual process.

Action was taken to isolate the patient. Follow-up screening of bay contacts and the whole ward identified one other patient with CPE from the same bay. Both CPE isolates were sent to UK Health Security Agency reference laboratory and typing confirmed they were the same, indicating transmission occurred. Both patients remained well and were discharged home. The bay was terminally cleaned following discharge of all other patients in the bay and no other cases detected from surveillance screening.

Norovirus A2

In June 2023, Ward A2 Warrington Hospital reported 11 patients with symptoms of diarrhoea and/or vomiting and 4 staff with nausea symptoms. Investigations identified 1 patient with a positive norovirus result. Patient and staff movement was safely managed to prevent transmission, the ward was terminally cleaned and affected bays re-opened and no further cases were identified.

Chickenpox exposure NNU

In July 2023, a sibling visitor to the Neonatal Unit (NNU) was clinically confirmed to have chickenpox, by a Consultant Paediatrician. Review identified the sibling visited during the infectious period and length of time on the NNU was significant for transmission to have occurred.

Five infant contacts were identified, immunity testing undertaken and post exposure prophylaxis given to two contacts who were non-immune. Both contacts were isolated from day 8 of exposure until day 21 (incubation period) and neither infant developed chickenpox.

Influenza A8

A cluster of 4 cases of Influenza A were detected in ward A8 Bay A. The other 2 patient contacts in the bay tested negative, were prescribed prophylactic treatment, and did not develop influenza. The 4 confirmed cases were treated with antiviral medication and recovered.

Surgical Site Infection Orthopaedics

In February 2024, the Trust flagged as a high outlier for knee replacement surgery in the Jul-Sep 2023 period, with a 0.7% risk noted over the last 4 periods (quarters). Work was in progress in relation to a previous high outlier letter for hip replacement surgery in Apr- Jun 2022 with a 0.8% risk.

Discussion took place with the Orthopaedic Consultants to review suspected surgical site infections, via the existing Trauma and Orthopaedic Oversight Group and actions agreed included: -

- Review of cases (2)

- Review of theatre standards
- Suppression treatment (antiseptic skin wash and antimicrobial nasal ointment for higher risk procedures)

Nil further infection cases have been observed.

Measles exposure ED

UK Health Security Agency have reported an increase in measles cases since October 2023 with increased prevalence in areas of the country with lower Measles, Mumps and Rubella (MMR) vaccination uptake.

In February a patient attended ED who was later confirmed to be infectious for measles at the time of visit. Contact tracing of staff and patient was initiated and an epidemiologically linked case in a patient was identified 2 weeks later. In addition, 2 members of staff were also considered likely epidemiologically linked. Both members of staff were fully MMR vaccinated and these cases were considered breakthrough measles. Additional contact tracing was carried out and no further linked cases identified. Rapid implementation of text alerting for signs and symptoms supported identification of epidemiological links between cases.

Hand Hygiene and Aseptic Protocols

Audits of compliance with the Hand Hygiene Policy are undertaken weekly at ward and department level. The average compliance rate for the year was 99%. Audits are completed by each ward with a small number of peer audits. The programme is being revised in 2024 to introduce a more robust programme of peer auditing. Overall results by month are shown in table 3.

Table 3 Trust wide hand hygiene audit results by month

Month	A	M	J	J	A	S	O	N	D	J	F	M
Compliance	99%	99%	99%	99%	99%	99%	98%	99%	99%	99%	99%	99%

Decontamination

All surgical instruments are decontaminated off site by a company that provides decontamination services for several Trusts within the region. There is a programme of internal and external validation. The Trust is compliant with Department of Health and NHS Estates guidance. The terms of reference for the Decontamination Group have been revised and meetings are held quarterly.

DOMESTIC SERVICES

Management Arrangements

Warrington and Halton Hospitals Domestic Team are employed as an in-house service and are part of the Trust Estates and Facilities Management Team. The

team is led by the Head of Facilities and on a day-to-day basis managed by a Support Services Manager on each site.

The Domestic Team provide 24 hour, 7 days per week cover. The team are also supported by 'as and when' staff who cover vacancies and partially cover annual leave and sickness.

The Domestic Task Team provides a valuable service, dealing with emergency leaks/spills, routine and emergency curtain changes, terminal cleans, and any cleaning required following infection outbreaks. They also form the core team progressing deep cleans in clinical areas. The Trust uses a number of hydrogen peroxide fogging machines to assist with decontamination of the environment.

Budget Allocation

The budget allocation for domestic services was £5.5 million with 150 whole time equivalent (WTE) staff.

Cleaning Arrangements

In line with the National Standards of Healthcare Cleanliness (2021), which were implemented in 2022/23, the functional groups are divided into levels of cleaning intensity, based on the risks associated with inadequate cleaning in that specific area with recommended rectification timescales:

- FR1 98%:** Assessment within 20 minutes and task completed at the next scheduled clean or within 2 hours (if the area is accessible) whichever is the soonest.
- Areas include A&E, ICU, All Theatres, Birthing Suite, Neonatal, A5 elective, Cantreat, Urgent Care PACU
- FR2 95%:** Assessment within 20 minutes and task completed a the next scheduled clean or within 4 hours whichever is the soonest.
- Areas include All wards not above, Angio, Endoscopy, Day case, TSSU, Ophthalmic Day case, Nest, UCC, Xray, Renal Dialysis, GUM, Blood rooms
- FR3 90%:** Assessment within 1 hour and task completed at the next scheduled clean or within 12 hours whichever is the soonest.
- Areas include Orthodontics, Mortuary
- FR4 85%:** Assessment within 1 hour and task completed at the next scheduled clean or within 72 hours whichever is the soonest.
- Areas include CT, Pharmacy, MRI, Ultrasound, Radiology Day Case, Breast screening, Blood rooms, Surgery Pre-op, Occupational Health, Main linen store, entrances and exits, OPD, Daresbury, Halton Eye clinic, SAU, X Ray, Anti-Coagulation, ANDU, Physio, Surgical Appliances, Gynae Clinic, Pathology laboratory, Childrens OPD, Vascular lab, Clinical skills, Delamere Centre, ECG, Audiology, Cardiology, Diabetic drop in, Occupational Therapy, Cardiac rehab
- FR5 80%:** Assessment within 24 hours and task completed at the next scheduled clean or within 96 hours whichever is the soonest.

Areas include Medical Engineering, Chapel, Main Receptions, linen and waste cupboards, equipment store

FR6 75%: Assessment within 24 hours and task completed at the next scheduled clean or within 120 hours whichever is the soonest.

Areas include Offices, Medical Records, Stores, Drs Mess

Monitoring Arrangements

There is a dedicated Monitoring Team within Facilities, who monitor standards of cleanliness within clinical and non-clinical areas at both sites and sharps waste compliance in clinical areas. This team is led by a Facilities Manager to ensure there is no conflict of interest. The team are all trained to British Institute of Cleaning Science (BICS) standard.

The monitoring of ward kitchens is undertaken by the Catering Department, who monitor cleanliness and food hygiene standards. A schedule is in place to routinely monitor ward kitchens. Any serious breaches of food hygiene are dealt with immediately. An annual inspection of ward kitchens is also carried out by the Local Authority's Environmental Health Team.

The monitoring programme complies with the Department of Health specifications, covering domestic cleaning, patient equipment, and estates issues.

The monitoring frequency is dictated by the risk grading of areas, which are as follows: -

FR1 Areas	Weekly
FR2 Areas	Monthly
FR3 Areas	Every 2 Months
FR4 Areas	Every 3 Months
FR5 Areas	Every 6 Months
FR6 Areas	Every 12 Months

Copies of the monitoring reports are circulated to the Lead Nurses, Matrons, Ward Managers, Support Service Managers and Estates, to address any remedial action required.

Ward Housekeepers are responsible for ensuring any actions on monitoring forms are dealt with promptly. If there are any specific areas of concern, this is reviewed, and focus is given to address the issue. When necessary, the frequency of monitoring is increased to address any problem areas.

Any Estate actions are now monitored through the Invida Digital system.

Terminal Cleaning

Terminal cleaning is carried out by the Task team on request by a Ward when there is an infection or when a patient has been discharged outside normal working domestic hours. Number of terminal cleans by month is shown in table 4

Table 4 Terminal cleaning

Terminal cleans	A	M	J	J	A	S	O	N	D	J	F	M	Total
2022/2023	698	491	522	578	550	405	471	457	642	462	392	404	6072
2023/2024	369	479	385	348	360	428	448	435	552	660	578	561	5603

Curtain changes:

Number of curtain changes by month is shown in table 5

Table 5 Curtain changes

Curtain changes	A	M	J	J	A	S	O	N	D	J	F	M	Total
2022/2023	208	158	164	186	170	134	261	265	441	211	268	232	2301
2023/2024	204	252	204	185	169	244	263	275	289	362	273	296	3016

HPV decontaminations by month are shown in table 6:

Table 6 HPV decontamination

HPV use	A	M	J	J	A	S	O	N	D	J	F	M	Total
2022/2023	74	51	48	42	26	14	34	26	21	18	23	29	406
2023/2024	27	25	13	31	34	34	20	21	22	64	24	27	308

Cleanliness Scores

The 2023/24 cleanliness monitoring scores (Domestic only) for Very high risk and high-risk clinical areas were as follows:

FR1 Target score 98%

Warrington: 99%

Halton: 99%

FR2 Target score 95%

Warrington: 97%

Halton: 98%

PLACE (Patient Led Assessments of the Care Environment)

A PLACE assessment was carried out in November 2023 and was completed on both sites. A full action plan was produced and is being worked through with clinical teams.

Corporate Reporting

A monthly report is submitted by Facilities to the Infection Control Sub-Committee regarding cleanliness standards scores, number of terminal cleans/curtain changes,

process audits for cleaning hand wash sinks and personal protective equipment (PPE), ward kitchen monitoring, linen, pest control and waste.

Training

The Domestic Staff receive specific theoretical and practical cleaning training as part of their induction, which includes infection control elements including the use of face filtering piece (FFP) 3 masks and this is supported by subsequent refresher training.

Random process audits are carried out to ensure that staff follow the correct procedure and wear the correct PPE when cleaning hand washing sinks. Staff competency audits are also carried out to ensure that domestics are working in accordance with their training and the Trust Cleaning Standards Policy and Cleaning manual.

This year the team have also introduced Efficacy audits which have included the Infection Control Team and housekeeping staff.

Clinical Access/Responsibility

The domestic staff are centrally managed by the Facilities team; however, the Ward Managers and the Housekeepers are able to direct the domestic staff based on each ward regarding day-to-day priorities. There is also close liaison with the Matrons, who have a specific responsibility for cleanliness standards for their Clinical Business Unit.

Facilities also have a close working relationship with the Ward Housekeepers and attend their monthly meetings to share concerns or offer support as and when required.

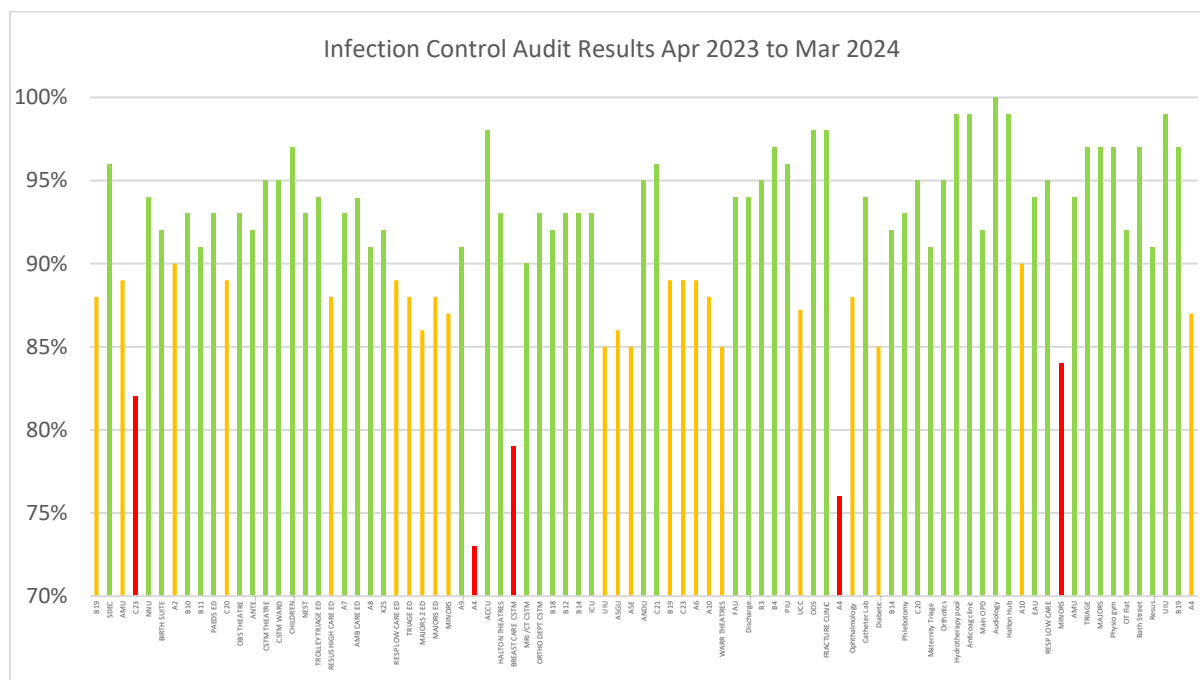
Audit

The aim of the IPC Audit Programme is to measure compliance with Infection Prevention & Control policies/guidelines and assess environmental standards in the patient care environment. This audit programme contributes to providing assurance that infection control policies are followed, and risks are effectively managed within the Trust.

The audits are carried out by the IPCNs using an approved Infection Prevention and Control audit tool. The audit tool has a total of 11 components. A rolling programme of audit is in place to cover all in-patient areas.

Additional audits are completed outside of the rolling programme when infection events occur. A summary of overall scores are shown in figure 31.

Figure 31 Infection Control Audit Results



Reports on findings are fed back to the nurse in charge of the clinical area at the time of the audit. This is followed up by a written report within one week of the audit. The manager of the clinical area is responsible for producing an action plan to address areas for improvement. In addition, the Brilliant Basics in IPC campaign is being launched to drive up IPC practice standards.

High Impact Interventions

The CBUs have continued a rolling programme of audit to assess compliance with the Department of Health’s High Impact Interventions Toolkit. Audit scores are mostly in the region of 90-100%. The results are discussed at the Infection Control Sub-Committee and fed back to the ward teams. Action plans are produced by wards and departments for areas where care improvements are required.

An increase in auditing frequency is requested when scores are below accepted standards. Matrons are directed to provide assurance that the audits drive improvements rather than being a monitoring process.

Antimicrobial Prescribing

From 1 April 2023 - 31 March 2024, 83 joint Consultant Microbiologist and Antimicrobial Pharmacist ward rounds (joint ward rounds) were conducted at Warrington Hospital.

This was an increase in the number of Joint ward rounds carried out compared to the previous year where there were 72 joint ward rounds. To cover maternity leave, a senior Clinical Pharmacist was seconded into the Antimicrobial Pharmacist post for 2023/24 and they successfully maintained and developed the service. Additional

Pharmacists have been trained to cover the antibiotic ward round to build resilience within the service and there are plans to extend this training further.

The weekly Outpatient Parenteral Antimicrobial Therapy (OPAT) Multi-Disciplinary Team (MDT) has continued.

In addition to the joint ward rounds the Consultant Microbiologists have continued to undertake additional ward rounds/MDTs in select areas.

- Daily ICU antimicrobial ward rounds (Mon-Fri) with a Consultant Intensivist
- A Consultant Microbiologist attends board round every Friday (when staffing allows) on the acute medical unit (AMU) to review patients prescribed antimicrobials and establish individualised treatment plans for the weekend and help with early supported discharge
- A Consultant Microbiologist attends a weekly MDT on ward B19 (*C. difficile* cohort facility) to review antimicrobial prescribing in patients who have a diagnosis or history of *C. difficile* infection. This MDT is not exclusive to patients with a current diagnosis/history of *C. difficile* infection and other patients on the ward are frequently discussed
- This year we have also continued the additional weekly antibiotic MDT on ward A9 due to persistent low compliance with the antimicrobial formulary (identified in the quarterly point prevalence audit). Focused support and engagement with the clinical teams in this area has helped to drive up antimicrobial prescribing standards to the point where there is no longer a concern on this ward (as evidenced by the latest point prevalence audits) so this MDT was stepped down from Jan 2024

Joint Consultant Medical Microbiologist and Antimicrobial Pharmacist Ward Rounds

Public Health England's (now UK Health Security Agency), Antimicrobial Stewardship (AMS) Toolkit, states that improving antimicrobial prescribing and stewardship is dependent on strong clinical leadership. They recommend that antimicrobial quality improvement should be done in collaboration with a Consultant Microbiologist/infectious diseases specialist and the Antimicrobial Pharmacist.

Within the Trust, we aim to undertake three joint Consultant Microbiologist and Pharmacist ward rounds each week at Warrington Hospital. These ward rounds target patients who are prescribed specific "target antimicrobials", wards with higher rates of antimicrobial prescribing or wards where there are concerns about compliance with the Trust antimicrobial formulary (picked up through the quarterly antimicrobial point prevalence audit) or higher incidence of HCAs.

"Target antimicrobials" are antimicrobials that we have determined locally require closer monitoring than other antimicrobials because they are either: -

- Broad-spectrum antimicrobials that should be reserved for the treatment of more complicated infections that are not responding to the Trusts first line antimicrobials or
- Antimicrobials that are more commonly associated with the development of *C. difficile* infection

The “target antimicrobials” within the Trust are: -

- Piperacillin/Tazobactam (Tazocin®)
- Meropenem
- Cephalosporins
- Co-amoxiclav
- Linezolid
- Clindamycin
- Quinolones

Due to concerns about an increase in prescribing of piperacillin/tazobactam (Tazocin®) across the Trust over the previous 18 months, one of the ward rounds focuses exclusively on reviewing Piperacillin/Tazobactam (Tazocin®) prescriptions.

Patients prescribed “target antimicrobials” are identified from a prescribing report that pulls directly from the Electronic Prescribing Medicine Administration (EPMA). The ward rounds are a way of gaining assurance that the “target antimicrobials” are being prescribed appropriately across the Trust.

Ward Pharmacists are also able to refer patients for review on the antimicrobial ward round. Common reasons for Ward Pharmacist referral are: -

- Concerns that patient is deteriorating from an infection point of view and the clinical team have requested a review
- Patient is prescribed antimicrobials that are non-compliant with the antimicrobial formulary
- Culture and sensitivity results are available to allow rationalisation of antimicrobials but not actioned by clinical team
- Patient clinically well and suitable for oral step down or cessation of antimicrobial therapy but the team with clinical responsibility for the patient are not undertaking this or are requesting Consultant Microbiologists advice

Aim of the Ward Rounds

Ward rounds are undertaken to promote AMS and improve antimicrobial prescribing standards across the Trust. The ward rounds are undertaken in partnership with the clinical teams. We promote that every time a patient is reviewed the **5 antimicrobial prescribing decision options** are considered and the outcome is clearly documented within the electronic patient record (EPR).

1. Stop antibiotics
2. Switch IV to oral antibiotics (IVOS)

3. Change antibiotics as per culture and sensitivity results (escalation or de-escalation as appropriate)
4. Continue antibiotics
5. Refer to Outpatient Parenteral Antibiotic Therapy (OPAT) team.

In 2023/24 NHS England made prompt IVOS a National CQUIN as it is recognised as an important antimicrobial stewardship intervention. To support the Trust, achieve this CQUIN we introduced an IVOS decision aid across the Trust to support prescribers in making this decision.

Benefits of the Ward Rounds

Patient Safety & comfort

During or prior to each ward round the Consultant Microbiologist accesses MOLIS (lab information system) and a review is undertaken of each patient's recent microbiology samples to see if any organisms have been isolated during this admission that will influence antibiotic prescribing decisions. Additional factors that are also considered include history of multi-drug resistant organisms or *C. difficile* infection.

The ward rounds are not just about reviewing the antibiotics prescribed but also ensuring the patient has had the appropriate microbiological samples sent or undergone appropriate clinical investigations to ensure antimicrobials can be stopped, escalated, or de-escalated as appropriate. These interventions ensure that patients are exposed to fewer days of broad-spectrum antimicrobial treatment or antibiotics are changed to more appropriate antimicrobial treatment in a timely manner. Consequently, this improves patient safety because if patients are exposed to fewer days of unnecessary broad spectrum antimicrobial therapy then the risk of the patient going on to develop a HCAI such as *C. difficile* infection is reduced. Likewise, if it is identified that the patient has grown a multi-drug resistant (MDR) organism in the past then this may be relevant and antimicrobial therapy will be tailored to cover this organism and ensure safe and appropriate antimicrobial treatment.

The ward rounds allow the Consultant Microbiologist and Antimicrobial Pharmacist to review patients with complex histories/infections who benefit from more specialist input i.e., patients with infective endocarditis and patients who are prescribed antimicrobials with a narrow therapeutic window, providing specific advice on dosage adjustment and duration of treatment.

Research evidence has shown that prompt IVOS can reduce risk of the patient going on to develop a bloodstream or catheter related infection, reduce hospital length-length-of-stay and increase patient mobility and comfort.

Junior Doctors & Antimicrobial Stewardship (AMS)

The Consultant Microbiologists and Pharmacist use the ward rounds as an opportunity to build up relationships with ward teams and provide education to junior doctors. Appropriate

prescribing is just one part of good antimicrobial stewardship, timely and appropriate microbiological sampling, and regular clinical review of both the patient and the diagnosis are also vital parts of the Start Smart, Then Focus (SSTF) antimicrobial prescribing algorithm. The ward rounds seek to engage all doctors (but mostly junior doctors) and promote these vital steps and help them develop a wider understanding of AMS.

The antimicrobial formulary is actively promoted on each ward round and the junior doctors are reminded of the importance of AMS and their vital role in slowing down antimicrobial resistance (AMR). Junior doctors are encouraged to participate in the ward rounds, and they are informed of the reasons for any suggested changes to antimicrobial therapy which develops their knowledge of microbiology. It is hoped that the education provided during the ward rounds will influence their prescribing practice as they progress in their career and develop their confidence around diagnosis and management of different infections.

Financial benefits

Cost savings are made through the ward rounds by reducing unnecessary consumption of antimicrobials by timely cessation of antimicrobial treatment or de-escalation in treatment where appropriate. Nursing time is saved by the appropriate cessation of antimicrobials, particularly intravenous antimicrobials, releasing the nurse to provide additional time to care for the patient. There is also a cost saving associated with reduced equipment costs by prompt IVOS.

Identification of patients who may be suitable for early supported discharge for completion of long-term IV antibiotic therapy in the community setting via the OPAT team has financial savings for the Trust by reducing hospital length-of-stay.

Compliance with NICE Guidance

NICE guideline NG15 recommends that all care settings should establish an antimicrobial stewardship programme. This ward round is part of the Trusts AMS programme and ensures compliance with NICE guidance. It provides an opportunity to feedback to individual prescribers, monitor prescribing habits and provides education and training.

Other benefits

The ward rounds help the Trust to manage antimicrobial shortages.

Participation in the antimicrobial ward rounds is a good development opportunity for Junior Pharmacists and improves their knowledge and confidence in AMR and AMS. Trainee Advanced Care Practitioners, medical students and various practitioners undertaking non-medical prescribing qualifications have also joined the ward rounds this year as an educational experience.

Future Developments

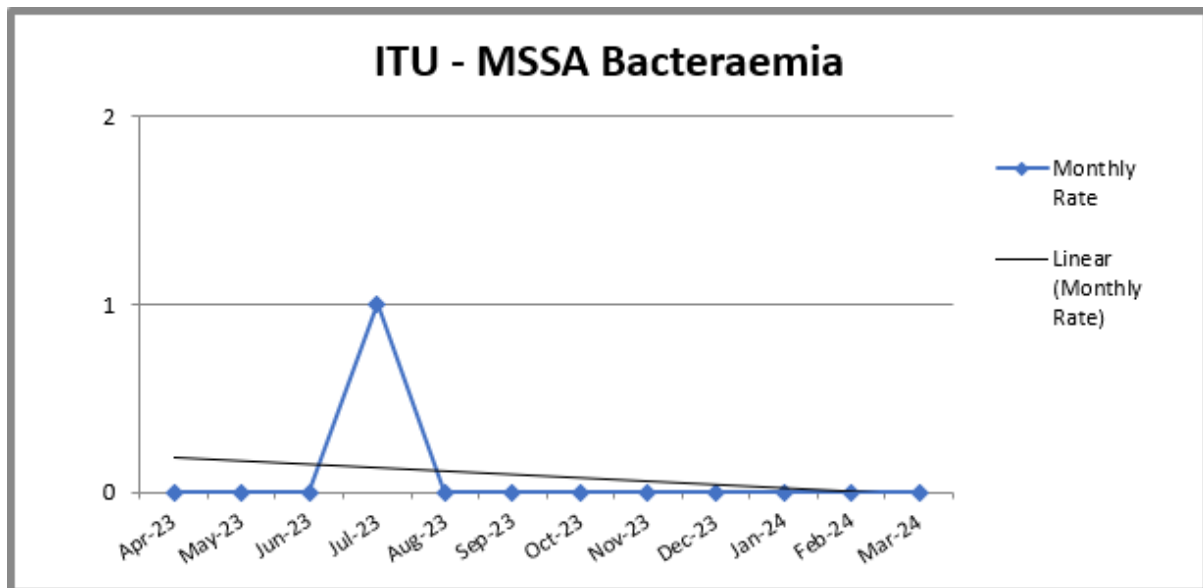
- The antimicrobial ward rounds could be expanded or further ward-based MDTs added so that more patients on antimicrobials are reviewed. However, this is limited by Consultant Microbiologist and Antimicrobial Pharmacist availability. This is mitigated currently by targeting wards found to have lower compliance with the antimicrobial formulary on the point prevalence audit on the existing weekly antibiotic ward rounds.
- Ensure outcomes associated with the Tazocin-specific ward round are recorded in the same way as the other ward rounds.
- Develop the Antimicrobial Ward Form to make it easier to extrapolate data from EPMA.

Critical Care Surveillance

The Critical Care Unit conducts enhanced surveillance of bloodstream infections and ventilator associated pneumonia cases.

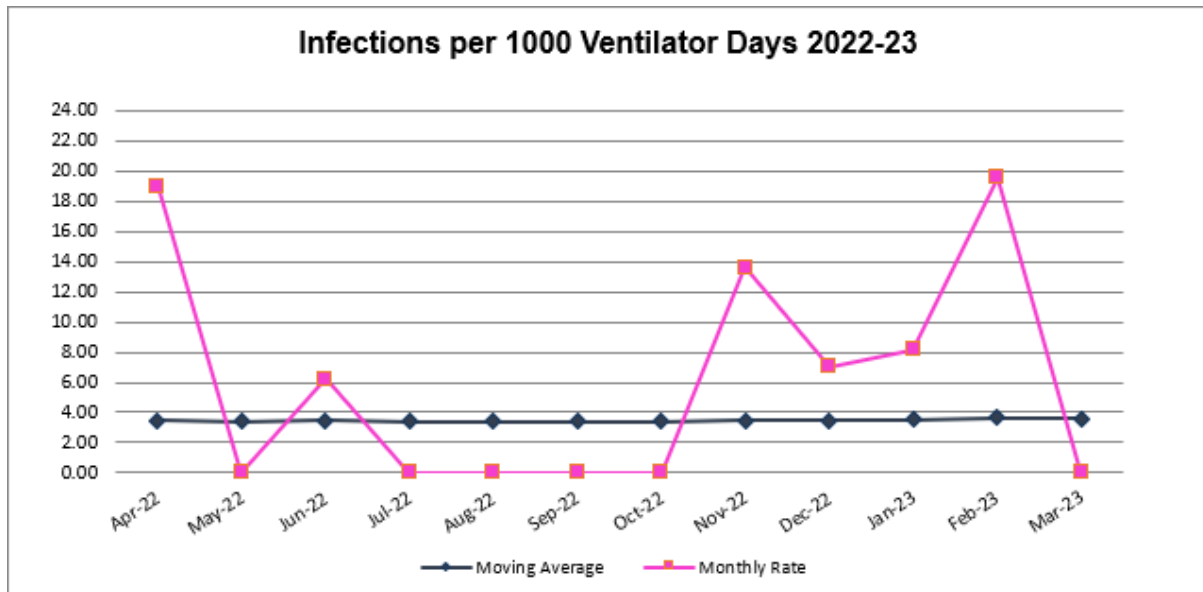
MSSA bacteraemia cases were monitored, and one intravascular line associated case was observed as shown in figure 32.

Figure 32 Critical Care MSSA Bacteraemia Surveillance



The Critical Care Unit also collates data on ventilator associated pneumonia (VAP) cases. This facilitates identification of trends of bacterial pneumonia in ICU patients who are mechanically ventilated with data shown in figure 33.

Figure 33 Ventilator Associated Pneumonia Surveillance



Targets and Outcomes

Activities

The Infection Prevention and Control Team has been involved in several initiatives within the Trust to promote the importance of infection prevention and control. These included: -

- Hand hygiene awareness raising events
- Unannounced spot checks
- World hand hygiene day
- Matron/Facilities Walkabouts
- World Antibiotic Awareness Week
- C. difficile care support worker training
- Response to complaints
- Response to FOI requests

Awareness raising events

The team had a proactive approach to awareness raising events using Trust wide safety brief, good morning WHH global email, desktop messages and promotional campaigns.

World Hand Hygiene Day May 2023



International Infection Prevention Week October 2023



World Antimicrobial Awareness Week November 2023



Nutrition and Hydration Week February 2024



Facilities Team – Waste Management



Updated policies and guidelines

Policies and guidelines relating to Covid-19 were developed as per the Covid-19 section of this report. The following documents were revised and approved by the Infection Control Sub-Committee: -

- CPE Screening and Patient Placement SOP
- MRSA screening and Suppression Treatment for Elective Orthopaedic procedures
- CPE patient information leaflet
- CPE contacts leaflet
- Scabies guidelines
- Revised SOP for Non-Elective Patient Testing for (Winter) Respiratory Viruses, Patient Placement & Infection Control Precautions (Adults/ Children)
- Cleaning Standards Policy
- Face filtering piece FFP3 fit testing policy
- Influenza (pandemic and seasonal) policy
- Working with dogs in healthcare policy
- Measles Risk Assessment
- ED Measles Triage and Patient Placement SOP

Revised and updated infection control policies, procedures and information leaflets are available from the Trust's intranet for staff to access.

Contribution to other initiatives

Capital Projects

All areas that have undergone upgrade work have been reviewed and signed off by the IPCT prior to re-occupation by patients.

External groups

The Infection Prevention and Control Team participated in the following external groups: -

- Northwest Boroughs Partnership Mental Health Trust Infection Control Committee
- Place-based System Collaborative for Infection Prevention
- NW Nutrition and Hydration Group
- NHSE Regional NW IPC Network Meeting

Training Activities

The Infection Prevention and Control Team continue to provide a structured annual programme of education. This includes an Infection Control eLearning package for all staff. Training attendance figures, for substantive staff, were monitored monthly with details shown in table 7.

Table 7 Infection Control Training compliance

IPC Mandatory Training	A	M	J	J	A	S	O	N	D	J	F	M
Level 1 – Non-Clinical	94%	96%	94%	95%	95%	96%	95%	95%	96%	96%	96%	96%
Level 2 – Clinical	83%	84%	85%	86%	86%	86%	87%	87%	87%	87%	87%	86%
Overall compliance	84%	90%	90%	91%	91%	91%	91%	91%	92%	92%	92%	91%

The Infection Prevention and Control Nurses (IPCNs) provided a weekly face to face mandatory training session. CBUs with compliance below 85% have been directed to set improvement trajectories. Additional training sessions have been offered by the IPCNs to support the CBUs.

The following sessions are included in the infection control training plan: -

- Trust corporate induction: all new starters
- Mandatory training: all staff
- Patient facing staff – annual
- Non-patient facing staff – 3 yearly

Other training was provided to: -

- F1/F2 Doctors
- Induction and updates
- Blood culture specimens (indications; aseptic technique and performance management)
- Prudent use of antibiotics

Medical Students

- Infection Prevention and Control
- Various infection/microbiology topics

Ad hoc clinical based teaching

Single point lessons are provided in response to incidents for: -

- C. difficile management
- CPE screening
- Isolation priorities
- Linen Management
- MRSA screening and suppression therapy
- Outbreak Management
- Personal protective equipment

Conclusion

The IPCT have worked hard throughout the year to provide education and guidance in response to the Covid-19 pandemic and deliver the annual work plan.

The team members have provided a high output of education, guidance, and positive outcomes for the Trust. It is to their great credit that team members stepped up to meet the additional requirements for education, updates to policy documents and meeting attendance alongside a proactive agenda to address C. difficile cases and bloodstream infections from MRSA/MSSA and GNBSI.

Assurance on the prevention and control of infections is provided by a matrix approach of updating policies to incorporate best practice/legislation; robust and regular auditing of policies and practice; spot checks and self-assessment. Although some policies are overdue review, there was a vast amount of proactive and responsive activity for Covid-19.

High Level Briefing Papers and reports submitted to the Patient Safety and Clinical Effectiveness Committee and quarterly reports submitted to the Quality Assurance Committee and Board of Director reports, provide assurance on infection control activities and outcomes.

Gratitude is extended to the Infection Prevention and Control Team for maintaining their proactive leadership of a challenging and extremely busy agenda.

3. ACTIONS REQUIRED/RESPONSIBLE OFFICER

The Quality Committee is asked to receive the Infection Prevention and Control DIPC Annual Report and note the progress made.

4. IMPACT ON QPS?

Q = Improvements to quality by reducing cases of healthcare associated infection

P = Training of staff to care for patients with suspected/diagnosed infections

S = Work with procurement to support the carbon net zero 2040 ambition

5. MEASUREMENTS/EVALUATIONS

Monitor: -

Progress against the Infection Control Sub-Committee work plan

- Healthcare associated infection surveillance data
 - C. difficile
 - MSSA bacteraemia
 - MRSA bacteraemia
 - E. coli bacteraemia
 - Pseudomonas aeruginosa bacteraemia
 - Klebsiella spp. bacteraemia
 - Covid-19 – Hospital onset probable and Hospital onset definite cases
 - Outbreaks of infection

- Progress against HCAI prevention plans
 - Gram negative bloodstream infection reduction
 - *Staphylococcus aureus* bacteraemia reduction (MRSA/MSSA)
 - C. difficile infection reduction
 - IPC Brilliant Basics Campaign

- Delivery of the Infection Prevention and Control Strategy
- Education and training compliance figures
- Audit of policy/guideline compliance and action plan for non-compliance
- Progress with policy revisions

Progress against the IPC Strategy and Annual Action Plan will be monitored at the Infection Control Sub-Committee.

Compliance assessment against the Health and Social Care Act (2008), Code of practice on preventing infections and related guidance (2022) will be conducted biannually.

6. TRAJECTORIES/ OBJECTIVES AGREED

2023/2024 Trajectories

- C. difficile ≤ 36 cases
- MRSA bacteraemia cases - Zero tolerance to avoidable cases
- MSSA bacteraemia cases – no threshold
- Gram negative bloodstream infections
 - E. coli bacteraemia ≤ 54 cases
 - P. aeruginosa bacteraemia ≤ 2 cases
 - Klebsiella spp. bacteraemia ≤ 18 cases
- IPC Strategy Delivery

Objectives for 2024/2025 are awaited

7. MONITORING/REPORTING ROUTES

High level briefing papers from the Infection Control Sub-Committee are submitted to: -

- Health and Safety Sub-Committee
- Patient Safety and Clinical Effectiveness Committee

DIPC reports are submitted to the Quality Assurance Committee and Trust Board quarterly.

Verbal updates are provided to Trust Board monthly as part of the IPR (in full) report.

A Director of Infection Prevention and Control Report is submitted to Trust Board annually.

8. TIMELINES

Financial year 2023/24

9. ASSURANCE COMMITTEE

Infection Control Sub-Committee

10. RECOMMENDATIONS

The Quality Assurance Committee is asked to receive and note the report and progress made.

Alison Kennah


Chief Nurse/ Director of Infection Prevention and Control (DIPC)

June 2024

Committee/Group meeting attendance														
	Target date	Leads	A	M	J	J	A	S	O	N	D	J	F	M
IPS	TBC	ADIPC												
Medical Devices Group	Quarterly	IPCNs	✓			✓			✓			✓		
NNU/IPC Meetings	Biannual	IPCNs												
Nursing & Midwifery Forum	Monthly	ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nutritional & Hydration Group	Monthly	TBC												
NWB ICC	TBC	Deputy DIPC												
Occupational Health and Wellbeing/IPC														
Operational Patient Safety Group														
Patient Experience Sub-Committee	Monthly	IPC Matron	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Patient Safety and Clinical Effectiveness Committee	Monthly	ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PSIRF HCAI event meetings														
Quality Assurance Committee	Monthly	CNO/DIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Safer sharps group meeting	Monthly	IPCN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sepsis Improvement Group														
System Collaborative for Infection Prevention														
Trust Wide Safety Brief														
Ventilation Assurance Group	Quarterly	ICD / ADIPC												
Ward B19 CDT MDT	Weekly	CMM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ward Managers Meeting														
Water safety group	Quarterly	ICD / ADIPC								✓		✓		✓
Surveillance														
Compliance with mandatory reporting of MRSA; MSSA; C. difficile; GNBSIs (E. coli, Klebsiella and Pseudomonas)	Monthly	IPCNs/ ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mandatory reporting data validation and timely sign off	Monthly	ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Covid-19 outbreak reporting	Per incident	IPCNs												
MSK compliance with Mandatory orthopaedic surveillance	Quarterly	LN MSK	✓			✓			✓			✓		
Zero tolerance to avoidable MRSA bacteraemia cases	Monthly	ALL												
SSSI	Quarterly	LN DD	✓			✓			✓			✓		
HCAI surveillance reports – weekly to Chief Nurse, Associate Chief Nurses, Lead Nurses, and Matrons	Weekly	IPC Admin	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Surveillance of HAI alert organisms (MRSA, VRE, CDT etc.)	Daily	IPCNs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HCAI reporting for Trust dashboards with commentary	Monthly	ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HCAI reporting to ICSC dashboards	Monthly	ADIPC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudomonas surveillance in Augmented care area (ICU: NNU : K25)	Fortnightly	IPCNs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VRE surveillance	Fortnightly	IPCNs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Complete Quarterly Mandatory Laboratory returns and submit to UKHSA	Quarterly	Deputy DIPC	✓			✓			✓			✓		
Antibiotic ward rounds daily on ICU	Daily	CMMs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Antibiotic ward rounds	Weekly	CMMs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Environmental cleanliness monitoring														
	Target date	Lead	A	M	J	J	A	S	O	N	D	J	F	M
Environmental cleanliness monitoring	Monthly	Facilities Manager	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Matron and IPC Walkabouts	Monthly	Matrons /IPCNs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
First Impressions – SEE Walkabouts	TBC	IPC Matron												
Mock CQC inspections	TBC	Matrons	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Estates PAM assessment	Annual	ADE												✓
Legionella Assessments and compass flushing reports	TBC	ADE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NHS Cleaning standards and Cleanliness Charter Efficacy Audits	Monthly	HoF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Audit														
Audit Programme (IPC led) against standard precautions with reporting to ICSC	Annual	IPCNs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hand hygiene audits	Weekly	LN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MRSA pre-operative screening audit	Quarterly	LN DD	✓			✓			✓			✓		
MRSA screening compliance audits	Monthly	IPCNS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Support areas requiring improvements identified on the Quality Metrics programme	Monthly	IPCNS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Policy /guideline/SOP/Leaflet Reviews														
Alignment of NIPC Manual to all Trust Policies/guidelines/SOPs	TBC	IPCNS												
Blood Culture Policy	TBC	IPCNS												
CJD Nursing Management	TBC	IPCNS												
CJD Instrument Handling	TBC	IPCNS												
Tuberculosis	TBC	IPCNS												
Chickenpox	TBC	IPCNS												
Meningitis and Meningococcal Disease	TBC	IPCNS												
Viral haemorrhagic fevers	TBC	IPCNS												
Safe handling and disposal of waste	TBC	IPCNS												
Isolation of immunosuppressed patients	TBC	IPCNS												
High Consequence Infectious Disease Policy	TBC	IPCNS												
Infection Control Policy	TBC	IPCNS												
Hand Hygiene Policy	TBC	IPCNS												
Aseptic Technique	TBC	IPCNS												
Standard and transmission-based precautions policy	TBC	IPCNS												
Personal Protective Equipment Policy	TBC	IPCNS												
Group A Streptococcus Policy	TBC	IPCNS												
Outbreak Policy	TBC	IPCNS												
Notification Policy	TBC	IPCNS												
Terminal Cleaning Policy	TBC	IPCNS												

Awareness raising events														
	Target date	Lead	A	M	J	J	A	S	O	N	D	J	F	M
Global Hand washing Day	May	IPCNS		✓										
Uniform and workwear promotion	TBC	All												
October IC week – Topic Boards	Oct	IPCNs							✓					
Trust wide Safety Brief – IPC promotion	Oct	ADIPC							✓					
November World Antibiotic Awareness Week	Nov	CMM								✓				
Seasonal flu campaign with OHWB	Dec	OHWB							✓	✓	✓	✓		
Covid PPE refresher training	TBC	TBC												
World TB Day	Mar	IPCNs												✓
Education														
ANTT Peer Assessor Training	Monthly	IPCns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Induction training sessions as per timetable	Monthly	IPCns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mandatory training sessions as per timetable	Monthly	IPCns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Single Point Lessons as requirement identifies	Monthly	IPCns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

D = deferred
 ✓ = Planned
 = Completed