NHS
The Dudley Group
NHS Foundation Trust

Director of Infection and Prevention Control Annual report 2023/2024

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i EXECUTIVE INTRODUCTION FROM THE CHIEF NURSE AND DIRECTOR OF INFECTION PREVENTION AND CONTROL

"In my first foreword as the Chief Nurse and Director of Infection Prevention and Control, I would like to take this opportunity to say thank you to all the staff, colleagues, and partners for welcoming me to the organisation. Infection Prevention and Control is pivotal in ensuring that our patients and citizens receive safe and high-quality care, and it is everyone's responsibility.

Resetting our focus and raising the importance of fundamentals post the Covid-19 pandemic, has been a real focus for us here at The Dudley Group NHS Foundation Trust (DGFT). As the Trust's Director of Infection Prevention and Control I am proud to be able to present this Annual Infection Prevention and Control Report for 2023/24, which has been developed in collaboration with the Deputy Director of Infection Prevention and Control and the Infection Prevention and Control (IPC) Team. This report outlines the activities relating to infection prevention and control for the year from April 2023 to the end of March 2024, presenting the arrangements the Trust has in place to reduce the spread of infections. It outlines our accountability arrangements, policies and procedures relating to infection prevention and control, audits, and the education necessary to support the prevention and control of infections.

Our key achievements for 2023/24 include:

- *Reporting below threshold for mandatory blood stream (BSI) infections including E. coli, Pseudomonas aeruginosa, and klebsiella.*
- *Mandatory Infection Prevention and Control training completed by 90.32% of clinical staff.*
- *96.90% of non-clinical staff up to date with Infection Prevention and Control (IPC) e-learning.*
- *Recruitment to the IPC team under very challenging circumstances.*
- *IPC promotional activities included IPC week and World Health Organisation Clean Your Hands Day.*

- *Increased surgical site surveillance activity using a quality improvement project to reduce caesarean section wound infections from 15.1% to 8.9%.*

Looking forward to 2024/25, the IPC team and all DGFT staff will continue to work towards the prevention of all healthcare acquired infections. This will be guided by our overarching IPC improvement plan."

I trust you will find this report informative.

Martina Morris
Chief Nurse and Director of Infection Prevention and Control (DIPC)

ii LIST OF ABBREVIATIONS

ACP	Advanced Care Practitioner
AER	Automated Endoscope Reprocessor. A specialised machine for washing and disinfecting endoscopes
AHP	Allied Health Professional
AMaT	Audit Management and Tracking System. An audit system used to upload audits and generate action plans and reports.
AmpC beta lactamases producing Enterobacteriaceae	Produce enzymes which mediate resistance to a wide variety of B-lactam antibiotics e.g., amoxicillin
AMS	Antimicrobial Stewardship
ASG	Antimicrobial Stewardship Group
Bacteraemia	A bloodstream infection
BBFE	Blood and Bodily Fluids Exposure
BCPS	Black Country Pathology Services
BCWB	Black Country and West Birmingham
BSI	Bloodstream Infection
CD	Contact Dermatitis
CDI	*Clostridioides difficile infection. Clostridioides difficile* is a bacterium which lives harmlessly in the intestines of many people. *Clostridioides difficile* infection most commonly occurs in people who have recently had a course of antibiotics. Symptoms can range from mild diarrhoea to a life-threatening inflammation of the bowel.
CE	Chief Executive
CMT	Certified Medication Technician
COHA	Community Onset Healthcare Acquired
COIA	Community Onset Indeterminate Association
COVID-19	Coronavirus disease
CPA/ UKAS	Clinical Pathology Accreditation (CPA UK) is a subsidiary of United Kingdom Accreditation Service (UKAS)
CPE	Carbapenemase-producing Enterobacteriaceae. Enterobacteriaceae are a large family of bacteria that usually live harmlessly in the gut of all humans and animals. They are also some of the most common causes of opportunistic urinary tract infections, intra-abdominal and bloodstream infections. Carbapenemases are enzymes that destroy carbapenem antibiotics, conferring resistance.
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation (CQUIN) payment framework

CQRM	Commissioning Quarterly Review Meeting
CSU	Catheter Specimen of Urine
D&V	Diarrhoea and vomiting
Datix	Patient safety organisation that produces web-based incident reporting and risk management software for healthcare and social care organisations.
DDIPC	Deputy Director of Infection Prevention & Control
DGFT	The Dudley Group NHS Foundation Trust
DH	Department of Health
DIPC	Director of Infection Prevention & Control
DMC	Dudley Metropolitan Council
EBME	Electrical and Biomedical Engineering
E. coli	*Escherichia coli. E. coli* is the name of a type of bacteria that lives in the intestines of humans and animals.
ED	Emergency Department
ENT	Ear, Nose and Throat
EPMA	Electronic Prescribing and Medicines Administration
ESBL	Extended-Spectrum Beta-Lactamases are enzymes that can be produced by bacteria making them resistant to many of the commonly prescribed antibiotics.
ESR	Electronic Staff Record
GNBSI	Gram-negative bacteraemia (GNBSI), including *Escherichia coli*, Klebsiella and Pseudomonas.
GRE/VRE	Glycopeptide-Resistant Enterococci/Vancomycin Resistant Enterococci. Enterococci are bacteria that are commonly found in the bowels/gut of most humans. There are many different species of enterococci but only a few that have the potential to cause infections in humans and have become resistant to a group of antibiotics known as Glycopeptides; these include Vancomycin.
HCAI	Healthcare Associated Infection
HII	High Impact Interventions
HOHA	Hospital Onset Healthcare Associated
HR	Human Resources Department
HSDU	Healthcare Sterilisation Decontamination Unit
HSE	Health and Safety Executive
ICB	Integrated Care Board replaced Clinical Commissioning Boards July 2022
IC NET	IPC Surveillance software and database
ICS	Integrated Care System
IPC	Infection Prevention and Control
IPC BAF	Infection Prevention and Control Board Assurance Framework

IPCG	Infection Prevention and Control Group Meeting
IPCT	IPC Team
IPMO PLG	Integrating Pharmacy and Medicines Optimisation Pharmacy Leadership Group
IPS	Infection Prevention Society
IV	Intravenous
KPI	Key Performance Indicator
LFD	Lateral Flow Device
LHE	Local Health Economy
MHRA	Medicines and Healthcare Products Regulatory Agency
MRSA	Meticillin Resistant *Staphylococcus aureus.* Any strain of *Staphylococcus aureus* that has developed resistance to some antibiotics, thus making it more difficult to treat.
MSSA	Meticillin Sensitive *Staphylococcus aureus. Staphylococcus aureus* is a bacterium that commonly colonises human skin and mucosa (e.g., inside the nose) without causing any problems. It most commonly causes skin and wound infections.
NED	Non-Executive Director
NEWS 2	The latest version of the National Early Warning Score (NEWS), which advocates a system to standardise the assessment and response to acute illness.
NHS	National Health Service
NHSE/I	NHS England and NHS Improvement
NICE	National Institute for Health and Care Excellence
NITCAR	National infections team's collaborative for audit and research
NNU	Neonatal Unit
Norovirus	Norovirus is a major cause of acute gastroenteritis and diarrhoea in children and adults.
OH	Occupational Health
Outbreak	One or more persons with the same signs, symptoms in time place and space.
OPAT	Out-patient parenteral antimicrobial therapy
OPD	Outpatients Department
PEG	Patient Experience Group
PFI	Private Finance Initiative
PGD	Patient Group Direction
PHE	Public Health England now UK HSA
PII	Period of Increased Incidence
PIR	Post Infection Review
PLACE	Patient Led Assessment of the Care Environment
PPE	Personal Protective Equipment e.g., gloves, aprons, and goggles
QC	Quality Committee

QSG	Quality and Safety Group
RCA	Root Cause Analysis
RCN	Royal College of Nurses
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
SARS-CoV-2	COVID-19
SENDS	Safety engineered needleless device systems
SEPSIS	A potentially life-threatening condition caused by the body's response to an infection.
SEQOHS	Safe, Effective, and Quality Occupational Health Service
SHAW	Staff Health and Wellbeing Service
SIGHTED	Suspect, Isolate, Gloves and Aprons, Hand washing, Test for Toxins, Educate, Document
SIP	Service Improvement Plan
SLA	Service Level Agreement
SOP	Standard Operating Procedure
SSI	Surgical Site Surveillance
TDM	Therapeutic Drug Monitoring
The HUB	Staff Intranet Site
TOR	Terms of Reference
UK HSA	UK Health Security Agency formally Public Health England (UK HSA)
UTI	Urinary Tract Infection
WHO	World Health Organisation
WSG	Water Safety Group
WTE	Whole Time Equivalent

SECTION ONE:
INTRODUCTION

The purpose of this report is to provide assurance to The Dudley Group NHS Foundation Trust (DGFT) Board of Directors, Governors and the public for the reporting period 1 April 2023-24 March 2024 regarding the Infection Prevention and Control (IPC) activity including compliance with the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance (update December 2022) (commonly known as The Hygiene Code) and with regard to appropriate National Institute for Health and Clinical Excellence (NICE) guidance.

This annual report fulfils the Trusts' statutory requirements under the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance (Updated December 2022), which sets out 10 compliance criteria against which a registered provider will be judged on how it complies with the registration requirements for cleanliness and infection prevention and control. This sets the basis of our annual programme which is monitored at the Trust's bimonthly Infection Prevention and Control (IPC) Group meeting. Infection prevention and control is the responsibility of everyone in our healthcare community and is only truly successful when everyone works together. The aim of the IPC team is to increase organisational focus and collaborative working to ensure continued compliance and continuous improvement.

Table 1

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

9	Have and adhere to policies, designed for the individual's care and provider organisations that will help to prevent and control infections.
10	Providers have a system in place to manage the occupational health needs and obligations in relation to infection.

Infection Prevention and Control is a scientific approach and practical solution designed to prevent harm caused by infection to patients and health care workers (WHO) it is essential to ensure that the safety and quality of care for our patients can be provided. At The Dudley Group NHS Foundation Trust Infection Prevention and Control (DGFT) is a key priority.

Our Trust is committed to delivering the highest infection prevention and control standards to prevent avoidable harm to patients, visitors, and staff from healthcare associated infection. It is a key priority to ensure that a robust infection prevention and control function operates and is embedded within all clinical areas of the organisation. Effective prevention and control of infection is embedded as part of everyday practice and applied consistently by everyone at all times.

The infection prevention and control agenda face many challenges including the ever-increasing threat from emerging diseases, antimicrobial resistant micro-organisms, growing service development in addition to national targets and outcomes. The Trust Infection Prevention and Control Team experienced a number of changes in personnel over the last year and recruitment into the team has been challenging. This has resulted in periods of reduced staffing levels and reduction in the service provided to clinical teams.

The Board of Directors and ultimately the Chief Executive, as the accountable officer, carries responsibility for IPC throughout the Trust and it is a vital component of Quality and Safety. The day-to-day management is delegated to the Director of Infection Prevention and Control (DIPC). All managers and clinicians ensure that the management of IPC risks is one of their fundamental duties. Every clinical member of staff demonstrates commitment to reducing the risk of Healthcare Associated Infections (HCAI) through standard infection prevention and control measures. The IPC team endeavours to provide a comprehensive proactive service, which is responsive to the needs of staff and public alike and is committed to the promotion of excellence within everyday practice of IPC.

As with the previous year, the 2023/24 NHS Outcomes Framework included reducing the incidence of HCAIs, in particular Meticillin Resistant *Staphylococcus aureus* (MRSA) Bacteraemia and *Clostridium difficile* infection (CDI) as areas for improvement. Within Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm of the Outcomes Framework reducing all HCAIs remained a priority.

As previously reported, the extension to the mandatory surveillance to include Meticillin Sensitive *Staphylococcus aureus* (MSSA) and *Escherichia coli* (*E. coli*) Bacteraemia infections since 2011 together with the MRSA Bacteraemia and CDI national reduction thresholds set for Integrated Care Systems (ICS) reflects the zero-tolerance approach for all avoidable HCAIs.

This report will provide information of the activities and performance of Key Performance Indicators (KPI) for IPC during the period 1 April 2023 -31 March 2024 by DGFT. The report is aligned to the 2023/24 IPC Programme, informing progress against the objectives set and outlines performance of DGFT against the MRSA Bacteraemia and CDI reduction thresholds.

In addition, the report aims to reassure the public that reducing the risk of infection through robust infection prevention and control practice is a key priority for DGFT and supports the provision of high-quality services for patients and a safe working environment for staff.

SECTION TWO:
WHO ARE WE, OUR DUTIES, ARRANGEMENTS AND ASSURANCE

2.1 Who are we?

As a Trust, the Dudley Group provides health services to around 450,000 people in Dudley. These include for example three hospital sites, Russell's Hall, Corbet and Guest Hospitals and community nursing services.

In a year we…

- Deliver 4,700 babies.
- See around 500,000 outpatients.
- Treat almost 100,000 patients in our emergency department.
- Maintain our 13,000 Public Members.

Our PFI partners

- Dispose of 374.34 tonnes of infectious waste
- sterilise 1,9191,983 clinical instruments.
- Sterilise 112,311 packs.
- undertake 159,000 portering moves.
- recycle approximately 178.57 tonnes of mixed recyclables.

DGFT has a committed IPC team that is very clear on the actions necessary to deliver and maintain patient safety. Equally, it is recognised that infection prevention and control is the responsibility of every member of staff and must remain a high priority for all to ensure the best outcome for patients. The IPC team utilises both a reactive and proactive approach with the emphasis on being visible so making their accessibility for guidance and advice a priority. This in turn has led to an improved IPC team image i.e., being a regular familiar friendly face rather than only visiting to audit or when there are outbreaks of infections or problems.

Looking forward, it is critical that DGFT maintain this level of commitment. As in previous years, we will continue to work closely with our partner organisations, commissioning Integrated Care Board

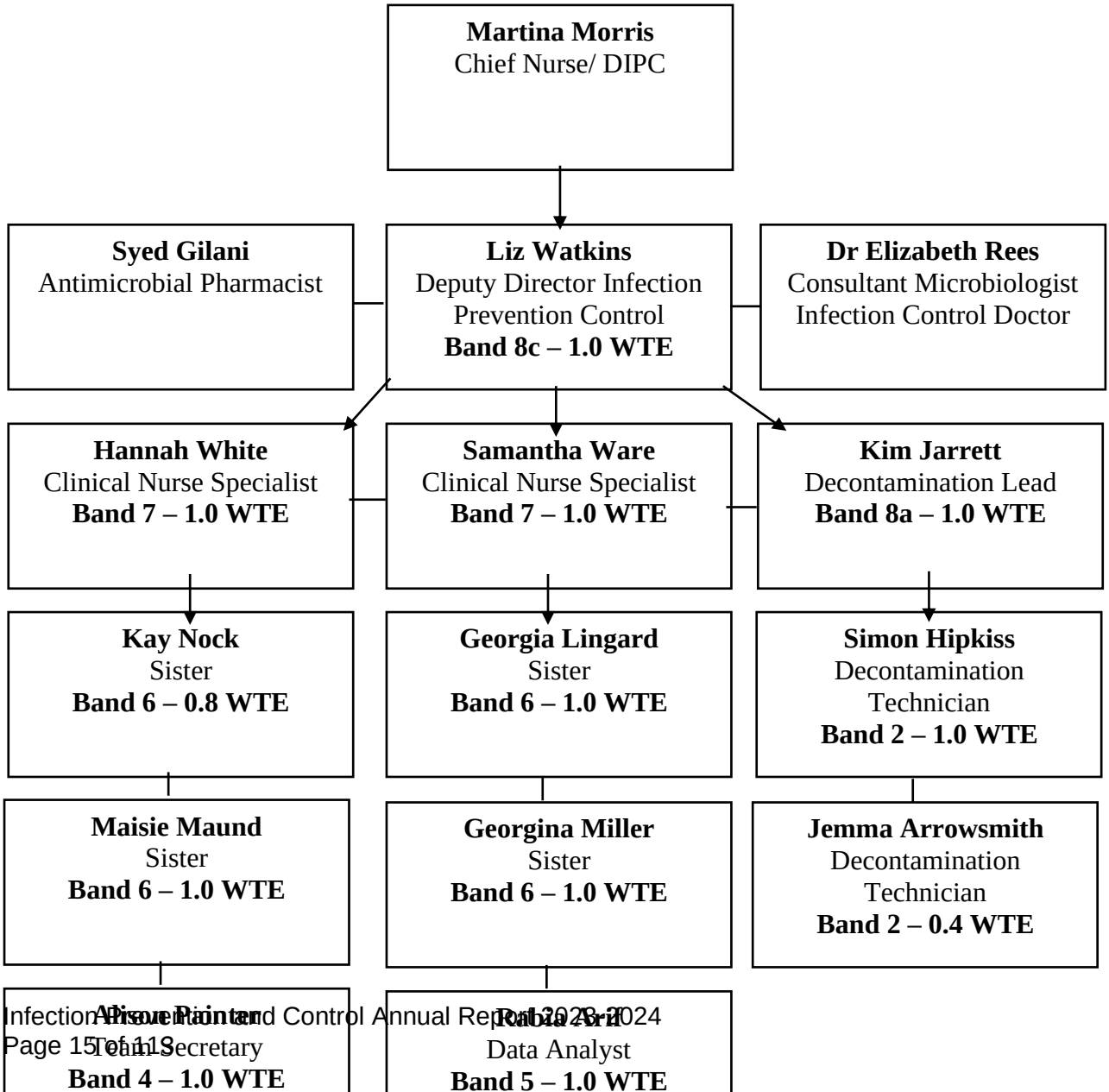
(ICB), and the Local Health Economy (LHE) as well as experts in other organisations, UK Health Security Agency (UK HSA) and NHS England.

Our Duties and Arrangements

Infection Prevention and Control Service:

- Director of Infection Prevention and Control (Chief Nurse)
- Deputy Director of Infection Prevention and Control
- Infectious Diseases Doctor
- Antimicrobial Pharmacist
- Decontamination Lead
- Infection Prevention and Control Nurse Specialists
- Infection Prevention and Control Nurses
- Data Analyst
- Decontamination Technicians
- Infection Prevention and Control Team Secretary

Infection Prevention and Control Team



2.2 Director of Infection Prevention and Control – Martina Morris (Chief Nurse)

The Director of Infection Prevention and Control (DIPC) is a role required by all registered NHS care providers under current legislation (The Health and Social Care Act 2008, updated 2022). The DIPC will have the executive authority and responsibilities for ensuring strategies are implemented to prevent avoidable HCAIs at all levels within the organisation.

The DIPC is the public face of IPC and is responsible for the Trust's annual report, providing details on the organisation's IPC programme and publication of HCAI data for the organisation.

The DIPC leads the commitment to quality and patient safety, good communication and ensure robust reporting channels and access to a group of staff with expert prevention and control knowledge, able to offer advice and support. The role and function of the IPC Service is to provide specialist knowledge, advice and education for staff, service users and visitors. Additional support is provided by the antimicrobial pharmacists, IPC Doctor/ Consultant Microbiologist, and Deputy Director of Infection Prevention and Control. All work undertaken by the service supports the Trust with the full implementation of and on-going compliance to the Hygiene Code.

At the Dudley Group, the Chief Nurse holds the role of DIPC supported by the Deputy DIPC who has the responsibility of providing expert advice and day to day operational management of the service reporting to the Chief Nurse.

2.3 The Infection Prevention and Control Team

The DIPC has overall responsibility for the IPC Team. The IPC Team works collaboratively alongside clinical leaders at the Trust.

The IPC Team is led day to day by the DDIPC for IPC and is supported by Decontamination Lead, Infection Prevention and Control Nurse Specialists, Infection Prevention and Control Nurses, Data Analyst and Team Secretary.

The IPC service is provided through a structured annual programme of works which includes expert advice, education, audit, policy development and review and service development. DGFT has a Service Level Agreement with the Royal Wolverhampton Trust for specialist support from a Consultant Microbiologist. Medical microbiology support is provided 24 hours a day, 365 days a year via Black Country Pathology Services.

The IPC team devises and implements a robust Annual Programme of Work to reduce HCAIs. This is achieved by working in collaboration with all DGFT services and staff. The IPC team perform a number of activities that minimise the risk of infection to patients, staff and visitors including advice on all aspects of infection prevention and control; education and training; audit; formulating policies and procedures; interpreting and implementing national guidance at local level; alert organisms' surveillance and managing outbreaks of infection.

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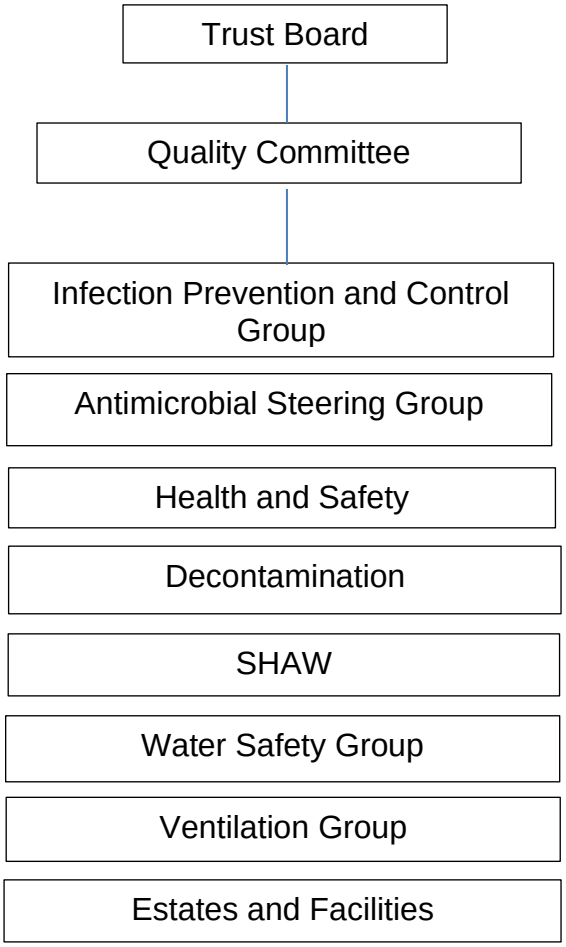
2.4 Committee Structures and Reporting Processes



2.5 Trust Board

The Code of Practice requires that the Trust Board has a collective agreement recognising its responsibilities for IPC. The Chief Executive Officer (CEO) has overall accountability for the control of infection at DGFT and any IPC matters across the trust.

DGFT's performance against National and local thresholds are included in Performance Report and Quality and Safety Reports which are presented at DGFT Quality Committee and Commissioning Quarterly Review (CQRM) meetings.

2.6 Quality Committee

Quarterly IPC reports, the IPC Board Assurance Framework and the IPC Annual report are presented to the Quality Committee (QC) meetings. The QC is chaired by a Non - Executive Director (NED), it is a delegated committee of the Trust Board which meets monthly. xThe purpose of the QC is to provide oversight and scrutiny of infection control standards and practices and seeking assurance that IPC Standards are being met. The QC will provide assurance to the Trust Board

around DGFT's arrangements for protecting and improving the quality and safety of patient-centered healthcare, thus improving the experience for all people that encounter the services at DGFT.

2.7 Infection Prevention and Control Group (IPCG) Meeting

The membership is multi-disciplinary and includes representation from the divisions, operations and quality directorates, estates department, antimicrobial pharmacists, and Consultant Microbiologist. Additional members are representatives from UK HSA, Dudley Metropolitan Borough Council, ICB and Private Finance Initiative (PFI) partners. The meeting is chaired by the DIPC and meet quarterly. The Terms of Reference (TOR) and membership are reviewed annually to ensure responsibility for IPC continues to be embedded across the organisation and they are reviewed and approved by the Quality Committee. The Infection Prevention and Control Board Assurance Framework is also presented, discussed, and adopted at IPCG before being presented to the Quality Committee and the Trust Public Board. This meeting monitors the progress of the annual IPC programme, approves IPC policies and monitors compliance with them.

The purpose of this meeting is to oversee compliance against the Health and Social Care Act (2008, updated 2022) and to provide assurance that risks are appropriately managed and that appropriate arrangements are in place to provide safe, clinical environments for patients, visitors, and staff.

The IPC Governance Meeting is chaired by the DIPC and is responsible for:

- Reviewing and monitoring the progress of the annual programme and assisting and affecting implementation.
- Reviewing, developing, and adopting relevant policies, procedures, care pathways and guidelines and standard operating procedures.
- Assessing the impact of all existing and new relevant plans and policies on infection prevention and control and make recommendations for change.
- Ensuring, through the DIPC, the associated Committees and the Trust Board are informed of any significant infection prevention and control concerns.
- To receive, review and endorse the publication of the Infection Prevention and Control Annual Report.
- To ensure that the wider aspects of maintaining IPC are reported and reviewed within the IPC group these include Health and Safety, Estates, Water Safety, Antimicrobial stewardship and Staff Health and Wellbeing Service (SHAW).
- Effective management of IPC related outbreaks and concerns

The IPCG meeting with change to monthly in April 2024 to allow for more in depth discussion by rotating the reports presented.

2.7.1 DGFT Water Safety Group

The membership is multi-disciplinary and has representatives from PFI Partners and an Authorising Engineer. The Group continues to monitor water risk assessments especially around Legionella,

flushing regimens, annual disinfection, Automated Endoscope Reprocessor (AER) and capital developments.

2.7.2 Decontamination Group

This group is chaired by the Trust's Decontamination lead. The group monitors, challenges, reviews, and where appropriate acts in response to presented assurances to ensure that the trust is demonstrating compliance against regulatory standards. The aim of the group is to identify any risk factors in relation to decontamination, to identify any trust strategies for the safe decontamination of medical devices in accordance with national and local guidelines with particular reference to HTM 01-01 and 01-06, Decontamination policies, Health, and Social Care Act 2008 (updated 2015), MHRA guidelines, NICE IPG 196 Guidance – replaced with IPG 666 2020 and Care quality commission. The group receives reports from Endoscopy services, Outpatients and Specialist Surgery, Sterile Services (HSDU), theatres and Imaging with the group meeting bimonthly. A Terms of Reference and Governance structure was developed and is reviewed by the Decontamination Group annually. The Group reports to the IPCG Meeting.

2.7.3 Ventilation Group Meeting

The membership is multi-disciplinary and has representatives from PFI Partners and an Authorising Engineer. The Group continues to monitor ventilation risk assessments especially around air handling units, air extraction and capital developments.

2.7.4 DIPC, DDIPC, Consultant Microbiologist

The DIPC, DDIPC, Consultant Microbiologist meet weekly to offer a supportive environment within which clinical issues are discussed and a consensus obtained.

2.7.5 Infection Prevention and Control Link worker

The aim of our IPC link worker is to enhance the IPC knowledge of healthcare professionals working within DGFT, ensuring the delivery of high standards of quality and patient safety in relation to IPC. Our IPC link workers are responsible for arranging IPC audits and self-audits to be undertaken where required and for disseminating IPC information to colleagues. Monthly link worker meetings are offered with the expectation that IPC Link workers attend at least quarterly.

2.7.6 Divisional Leads, Matrons and Ward Managers, Sisters, Charge Nurses, and Team Leaders

Divisional leads, Ward Managers, Sisters, Charge Nurses, and Team Leaders are responsible for ensuring that their work environments are maintained at high levels of cleanliness. Monthly cleanliness audits are undertaken with staff. These audits are reported in the Divisional Leads and Estates reports to the IPCG meeting. The Sisters, Charge Nurses, Ward Managers and Team Leaders are responsible for ensuring the link workers are supported in performing their role and have appropriate time and resources to do this effectively. Self-audit scores and on-going work undertaken by the link workers is also included in Managers reports submitted to the IPCG meeting.

2.7.7 Learning and Development Team

Arrangements are in place for staff to attend corporate induction and complete mandatory training programmes which includes IPC. Arrangements are in place for staff training to be effectively recorded and maintained in staff records. Alerts inform managers of their staff's non-compliance with mandatory training. Training compliance is reported monthly to the Quality Committee.

2.7 Roles and Responsibilities of all Staff

All staff in both clinical and non-clinical roles within the Trust are responsible for ensuring that they follow the standard IPC precautions at all times and are familiar with IPC policies, procedures, and guidance relevant to their area of work. All staff have a duty of care to report any non-compliance and act as appropriate. All IPC policies and procedures are available on the staff intranet site, The Hub.

SECTION THREE:
POSITION IN RELATION TO HEALTH CARE ASSOCIATED INFECTIONS

3.1 Surveillance of Healthcare Associated Infection

Surveillance is undertaken within DGFT on a number of alert organisms and mandatory reporting to UK HSA is undertaken via the HealthCare Associated Infection Data Capture System. Performance is monitored by both the Integrated /care Board (ICB) and the Dudley Metropolitan Borough Council (DMC).

3.2 Surgical Site Surveillance

Surgical Site Infection (SSI)

Surgical Site Infections are a particularly important Healthcare-associated Infection (HCAI) because they can increase a patient's length of stay in hospital and are associated with considerable morbidity. It has been reported that over one-third of postoperative deaths are related, at least in part, to SSI.

However, it is important to recognise that SSIs can range from a relatively trivial wound discharge with no other complications to a life- threatening condition" National Institute for Health and Clinical excellence (NICE) (2008).

Guidelines for the prevention of SSI were issued by NICE in the UK, updated in 2013, and accompanied by a High Impact Intervention (HII) from the Department of Health.

Mandatory surveillance of infections, in the following procedures, started in April 2004 specifying that each trust should conduct surveillance for at least 1 orthopaedic category for 1 period in the financial year. This surveillance helps hospitals, in England, to review or change practice, as necessary.

- Hip replacement.
- Knee replacement

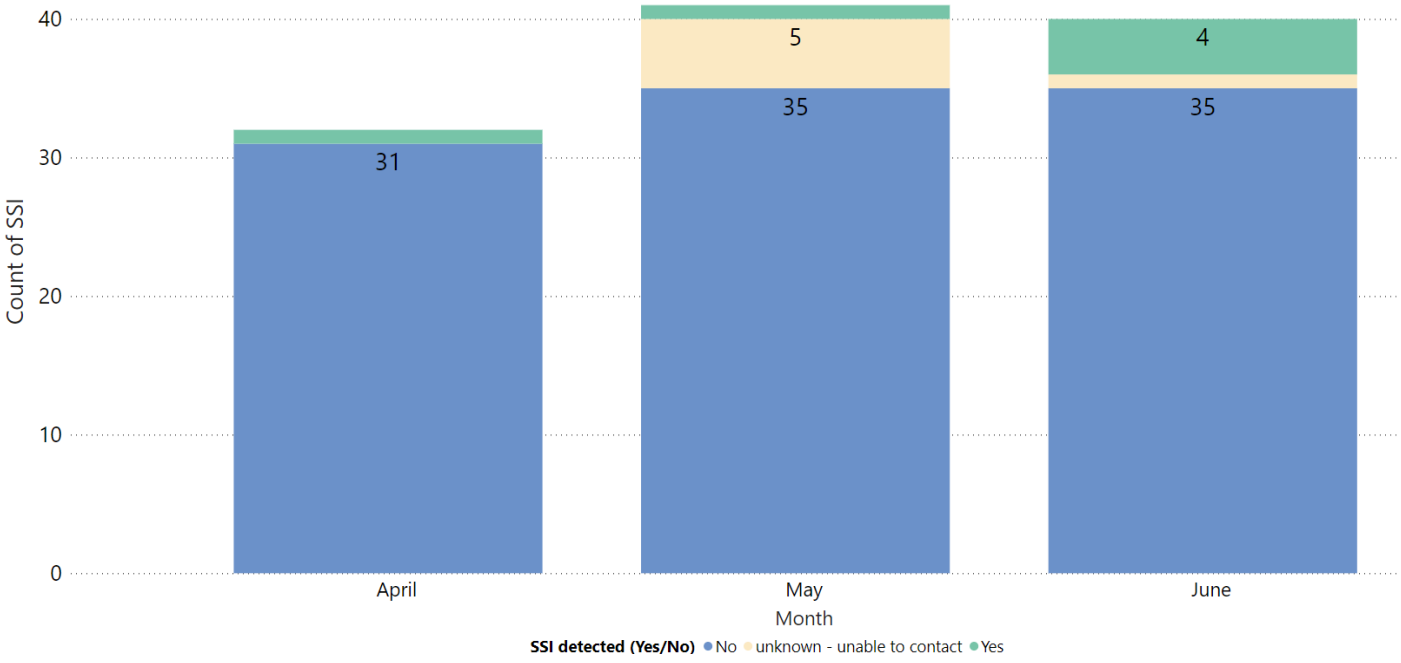
- Repair of neck of femur
- Reduction of long bone fracture

To increase the SSI response the IPC team, visit the patient post op to discuss SSI and to obtain consent to be a part of the surveillance. An information leaflet is currently given with an escalation process for any concerns.

The IPC team do not send out the post discharge questionnaire, a telephone call is made 28 days (or closest working day) following surgery and the wound and GP visits are discussed on that call.

For the period relating to this report the IPC Team undertook six months (two quarters) of mandatory orthopaedic surveillance focusing on knee replacement surgery.

Figure showing the number of knee replacement patients in quarter one by SSI detection.



The overall SSI percentage was 5.3% (6/113). This was deemed to be higher than the national average as UK HSA data shows the average number of infected wounds in every 100 operations following a knee joint replacement is less than 1%. A letter to the Trust was issued by UK HSA concerning the overall SSI reported percentage. Following receipt of the letter the IPC team worked with the surgical division to identify any common themes, review the process of patient review and reporting of patients with a possible SSI, an action plan was developed, and the SSI data collection was to be repeated for quarter 4. Quarter 4 data is still being validated for submission at the end of June.

SSIS Quality Improvement project

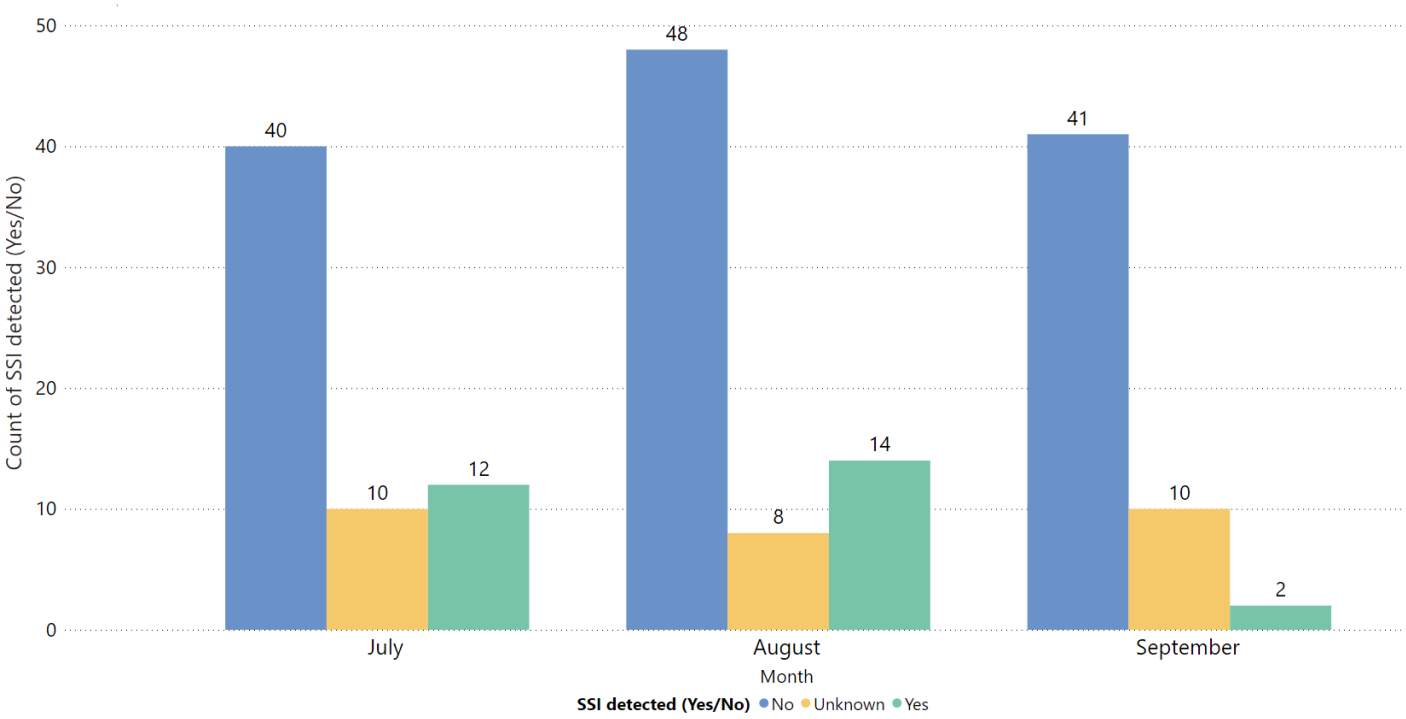
Three quarters (nine months) of voluntary Surgical Site Infection Surveillance for Caesarean sections was also completed as a Quality Improvement project following Maternity raising concerns regarding infection rates.

The IPC team worked closely with Maternity to standardise dressings used following a Caesarean Section, as it was noted that a vast range of dressings were being used at the start of the project with varying instruction for dressing placement duration.

No standardised pre surgical information regarding skin care or post op instruction regarding surgical wound care was provided to patients. The IPC team worked with tissue viability to produce a wound care information leaflet that is now available to all patients in hard copies and digitally on the maternity platform.

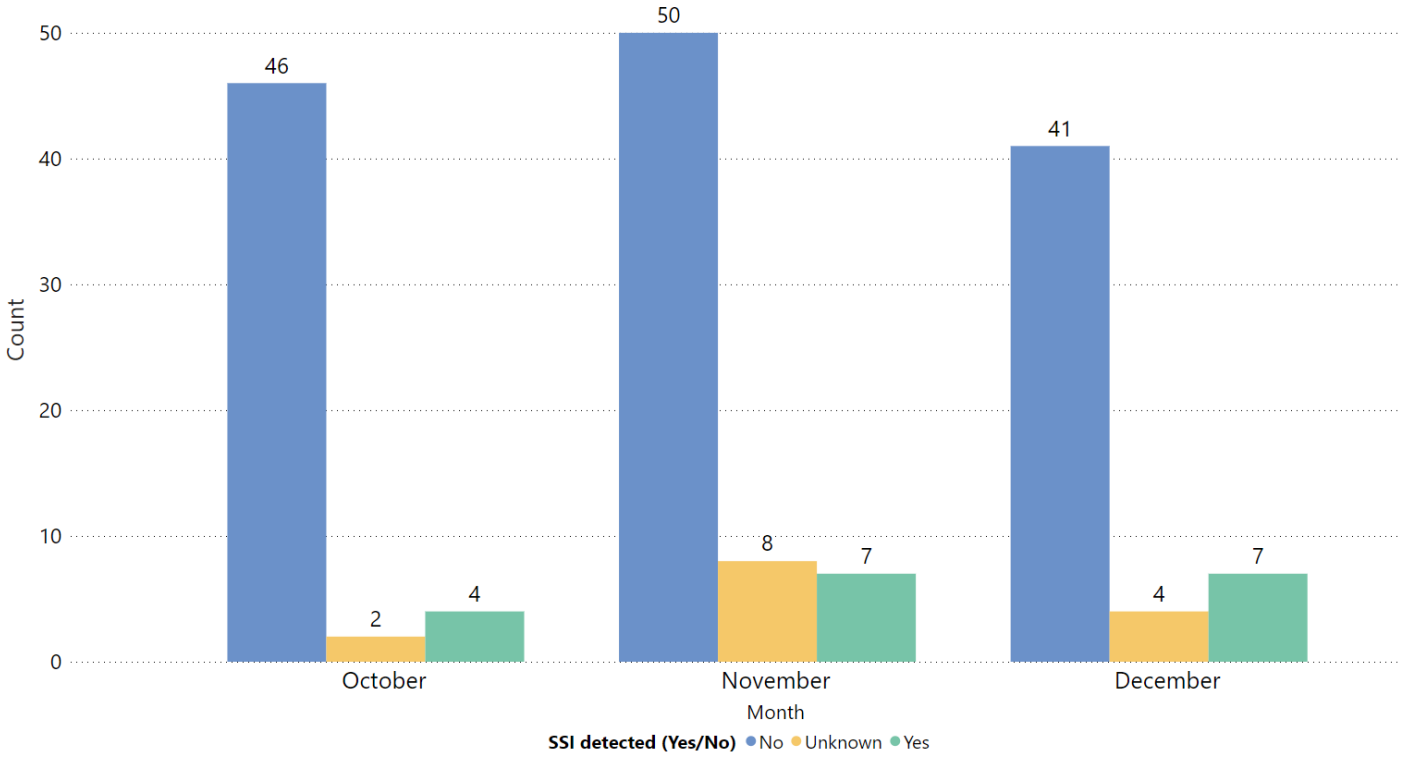
The results are shown in the tables below.
On the back of this data, the IPC Team are working with an external company to produce an abstract show casing this work and producing an article to be submitted for publication.

Figure showing the number of Caesarean sections patients in quarter two by SSI detection.



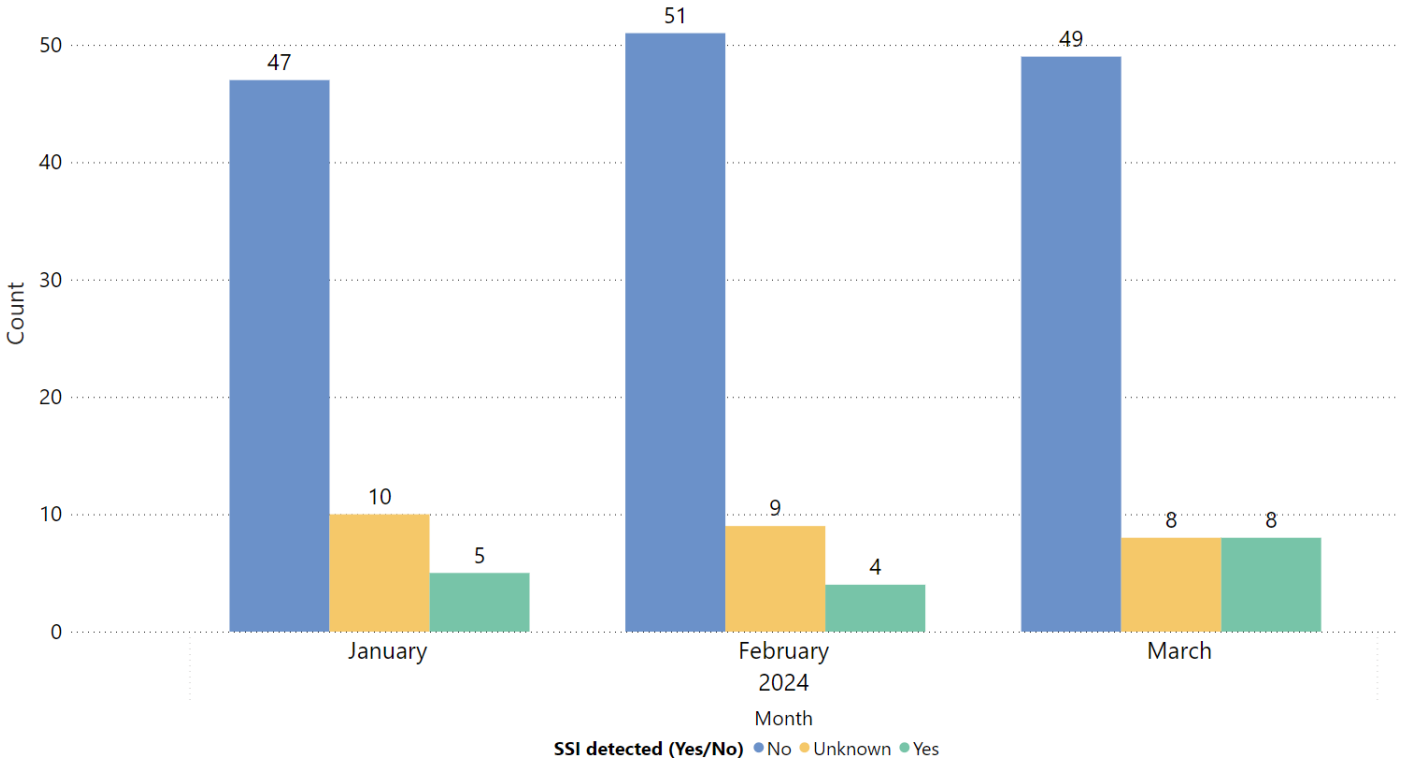
The overall SSI percentage was 15.1% (28/185). There is no mandated SSI data for Caesarean sections for the Trust to compare itself against.

Figure showing the number of Caesarean sections patients in quarter three by SSI detection.



The overall SSI percentage was 10.7% (18/169). There is no mandated SSI data for Caesarean sections for the Trust to compare itself against.

Figure showing the number of Caesarean sections patients in quarter four by SSI detection.



The overall SSI percentage was 8.9% (17/191). There is no mandated SSI data for Caesarean sections for the Trust to compare itself against.

The results in the above table shows the SSI patients who responded to the questionnaires.

3.3 Meticillin Resistant *Staphylococcus aureus* Blood Stream Infections (MRSA)

Staphylococcus aureus is an organism harmlessly carried on the skin by around 1 in 30 of the healthy population and remains endemic in many UK hospitals. The transmission of MRSA and the risk of MRSA infection (including MRSA Bacteraemia) can only be addressed effectively if measures are taken to identify MRSA carriers as potential sources of infection and treating them to reduce the risk of transmission. Guidance is in place regarding the screening of our patients for MRSA for both emergency and elective admissions at DGFT. In addition, DGFT have processes in place to ensure isolation of patients colonised with MRSA, following the national guidance.

Infection associated with indwelling medical devices, particularly intravascular devices, is a major cause of morbidity and occasionally, mortality.

The Trust comply with national guidance to reduce the risk of blood stream infection and have systems in place for:

- The management and care of devices
- Antimicrobial prophylaxis
- Compliance with national guidance

There have been 2 cases of MRSA bacteraemia identified in total in the local Health Economy. For the cases that were identified as pre-48-hour cases, (Admitted within 48 hours of the positive result being identified), investigations were carried out by the ICB and DMC and actions identified. For the

period covered by this annual report there has been two cases of post 48-hour MRSA bacteraemia. Post infection reviews (PIR) were carried out and the investigations concluded that both cases were unavoidable. Actions from the PIR were identified and disseminated to staff.

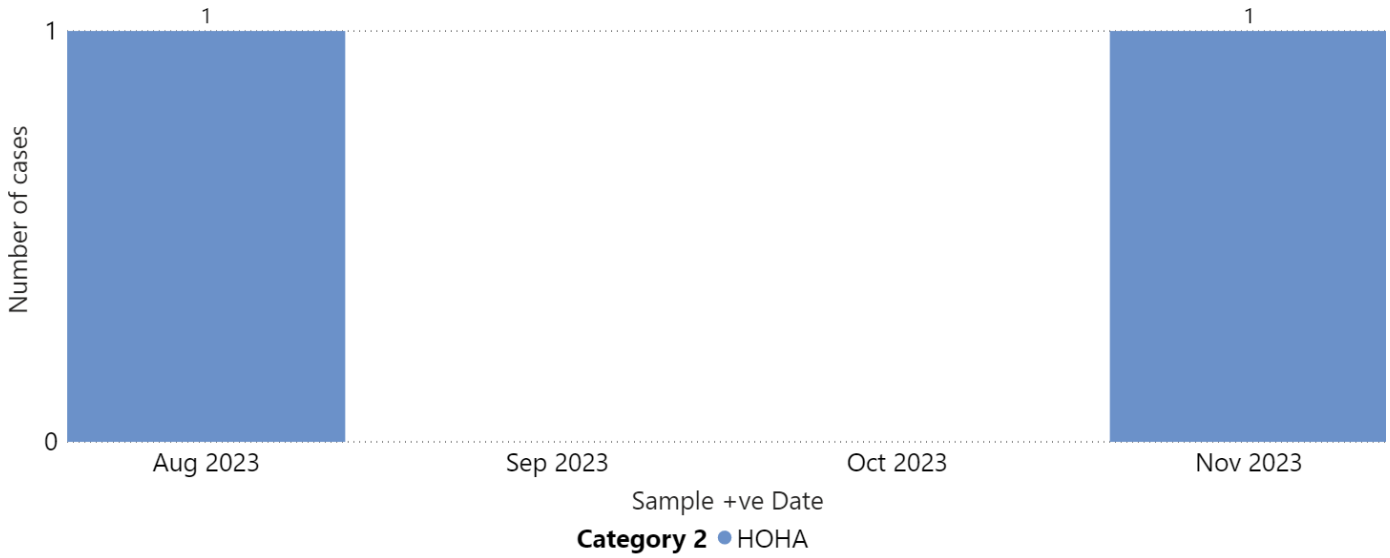
MRSA compliance is monitored against the monthly ward compliance for MRSA in order to identify any missed screening opportunities and investigate reasons for this occurrence. The areas with the lowest screening compliance are identified as areas where a small number of screens have been completed.

Cannulation training continues to be provided via the clinical skills nursing team with competency assessments carried out on ward areas. Saving lives audits are undertaken by the lead nurse on the ward areas with some peer reviews in operation to cross reference locally reported scores to ensure assurance.

Actions from the RCA's are completed and monitored through the division and Governance forums.

Epidemiological analyses of *Staphylococcus aureus* bacteraemia data

Figure showing all MRSA bacteraemia cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	0	0
May 2023	0	0
June 2023	0	0
July 2023	0	0
August 2023	1	1
September 2023	0	0
October 2023	0	0
November 2023	1	1
December 2023	0	0
January 2024	0	0
February 2024	0	0
March 2024	0	0
Yearly Total to Date	**2**	**2**

Figure showing Health Economy Total MRSA bacteraemia cases in 2023-2024 compared to 2022-2023.

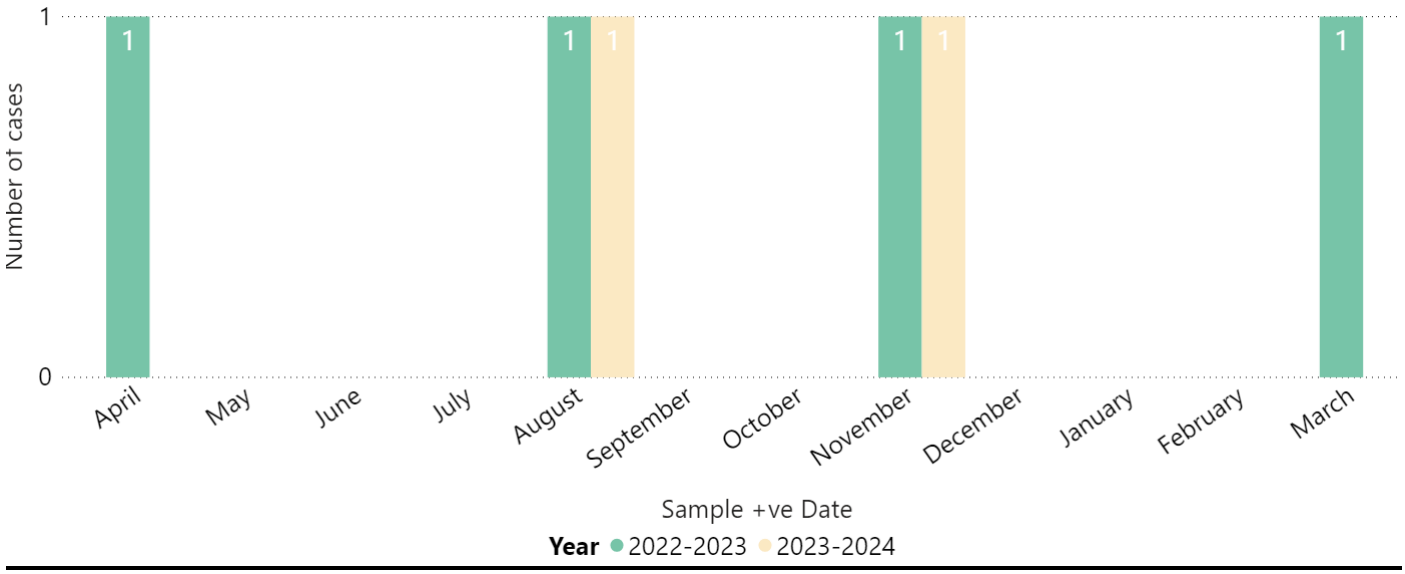


Figure showing quarterly counts of all reported MRSA bacteraemia: April 2007- March 2024 by quarter

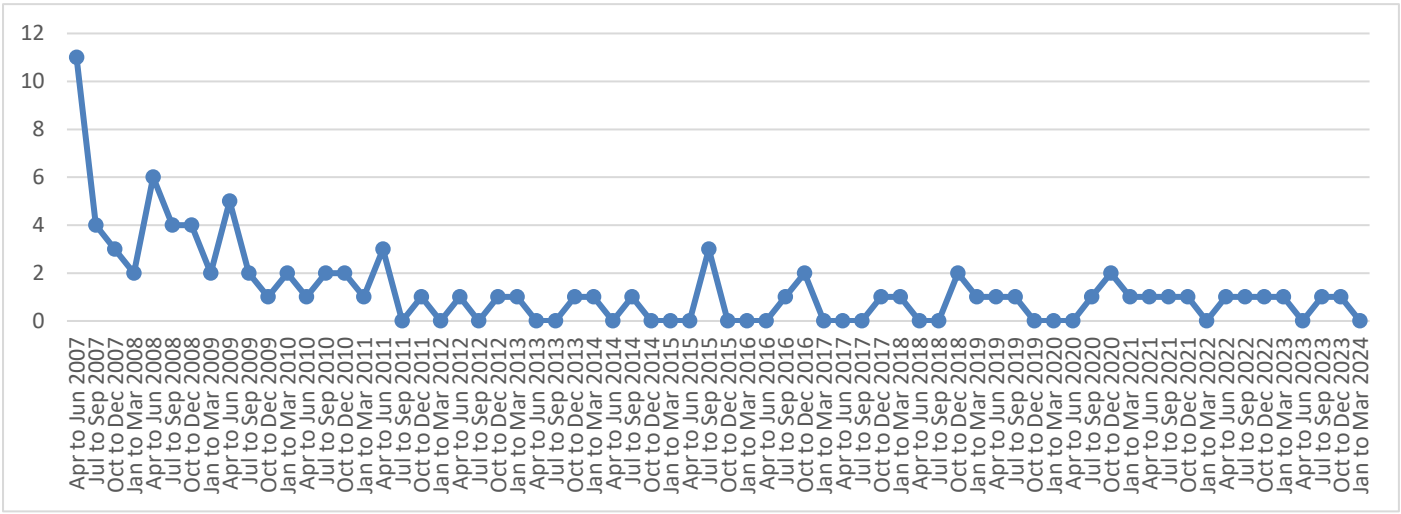
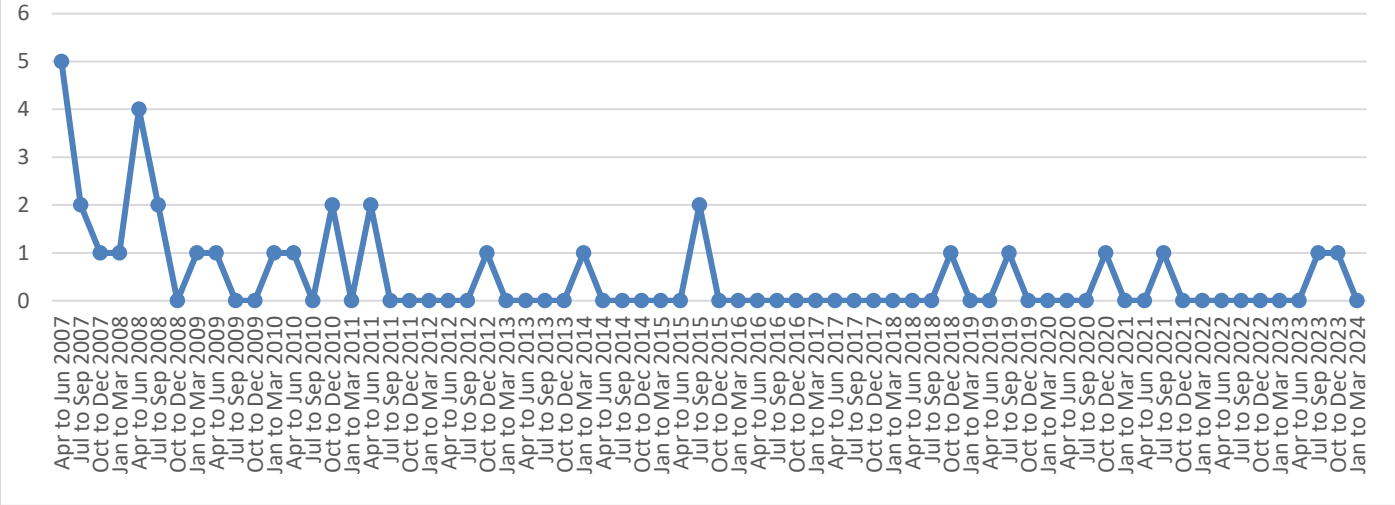


Figure showing quarterly counts of all hospital-onset MRSA bacteraemia: April 2007- March 2024 by quarter



DGFT is in line with the national performance when compared to peers across England.

There has been a considerable decrease in the incidence rate of all reported MRSA. bacteraemia since the enhanced mandatory surveillance of MRSA bacteraemia began in April 2007.

Rates of MRSA bacteraemia peaked in 2007/08 when surveillance first started with 20 cases reported. A decrease was seen over time, with 2 cases reported in 2023/24. This is a 90% decrease. The number of MRSA cases reported in 2023/24 was half of what was reported in the previous year.

At its peak (2007/2008) MRSA bacteraemia's accounted for approximately 40% of all *Staphylococcus aureus* bacteraemia cases in England nationally.

The objective to achieve at DGFT is a target of zero cases of post 48-hour MRSA bacteraemia cases.

3.4 Meticillin Sensitive *Staphylococcus aureus* Blood Stream Infections (MSSA)

Meticillin-sensitive *Staphylococcus aureus* (MSSA) is a type of bacterium which lives harmlessly on the skin and in the noses, in one third of people. People who have MSSA on their bodies or in their noses are said to be colonised.

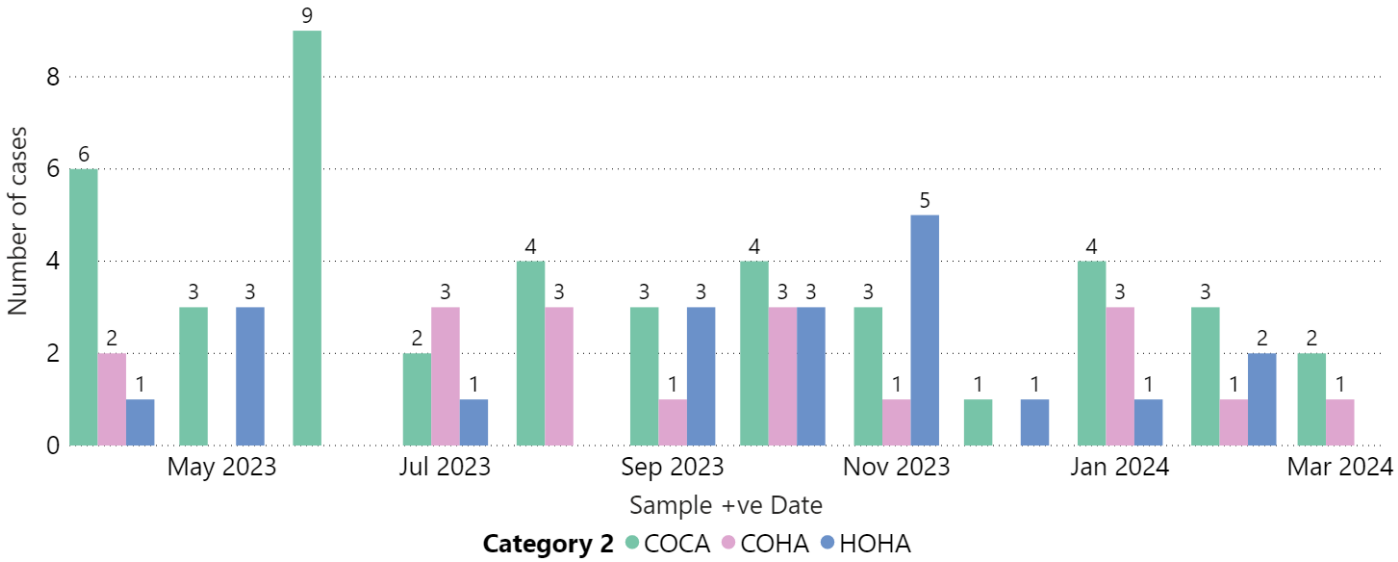
MSSA colonisation usually causes no problems but can cause an infection when it enters into the body. This is more likely to happen in people who are already unwell. MSSA can cause local infections such as abscesses or boils and it can infect any wound that has caused a break in the skin e.g., Grazes, surgical wounds.

MSSA can cause serious infections called septicaemia (blood poisoning) or a blood stream infection where it gets into the bloodstream.

Following a Secretary of State announcement on 5 October 2010, there was a mandatory requirement for all NHS acute trusts to report MSSA bacteraemia. This applied to all cases

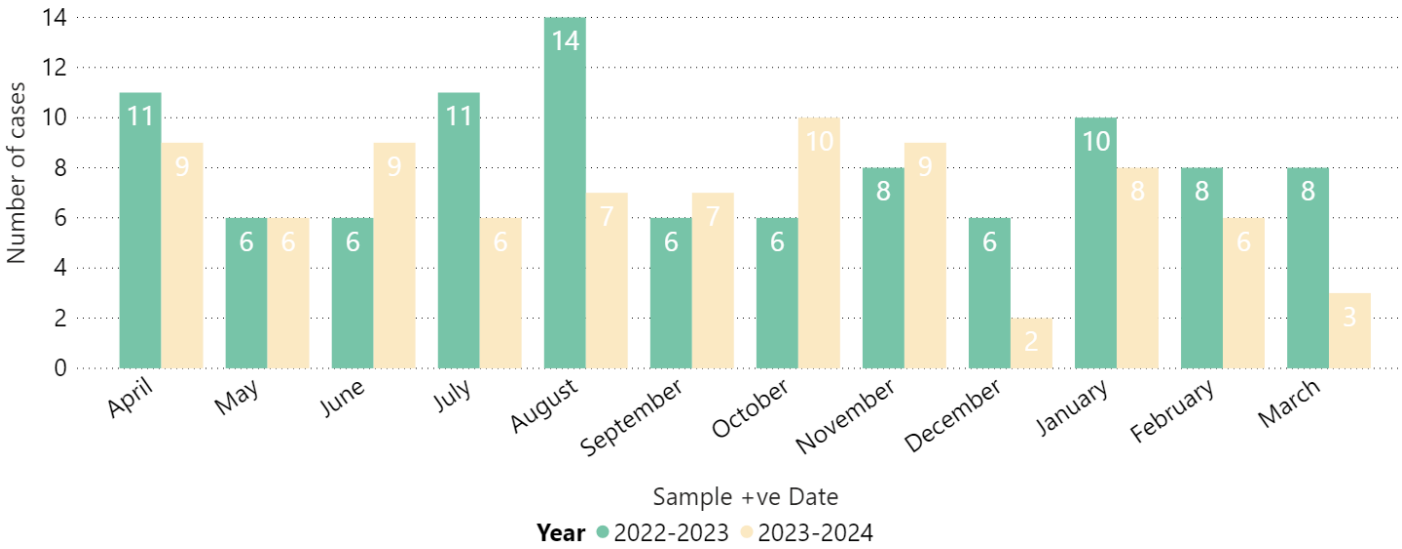
diagnosed after 1 January 2011.

Figure showing all MSSA bacteraemia cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	1	9
May 2023	3	6
June 2023	0	9
July 2023	1	6
August 2023	0	7
September 2023	3	7
October 2023	3	10
November 2023	5	9
December 2023	1	2
January 2024	1	8
February 2024	2	6
March 2024	0	3
Yearly Total to Date	**20**	**82**

Figure showing Health Economy Total MSSA bacteraemia cases in 2023-2024 compared to 2022-2023.



Common themes identified following patient review include chronic leg ulcers, infective endocarditis. Lower respiratory tract infections and infective dermatitis with many of the cases identified having underlying disease prior to admission. MRSA screening compliance, including wounds is discussed through the divisions monthly in order to review missed screening compliance and identify any gaps in compliance.

3.5 *Clostridiodes difficile* (Previously Referred to as *Clostridium difficile*) Infection (CDI)

*Clostridioides difficile (*CDI) reporting for 2019/20 year has aligned the UK definitions with international descriptions of disease.

These changes meant that additional patients would be included in the group of patients that the trust is required to investigate. The patients who will be included are categorised in the following groups:

1. Hospital Onset Healthcare Associated (**HOHA**): cases that are detected in the hospital two or more days after admission.

2. Community Onset Healthcare Associated (**COHA**): cases that occur in the community or within two days of hospital admission when the patient has been an inpatient in the Trust reporting the case, within the previous 4 weeks.

For patients in group 2 (COHA), diagnosed in the community or on admission to DGFT but with a previous admission the Infection Prevention and Control Team will lead the RCA.

During 2023/2024, the number of cases that occurred were:

- 37 Hospital Onset Healthcare Associated (HOHA)
- 37 Community Onset Healthcare Associated (COHA)

All cases of CDI were discussed across the health economy using the national apportionment tool. To address issues that were identified, the clinical teams were required to develop action plans which were then monitored locally and via reports submitted by the divisions to the Infection Prevention and Control Group. RCA meetings involving external partners and an internal scrutiny panel were reviewed in February when the new PSIRF was introduced to review CDI cases.

All CDIs are scrutinised to ensure correct antibiotic prescribing.

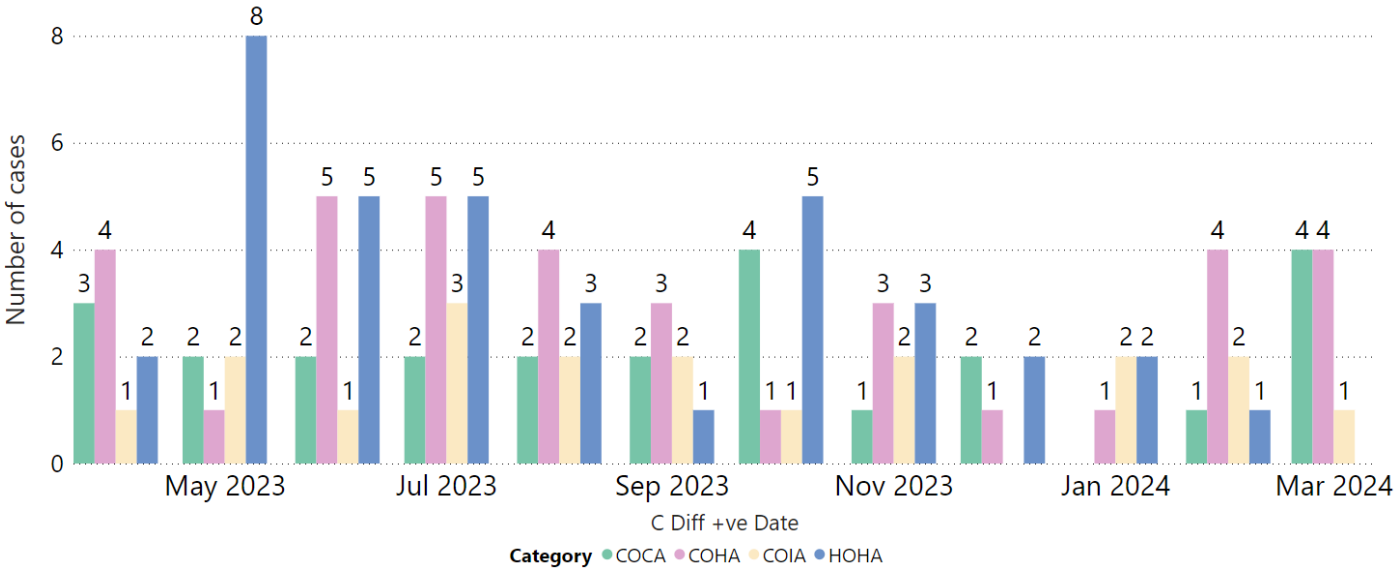
All data is forwarded to NHSE and UK HSA via the data capture system.

A deep dive was undertaken on all cases to look for any themes and trends but did not identify any specific areas. Themed opportunities for learning identified within CDI reviews from 2023/24 which have been added to the Trust IPC annual programme are: -

- Delay in sampling.
- 'Normal Bowel Habit' documentation
- Mandatory Training completion
- Escalation to IPCT

CDI Apportionment Decisions to Date Hospital onset healthcare associated - April 2023 to March 2024

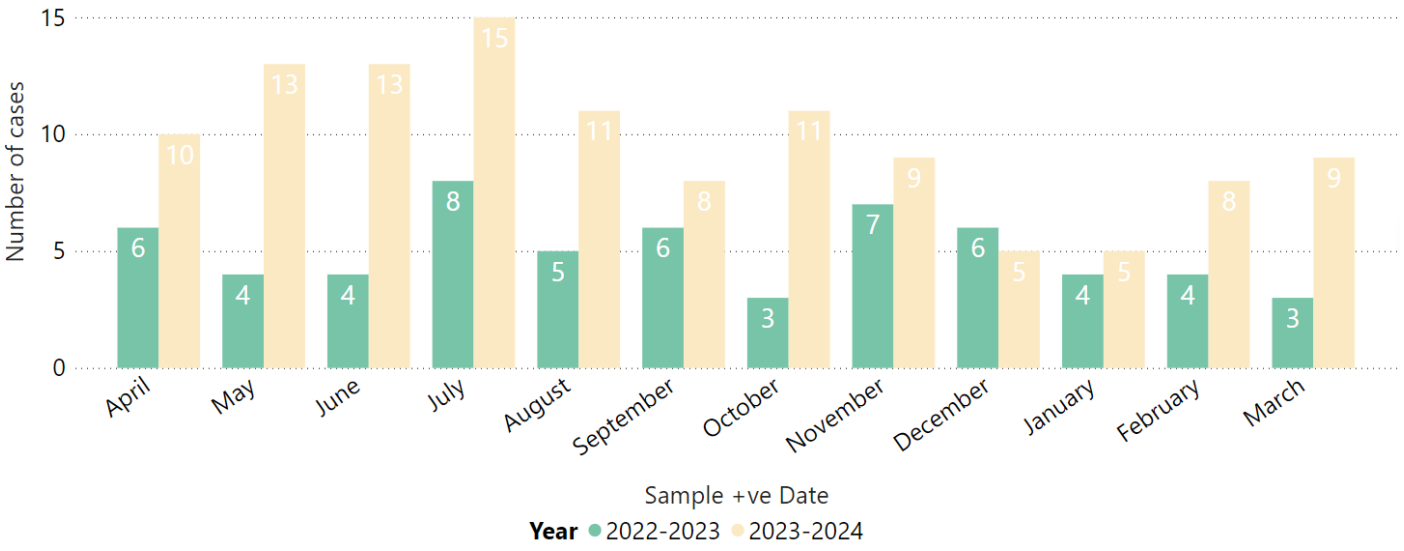
Figure showing all CDI cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	2	10
May 2023	8	13
June 2023	5	13
July 2023	5	15
August 2023	3	11
September 2023	1	8
October 2023	5	11

November 2023	3	9
December 2023	2	5
January 2024	2	5
February 2024	1	8
March 2024	0	9
Yearly Total to Date	**37**	**117**

Figure showing Health Economy Total CDI cases in 2023-2024 compared to 2022-2023.



There have been 37 post 48-hour HOHA cases identified in 2023/2024. The common themes identified have been antimicrobial stewardship and issues relating to mandatory training compliance and samples not being obtained in a timely manner. To assist with the improvement of antimicrobial prescribing, several actions have been initiated to include:

- Executive level reporting to influence change.
- Antibiotic awareness week campaign supported by IPC and Pharmacy teams.
- Patient safety bulletin published online and sent to all staff.
- Weekly CDI virtual ward round with the Trusts Antimicrobial pharmacists to review the medication prescribed and drug interactions.
- Antimicrobial stewardship section in Trust wide Governance newsletter.
- Feedback to the divisions provided via Antimicrobial Stewardship group.
- Quarterly Antimicrobial stewardship report provided monthly to Infection Prevention and Control Group, Drugs and Therapeutics Group & Medicines Management Group.
- Attendance at the ICB CDI Task and Finish group
- The Trust has worked with NHSE to update the CDI information provided to the public and develop an education package and education on CDI.

Further details related to antimicrobial stewardship can be located in the relevant section of this report.

The IPC Team have been involved in a project with NHSE to review and develop new RCA tools to review CDI cases, creation of new literature and resources including CDI pocket cards for nurses and medics detailing the SIGHTED pneumonic and Bristol Stool form chart and CDI severity.

Epidemiological analyses of *Clostridiodes difficile* infection data

Since the initiation of *C. difficile* (CDI) surveillance in April 2007, there has been an overall decrease in the count and incidence rate of both all-reported and hospital-onset cases of CDI.

Since April 2007 there has been a general decrease in the count of all C*. difficile* cases. This trend is also mirrored for all hospital onset *C.difficile* cases. A large part of the decrease in *C.difficile* count occurred between 2007/08 and 2011/12, with a 60% decrease in all reported cases of CDI from 515 cases to 205.

Subsequently, between 2011/12 and 2022/23, the overall count of all-reported cases decreased by 71% from 205 to 60 cases. However, in 2023/24 there was an increase in *C.difficile* cases from 60 to 117 cases.

For hospital onset CDI cases only there has been an 84% decrease in the number of reported cases between 2007/08 and 2023/24, from 238 cases to 37 cases.

Figure showing quarterly counts of all reported CDI: April 2007- March 2024 by quarter

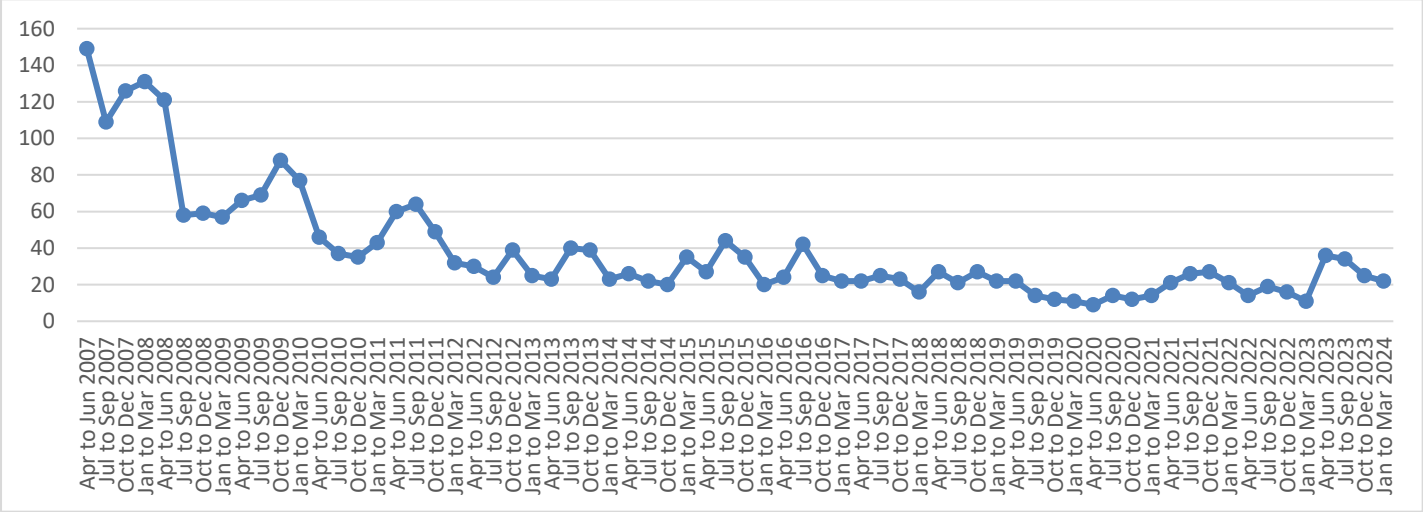


Figure showing quarterly counts of all hospital-onset CDI: April 2007- March 2024 by quarter

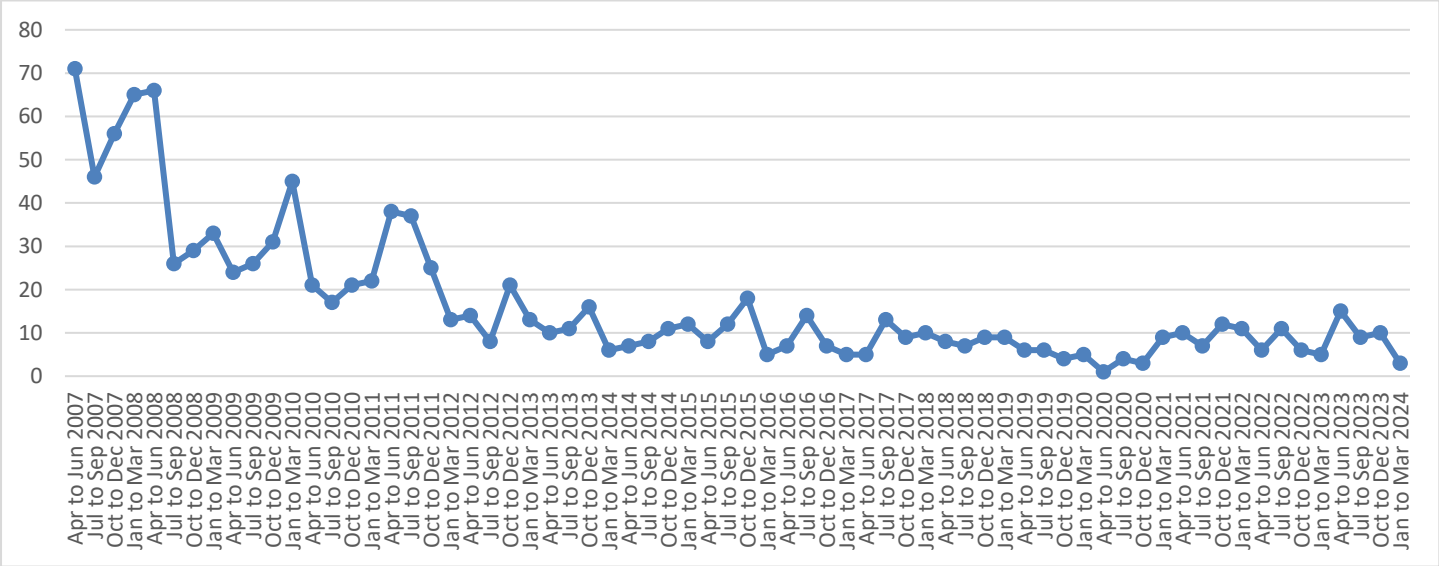
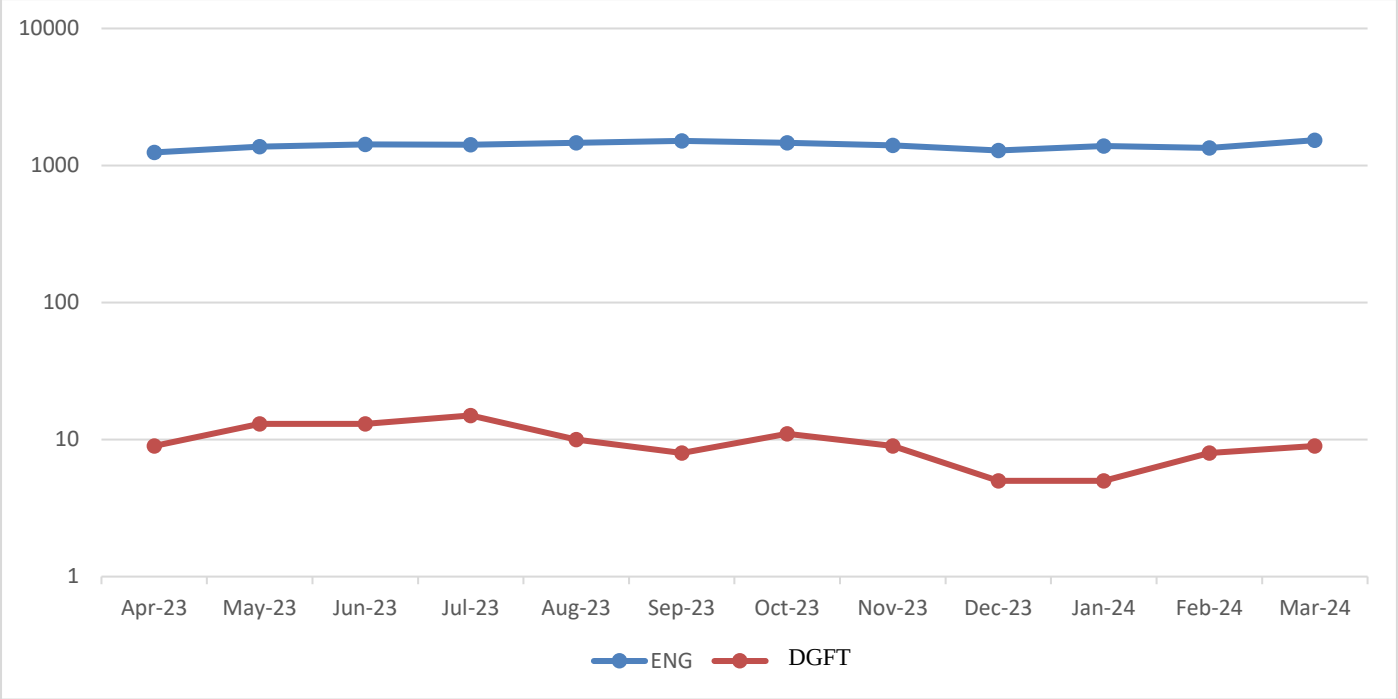


Figure showing DGFT CDI trend compared to national.



3.6 CDI Root Cause Analysis and Investigation

Preventing and controlling the spread of CDI is a vital part of the Trust's quality and safety agenda by a multifaceted approach and the proactive element of early recognition and isolation of CDI toxin positive cases and of those cases that are CDI carriers (GDH positive).

In all cases control measures are instigated immediately. Each HOHA and COHA CDI's have a Root cause analysis completed.

The HOHA cases undergo a Post Infection Review (PIR) scrutiny panel to establish root cause of the infection and any learning outcomes identified. Following this process and review by the ICB/ Dudley Health Board each case is apportioned to identify if any lapses or no lapses in care can be identified. The lapses in care are then plotted against the trust objective for CDI for that year. This is then feedback via reporting mechanisms to the IPCG.

Lessons Learnt

Following review of the PIR completed, common themes have been identified. These include antimicrobial stewardship and appropriateness of antimicrobial prescribing in line with Trust guidelines, timely taking of faecal samples, Environmental Cleaning scores below an overall compliance of 95% and IPC Mandatory training compliance falling below the Trust objective of 90% compliance. All RCA's have an action plan completed with objectives to achieve and a timeframe for completion with all having a matron sign off to ensure this has senior level review. Many of the actions are addressed through divisional governance meetings or teams' meetings with minutes being taken as well as daily staff reminders on the ward in the form of huddle board meetings. Action plans and compliance are then monitored through the divisions.

DGFT closely monitors periods of increased incidents (PII) of patients with evidence of toxigenic *Clostridioides difficile* in any ward or area. The definition of a PII is 2 or more patients identified with evidence of toxigenic *Clostridioides difficile* within a period of 28 days and associated with stay in the same ward or area, each case is reviewed to establish if they can be linked by time and place and identify any common themes. Should this occur samples are obtained and submitted to UK HSA for ribotyping. This helps to identify wards or areas where patient to patient transmission is likely to have occurred, with enhanced focus on control measures and increased cleaning of the patient areas if necessary.

The terminology of *Clostridioides difficile* is not commonly used, therefore further work in terms of communication of this is required to filter down to the wider organisation.

3.7 Gram Negative Blood Stream Infections – Escherichia coli (E.coli)

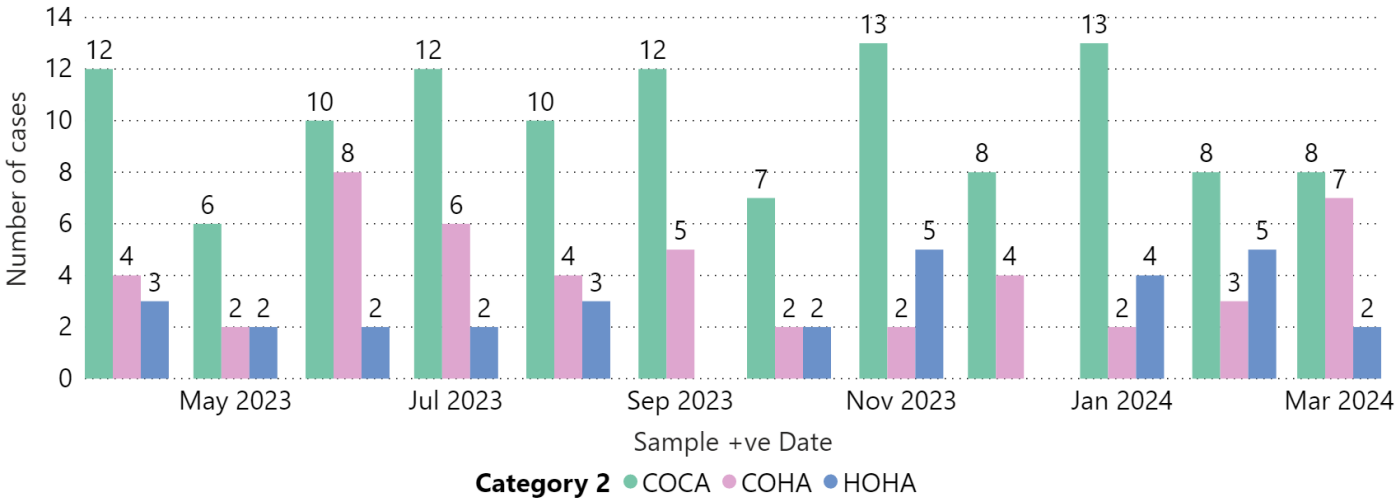
Escherichia coli (E. coli) bacteria are frequently found in the intestines of humans and animals. There are many different types of E. coli, and while some live in the intestine quite harmlessly, others may cause a variety of diseases. The bacterium is found in faeces and can survive in the environment. E. coli bacteria can cause a range of infections including urinary tract infection, cystitis (infection of the bladder), and intestinal infection. E. coli BSI may be caused by primary infections spreading to the blood.

The Secretary of State for Health in 2017 launched an ambition to reduce healthcare associated Gram-negative bloodstream infections (BSIs) by 50% by 2021.

Enhanced surveillance of E. coli BSI has been mandatory for NHS acute trusts since June 2011 and is reported monthly to UK HSA. This is to ascertain themes and trends associated with E. coli bacteraemia within the acute Trust to see where lessons may be learnt. There is work ongoing that is part of the national agenda for health and social care economies to reduce the number of Gram-negative bloodstream infections (BSIs) with an initial focus on *Escherichia coli* (E. coli). To date this has focused on the management of patients with long term urinary catheters and a catheter passport was introduced in conjunction with the ICB and used across Birmingham and the Black Country.

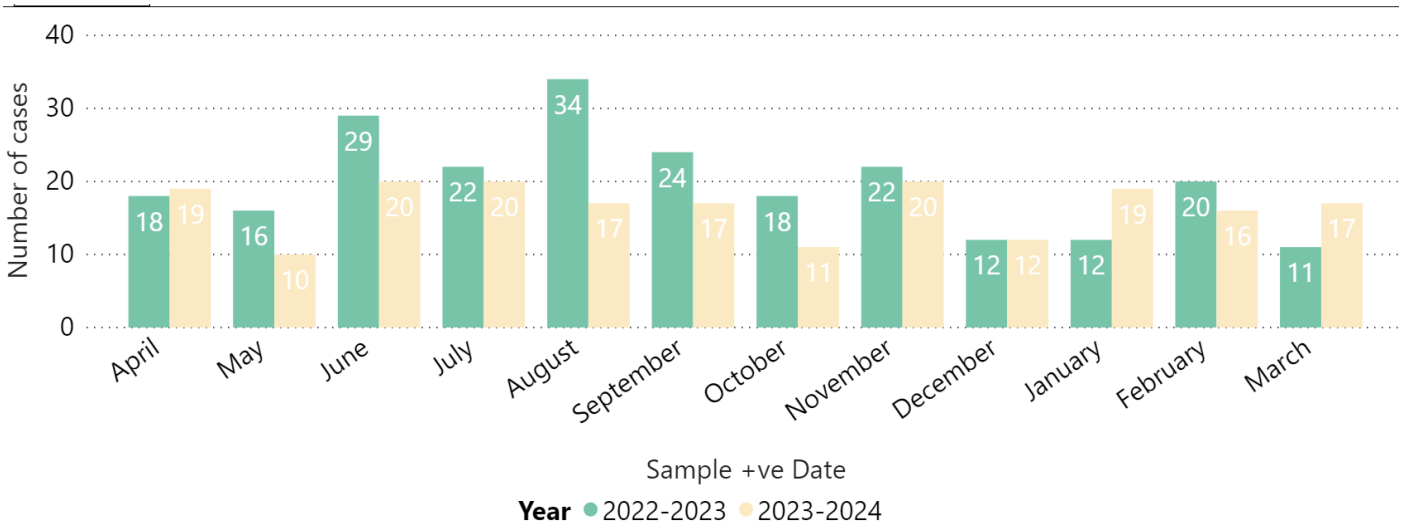
As detailed in the graphs below 198 E. coli infections have been identified with 30 classified as post 48-hour cases. Each post 48-hour case will be reviewed by the IPCT to establish the potential source of the bacteraemia.

Figure showing all E. coli bacteraemia cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	3	19
May 2023	2	10
June 2023	2	20
July 2023	2	20
August 2023	3	17
September 2023	0	17
October 2023	2	11
November 2023	5	20
December 2023	0	12
January 2024	4	19
February 2024	5	16
March 2024	2	17
Yearly Total to Date	**30**	**198**

Figure showing Health Economy Total E. coli bacteraemia cases in 2023-2024 compared to 2022-2023.



***E. coli* bacteraemia**

The incidence rate of all reported E. coli bacteraemia increased each year between the initiation of the mandatory surveillance of E. coli bacteraemia in July 2011 and the start of the COVID-19 pandemic (January to March 2020). This increase was primarily driven by community-onset cases. The number and incidence rates of all reported and community-onset cases declined after the start of the pandemic but remain higher than observed at the start of E. coli surveillance.

In contrast, the count of hospital-onset cases fluctuates during the same period. Between 2011/12 and 2023/24, the count all reported cases of E. coli bacteraemia decreased by 12% from 34 cases to 30.

Figure showing quarterly counts of all reported E. coli bacteraemia: April 2011- March 2024 by quarter

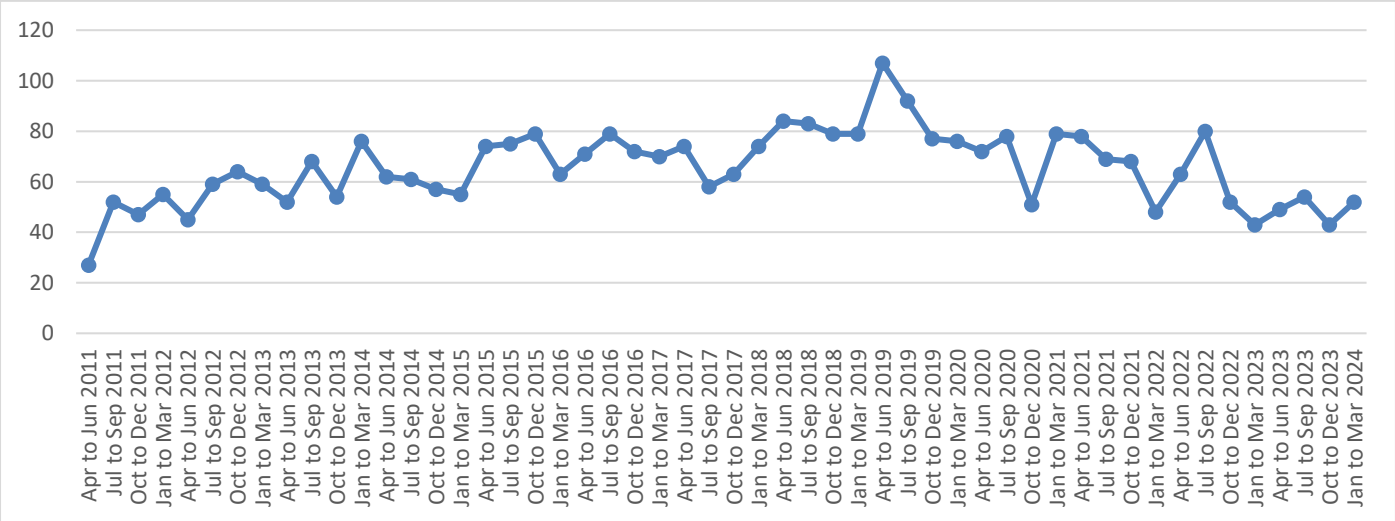
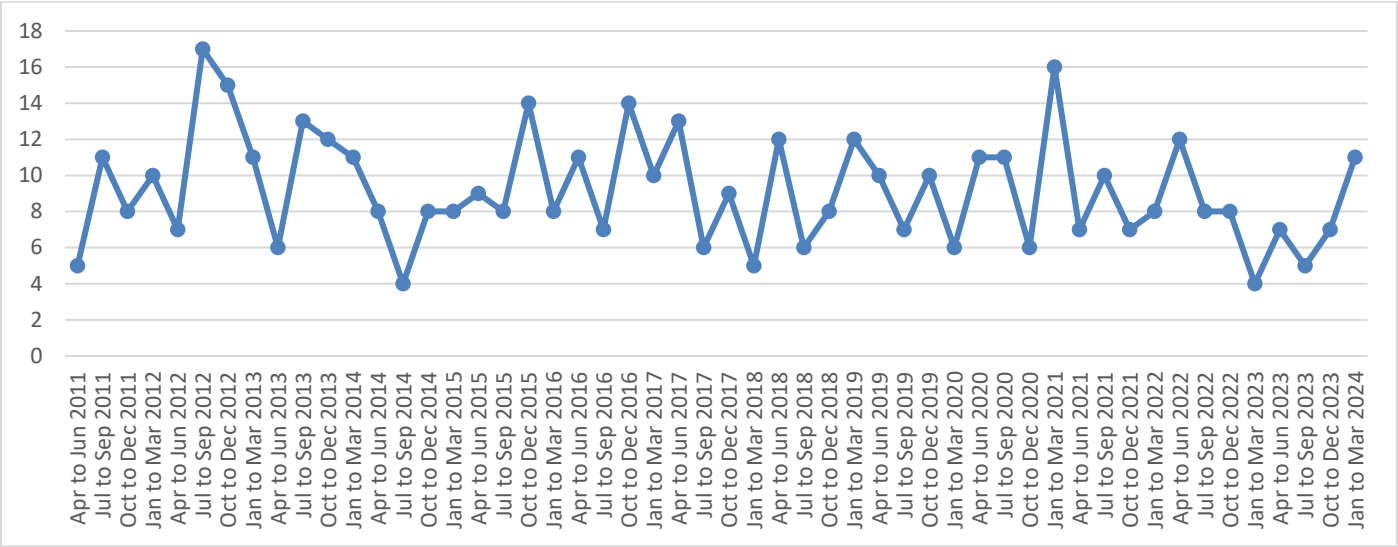


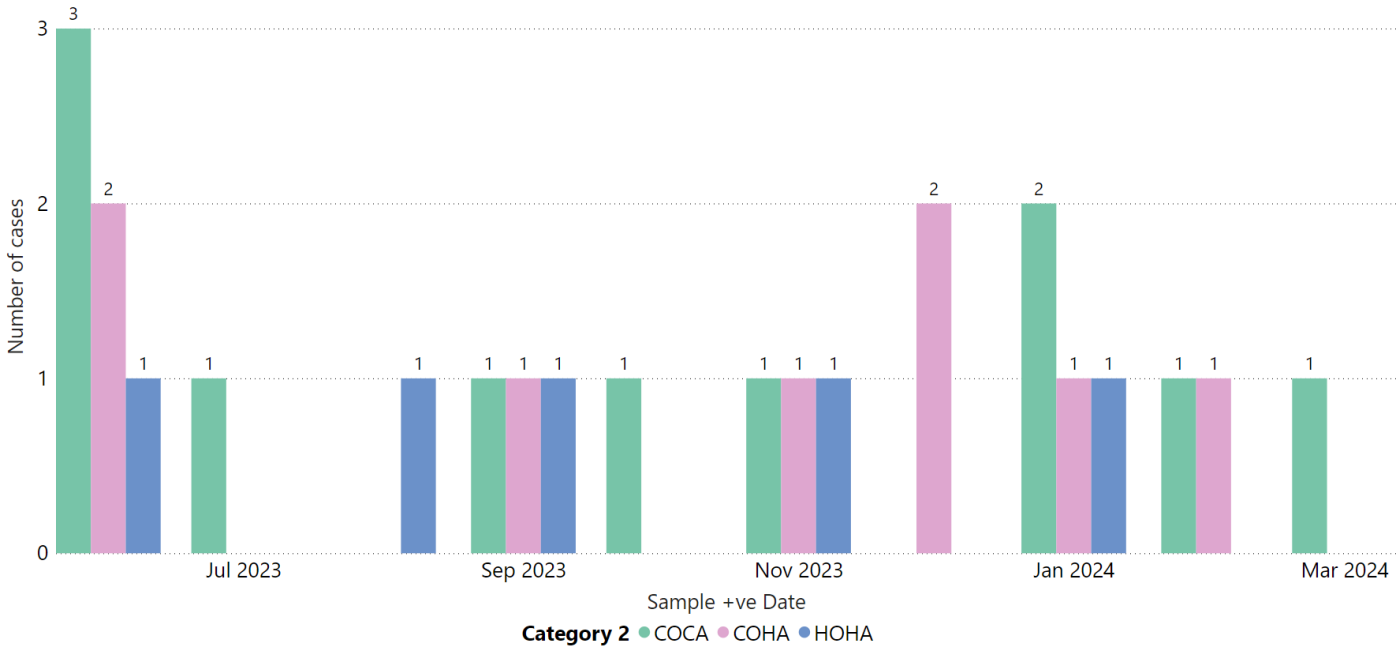
Figure showing quarterly counts of all hospital-onset E. coli bacteraemia: April 2011- March 2024 by quarter



Further work is needed in order to reduce the number of cases reported within DGFT and examples of these include a catheter passport which was introduced in the Trust and across Birmingham and the Black Country which due to issues associated with the COVID-19 pandemic the embedding of this has been fragmented.

3.8 PSEUDOMONAS AERUGINOSA BACTERAEMIA

Figure showing all Pseudomonas bacteraemia cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	0	0
May 2023	0	0
June 2023	1	6
July 2023	0	1
August 2023	1	1
September 2023	1	3
October 2023	0	1
November 2023	1	3
December 2023	0	2
January 2024	1	4
February 2024	0	2
March 2024	0	1
Yearly Total to Date	**4**	**24**

Figure showing Health Economy Total Pseudomonas bacteraemia cases in 2023-2024 compared to 2022-2023.

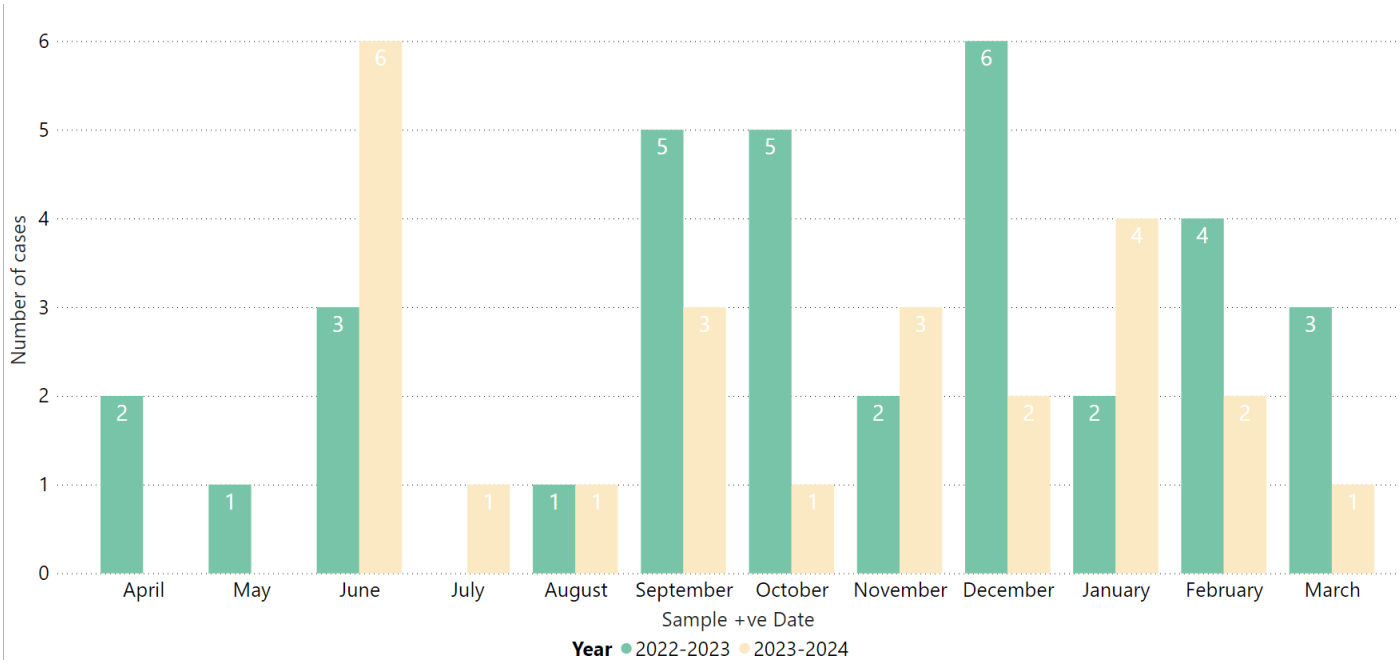


Figure showing quarterly counts of all reported Pseudomonas bacteraemia: April 2017-March 2024 by quarter

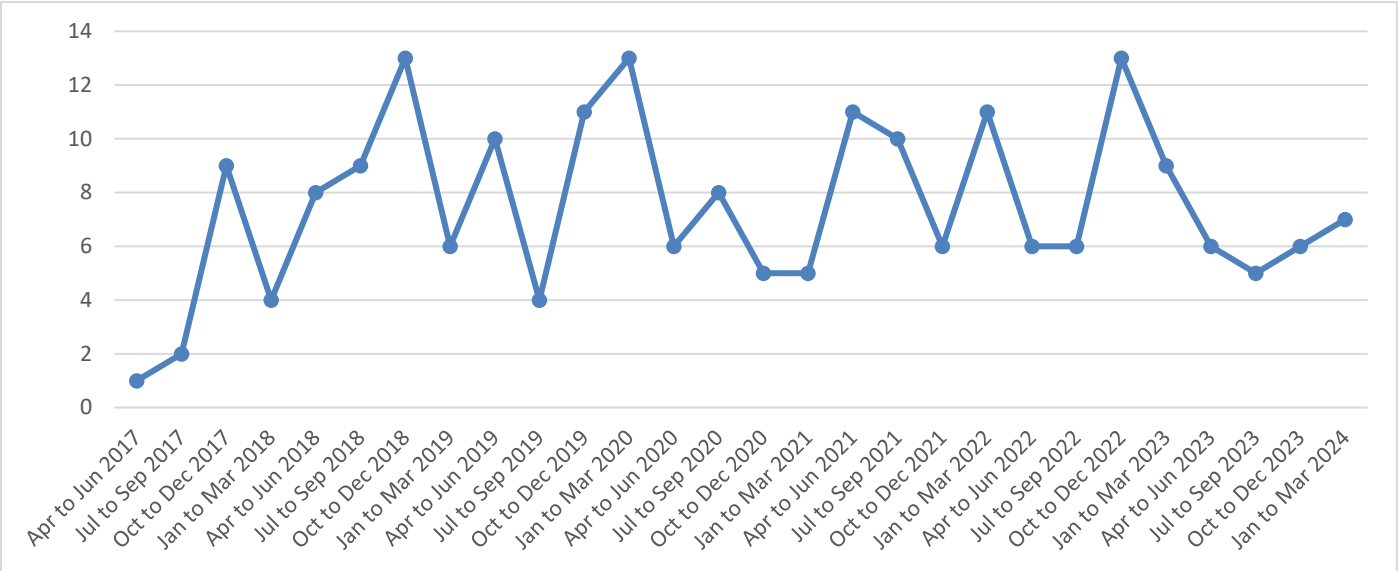
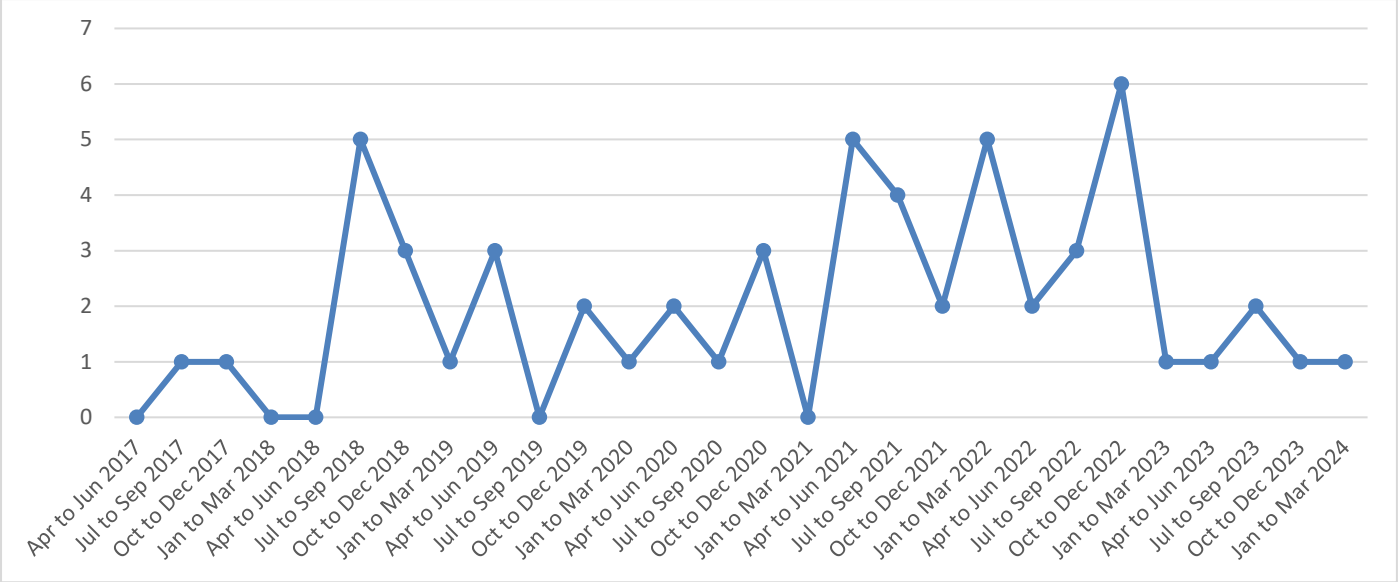
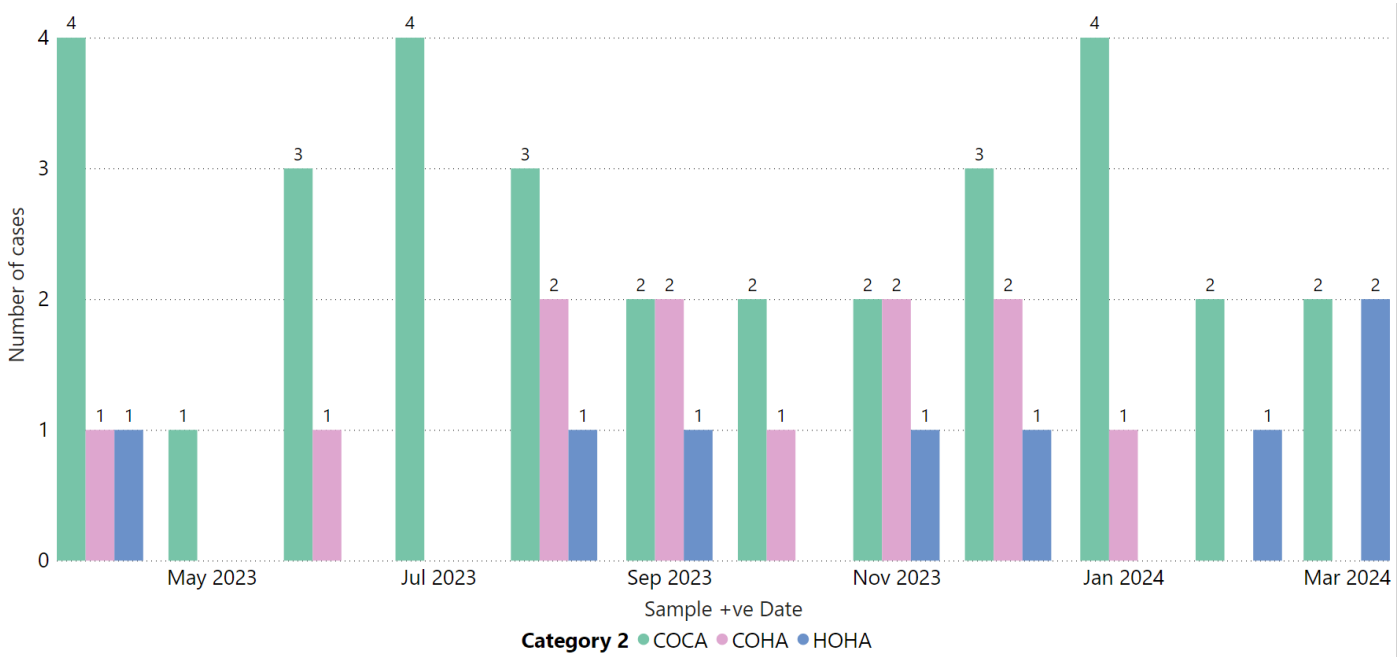


Figure showing quarterly counts of all hospital-onset Pseudomonas bacteraemia: April 2017-March 2024 by quarter



3.9 KLEBSIELLA SPP. BACTERAEMIA

Figure showing all Klebsiella bacteraemia cases since April 2023 by category.



	Trust Apportioned > 48 hours	Health Economy Total
April 2023	1	6
May 2023	0	1
June 2023	0	4
July 2023	0	4
August 2023	1	6
September 2023	1	5
October 2023	0	3
November 2023	1	5
December 2023	1	6
January 2024	0	5
February 2024	1	3
March 2024	2	4
Yearly Total to Date	**8**	**52**

Figure showing Health Economy Total Klebsiella bacteraemia cases in 2023-2024 compared to 2022-2023.

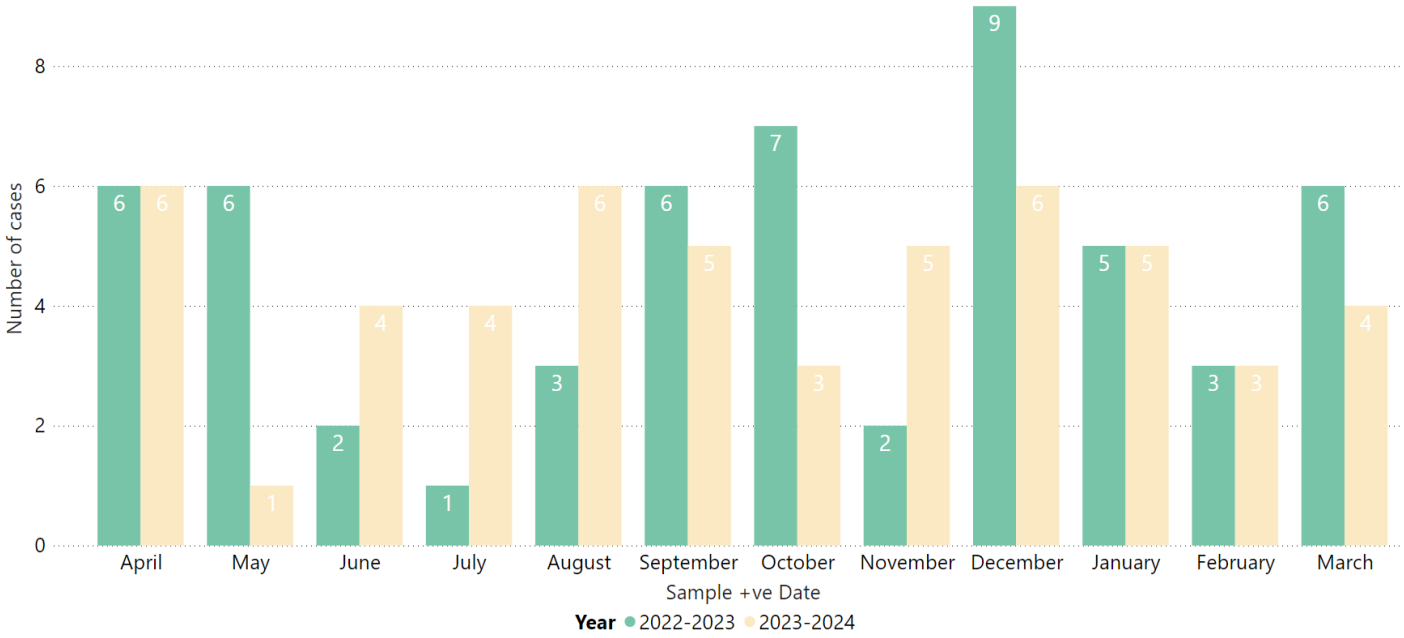


Figure showing quarterly counts of all reported Klebsiella bacteraemia: April 2017- March 2024 by quarter

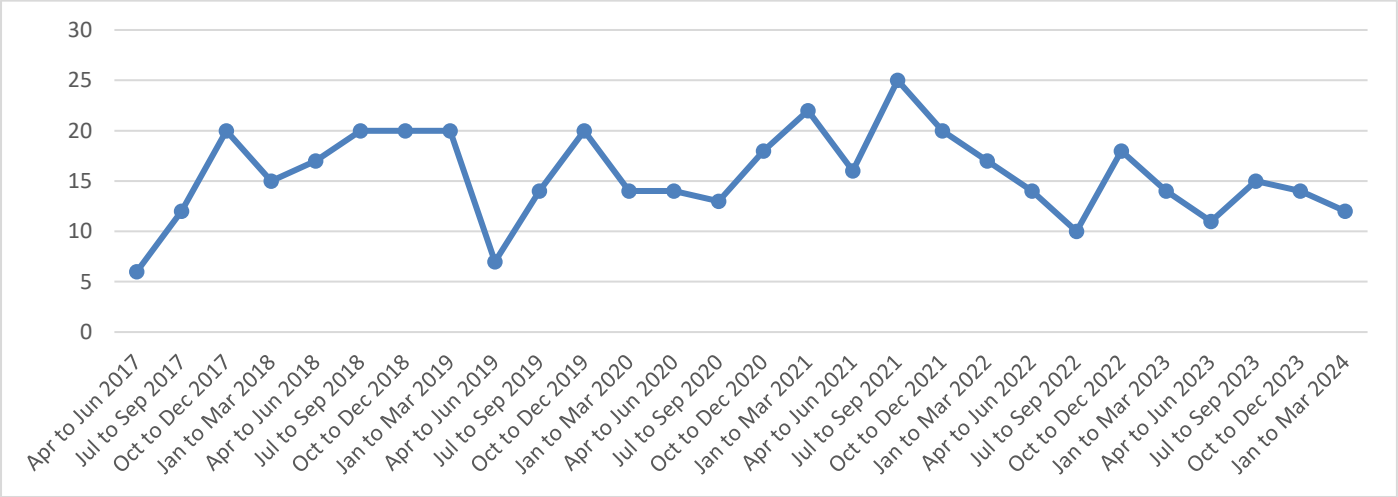
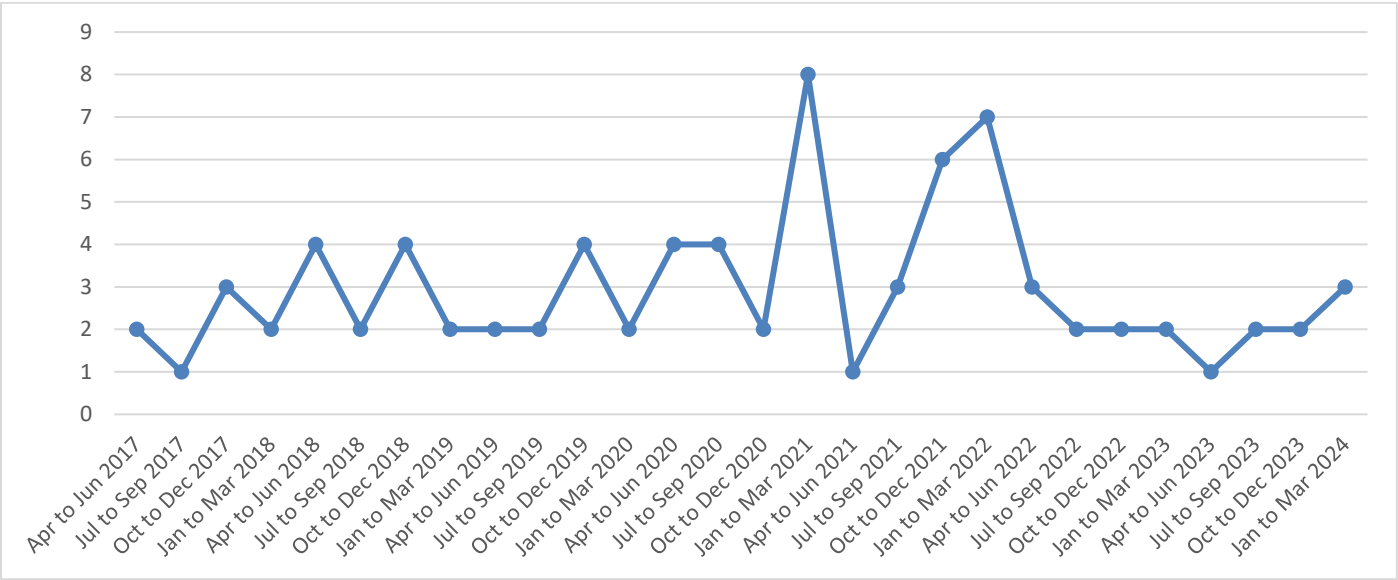


Figure showing quarterly counts of all hospital-onset Klebsiella bacteraemia: April 2017- March 2024 by quarter



3.10 Vancomycin / Glycopeptide Resistant Enterococci (VRE/GRE)

Enterococci are part of the normal bowel flora and can cause urinary tract and blood stream infections.

Vancomycin resistant enterococci (VRE) and Glycopeptide resistant enterococci (GRE) may be found in the healthy population thought to reflect inappropriate use of antibiotics in farming.

Mandatory surveillance was discontinued in 2013.

3.11 *Carbapenemase Producing Enterobacteriaceae* (CPE)

The Enterobacteriaceae are a large family of Gram-negative bacteria including species such as E. coli, Klebsiella species, Proteus species, and Enterobacter species. They live usually harmlessly in the guts of both humans and animals. They are opportunistic pathogens, capable of causing urinary tract infections, abdominal infections, and bloodstream infections (UK HSA 2013). The trust has a CPE policy in place and undertakes screening if criteria is met.

Some of these bacteria develop resistance to antibiotics through various mechanisms, one of them being the ability to produce an enzyme called Carbapenemase which is capable of destroying the β-lactam ring, an essential component of β-lactam antibiotics. The Carbapenemase enzyme makes these organisms resistant to multiple antibiotics, hence the options of treating infections caused by CPE is limited. Antibiotic resistance is a major Public Health concern and stringent Infection Prevention, and Control precautions need to be instigated and maintained to reduce the spread of these organisms.

UK HSA published a toolkit in 2013 to control the spread in healthcare and onwards in the community.

DGFT identified two cases of CPE during the time period covered by the report.

The Trust has identified a risk relating to CPE testing. This is due to lab capacity, meaning that the Trust are unable to screen every patient for CPE following the latest guidance. It was noted that currently every patient is risk assessed to identify whether they meet the criteria for testing. This risk is similar to all Trusts in the Black Country and the Trust is awaiting a system wide agreement for CPE screening.

It was noted that currently faecal specimen screening is carried out for those patients who do not consent to rectal screening. This will not be able to be offered going forward as the new BCPS service is unable to accommodate this screening.

This is noted as a risk on the Trust risk register and also on the ICB risk register.

DGFT has a CPE policy in place.

3.12 Norovirus

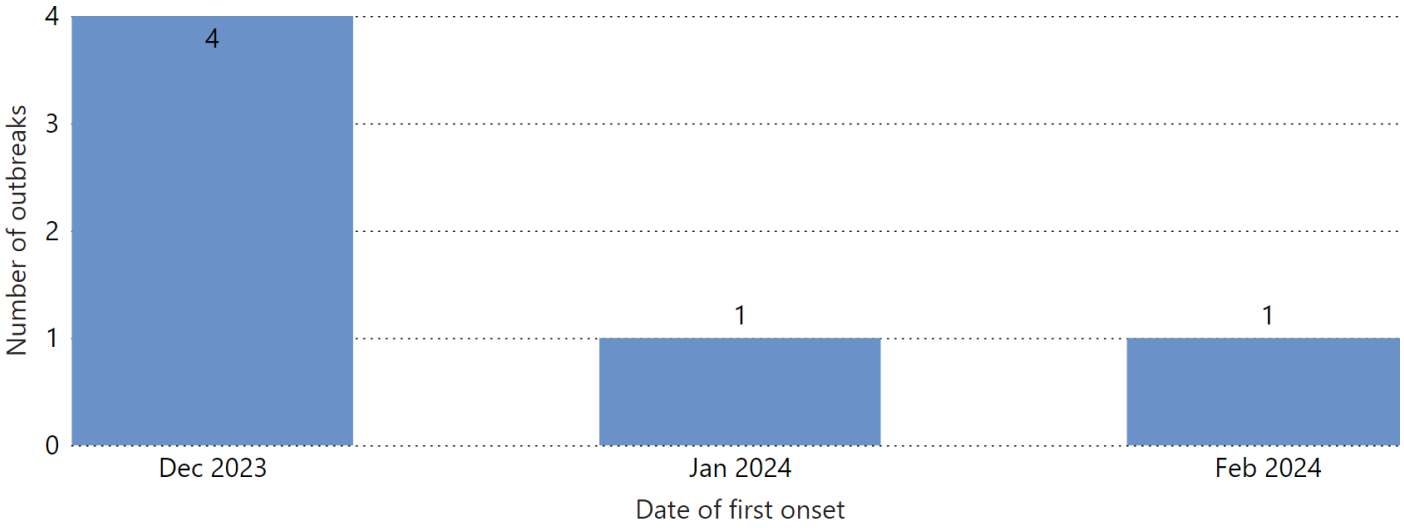
Norovirus is defined as an abrupt explosive onset of profuse watery diarrhoea which may be accompanied by projectile or violent vomiting. Several cases may occur on the ward within hours. If this occurs the ward must gather information about the patient's affected, this infection is known to be highly infectious. The virus is easily transmitted through contact with infected individuals from one person to another or environmental contamination. In hospital this environmental risk is considerable, and outbreaks are common.

Management relies on prompt recognition of symptoms, robust isolation, and IPC procedures as well as enhanced environmental cleaning within the area affected.

For the period covered in this report DGFT had 52 confirmed cases of Norovirus and outbreaks.

Norovirus was prevalent throughout the local community through December to March. All outbreaks are reported to UKHSA, and internal meetings were held to review. Lessons learned were disseminated throughout the Trust.

Figure showing all Norovirus outbreaks since April 2023 by month.



3.13 COVID-19

Hospital Acquired COVID-19 Data.

620 individuals were tested positive for COVID-19 from April 2023 to the March 2024 at The Dudley Group.

In November 2020 UK HSA / NHSE requested that each acute Trust submit a daily return identifying confirming positive cases, this was discontinued on the 1 April 2024.

Contact Tracing Evidence

In line with trust policy all patients who test positive for COVID-19 are informed if appropriate. All cases are investigated and contact tracing undertaken this includes notifying any potential contacts of exposure to isolate as per national guidance.

COVID-19 Outbreaks

Once outbreak areas have been identified within the trust, reviews are undertaken to find potential themes/issues behind the outbreak occurring. Audits are undertaken by a member of the IPC team to identify compliance and where necessary action plans are devised to prevent any further occurrences. Our Estates departments have been responsive in enabling the zoning of departments within wards in response to demand to enable segregation of patients.

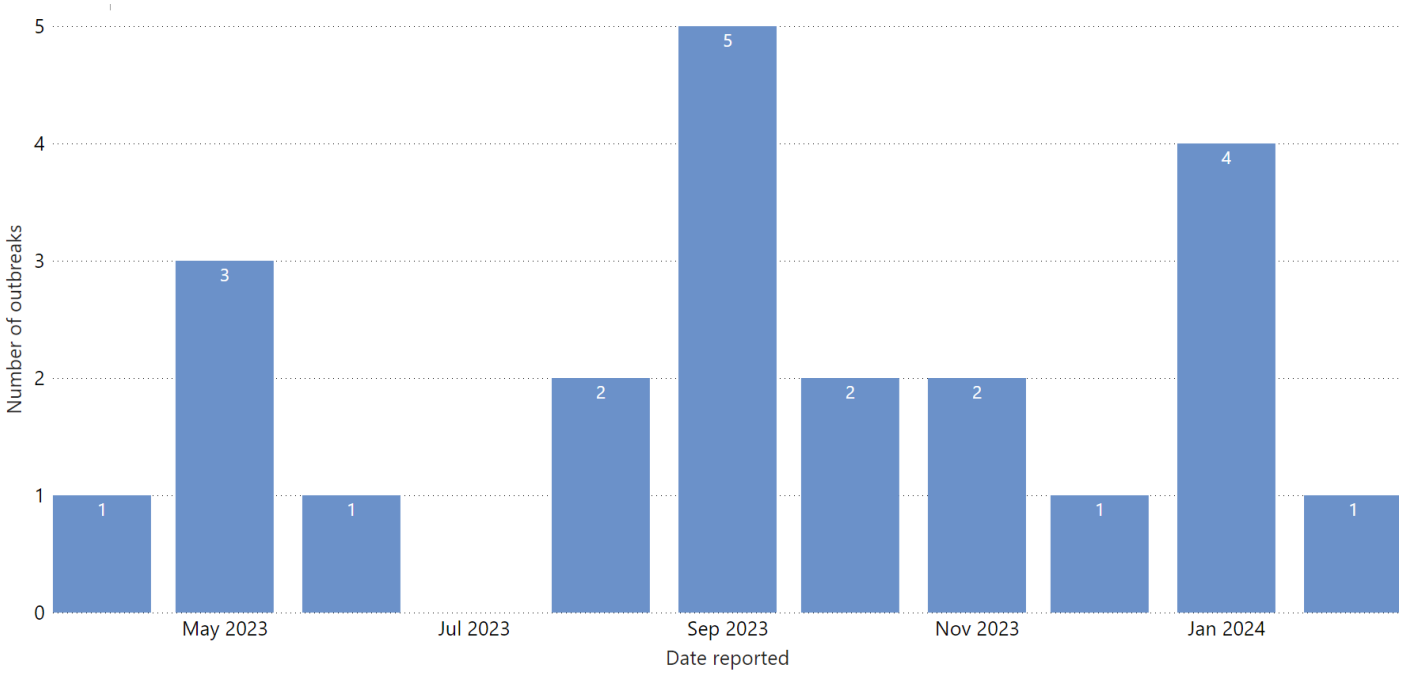
Clinical practice audits including hand hygiene, Matron peer review and Environmental audits are completed and compliance scores for each ward are collated. Where improvements are required,

advice is provided by the IPC team to the wards to facilitate an improvement in their overall compliance. By reviewing areas, risks and non-compliance can be identified to limit the potential of outbreaks occurring within the trust.

Since April 2023 there have been a total of 22 outbreak areas relating to COVID-19 within the Trust where 2 or more cases tested positive on the same ward or area that can be linked by time and place. Meetings are arranged with external partners where necessary, and actions identified. All outbreaks are recorded on the OTKA NHSE database.

The Dudley Group NHS Foundation Trust COVID-19 Outbreak Overview:

Figure showing all COVID-19 outbreaks since April 2023.



3.14 Audit Programme

The DGFT has a programme of audits in place undertaken on all clinical areas and outpatients' departments. The IPC Team provide assurance against consistent compliance with evidence-based practice and policies. Each audit completed creates an action plan for review and completion by the ward teams. All Environmental audits are recorded on AMaT, and an electronic action plan is generated.

These audits are undertaken quarterly to ensure all wards and departments receive monitoring to provide assurance that improvements are being made.

Where a period of increased incidence (PII) occurs, risks are identified and the IPC Team undertakes additional audits in accordance with risk requirement, this will be daily initially with an increase to weekly once an improvement and consistency in scores has been identified.

Action plans are developed by the clinical areas, and these are managed and monitored within the divisions and escalated to IPCG and upwardly reported through the DGFT Governance structure.

High Impact Interventions

High Impact Interventions relate to key clinical procedures or care processes based on evidence-based approach.

The High Impact Interventions are:

- HII 1 – Ventilator Associated Pneumonia
- HII 2a – Peripheral Vascular Access Devices (Insertion)
- HII 2b – Peripheral Vascular Access Devices (Ongoing Care)
- HII 3a – Central Venous Access Devices (Insertion)
- HII 3b – Central Venous Access Devices (Ongoing Care)
- HII 4a – Surgical Site Infection Prevention (Preoperative)
- HII 4b – Surgical Site Infection Prevention (Intraoperative Actions)
- HII 5 – Infection Prevention in Chronic Wounds
- HII 6a – Urinary Catheter (Insertion)
- HII 6b – Urinary Catheter (Maintenance and Assessment)

The clinical nursing team's complete self-assessment practice audits across each ward area and look at the elements of the high impact interventions applicable to their area. Below is an outline of the performance broken down by month for each of the elements highlighted.

DGFT OVERALL SCORES 2023-2024

Interventions		Quarter 1			Quarter 2			Quarter 3			Quarter 4		
		4-23	5-23	6-23	7-23	8-23	9-23	10-23	11-23	12-23	1-24	2-24	3-24
HII 1:	Ventilator Associated Pneumonia	90.0%	100.0%	100.0%	90.0%	75.0%	60.0%	80.0%	75.0%	80.0%	100.0%	90.0%	83.3%
HII 2a:	Peripheral Vascular Access Devices - Insertion	93.2%	93.7%	96.1%	97.2%	95.8/%	96.1%	98.3%	95.9%	89.0%	97.9%		
HII 2b:	Peripheral Vascular Access Devices - Ongoing care	91.9%	91.4%	93.2%	94.7%	92.7%	91.5%	95.6%	91.1%	90.1%	95.5%		
HII 3a:	Central Venous Access Devices - Insertion	100.0%	100.0%	80.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HII 3b:	Central Venous Access Devices - Ongoing Care	100.0%	100.0%	92.9%	100.0%	94.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.1%
HII 4a:	Surgical Site Infection Prevention - Preoperative	100.0%	96.3%	94.4%	94.7%	100.0%	100.0%	100.0%	100.0%	100.0%	88.9%	100.0%	100.0%
HII 5:	Infection Prevention in Chronic Wounds	91.7%	96.4%	100.0%	87.5%	94.1%	97.2%	100.0%	94.7%	100.0%	100.0%	97.0%	95.8%
HII 6a:	Urinary Catheter - Insertion	96.2%	98.6%	97.9%	100.0%	96.9%	98.6%	100.0%	94.9%	98.9%	97.4%		
HII 6b:	Urinary Catheter - Maintenance & Assessment	98.9%	98.9%	99.2%	98.1%	87.0%	94.5%	95.6%	92.8%	84.3%	96.9%		
High Impact Interventions Monthly Overall		95.8%	97.3%	94.9%	95.8%	82.3%	93.1%	96.6%	93.8%	93.6%	97.4%	54.1%	52.9%
Hand Hygiene		97.8%	99.4%	98.4%	95.6%	99.1%	97.8%	96.2%	87.8%	100.0%	99.0%	97.8%	98.9%
Commode Audits		98.5%	99.4%	98.1%	79.6%	99.2%	91.9%	91.4%	88.9%	77.8%	97.2%	95.3%	91.8%
Cleaning Scores													

Clinical practice audits have been commenced by the IPC Team to monitor compliance of key infection control issues across the wards and departments such as environmental cleanliness, hand hygiene compliance, equipment monitoring and sharps compliance.

Savings lives audits are reported and presented to the IPCG meeting via the Divisional Report, area of noncompliance, missing data and red areas are discussed, and action plans taken toward.

3.15 Hand Hygiene Audits

The DGFT introduced the 5 moments of hand hygiene tool in March 2021 which focuses on opportunities and performance of hand hygiene across a variety of staff groups on each area. This is completed in conjunction with an environmental hand hygiene audit and the hand hygiene audits completed as part of the ward environmental audit programme.

Hand hygiene continues to be audited across all wards and departments, on a monthly basis, this now includes monthly compliance following the WHO 5 Moments of Hand Hygiene tool and an example of the 5 moments of hand hygiene tool can be found below:

Patients, visitors, and staff are encouraged to challenge staff if they have any concerns about hand hygiene and in cases of repeated non-compliance, concerns are raised divisionally. This is across all staff groups including nurses, medical staff, AHP's and our PFI partners.

Raising awareness of hand hygiene and the 'Bare below the elbow' are consistently monitored throughout the year.

Individual hand hygiene assessment competencies were introduced on clean your Hands Day in May 2022. These are a peer review set of competencies to be completed by each clinical member of staff as part of their annual appraisal process. Compliance is monitored at the IPCG meeting.

3.16 Mandatory Training

The revised mandatory requirement is to update Infection Control training annually for clinical staff.

The following measures have been introduced to achieve compliance of 90% of clinical staff.

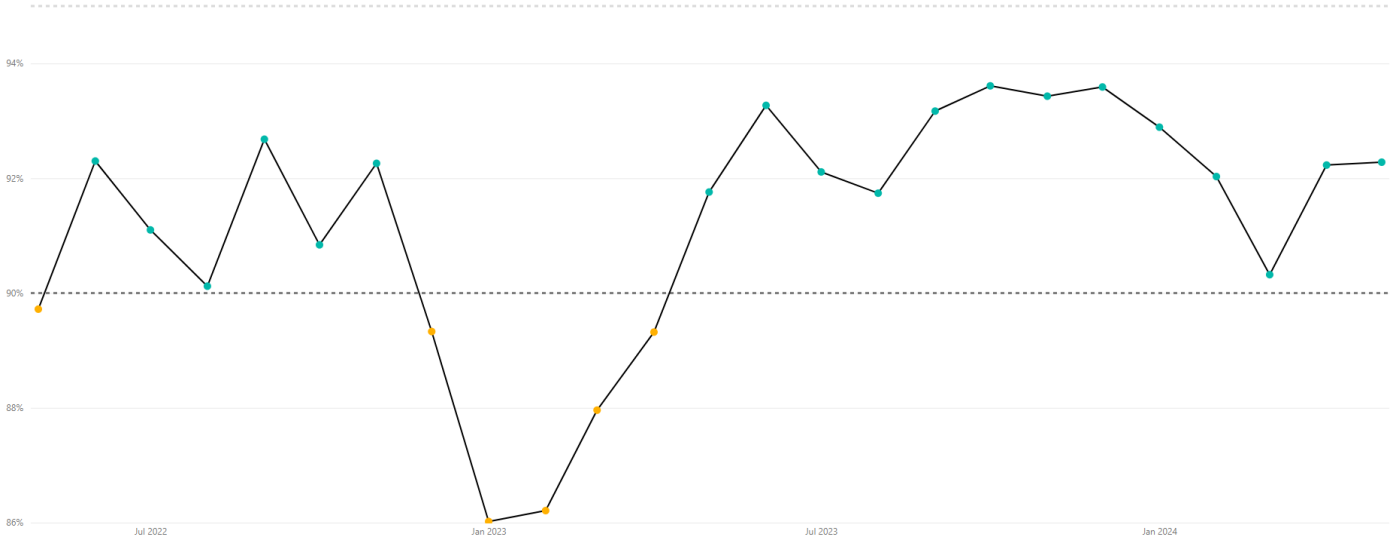
Trust compliance was agreed to be above 90% which has been achieved.

- There is a direct link for the mandatory IPC training on the staff intranet (The HUB) making it easier for staff to access e-learning.

- Face to face sessions can be accessed by booking onto these sessions via learning and development found on (The HUB) page.

As of March 2024, the trust total is 90.32% (Clinical) & 96.90% (non-Clinical). This data is based upon an annual cycle. The IPC Training compliance is managed by the divisions and is discussed monthly at divisional meetings. This is then fed through the IPC Group with actions being taken to improve compliance and discuss current progress.

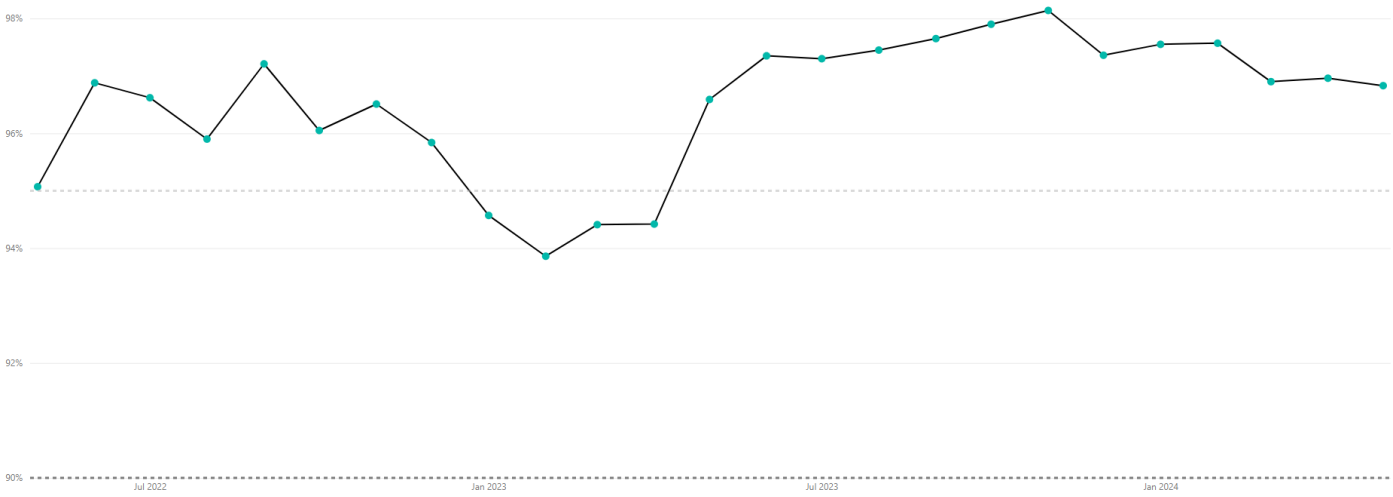
Figure showing the overall Infection Control Clinical training percentages since May 2022



Infection Control – Clinical %					
Month	**Corporate / Management**	**Medicine/ Integrated Care**	**Surgery**	**Clinical Support**	**Total**
April 2023	92.26	88.13	88.18	92.59	89.32
May 2023	93.19	91.09	90.79	94.19	91.76
June 2023	94.63	92.21	92.59	95.89	93.27
July 2023	91.39	91.50	91.46	94.24	92.11
August 2023	87.41	91.65	91.03	93.61	91.74
September 2023	91.36	92.93	92.99	94.09	93.17
October 2023	92.08	92.78	93.92	94.64	93.61

November 2023	91.92	92.84	92.80	95.60	93.43
December 2023	94.90	92.31	93.00	96.32	93.59
January 2024	94.37	91.89	92.03	95.60	92.89
February 2024	95.65	90.05	92.84	93.32	92.03
March 2024	92.02	89.80	89.93	91.65	90.32

Figure showing the overall Infection Control Non-Clinical training percentages since May 2022



Infection Control – Non-Clinical %					
Month	**Corporate / Management**	**Medicine/ Integrated Care**	**Surgery**	**Clinical Support**	**Total**
April 2023	92.61	96.65	96.03	93.40	94.42
9May 2023	95.41	96.68	97.19	98.42	96.59
June 2023	96.74	98.36	96.52	98.96	97.35
July 2023	96.96	97.16	97.49	97.98	97.30
August 2023	96.80	98.31	97.49	98.00	97.45
September 2023	97.54	97.96	97.11	98.42	97.65
October 2023	98.00	97.89	97.77	97.91	97.90
November 2023	98.00	98.29	97.74	98.97	98.14
December 2023	97.43	97.47	97.12	97.44	97.36
January 2024	97.45	97.93	97.19	97.93	97.55
February 2024	96.89	98.37	97.82	97.91	97.57
March 2024	97.10	98.37	94.81	98.00	96.90

3.17 Vaccination Programme

There are 4 types of seasonal influenza viruses, types A, B, C and D. Influenza A and B viruses circulate and cause seasonal epidemics of disease.

Seasonal influenza is characterised by a sudden onset of fever, cough, headache, muscle and joint pain, severe malaise, sore throat, and a runny nose. The cough can be severe and can last 2 or more weeks.

Illnesses range from mild to severe and even death. Hospitalisation and death occur mainly among high-risk groups. Worldwide, these annual epidemics are estimated to result in about 3 to 5 million cases of severe illness, and about 290 000 to 650 000 respiratory deaths. (WHO, 2018)

The most effective way to prevent the disease is vaccination. Immunity from vaccination wanes over time so annual vaccination is recommended to protect against influenza.
(WHO, 2018)

The Dudley Group held an influenza (flu) campaign and COVID-19 vaccination campaign running from September 2023.

The campaign included:

- Dedicated vaccination team and on-site vaccination hub
- Flu posters created and distributed across the trust, via the trust website and on social media.
- A screensaver was developed prior to the launch to display across trust computers.
- Staff health and wellbeing provided advice and guidance for staff that had underlying conditions or allergies.

At the end of March 2024 49% of the DGFT staff had received their influenzas vaccine. This percentage reflects substantive staff that have been corroborated against Electronic Staff Record (ESR). It was noted that PFI colleagues and volunteers were not included in this percentage in line with the national reporting requirements.

3.18 Link Worker Programme

The IPCT continues to provide the Infection Prevention and Control Link Nurse programme.

Link Worker meetings recommenced in March 2022, and they run every month either via TEAMS or face to face to provide educational support and act as an IPC resource for the link staff to maintain their enthusiasm and commitment to IPC.

The aim of these meetings is to provide updates on any new guidance / policies, an opportunity to share learning outcomes and case studies, and to enhance effective communication across DGFT. There is at least one link worker in every department including inpatient and community areas, they are key in undertaking monthly audits of practice.

SECTION FOUR:

PROGRESS AGAINST 2023/2024 INFECTION PREVENTION AND CONTROL PROGRAMME

4.1 CRITERION 1

Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risk that their environment and other users may pose to them

- Infection Prevention and Control Arrangements and Responsibilities policy reviewed to reflect management and reporting structure of DGFT, outlining its collective responsibility for IPC, and demonstrating responsibilities are devolved to all staff/groups in the organisation.
- IPCG meeting Terms of Reference (TOR) and membership reviewed annually.

  Head of IPC has provided quarterly reports to Quality Committee including thresholds, risks, and progress against objectives.
- The Annual IPC Report is produced and presented to the public board.
- The Annual IPC Report is made available for public viewing via the DGFT website.
- *Clostridiodes difficile* Improvement plan was developed and is reviewed and monitored at the IPCG meeting.
- IPC Board Assurance Framework was developed, updated as required and presented to the IPCG, Quality Committee and the DGFT Public Board
- Risks associated with infection have been entered on the DGFT risk register and are reviewed monthly.
- The IPC team continued to identify IPC risks and areas of weakness in policy and practice though audit and surveillance.
- CQC Provider Compliance Assessments completed.
- Information shared with external agencies and partners when requested.

  IPC Team has worked alongside clinical staff in the hospitals as a mechanism to deliver teaching and education to staff.
- All infection outbreaks reviewed, and service improvement plans developed so that relevant learning was appropriately communicated and acted upon.
- PIRs were completed for all patients who developed a CDI tabled at the IPCG meeting.
- Alerts are added to patients' sunrise records to highlight risk of infection.
- New electronic patient record alerts have been developed to reflect emerging infections supported by informatics.
- The IPC Annual Audit Programme was reduced following an increase winter pressures and staff sickness and vacancies within the IPC Team
- IPC audit tools adapted in 2011/12 from the Department of Health (DH) /Infection Prevention Society Quality Improvement Tools and DH Saving Lives care bundles have been revised and updated to incorporate new guidance. These are reviewed and updated annually.
- IPC training is delivered via a mixture of face to face, bespoke and via a Heath Education E-learning package.

- IPC Induction training is delivered face to face.

NHSE revisited the Trust in March, June, July 2023, and October 2023 supported by ICB colleagues. An improvement plan was developed following the visits and was updated, reported through, and monitored via the Trust's IPCG meeting.

Following the visits by NHSE the trust will positively move from **intensive monitoring and support** to **enhanced monitoring and support** on the NHSE Midlands IPC escalation matrix.

4.2 CRITERION 2

Provide and maintain a clean and appropriate environment in managed premises that facilitates and prevention and control of infections

4.2.1 Estates and Facilities

The section below in italics has been completed by Jannine Dyke, Soft Services contract Manager.

Cleaning Audits

The Trust recognises its duty to provide safe and clean environments where patients, staff and visitors can expect to be protected from the risk of infection. The Trust's cleaning services are in the main provided by Mitie Facilities Management as part of the Trusts PFI contract with Summit Healthcare (Dudley) Ltd (Summit). The contract is managed by the Trust's Estates and Facilities Team. Cleaning audits are undertaken by the Trust Auditors in partnership with Mitie and clinical staff where possible across its sites.

Following the implementation of the National Standards of Healthcare Cleanliness 2021, the Trust continues to support Mitie to look at new ways of working through training and introduction of new technology to drive improvement and efficiencies. Following a successful trial, in May 23 microfibre mops were introduced via a rolling programme over several weeks.

A Commitment to Cleanliness Charter, signed by the Chief Nurse & Director for Infection Prevention and Control is located across site, which demonstrates the Trust's commitment to achieving a consistently safe and high standard of cleanliness. Documentation is visible for all to see in terms of the Cleanliness Charter and the star rating in patient/visitor areas with the star ratings being reflective of the most recent technical audit.

Each Department has a functional risk (FR) rating (1-6) in line with the guidance provided by NHSE based on clinical activity and risk, and each FR rating has a brief description to assist the public in understanding why an area is categorised as such. These descriptions are displayed with the cleanliness charter and cleanliness star ratings.

Technical audits are carried out by the Trust's audit team, with Mitie in attendance, more frequent attendance by the clinical team continues to be encouraged. Access to rooms can sometimes be denied at the time of the audit, but as many rooms as possible are audited at each session. Although the team try to audit 100%, a minimum of 75% of each area is audited in one session making the

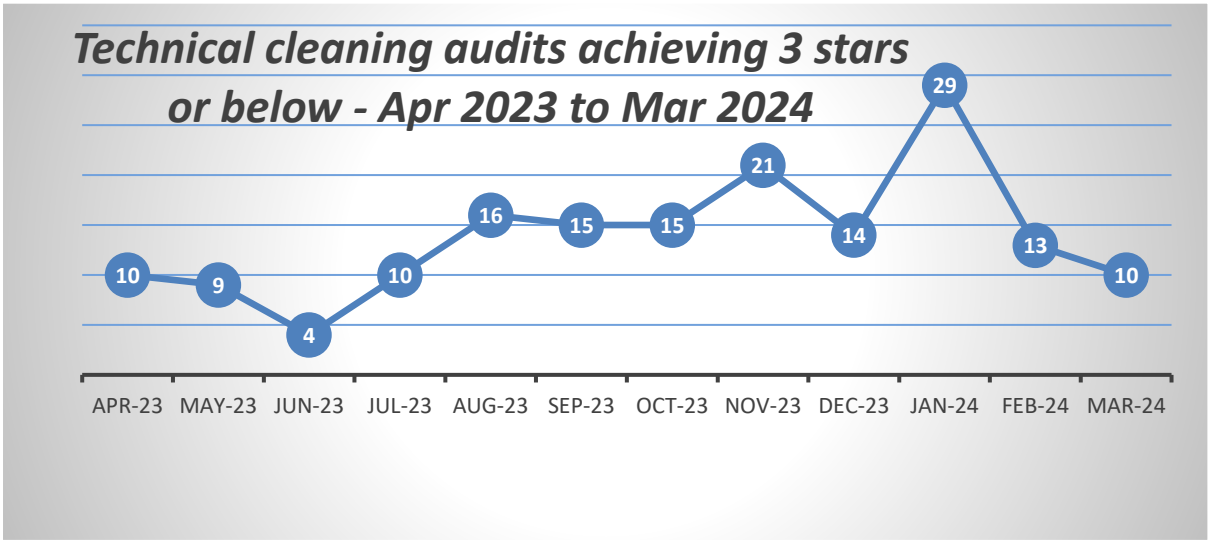
audit representative of the whole area. At the end of the audit the auditor liaises with a senior member of the clinical team to advise of the audit outcome and point out any significant areas of concern.

During the technical cleaning audit, items of environmental maintenance are recorded by Mitie.

Technical cleanliness audit results are shown as a star rating (1-5) and in FR1 areas, the audit overall percentage score can also be seen on the star rating. The purpose of the star rating is to give patients, staff, and the public an easily understood visual score of the standard of cleanliness last achieved in the area.

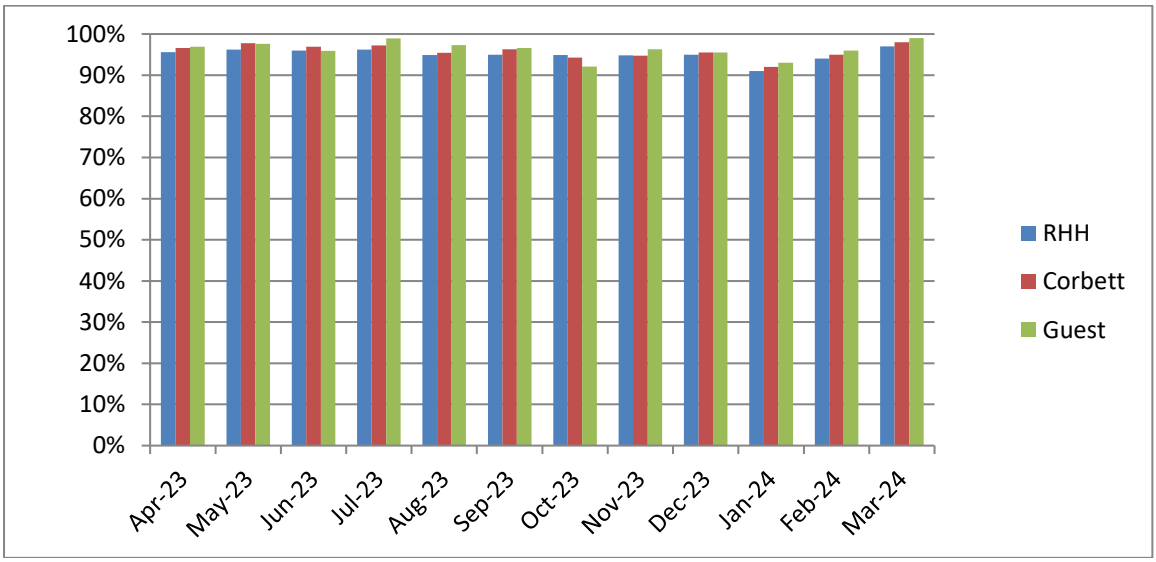
Functional areas rated at 3 stars or fewer are subject to an improvement plan, which is also displayed following the audit. 3 stars is when the overall score is 4%-6% below the target score, 2 stars is when the overall score is 7%-9% below the target score and 1 star is 10% or more below the target score. Areas that achieve 3 stars or below are reported to the Board via the Infection Prevention and Control Group Meeting (IPCG). The target score is different for each FR level.

Of the 2098 technical cleaning audits completed throughout the reporting year a total of 166 audits achieved 3 stars or below which equates to 7.91%, each of these areas then require a re-audit in line with Trust Policy to provide the assurance that they have been brought up the required standard.



Audit results are monitored, and measures discussed and recommended by the Cleaning Monitoring and Operations Group, this Group which meets monthly to review the scores, as well as other items agreed in the Terms of Reference.

In October 23 and January 24, the overall cleaning scores for the Trust achieved below the 95% 'green' threshold.



An average of 175 audits per month were carried out during the Apr 23 to Mar 24 period, which is an increase on the 2022/23 period. Areas are audited in line with the Trust's Cleaning and Disinfection of the Environment Policy and the Trust continued to apply the performance management mechanisms within the PFI contract throughout this period as relevant.

Further developments in association with Mitie and Summit are to look at re-defining the contract mechanism so that it aligns to the requirements of the National Standards for Cleanliness and the Trust Policy. The revised specification and contract mechanism will form part of the contract benchmarking in 2025.

To reflect this a risk has been added to the Trust's corporate risk register to further monitor cleaning compliance within the Trust., an improvement plan has been drafted by Mitie and additional monthly cleaning meetings with executive PFI partners commenced in February.

Patient Led Assessment of the Care Environment (PLACE)

PLACE is the national system which focuses exclusively on the environment in which care is delivered; it does not cover the clinical care provision.

The National PLACE was carried out over three days, 25th October 2023, and the 15th of November 2023 at Russell's Hall Hospital and on 19th October 2023 at Corbett Out-Patient Centre. Corbett had not undergone a PLACE assessment previously. All PLACE domains were assessed, including Cleanliness, Food, Condition Appearance & Maintenance, Disability, Privacy, Dignity & Wellbeing, as well as Dementia, the results of which were published in the first quarter of 2024 and are identified below:

Name	Cleaning Score %	Food Domain Score %	Organisation Food Score %	Ward Food Score %	Privacy, Dignity & Wellbeing Score %	Condition, Appearance & Maintenance Score %	Dementia Score %	Disability Score %
Russells Hall Hospital	99.42%	85.22%	93.40%	82.95%	94.47%	96.88%	84.51%	89.31%

National Average	98.10%	90.86%	87.49%	95.91%	82.54%	84.25%

The Trust has achieved above the national average in all domains apart from food. However, food and hydration are key Trust priorities for 2024 and The Nutrition and Hydration Improvement Group are working through potential food improvements in line with the National Standards for Healthcare Food and Drink, introduced by NHS England.

Patient assessors for PLACE were recruited from both Healthwatch and the Trust's Board of Governors, truly reflecting the patient population. Many of the assessors had previously taken part in either PLACE 2022 or PLACE-Lite, although up-to-date training sessions were also carried out. A variety of staff assessors also attended the assessments and provided specialist feedback during the assessments, this included Matrons, Senior Clinicians, and Dietetics as well as representatives from the Trust's PFI partner, Mitie Estates, Catering, Domestic and Facilities Management teams.

The following areas were assessed during the assessments. This included the required 10 wards and 25% of non-ward areas. Assessors were encouraged to speak with patients during the assessments, in addition to making a judgement on what they saw.

Corbett Out-Patient Centre (19th Oct 2023)

1. *Ophthalmology Out-patients*
2. *Blood Tests*
3. *Day-Case Theatres*
4. *Dermatology Out-patients*
5. *Trauma & Orthopaedics Out-patients*

Russells Hall Hospital – (25th Oct 2023 & 15th Nov 2023)

1. *C4 Ward & Isolation*
2. *C4 Day Case (Out-patients)*
3. *C2 Ward*
4. *C5 Ward*
5. *Imaging*
6. *B2 Hip & Trauma Ward*
7. *C7 Ward*
8. *Main OPD*
9. *AMU – Level 2*
10. *SDEC*
11. *C8 Ward*
12. *B1 Ward*
13. *C3 Ward & FGMN*
14. *Maternity Wards*
15. *Women's & Children's OPD*

In addition, assessments were carried out for Communal areas, External areas, and the Emergency Department.

Four mealtime assessments were also carried out on C5, B2, C7 and AMU wards at Russells Hall Hospital.

In line with recommended guidance, an external assessor from The Royal Wolverhampton NHS Trust joined the assessing team whilst at RHH.

Feedback from the assessing teams were positive.

An action plan has been generated for the areas not achieving the PLACE requirements and/or where recommendations have been made. The action plan is currently being worked through with the relevant teams to further improve on the environment for our patients.

4.2.2 Estates and Facilities Report

The section below in italics has been completed by Darren Lowe, Estates Compliance Manager.

Water Safety Group

The Water Safety Group (WSG) oversees all aspects of water safety for the PFI Estate. The Group is normally chaired by Summit Healthcare Limited who are the owners of the PFI Estate, but due to a change in their management, Trust Estates Compliance Manager has been chairing the meetings until the new Managers become established. The members of the group included:

- *General Manager/Assistant General Manager (Summit)*
- *Responsible Person for Water Safety (Mitie)*
- *Deputy Responsible Person for Water Safety (Mitie)*
- *Authorising Engineer for Water Safety (Mitie)*
- *Estates Compliance Manager (Trust) (Interim Chair)*
- *Consultant Microbiologist (Trust)*
- *Infection Prevention and Control (Trust)*

The Trust has recently appointed a new Director of Estates and Facilities who will be the supporting the group and management of water safety in association with Trust IPC and third-party stakeholders.

A regime of regular water quality testing is in place across the PFI estate which has been agreed by the Water Safety Group. The tests include legionella and Pseudomonas Aeruginosa. There were two occasions where concerns were raised from samples results with significant Legionella counts. During December 2022, a large quantity of sample results returned with high Legionella counts, which the water safety group convened and determined as spurious. Precautions were taken (PAL filters installed) and outlets immediately resampled. The results received back were all clear. A Legionella sample result of 14750cfu from North Wing Ophthalmology was received March 2023 and immediately investigated. Issues with flow straighteners on two outlets and a section of pipework were rectified and the system was disinfected. Outlets have been resampled and we await the results.

The Authorising Engineer (AE) for Water Safety did not complete an audit for 2022. An audit has been arranged for May 2023. The outcome of the 2021 audit was described by the AE as site inspections suggest that the system is mostly well managed and maintained with only minor issues identified which are being actioned. One of the actions still outstanding are calorifier internal inspection, which Mitie has advised will be completed during May 2023. Mitie have commissioned a number of Compliance Engineering Technical Audits in 2022/23 and outputs will be shared with the Trust Water Safety Group in July 23.

Flushing of underused outlets has been on agenda of the Water safety Group on many occasions as there are over 400 outlets being flushed twice weekly. During 2022 Mitie carried out temperature monitoring of outlets which were deemed underused. The analysis determined that a significant quantity of outlets serving wash hand basins were in fact being regularly used and following agreement with ward and department leads were removed from the flushing schedule. Following agreement from Mitie, all the wash hand basins currently on the schedule are now being flushed by Domestics Services during their daily cleaning activity, which is also documented.

Pseudomonas risk assessments have been carried out by the Authorising Engineer, which have been ratified the WSG.

Ventilation

The Ventilation Safety Group (VSG) oversees all aspects of Ventilation for the PFI Estate. The Group is normally chaired by Summit Healthcare Limited who are the owners of the PFI Estate, but due to a change in their management, Trust Estates Compliance Manager has been chairing the meetings until the new Managers become established. The members of the group included:

- *General Manager/Assistant General Manager (Summit)*
- *Authorised Person for Ventilation (Mitie)*
- *Authorising Engineer for Ventilation (Mitie)*
- *Estates Compliance Manager (Trust) (Interim Chair)*
- *Consultant Microbiologist (Trust)*
- *Infection Prevention and Control (Trust)*

The new Trust Director of Estates and Facilities has been working with the internal Estates Team to track compliance on outstanding actions following previous AE audit. These are tracked through monthly meetings and use the contract performance mechanism to drive improvement.

As per the latest HTM 03 requirement, critical ventilation systems including ICU, MHDU, Renal, Theatres, CCU, Lung Function, Endoscopy, Mortuary etc (as defined in HTM 03-01 Part B - 4.7) are annually verified for system performance is in accordance with HTM 03-01, design, and room data sheet (RDS) requirements. Although the ventilation systems serving noncritical areas, which were designed and installed to HTM2025 are inspected in accordance with HTM 03, there is currently no requirement for systems to be checked for performance at the grilles.

In January 2023, the Trust became aware that a number of remedial actions from the previous reverifications going back to February 2022 had not been actioned by Mitie. This was escalated to Summit/Mitie via the formal PFI contractual route ad regular weekly meetings are taking place to review progress. Mitie's Authorising Engineer for Ventilation has confirmed that there are no risks to the staff or patients from the remaining remedials.

4.2.3 Management of Decontamination

The section below in italics has been completed by Kim Jarrett the Trusts Decontamination Lead.

The decontamination service has developed significantly since 2022 ensuring oversight of the decontamination processes across the trust with ongoing reviews relating to the decontamination of invasive devices, probes, medical devices, and beds as well as close monitoring of cleaning by way of audit and review.

A bespoke decontamination audit tool has been developed, trialled, and implemented. Due to specialities within the Trust work has also commenced on the development of specialist decontamination audits, included within these specialised audits are the Endoscopy and Cystoscopy suites who operate endoscopes requiring the use of automated washer disinfectors and drying cabinets the audits capture elements such as validations of equipment, traceability, and storage of

scopes. Other specialist areas where bespoke audits have been implemented are maxilla facial, theatres and Maternity. Work is underway to align the IPC team and decontamination audit tools to enable a smoother audit programme. An audit programme was developed to ensure all areas of the Trust undertaking decontamination were reviewed.

Following Trust review of the decontamination of invasive probes, Tristel trio was introduced across the Trust to ensure high level disinfection and traceability of these devices, in order to provide education to areas where this was already in use and to provide training to areas who have been identified as having devices requiring high level disinfection. Following a review of the use of Tristel in the Imaging Department due to staff concerns with the use of the product the department have trialled and purchased Ultraviolet cabinets to provide both high level decontamination and full electronic traceability.

The Trust Decontamination Group runs bimonthly. Reports are received from specialty areas undertaking high level decontamination. The facilities contract manager and the head of medical engineering also attend.

An Ultraviolet machine was purchased by the Trust in 2022 to provide rapid, efficient UV decontamination with a faster turnaround than Hydrogen Peroxide Vapor (HPV. A proactive decontamination programme using the UV machine has been developed to include all wards and departments, ensuring all areas receive decontamination on a regular rolling programme. Availability of the service has been reduced due to staffing resources to operate a Monday to Friday service. Promotional posters are displayed around the trust to raise awareness of the service.

The trust Electrical and biomedical engineering (EBME) team asset manage a central register for validation all HSDU and Endoscopy Equipment. Validation Reports are also shared with the IPC team and decontamination lead.

Track and traceability review has taken place across the trust. The installation of Health Edge in the gynaecology outpatient department and the maxillo facial outpatient department allows full traceability of all reusable medical devices used in these areas. Work to continue this implementation is being done with a current project underway for the implementation of health edge within the renal unit.

A new Decontamination Day was delivered in September 2023 This promoted the UV service, the use of Tristel and decontamination of medical devices. A Decontamination newsletter was also launched to provide information to staff concerning elements of decontamination. The day was supported by Gama and Ecolab.

Decontamination Plan for the next 12 months

Over the next 12 months several key areas are planned to further strengthen decontamination processes across the Trust: -

- A review continues to combine audit templates in collaboration with the IPC Team with the aim of producing one action plan to be completed by the ward or department. All audits are uploaded onto the Audit Management and Tracking System (AMaT).
- Supporting the facilities contract manager to undertake efficacy audits focusing on cleaning processes as per the National standards of healthcare cleanliness and the development of action plans for domestic and ward teams.
- The continuation of water sample monitoring and review from specialist departments, ensuring they remain within parameters outlined in the HTM's.
- To undertake a bed decontamination project in collaboration with medical engineering. This will provide education and support to staff and ensure beds are decontaminated prior to leaving wards and departments.
- To produce a bed cleaning video facilitated by the IPC Team and decontamination lead.
- To support the neonatal team in relation to the decontamination of incubators and work in collaboration to ensure they are cleaned to a high standard.
- To arrange some educational days including link nurse drop-in sessions focusing on cleaning and designated decontamination day during Infection Control Week to raise awareness and enhance knowledge across the trust.
- To continue to review the track and traceability of devices and support departments with the installation of health edge to provide track and traceability of medical devices.

4.3 CRITERION 3

Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance

The section below in italics has been completed by Muhammed Abdullah, Principal Pharmacist Antimicrobial Therapy for the Trust.

Antimicrobial steering Group at The Dudley Group NHS Foundation Trust is the subgroup of Drugs and therapeutics which reports to quality and safety committee via medicines management group.

The section below has been completed by Muhammad Abdulla, Principal Pharmacist Antimicrobial Therapy for the Trust.

The Antimicrobial steering Group at The Dudley Group NHS Foundation Trust is a subgroup of Drugs and Therapeutics Committee which reports to quality and safety committee via medicines management group.

Antimicrobial Stewardship Annual Report 2023/2024

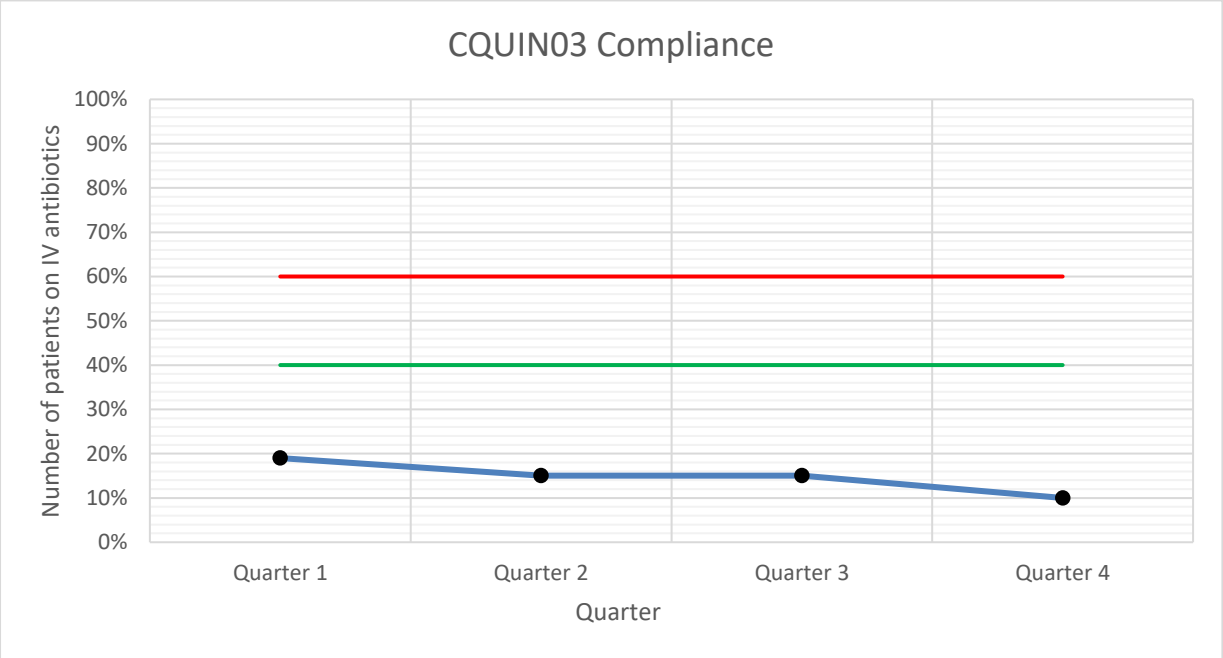
This paper provides an update and an assurance of compliance with standards set out by Health and Social care IPC code of practice for antimicrobial stewardship, Department of Health "Start

Smart then Focus" and NICE NG15 (2015) Antimicrobial Stewardship: systems and processes for effective antimicrobial medicines use.

The Trust participates annually in NHSE&I antimicrobial resistance national CQUIN indicators. For FY2023/2024, The Dudley Group NHS Foundation Trust participated and submitted data for CQUIN03: Timely switch of Antibiotics form IV to Oral. Although this was not incentivised, we were able to perform considerably better than the national criteria. Results pictured below.

CQUIN03: 2023/2024

- Timely appropriate Intravenous to Oral switch of antibiotics.
- Data collection is underway and current results show compliance with national standards.
- Quarter 1 data collection complete – 19% (31.06.23)
- Quarter 2 data collection complete – 15% (31.10.23)
- Quarter 3 data collection complete – 15% (31.01.24)
- Quarter 4 data collection complete – 10% (30.04.24)
- 9% improvement over financial year, much below national target of 40% - 60% (less is better for the case of this CQUIN).



Red: 60%: Threshold for minimum payment
Green: 40%: Threshold for maximum payment
Blue: Trust performance

CQUIN03: Prompt switching of intravenous to oral antibiotic

Description	Achieving 40% (or fewer) patients still receiving IV antibiotics past the point at which they meet switching criteria.	
Numerator	Of the denominator, those who, at the point of audit, have already met the criteria for switching from IV to oral administration of antibiotics	
Denominator	Total number of adult inpatients (16+) with active prescriptions for IV antibiotics at the point of audit (sample size 100 patients per quarter)	
Exclusions	• Patients in ICU and HDU • Patients treated with intravenous antifungals or antivirals	
Data reporting and performance	Quarterly submission via e-mail to UKHSA. Refer to the AMR Programme Workspace in FutureNHS (link below) for details about auditing, data collection and reporting. Performance basis: Quarterly.	
Scope	Services: Acute, specialised acute	Period: All quarters
Payment basis	Minimum: 60% Maximum: 40% **Please note that for this indicator, a LOWER % = better performance**	Calculation: Quarterly average %
Lead contact	Kieran Hand england.amrprescribingworkstream@nhs.net	

CQUIN 24/25: IVOS

The focus for financial year 24/25 remains on the IV to Oral switch due to the numerous benefits it carries including saving nursing time, reduced length of stay, improved patient experience, reduced risk of cannula related infection, reduced carbon footprint, cost savings (drugs & reduced ancillaries) and optimising antimicrobial therapy through de-escalation. The AMS team will continue to promote IVOS & report on this CQUIN, with a view to further emphasise oral stepdown for patients who are on IV antibiotics across the Trust.

The CQUIN for this financial year will include paediatric patients and has a national target of 15-25%.

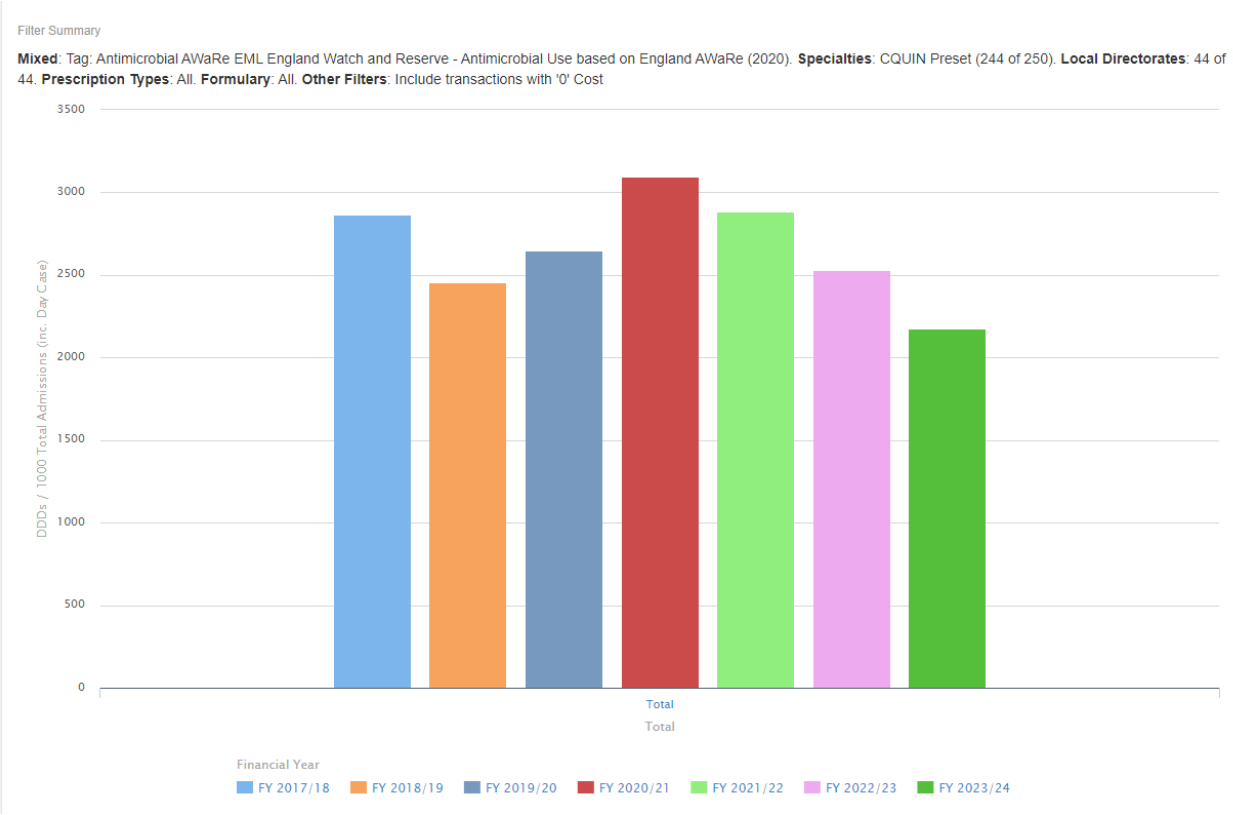
Prompt switching of intravenous to oral antibiotic

Description	Achieving 15% (or fewer) patients still receiving IV antibiotics past the point at which they meet switching criteria.	
Numerator	Of the denominator, those who, at the point of audit, have already met the criteria for switching from IV to oral administration of antibiotics according to adult (16+ years of age) or paediatric (under 16 years of age) criteria as appropriate.	
Denominator	Total number of adult and paediatric inpatients with active prescriptions for IV antibiotics at the point of audit (sample size 100 patients per quarter, aim to cover all included wards/specialities).	
Exclusions	Patients in HDU and ICU Patients treated with intravenous antifungals or antivirals	
Data reporting and performance	For local agreement between provider and commissioner – the UKHSA portal will continue to take submissions where providers and commissioners wish to use this route. Details can be found in the AMR Programme FutureNHS Workspace (link below).	
Scope	Acute	Period: All quarters
Suggested thresholds	Minimum: 25% Maximum: 15% **Please note that for this indicator, a LOWER % = better performance**	Whole period %
Lead contact	england.amrprescribingworkstream@nhs.net	

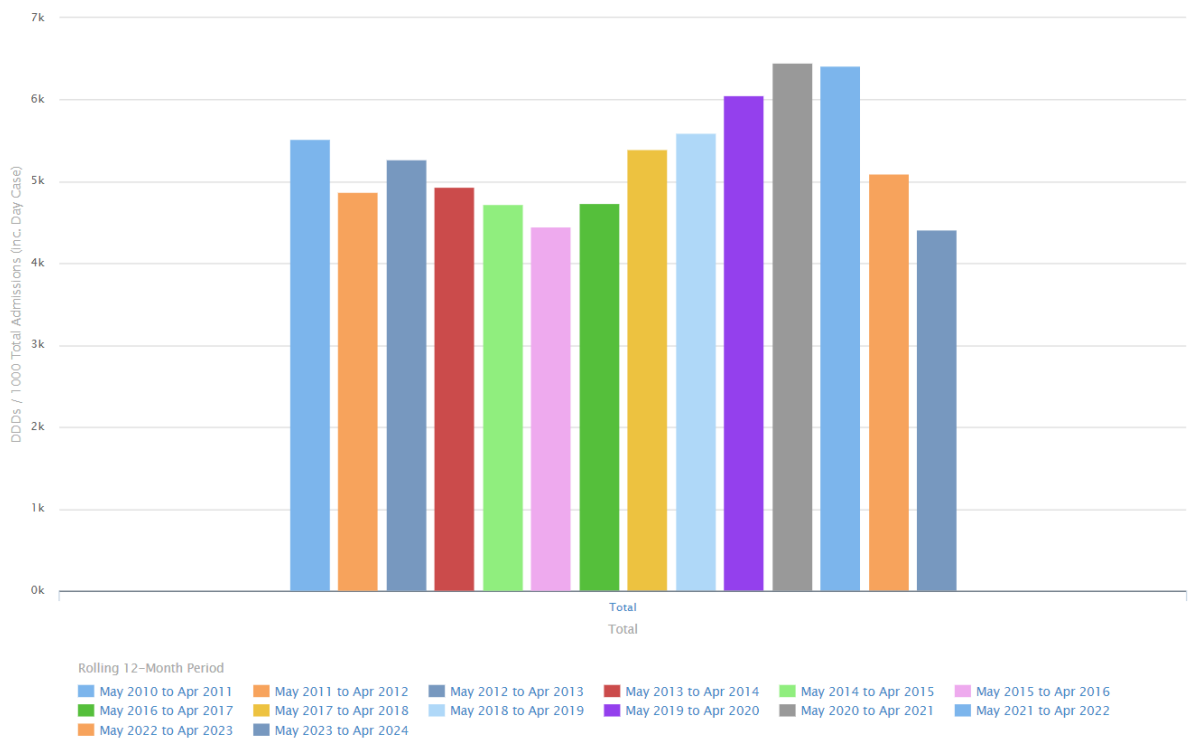
Antimicrobial Consumption

The Trust has shown clear improvement in antimicrobial consumption each year since the COVID-19 pandemic, where antimicrobial consumption was at an all-time high. Across the NHS, an initiative was set to reduce consumption of Watch & Reserve antibiotics by ~10%, by 2024 whilst using 2017 data for comparison.

The graph below depicts consumption of Watch & Reserve list antibiotics as DDDs/1000 admissions, which shows a clear improvement & reduction in use of antibiotics.

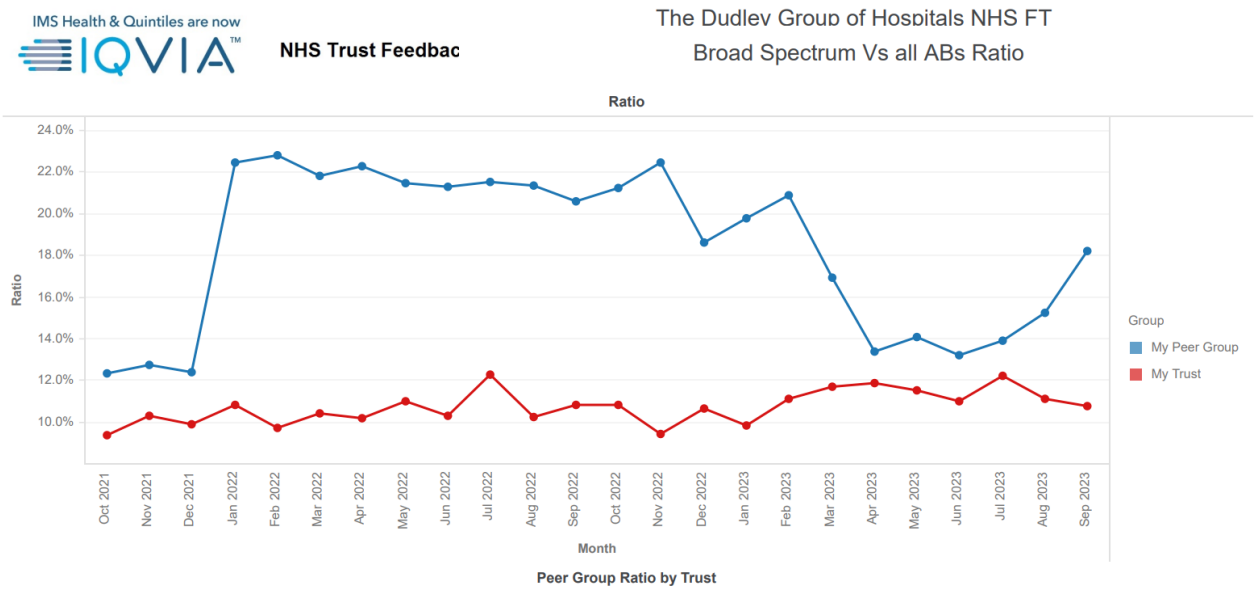


The following graph depicts total antibiotic consumption from the Access, Watch and Reserve list of antibiotics, year on year from 2011, indicating that the Trust has made good improvement since the pandemic and based on all time consumption.


7k
6k
5k
4k
3k
2k
1k
0k
DDDs / 1000 Total Admissions (inc. Day Case)
Total
Total
Rolling 12-Month Period
May 2010 to Apr 2011
May 2011 to Apr 2012
May 2012 to Apr 2013
May 2013 to Apr 2014
May 2014 to Apr 2015
May 2015 to Apr 2016
May 2016 to Apr 2017
May 2017 to Apr 2018
May 2018 to Apr 2019
May 2019 to Apr 2020
May 2020 to Apr 2021
May 2021 to Apr 2022
May 2022 to Apr 2023
May 2023 to Apr 2024

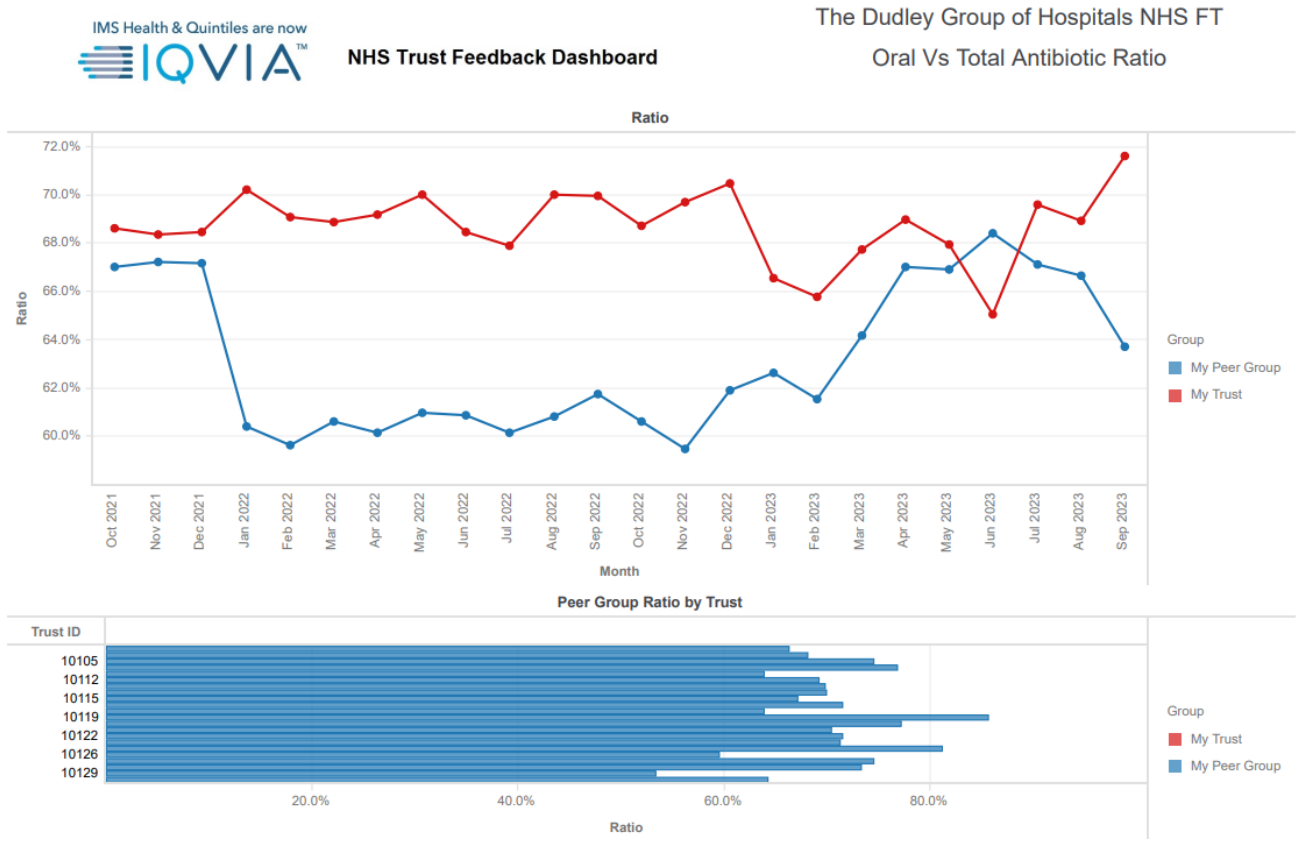
Most recent data from IMS Health Quintiles (September 2024):

Graph below indicates the DGFT is below peer groups in use of broad spectrum antimicrobials

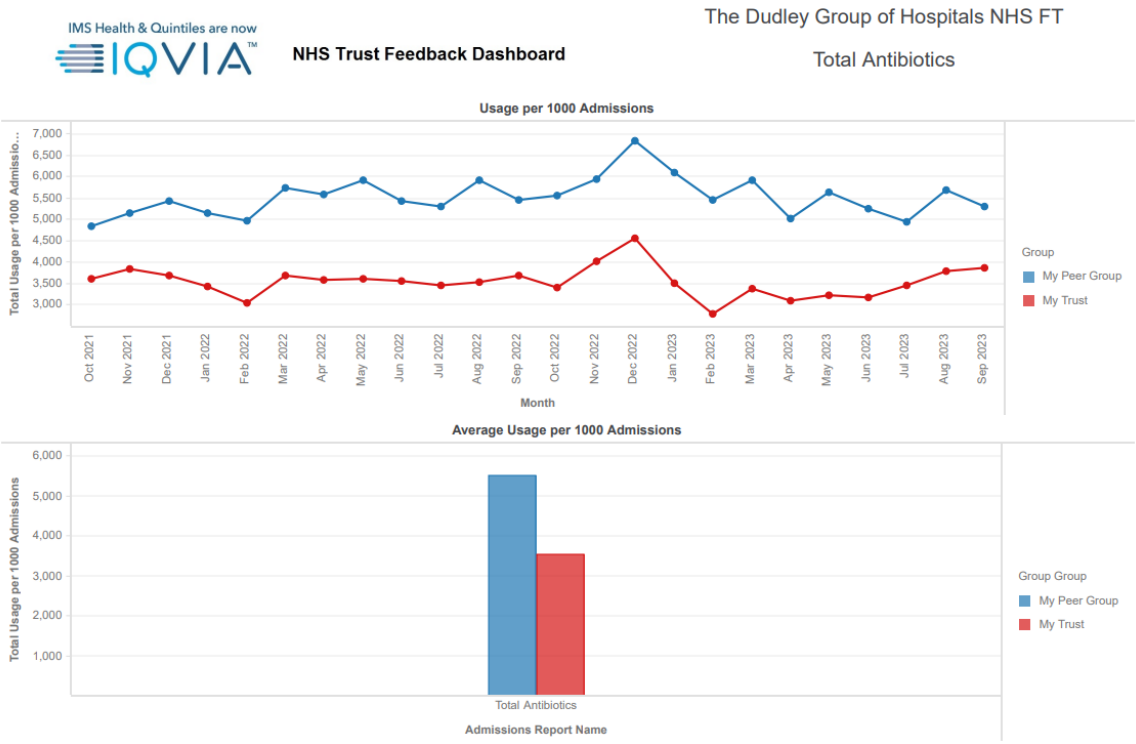


Usage of oral antibiotics has historically been higher than peer Trusts which provides positive assurance of IV to Oral switch. Usage of oral antibiotics has always high compared to the peer Trusts which provides positive assurance of IV to Oral switch.

A reduction was observed which was explained by the reduction in dispensing of oral antibiotics on-site during the pharmacy robot upgrade, where FP10 prescriptions were used for patients instead of outpatient prescriptions. Importance of IVOS was raised via many avenues – nursing survey, to nursing teams, doctors, pharmacy, AMS rounds and a patient safety bulletin was published. An increase in oral antibiotic use was depicted after the July period which was when outpatient prescriptions were resumed instead of FP10s once Pharmacy upgrade was complete.

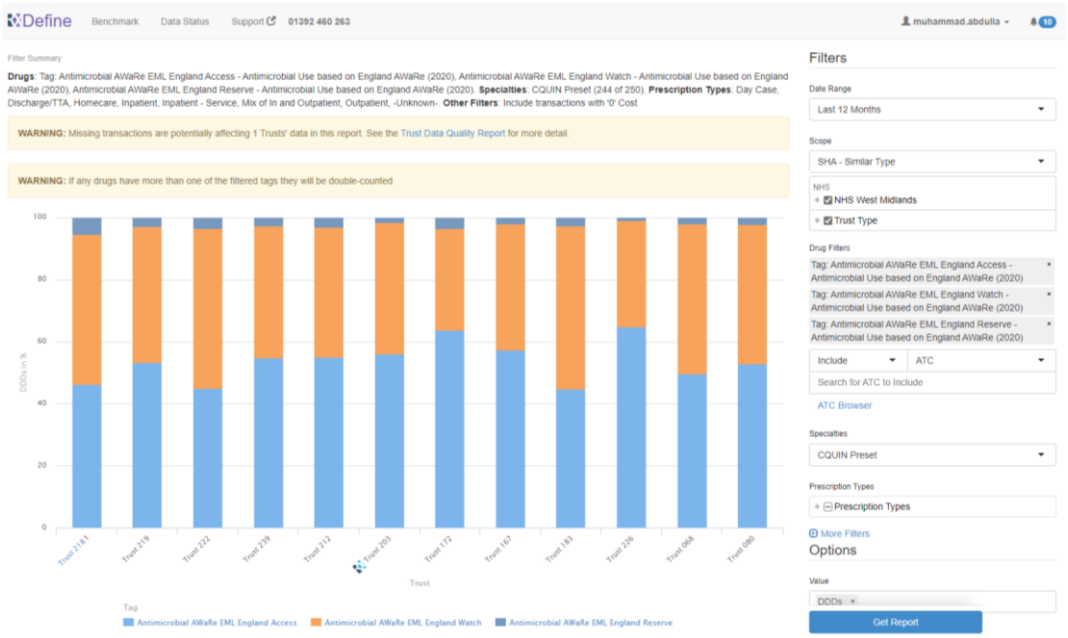


Total antibiotic consumption also remained below peer group averages:

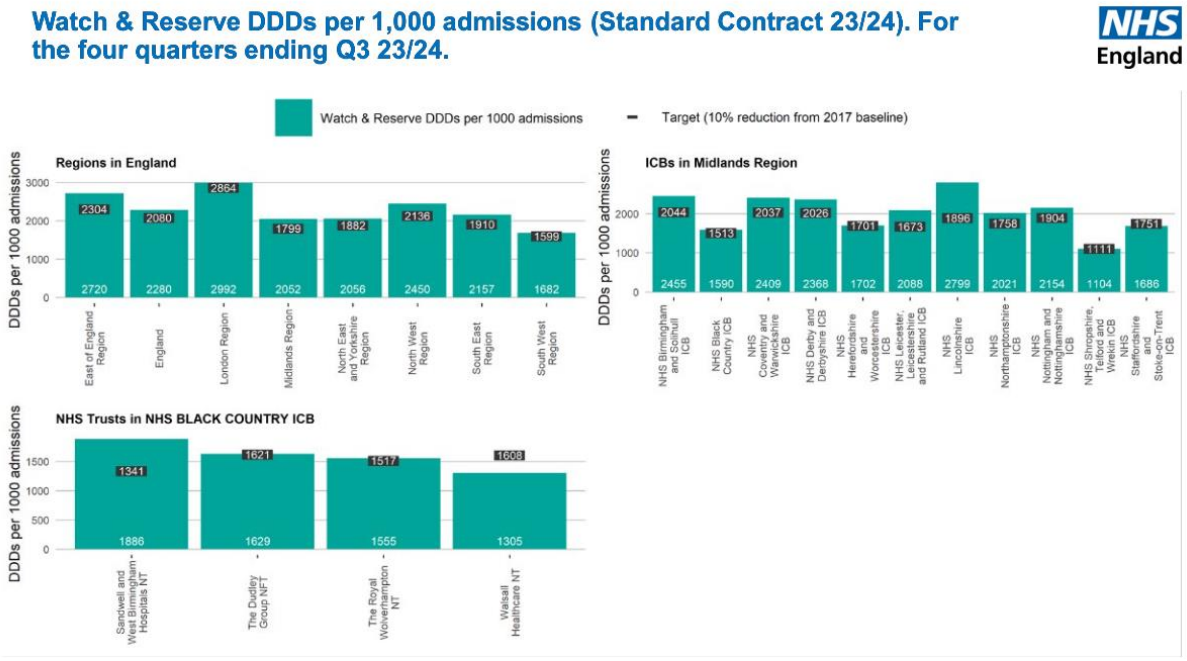


<u>Proportion of Access, Watch and Reserve list of antibiotics (2023/2024) compared to Trusts across the region</u>

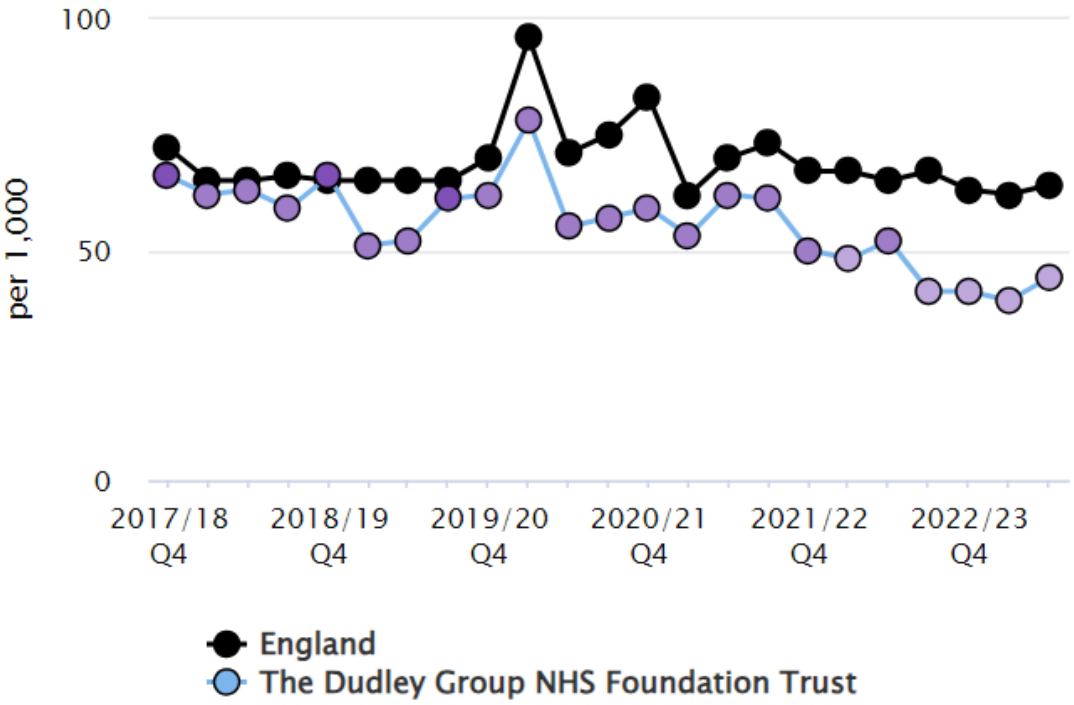
Access = Narrow spectrum (list provided by NHSE/I and UK HSA)
Watch = Broader spectrum (list provided by NHSE/I and UK HSA)
Reserve = Broader spectrum last line antibiotics (list provided by NHSE/I and UK HSA)



For financial year 2022/2023 the proportion of access list antibiotics used at DGFT was 56%



<u>Carbapenem prescribing – DDDs/1000 admissions at DGFT vs National average:</u>
Patients on restricted antimicrobials such as carbapenems are frequently reviewed by the Trust's Antimicrobial Pharmacists to promote judicious use when clinically necessary.



Antimicrobial Prescribing snapshot audit

Dudley Group NHS Foundation Trust - Snap shot audit			
		Percentage	Regional target
Number of patients audited	650	100.0%	
Allergy Status recorded on chart (NKDA, Yes, No)	643	98.9%	> 98%
Number of patients with an allergy who have the nature of the allergy documented	109	52.4%	> 98%
Number of patients on Antibiotics	251	38.6	
Number of Patients on intravenous antibiotics	134	20.6	
Number of patients on intravenous antibiotics over 48 hours (>72hrs Jan 2013)	48	35.8	
Number of patients where total course over 5 days (>7days Jan 2013)	46	18.3	
Number of patients where stop / review date documented on the prescription char	251	100.0%	> 70%
Has the indication been documented on the chart/notes?	248	98.8%	> 70%
Is patient on Meropenem/Ertapenem? (Of those patients on an IV abx)	11	8.2%	< 10%

Results from Antimicrobial Snapshot audits carried out over the last year show significant improvement. The recurrent issue identified is type of allergic reaction documentation, and discussions have been started with EPMA team to explore a potential solution for it.

In order to raise awareness on the documentation of nature of allergy, this has been raised across multiple avenues in teaching sessions for junior doctors, NMPs, acute medical unit teaching sessions and directorate meetings.

Medicine Division Data

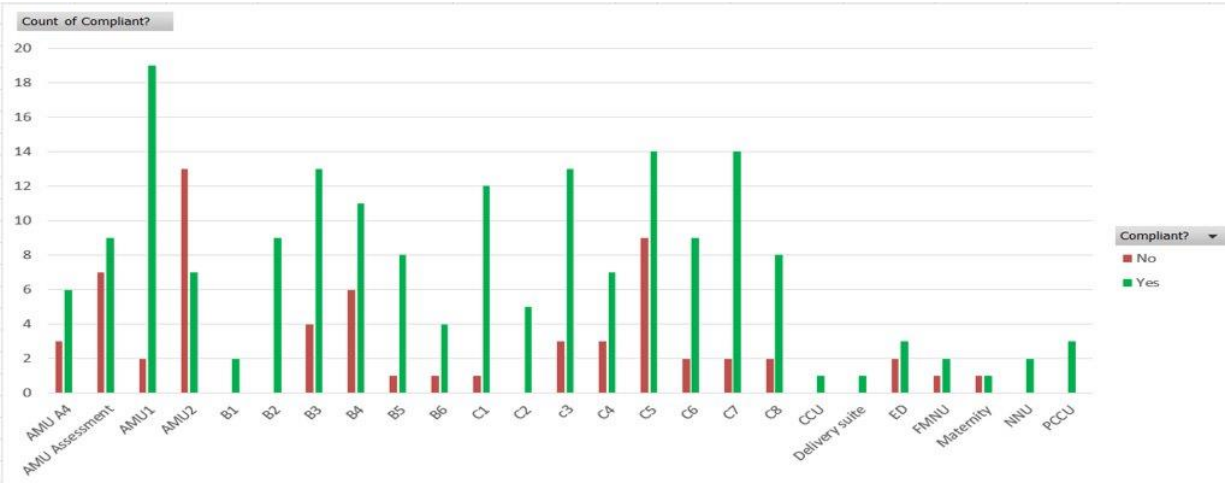
Medicine Divison - Snap shot audit			
		Percentage	Trust target
Number of occupied beds	398	100.0	
Allergy Status recorded on chart (NKDA, Yes, No)	394	99.0%	> 98%
Number of patients with an allergy who have the nature of the allergy documented	62	46%	> 98%
Number of patients on Antibiotics	177	44.5	
Number of Patients on intravenous antibiotics	93	23.4	
Number of patients on intravenous antibiotics over 48 hours (>72hrs Jan 2013)	36	38.7	
Number of patients where total course over 5 days (>7days Jan 2013)	29.0	16.4	
Number of patients where stop / review date documented on the prescription char	177	100.0%	> 70%
Has the indication been documented on the chart?	174	98.3%	> 70%
Is patient on Meropenem/Ertapenem? (Out of those on an IV abx)	10	10.8%	< 10%

Surgical Division Data

Surgical Divison - Snap shot audit			
		Percentage	Trust target
Number of occupied beds	252	100.0	
Allergy Status recorded on chart (NKDA, Yes, No)	249	98.8%	> 98%
Number of patients with an allergy who have the nature of the allergy documented	47	69.1%	> 98%
Number of patients on Antibiotics	74	29.4	
Number of Patients on intravenous antibiotics	41	16.3	
Number of patients on intravenous antibiotics over 48 hours (>72hrs Jan 2013)	12	29.3	
Number of patients where total course over 5 days (>7days Jan 2013)	17	23.0	
Number of patients where stop / review date documented on the prescription chart	74	100.0%	> 70%
Has the indication been documented on the chart?	74	100.0%	> 70%
Is patient on Meropenem/Ertapenem? (Out of those on an IV abx)	1	1.4%	< 10%

Compliance by ward

Compliance by ward was fed back to respective directorate Pharmacists with the ask to share data to respective directorates for reporting and improvement plans. In some cases, use of an antibiotic off Trust guideline is clinically appropriate or necessary, but microbiology advice was not sought at that point in time.



Current data shows:

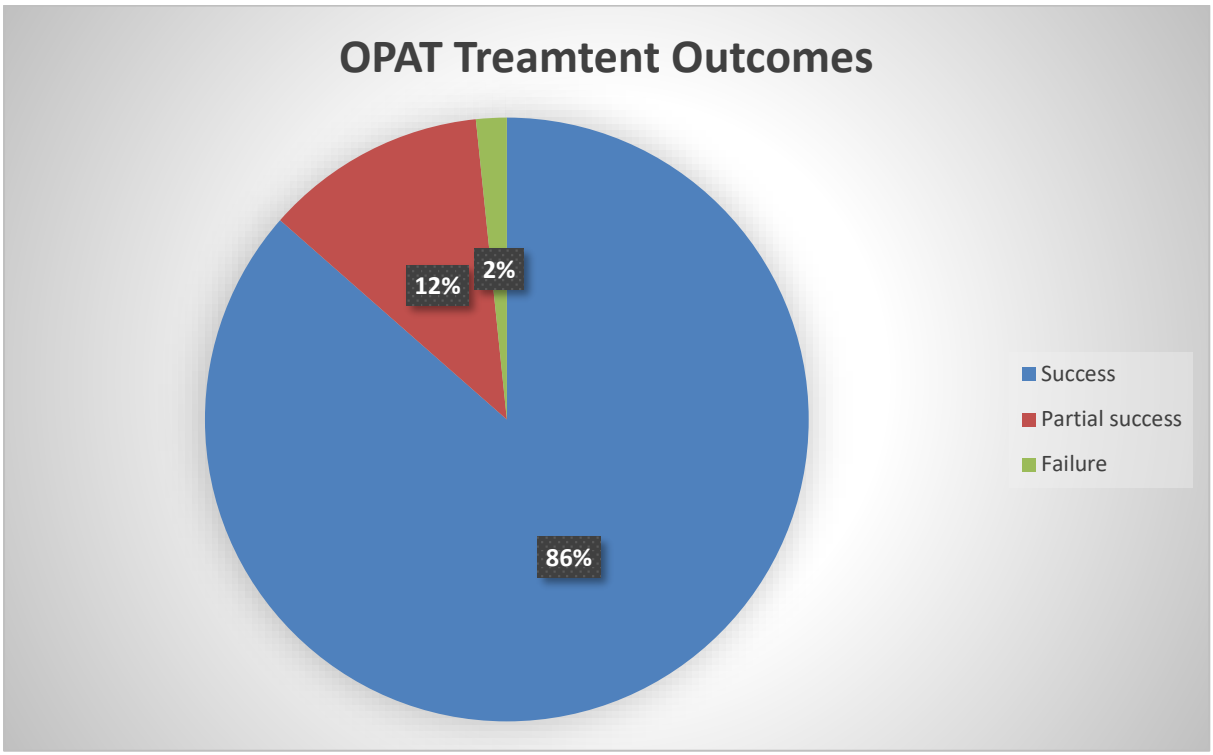
- An increase in the proportion of patients on antibiotics due to this audit being conducted during the winter period (January 2024). Re-audit was done during the final week of April, data will be analysed and reported through assurance groups.
- A slight improvement in the nature of allergy documentation
- An increase in the relative proportion of patients on a carbapenem in medicine division
- Currently working on an IT solution for easy data collection moving forward as the data collection and analysis is currently being done manually through paper audit forms.

Patients on restricted antibiotics e.g., meropenem & piperacillin/tazobactam (which are not recommended in the Trust guidelines or approved by microbiology) are referred to the antimicrobial pharmacists for review by ward Pharmacists.

OPAT data for 2023/2024

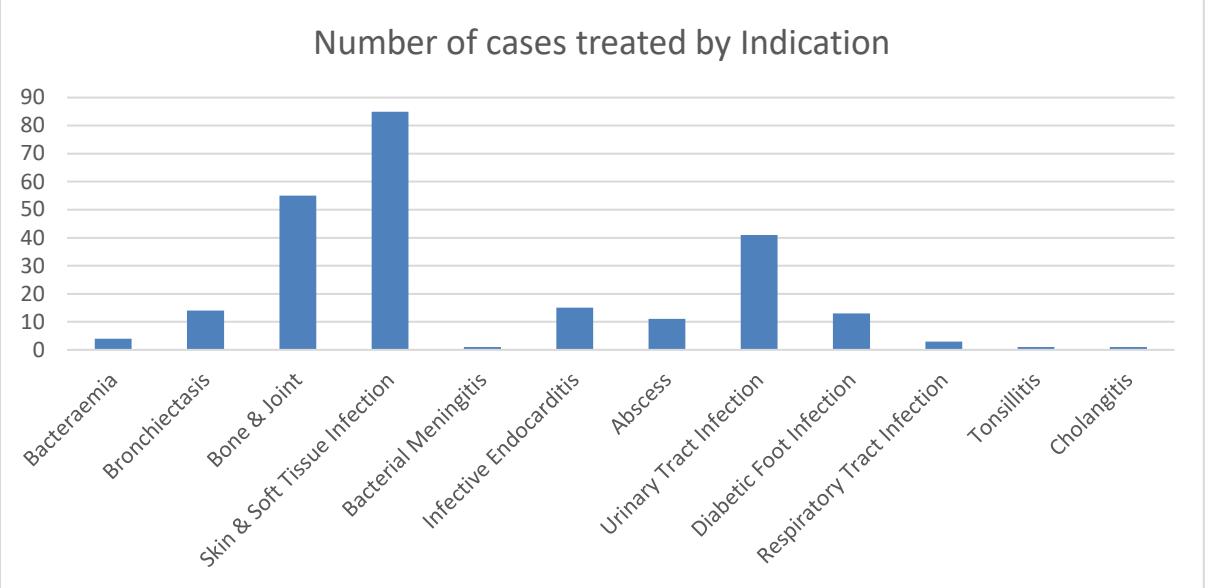
Out-Patient Parenteral Antimicrobial Therapy (OPAT) is a well-established pathway for patients who require intravenous antimicrobials for specific indications and do not satisfy any exclusion criteria, to receive this treatment in their own home or place of residence. It has been shown to be a safe and effective for a wide range of infections in adults and children. During the 12 months between 1st April 2023 and 31st March 2024 inclusive the OPAT service has prevented a significant number of hospital admissions and facilitated early patient discharge. An MDT review is carried out for each patient every week, involving the OPAT nursing team, Antimicrobial Pharmacist, and a Consultant Microbiologist. Recently, we have requested that a specialist from the Orthopaedics team attends as many service users are patients with bone & joint infections who require antibiotics for an extended period of time.

A total of 244 patients have been treated as part of the OPAT service which has increased the Trust capacity by 4,222 bed days in the last financial year.



Number of cases treated by indication:

Indication	Number of cases treated
Bacteraemia	4
Bronchiectasis	14
Bone & Joint	55
Skin & Soft Tissue Infection (inc. cellulitis)	85
Bacterial Meningitis	1
Infective Endocarditis	15
Abscess	11
Urinary Tract Infection	41
Diabetic Foot Infection	13
Respiratory Tract Infection	3
Tonsillitis	1
Cholangitis	1



Interventions over past 12 months to improve Antimicrobial Stewardship at DGFT

The targets were achieved with the help of multiple initiatives including:

- Executive level reporting to influence change.
- Project group formed including medical director, chief pharmacist, AMS team, Sepsis leads and service improvement.
- Word Antimicrobial Resistance Awareness Week campaign.
- Multiple guidelines updated and published on MicroGuide throughout the year (listed below).
- NICE guidance reviewed for updates.
- Electronic Antimicrobial Snapshot audit dashboard in progress.
- Antimicrobial usage is analysed locally and nationally by reporting teams, reports are shared by the Antimicrobial Pharmacists and discussed in Black Country Antimicrobial Stewardship ICS meeting.
- COVID-19 therapeutics guidelines maintained to ensure up to date, these were developed by the DGFT during the pandemic and rolled out across the Black Country region.
- Antimicrobial Stewardship rounds (discussed in detail later in report)
- EPMA drug files reviewed, TDM requests for Gentamicin, Vancomycin and Teicoplanin updated to allow for levels to be requested easily and at correct times.
- CQUIN 2023/24 target achieved for all 4 quarters.
- Multiple patient safety bulletins published: IV to Oral switch, documentation of allergy status, gentamicin & vancomycin prescribing.
- Use of Comms team (ITK and screen savers) and Trust Intranet to promote AMS content.
- Involved in regional work streams with Antimicrobial Pharmacists across the Midlands as well as a West Midlands Antimicrobial Pharmacist group.
- Antimicrobial Stewardship & prescribing sessions for FY1 & FY2 doctors
- Multiple teaching sessions completed for all Pharmacists on AMS principles.
- Antimicrobial stewardship teaching sessions also delivered to various specialist nurses including all NMPs, Community, Respiratory & OPAT team teams.

- Feedback to divisions provided via Antimicrobial Stewardship Group (ASG).
- Monthly Antimicrobial stewardship report provided monthly to Infection Prevention and Control Group, Drugs and Therapeutics Group & Medicines Management Group.
- DGFT AMS team also heavily contributed to the national COVID-19 & Flu vaccination program and provided senior leadership and clinical expertise.

COVID-19 therapeutics

The DGFT is an integral part of the ICS wide COVID-19 oversight group. The AMS team has contributed continuously to development of COVID-19 pathways and supports in implementation of guidance.

ICS AMS Group

The Dudley Group AMS team took the initiative to establish an ICS wide AMS group. The ICS AMS group reports to Clinical leadership group via the IMOG and PLG groups. The group is looking into all the sectors across the system. The Group has worked to share guidance, best practice, and share consumption data across primary and secondary care areas. The Antibiotics formulary across the ICS has been harmonised and shared various guidance to be implemented across all four areas in the Black Country (Dudley, Wolverhampton, Walsall, and Sandwell) and shared resources for adaptation & use in primary care.

Training and Sharing Learning:

- EPMA antimicrobial prescribing module/e-learning updates and direct communication with clinicians to improve compliance with monitoring narrow therapeutic index drugs e.g. gentamicin, vancomycin.
- Prescriber training sessions for Junior medical workforce continued as part of Better Training Better Care Programme and online training via SCRIPT e-learning and have received excellent feedback. CMT sessions also offered.
- Pharmacist AMS training sessions during induction and following significant guideline updates.
- Community teams and primary care team AMS educational sessions to adopt a system wide approach to quality improvement.
- Patient safety bulletins, screensavers and direct communication with pharmacists and medical workforce.
- Antimicrobial stewardship section in Trust wide Governance newsletter.
- Continued membership of Strategies West Midland Antimicrobial Pharmacist Group, to enable best practice to be shared across the region.
- Posters, toolkits, and hub communications are used to communicate guideline changes and promote awareness of antimicrobial stewardship activities at the Trust and internationally e.g. WAAW (World antibiotic awareness day)

Guideline Updates:

Several guidelines have been updated in FY23/24. Many of the existing guidelines were reviewed and updated in line with local resistance data, practice and in accordance with national guidance updates. Guidance is produced between the Microbiology and Pharmacy department, with input from the relevant specialties. All guidance is published on MicroGuide® which is available via The Hub and as a mobile phone app. Clinician engagement in guideline compliance is clear from the rate of compliance demonstrated in the audits.

Guideline updates from this financial year:

- Surgical Prophylaxis guideline for Orthopaedic procedures updated.
- SBP Guideline updated to include use of Co-Trimoxazole for SBP prophylaxis.
- CAP Guideline reference updated.
- Meningitis Guideline updated, re-structured and information regarding BioFire PCR included.
- Surgical Prophylaxis guideline for Upper and Lower Gastrointestinal surgery updated: Benzylpenicillin switched to Amoxicillin.
- Surgical Prophylaxis guideline for Splenectomy updated: Benzylpenicillin switched to Amoxicillin.
- Surgical Prophylaxis guideline for PEG insertion updated: Co-amoxiclav switched to Amoxicillin, Gentamicin and Metronidazole
- MRSA Decolonisation guideline updated.
- Teicoplanin TDM frequency updated.
- OPAT UTI guidance (clarification around use of Ertapenem in ESBL cases only, or with micro approval)
- Guideline for prevention of Group B Streptococcal disease updated (Maternity)
- Respiratory Tract Infection guideline created for Virtual Wards
- Influenza guideline updated - further information on post-exposure prophylaxis added.
- COVID-19 guideline - NICE TA878 updated (Paxlovid eligibility criteria expanded), link on COVID-19 flow chart.
- Surgical Prophylaxis guideline for Dentoalveolar surgery updated: Benzylpenicillin switched to Amoxicillin.
- H pylori guidance updated
- OPAT referral details updated.
- Guidelines updated to include recent MHRA alert pertaining to use of Fluoroquinolones.
- Quick Reference Guide created for post-exposure prophylaxis of Measles.
- Surgical Prophylaxis guideline for Orthopaedics procedures – wording reviewed & updated.

Research & Development:

The AMS team is actively involved in research and audit activities, locally and regionally. During 2023/24 the team have worked collaboratively with colleagues and external stakeholders to lead and participate in research projects. Some of this research has been presented in national and global conferences. Research posters can be found in the Appendix of this report (page 16 onwards)

- Nursing staff survey around IV to Oral switch: Data was compiled and analysed locally and nationally by AMS teams and compiled for publication in collaboration with regional network.
- Working with 2x Undergraduate Pharmacy students for final year research projects relating to AMS
- Trainee Pharmacist project within AMS – Duration of antibiotics in patients with confirmed CAP with CURB score of <2
- The impact of COVID-19 pandemic on antimicrobial consumption and Clostridium difficile infection rates project presented at the Federation of Infection Societies between 14-15 November 2023 & further research conducted in 2024.

- Further three pieces of research were also accepted at FIS, in which the DGFT AMS team had collaborated with other Trusts.
- Jabs to Tabs – IVOS work done by the regional team presented at a global ESCMID (European Society of Clinical Microbiology and Infectious Diseases) conference in Barcelona. Key findings: 0.9 IV doses administered for every hospitalised patient each day across the US and the UK. This data allows us to estimate potential nursing time saved due to IVOS – a 10% reduction of intravenous antibiotics would save over 18 hours of nursing time each day.

Weekly Microbiology Ward rounds:

Ward rounds are undertaken frequently across a variety of areas across the Trust:

- Twice weekly ward rounds on all critical care areas (Critical care area A, B & C) and MECU.
- There are weekly ward rounds being held along with Consultant Microbiologist and OPAT Nurse virtually to optimise clinical outcomes which will reduce number of hospital bed days and admission avoidance. T&O team has also been in attendance to aid in management of septic arthritis and discitis cases to expedite review and communicate to other consultants where necessary.
- Complex patients review based on Parent team/Pharmacist referrals every Tuesdays.
- Antimicrobial stewardship rounds being undertaken once per week on Thursday afternoons with respiratory registrars. This was increased to twice weekly on Mondays & Thursdays during winter period (November to March)
- Weekly ward round with Infection Prevention & Control team to review patients with Clostridium difficile infection.
- AMS ward rounds on Thursdays recommenced on Acute Medicine, involving a consultant microbiologist, antimicrobial pharmacist. Ward based team is also encouraged to join to facilitate learning and development.

World Antimicrobial Resistance Awareness Week: 18-24th November 23

- 18th to 24th November World AMR Week 2023 was a success.
- Reached out to public and HCPs of all backgrounds and great interest was received.
- COVID-19 and Flu vaccine was available for staff on Monday 20th and Friday 24th.
- Hospital building entrance was lit blue.
- Visits done to every ward across the hospital by the trainees.
- Stall held each day of the week.
- Junior Doctor session on prescribing of antimicrobials
- Comms regarding WAAW and prescribing in penicillin allergy.
- Short session for Pharmacists on penicillin allergy

Current Challenges

- Clinician engagement and attendance at ASG meetings.
- Gaps in AMS consultant workforce which limits the capacity of the team to complete ward rounds.
- Ongoing drug shortages: antibiotic shortages are unpredictable and require frequent guidance changes which can potentially cause prescriber confusion.

- Lack of EPMA solution for capturing prescribing snapshot prescribing audit data
- Increase in CPE, resistant organisms, and re-classification of EUCAST breakpoints for Pseudomonas aeruginosa: Resulting in broader antimicrobial use.

Plan for 2024/2025

- Work to implement recommendations from the 5-year plan once targets are formally set for secondary care providers.
- Continue to review local antimicrobial guidelines in line with anticipated changes in NICE guidance.
- Drive the national agenda for AMR through promoting the IV to oral switch of antibiotics e.g. using clinical huddles, AMS referrals, education & training, use of Comms to raise awareness.
- Continue quarterly snapshot audits and feedback to respective directorates.
- Increase clinician engagement and attendance at ASG meetings, to support feedback to directorates.
- Increase the frequency of AMS ward rounds where capacity allows.
- Continue working together with sepsis team and help in timely diagnosis and management of sepsis.
- Continue to identify opportunities for development around antimicrobial stewardship and engage and support pharmacists, medical staff, and undergraduates to participate in audit, quality improvement and research.
- Raise awareness among clinicians regarding antimicrobial stewardship (e.g. teaching sessions, bulletins, Antibiotic awareness week 2024, presentations at Grand Round, Clinical Audit meetings).
- Support postgraduate diploma pharmacists in conducting clinical audits as part of their infectious disease module.
- Support 2024/2025 Trainee Pharmacists with antimicrobial audits and teaching sessions on AMS & prescribing of antimicrobials.
- Patient safety bulletins around arising matters pertaining to AMS.
- Organise and promote Antibiotic awareness week in November 2024.
- Identify opportunities for research and development around antimicrobial stewardship.

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NHS Foundation Trust

Jabs to Tabs Goes Global: Point-Prevalence of Doses of Intravenous Antibiotic Administered as a Function of Daily Census

NHS
University Hospitals Birmingham
NHS Foundation Trust

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Background

Intravenous (IV) antimicrobial therapy is commonly administered to hospitalized patients and data suggest it is frequently unnecessary. Compared to the oral route of administration, IV antibiotic therapy is associated with increasing nursing workload burden, higher healthcare-associated expenditures, more patient-related adverse events, increased medication errors, and greater carbon footprint. We previously described that each IV dose administered required more than 20 minutes of additional nursing time relative to each oral dose administered. The burden on nursing time of IV antibacterials at a hospital-level has not yet been quantified.

Methods

Pharmacists in the United Kingdom and United States captured data on all patients occupying a bed once weekly on alternating days of the week, starting with Sunday August 20th, then Monday August 28th, and so on until concluding on Saturday October 7th 2023. All doses of IV antibacterial administration were also collected on these days. The ratio of IV doses administered per occupied bed was then determined, and these data were averaged. Hospital data were further aggregated based on bed size.

Results

Twenty-five hospitals were included in the analysis (6 UK, 19 USA), which ranged in an averaged occupied bed daily census from 10 to 2,412. The average ratios of IV administered doses per patient bed occupied days are displayed in **Table 1**. Results were consistent throughout sites, although a greater range in ratio was demonstrated in smaller (< 100 bed) hospitals. On average, the mean ratio was 0.9 IV doses administered/bed occupied days in the UK, 0.88 in the US, and 0.88 when combined.

Conclusions

There are approximately 0.9 IV doses administered for every hospitalized patient, per day, in the US and the UK. Antimicrobial stewardship programs in these countries could utilize these data to estimate the potential impact of an IV to oral antimicrobial conversion program on nursing workload burden and healthcare expenditures. For example, for a hospital with a 600-bed daily census, these data suggest that converting 10% of patients on IV antimicrobials to oral regimens could save over 18 hours of nursing time daily.

Table 1: Average IV doses administered/bed occupied days based on size of hospital and location.

	Bed size	Hospitals	Average ratio	Range
United Kingdom	200 - 400	1	0.86	-
	500 - 1000	3	0.91	(0.82 - 0.99)
	> 1000	2	0.90	(0.87-0.92)
	Total	6	0.9	(0.82 – 0.99)
	< 50	4	0.91	(0.47 - 1.44)

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BES1209

BeWaRe the antibiotic pre-pack or community prescription! Consumption of watch & reserve antibiotics issued from acute hospitals in the Midlands region of England

NHS
University Hospitals Birmingham
NHS Foundation Trust

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Introduction

Discharge antimicrobial prescriptions are increasingly recognised as an important area for antimicrobial stewardship (AMS) programmes in secondary care, as published evidence of antibiotic oversupply and inappropriate antibiotic choices grows. In the UK, AMS programmes focus on optimising the choice, route and appropriateness of antimicrobial prescriptions and in secondary care this is frequently led by pharmacy teams who scrutinise prescriptions. The UK national action plan (NAP) for tacking antimicrobial resistance (AMR) set out a target to reduce WHO Watch & Reserve (WaRe) antibiotic groups by 10% compared to a 2017 baseline. The performance of individual NHS hospitals is monitored and achieving the reduction target is challenging.

For operational reasons, many hospitals supply prelabelled packs of antibiotics to patients, or prescribe on community prescriptions to facilitate discharge, usually when the hospital pharmacy is closed. There is limited AMS oversight of these supplies thus we aimed to understand to what extent these supply routes contribute to the total volume of consumption of three commonly used WaRe antibiotics in hospitals in the Midlands region of England.

Methods

The consumption of ciprofloxacin, clarithromycin and co-amoxiclav as prelabelled-packs and community prescriptions was quantified in 13 acute hospital Trusts using a pharmacy stock management programme called Rx-Info and expressed as a proportion of the total consumption of these agents for each Trust.

Community prescription example

Results

Across the 13 Hospitals that issued prelabelled-packs and primary care prescriptions for these agents, the mean contribution of these drugs via these routes of supply was 19.1% of the total WaRe group antibiotic consumption during the period December 2022 to May 2023.

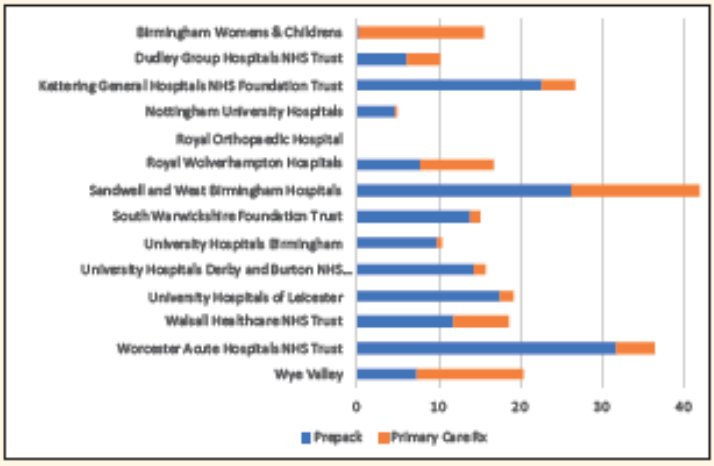

Figure 1: Proportion of total Watch & Reserve consumption of ciprofloxacin, clarithromycin and co-amoxiclav issued as pre-packs and community prescriptions.

Discussion

Our data shows that a significant proportion of the consumption of key WaRe agents occurs on discharge from hospital and may pass under the radar of AMS teams. Optimising the supply of these agents via these discharge routes could help reduce consumption and achievement of the NAP target.

Example of labelled antibiotic pre-pack

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Impact of the COVID-19 pandemic on antimicrobial consumption and C.difficile rates in an acute district general hospital

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UNIVERSITY OF BIRMINGHAM

INTRODUCTION

- SARS-CoV-2 is a highly transmissible virus and has affected over 240 million people globally. In the UK approximately 139,000 deaths have occurred[1].
- The impact of the virus has challenged many aspects of healthcare including the practice of antimicrobial stewardship (AMS)[2].
- A large proportion of patients admitted with COVID-19 were prescribed antibiotics, including broad spectrum antibiotics in a number of cases[3].
- Overuse and inappropriate prescribing of antibiotics can lead to the development of antimicrobial resistant infections (AMR) as well as healthcare-associated co-infections such as C.diff[3].

AIMS AND OBJECTIVES

The aim of this research is to determine whether the pandemic has had an effect on the consumption of antibiotics and C.diff infection rates and whether there is a correlation between the two.

Main objectives are:

- To analyse the data for antimicrobial consumption in the trust for the year prior to and one and a half calendar years during the pandemic.
- To analyse the data for C.diff infections in the trust for the year prior to and one and a half calendar years during the pandemic.
- To determine whether there is a relationship between the antimicrobial usage and C.diff infection rates in the given time period.

METHODOLOGY

Data source

- Data for antimicrobial consumption was obtained from the trust database, Rx Info Refine, from Jan 19-Sep 21 and measured in DDDs/1000 admissions[4].
- Data for the number of C.difficile infections was from the Infection Prevention and Control (IPC) department within the trust from Jan 19-Aug-21.

Data analysis

- Data obtained for both antimicrobial consumption and C.diff was processed and graphically presented.
- Descriptive statistics were used to highlight important changes and trends.
- IBM SPSS software was used to confirm statistical significance of differences.

Ethical approval

- Ethical approval was not required as it was a retrospective electronic database analysis
- No personal patient data was used in this study and so all data obtained was anonymous.

RESULTS

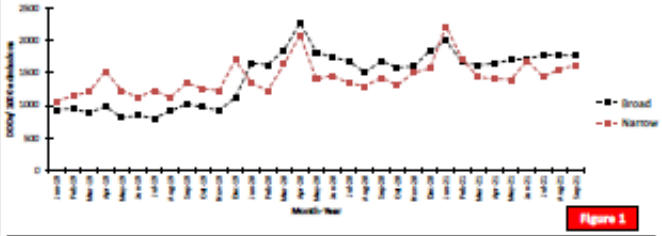

Figure 1

Figure 1: Consumption of broad and narrow spectrum antibiotics

- There is an increase of 86.8% in consumption of broad spectrum antibiotics from 2019 to 2020.
- There are two significant peaks in consumption, in April-20 and January-21, these may be due to rises in cases of COVID-19 as they coincide with national lockdowns.
- From November-19, the consumption of broad spectrum antibiotics began to rise and reached a peak in April-20 with a 103% increase

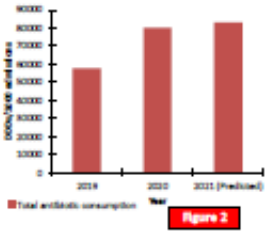

Figure 2

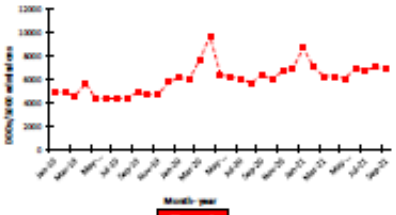

Figure 3

Figure 2: Total antibiotic consumption per year
Figure 3: Time series analysis of antibiotic consumption

- There is an increase in antibiotic consumption from Jan-19 to Sep-21.
- There is a 39% increase in total antibiotic consumption from 2019 to 2020, and a predicted 3.5% increase from 2020 to 2021.
- Significant peak in consumption in April-20 (~9744 DDDs/1000 admissions), 71.9% increase comparative to the equivalent month in 2019.
- A peak in consumption is observed in Jan-21 with 8728 DDDs/1000 admissions, a 41.4% increase from Jan-20; this can be attributed to a rise in COVID cases as there was a national lockdown during this time.
- A p value of <0.001 was calculated for the difference in consumption between 2019 and 2020 which demonstrates statistical significance of the results.

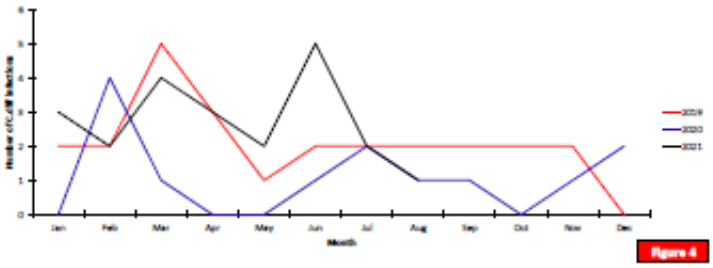

Figure 4

Figure 4: The number of C.difficile infections per month

- Number of C.diff infections recorded from Jan 19-Aug 21.
- In Apr-May 2020, the number of C.diff infections dramatically reduced from previous months to 0, however this was the time period where there was peak antibiotic consumption.
- Common peak in C.diff infections in all three years between Feb-March. There is also an increase in antibiotic consumption in these months for all three years of the study.

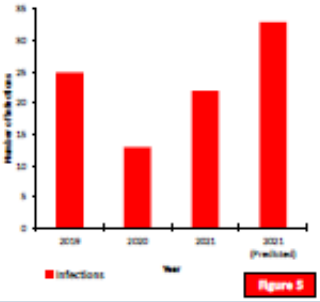

Figure 5

Figure 5: Total number of C.diff infections (CDI) each year

- Total number of CDI during 2019 in comparison to 2020 decreased from 25 to 13 respectively (48% ↓).
- Thus far from Jan-20 to Aug-21 there has been an increase from 13 to 22 cases (69.2% ↑)
- The trajectory for 2021 calendar year is 33 cases of CDI, a 32% ↑ from 2019.

CONCLUSIONS AND FUTURE RESEARCH

- A dramatic reduction in CDI cases in the first year of the pandemic was observed despite an increase in antibiotic consumption.
- This underlines the possible implications of strict IPC measures in place throughout the hospital during the COVID-19 pandemic.
- The data suggests no direct link between the increase in antibiotic consumption and C.diff rates in the first year of the pandemic.
- Increase in consumption during the pandemic year may be linked to the impact of COVID-19 on AMS activities in this hospital.
- Further research or analysis is required, looking at the impact of reduced primary care appointments on the antibiotic consumption in Outpatient/Emergency departments in acute trusts.

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NHS
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NHS Foundation Trust

Who's Counting? How Many Intravenous Antibiotic Administration are Given Daily at Four Midlands Trusts

NHS
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Background

Up to 80% of patients admitted to hospital receive intravenous therapy during their stay.[1] In the UK, the NHS England Commissioning for Quality and Innovation (CQUIN) audit for quarter 1 of 2023/4 in the Midlands shows that 9.1-35.0% of patients prescribed intravenous antibiotics are appropriate for a switch to oral therapy. A recent time and motion study demonstrated that intravenous medicine administration takes 20 minutes longer to give than an oral preparation.[2] Consequently, an appropriate intravenous to oral switch releases 20 minutes of nurse time per dose administered. The unknown parameter is "how many antibiotic injections are given daily in hospitals". Quantifying this parameter would enable Trusts to calculate the workforce capacity that could be realised on implementing an effective IVOS pathway.

Method

The number of intravenous antibiotics administered to in-patients was determined on one day on seven consecutive weeks at four Midlands Trusts. On week 1, data was collected on Sunday, week 2 on Monday and so on until week 7 on Saturday. Finally, the ratio of number of IV antibiotics doses per number of occupied beds was determined.

Results

Table 1: Results for Seven Day Study Period

Trust	Total No. of IV Antibiotic Doses given	Mean No. Doses Given per Day	Total No. Occupied Beds	Mean No. Occupied Beds per Day	Total No. Doses/ Total No. Occupied Beds
University Hospitals Birmingham	15110	2159	15872	2267	1.05
University Hospitals of Leicester	10825	1546	11808	1687	0.92
Dudley Group of Hospitals	5229	747	4431	633	1.18
Birmingham Women and Childrens	1837	262	1750	250	1.05

The range of the number of doses administered per occupied beds is between 0.92-1.18, it would be reasonable therefore to use the approximation of the number of antibiotic injections given daily at the four Trusts as one injection per occupied bed.

Taking a pragmatic approach that 20% of intravenous doses could be given orally with each change to oral releasing 20 minutes per administration we are proposing a calculation for the potential workforce released if an effective IVOS pathway is implemented.

Number of Workforce Hours Released/ day = Number of Trust Beds / 15

Table 2: Number of Nursing Hours Released on Implementation of IVOS pathway.

Trust	Hours Released per Day (hours)
University Hospitals Birmingham	151
University Hospitals of Leicester	112
Dudley Group of Hospitals	42
Birmingham Women and Childrens	16

Conclusions

Implementation of an effective IVOS pathway has the potential to release a significant number of hours each day to nurses to undertake other tasks.

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NHS
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A Matter of Time: A Survey to Explore the Perceived Time Released Following a Timely Appropriate Intravenous to Oral Switch (P037)

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Introduction

Optimising timely appropriate intravenous to oral switch (TAIVOS) delivers clinical and operational benefits, as intravenous administration is associated with risk and delays to discharge.

One underappreciated issue is the nursing workforce impact due to the increased time required to prepare and administer intravenous compared to oral medicines, at 20 minutes more per dose.

Improving awareness of the workforce benefits of TAIVOS could be an additional driver to improving rates of TAIVOS. Awareness of these benefits amongst medical and nursing staff is not known therefore we aimed to gauge degree of awareness through a survey.

Method

A Microsoft Forms survey was developed by a multidisciplinary working group and distributed to patient facing professionals in acute trusts across the Midlands via QR code, hyperlink, and paper copies. Respondents were asked to estimate the amount of time that could be saved by switching a patient from a three times daily intravenous antibiotic to an oral equivalent.

Results

508 responses were received, 489 from nurses and 19 from doctors. The median time considered by nurses to be released following TAIVOS was 30 minutes (IQR 20-30 minutes), whereas doctors perceived this to be 60 minutes (IQR 20-40 minutes). The scenario provided to the respondent would have equated to a time saving of around 60 minutes.

Conclusion

There is considerable underestimation of the time required to prepare and administer intravenous medicines, particularly with nursing staff. Further work is required to increase awareness of the benefit of TAIVOS for workforce capacity across the Midlands and beyond.

NHS
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P047

Don't be unAWaRe – Supply of Selected 'Watch' Antibiotic Pre-packs in Midlands Hospitals.

NHS
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[1] University Hospitals Birmingham NHS TF, [2] Sandwell and West Birmingham NHS Trust, [3] Kettering General Hospital NHS FT, [4] Dudley Group Hospitals NHS Trust, [5] University Hospitals of Leicester NHS FT, [6] Walsall Healthcare NHS Trust, [7] Royal Orthopaedic Hospital NHS FT, [8] Nottingham University Hospital NHS Trust, [9] Birmingham Women's and Children's NHS Foundation Trust, [10] Royal Wolverhampton NHS Trust, [11] South Warwickshire NHS FT, [12] University Hospitals of Derby and Burton NHS FT, [13] Wye Valley NHS Trust

Introduction

The UK 5-year national action plan on antimicrobial resistance aims to reduce broad spectrum (WHO Watch and Reserve categories) antimicrobial use in English hospitals by 10% by March 2024. Pre-packs are products prepared with template labels to allow legal supply directly from clinical areas – bypassing pharmacy. Pre-packs are typically used to expedite discharge out of hours and on high turnover wards. However, this often circumvents pharmacists' medicines and AMS checks – and the contribution of pre-packs to overall antimicrobial supply is poorly explored. We aimed to quantify consumption of the three most common 'watch' antibiotic pre-packs at Midlands NHS hospitals.

Method

Thirteen Trusts provided consumption data for oral formulations of co-amoxiclav, clarithromycin and ciprofloxacin in defined daily doses (DDD) for the period 01/12/2022 to 31/05/2023. Data were collated and analysed in Microsoft Excel.

Results

Prepack use from participating Trusts accounted for 198521 of 738492 DDDs (26.9%) for co-amoxiclav, 21118 of 256298 DDDs (8.2%) for clarithromycin and 23479 of 184064 (12.8%) for ciprofloxacin. Trust median proportions were similar at 25%, 6.6% and 11% respectively but with considerable variation (respective IQRs 15.5–32.6, 5.6–9.5, 6.2–16.5).

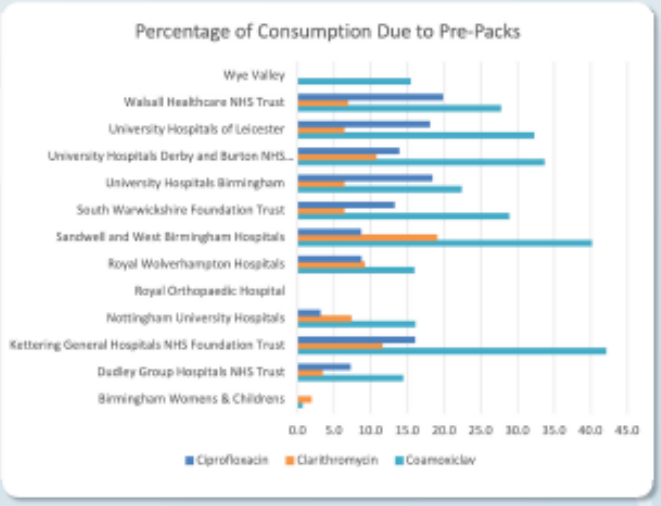

Table 1: Percentage of Consumption Comprised of Pre-Packs

Trust	Coamoxiclav	Clarithromycin	Ciprofloxacin
Birmingham Womens and Childrens	0.7	1.9	0.0
Dudley Group Hospitals NHS Trust	14.4	3.4	7.2
Kettering General Hospitals NHS Foundation Trust	42.1	11.5	16.0
Nottingham University Hospitals	16.0	7.3	3.1
Royal Orthopaedic Hospital	0.0	0.0	0.0
Royal Wolverhampton Hospitals	15.9	9.1	8.7
Sandwell and West Birmingham Hospitals	40.1	19.0	8.6
South Warwickshire Foundation Trust	28.8	6.4	13.2
University Hospitals Birmingham	22.3	6.4	18.4
University Hospitals Derby and Burton NHS Foundation Trust	33.6	10.7	13.8
University Hospitals of Leicester	32.3	6.3	18.0
Walsall Healthcare NHS Trust	27.7	6.9	19.8
Wye Valley	15.4	0.0	0.0

Conclusion

High variation likely reflects operational differences between organisations. Interventions into pre-pack use may support hospitals meeting the 10% reduction in broad-spectrum antibiotics. Research is needed to fully understand whether prepacks are used appropriately in terms of choice, and whether they contribute to extended durations of therapy.

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NHS Foundation Trust

P049

Don't be unAWaRe – Issues of Selected 'Watch' Antibiotics on FP10 prescriptions from Midlands Hospitals.

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[1] University Hospitals Birmingham NHS TF, [2] Sandwell and West Birmingham NHS Trust, [3] Kettering General Hospital NHS FT, 4 Dudley Group Hospitals NHS Trust, [5] University Hospitals of Leicester NHS FT, [6] Walsall Healthcare NHS Trust, [7] Royal Orthopaedic Hospital NHS FT, [8] Nottingham University Hospital NHS Trust, [9] Birmingham Women's and Children's NHS Foundation Trust, [10] Royal Wolverhampton NHS Trust, [11] South Warwickshire NHS FT, [12] University Hospitals of Derby and Burton NHS FT, [13] Wye Valley NHS Trust

Introduction

The World Health Organization emphasises key antibiotics to safeguard through its 'AWaRe' classifications. NHS England has adapted these and requires a 10% reduction in use of 'watch' and 'reserve' agents in English hospitals by March 2024. Antibiotics may be prescribed in hospital using FP10 (green) prescriptions for convenient community dispensing. However, this bypasses review by hospital pharmacists who typically benefit from better access to relevant clinical information and prescribers than community colleagues.

The extent to which this happens is unclear, so this project aimed to quantify FP10 issues for the three most common oral 'watch' antibiotics at all Midland NHS hospitals.

Consumption data in defined daily doses (DDD) for co-amoxiclav, clarithromycin and ciprofloxacin for the period 01/12/2022 to 31/05/2023 was available on Rx-Info's 'Define' platform. Permission to use this was sought from Midlands antimicrobial pharmacists representing 23 Trusts. Eleven consented and data was extracted for analysis in Microsoft Excel.

FP10 issues from thirteen participating Trusts accounted for 33548 of 674969 DDDs (5%) for co-amoxiclav, 21924 of 224937 DDDs (9.7%) for clarithromycin and 8862 of 157000 DDDs (5.6%) or ciprofloxacin. Trust median proportions deviated slightly at 1.9%, 5.2% and 3% respectively with considerable variation evident (respective IQRs 1.5–11, 3.2–13.7, 1.1–13).

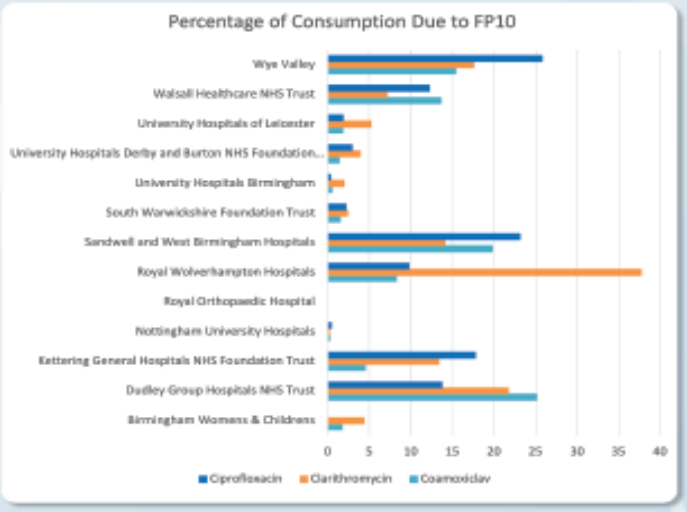

Table 1: Percentage of Consumption Comprised of FP10 Prescriptions

Trust	Coamoxiclav	Clarithromycin	Ciprofloxacin
Birmingham Womens and Childrens	1.8	4.4	0.0
Dudley Group Hospitals NHS Trust	25.1	21.7	13.8
Kettering General Hospitals NHS Foundation Trust	4.5	13.4	17.8
Nottingham University Hospitals	0.3	0.2	0.4
Royal Orthopaedic Hospital	0.0	0.0	0.0
Royal Wolverhampton Hospitals	8.3	37.7	9.8
Sandwell and West Birmingham Hospitals	19.8	14.1	23.1
South Warwickshire Foundation Trust	1.5	2.4	2.2
University Hospitals Birmingham	0.5	2.0	0.4
University Hospitals Derby and Burton NHS Foundation Trust	1.4	3.9	3.0
University Hospitals of Leicester	1.9	5.2	1.9
Walsall Healthcare NHS Trust	13.6	7.2	12.2
Wye Valley	15.4	17.6	25.8

Conclusion

Regionally, FP10s represent a substantial portion of the total oral consumption of these agents. High variation likely reflects operational differences in medication supply mechanisms. As FP10s bypass many secondary-care antimicrobial stewardship approaches optimisation could be significant in delivery of NHS standard contract obligations and in slowing development of antimicrobial resistance.

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Building healthier lives

The Correlation of Antibiotic Consumption with *Clostridioides Difficile* Rates at an Acute District General Hospital.

Aston University
BIRMINGHAM UK

Jaya Shanker, Syed Gilani, Rabia Ahmed, Liz Watkins
School of Pharmacy, College of Health and Life Sciences, Aston University, B4 7ET

NHS
The Dudley Group
NHS Foundation Trust

INTRODUCTION

Clostridioides difficile infection (CDI) is one of the most prevalent hospital-acquired infections globally, causing symptoms from diarrhoea to pseudomembranous colitis.[1]

- Antibiotic consumption is the most prominent risk factor for CDI, as antibiotics can cause the *Clostridium difficile* (C. diff) bacterium to produce toxins and colonise the large intestine.[2]
- Therefore, it is expected that CDI rates will increase as antibiotic consumption increases.
- This is a continuation of a project conducted between Jan 2019 – Sep 2021 at the Dudley Group NHS Foundation Trust (DGNFT) which found unexpected results, as the significant increase in antibiotic consumption did not lead to an increase in CDI rates.[3]
- Due to this, further evaluation is required to understand if these results were anomalous.

AIMS & OBJECTIVES

The primary aim is to assess the relationship between antibiotic consumption and the incidence of CDI rates at the DGNFT between September 2021 – September 2023.

To achieve this aim, the main objectives include:

1. Analyse data for antimicrobial consumption.
2. Analyse data for CDI rates.
3. Assess whether the trend between CDI rates and antimicrobial usage remains the same as identified in the previous study, whereby the CDI rates fell with the increase in broad-spectrum antibiotic use.

METHODOLOGY

ETHICAL APPROVAL
- Aston University Pharmacy Protocol and Ethical Review Board.

DATA COLLECTION
- Rx-Info Refine database.
- Infection Prevention and Control team records.

DATA ANALYSIS
- IBM SPSS software.
- Descriptive statistics.
- Graphical production.

RESULTS

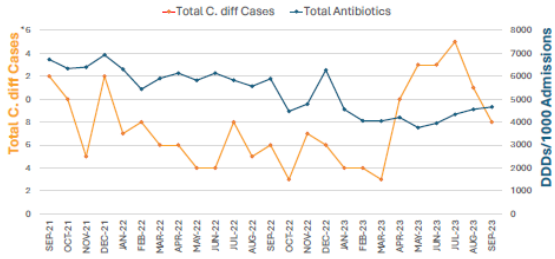


Figure 1: Time series analysis of total C. diff cases and total antibiotic consumption.

- There is a general decrease in antibiotic consumption in this period by 30.8%.
- CDI rates decreased between December 2021 - March 2023 by 75%, subsequently there was a sharp increase until September 2023.

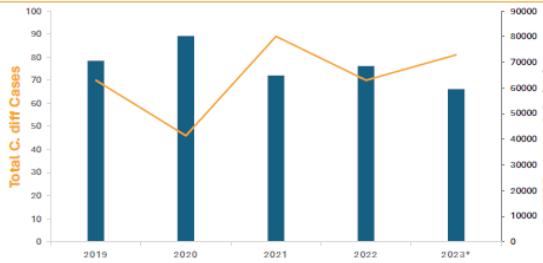


Figure 2: Antibiotic consumption and CDI rates per year, until September 2023*. Including data from the previous project at the trust.

- Between 2019 – 2023, antibiotic consumption and CDI rates did not follow the expected pattern, as shown by the graphs.
- In 2020 antibiotic usage peaked, with 80247 DDDs/1000 admissions, however, CDI rates were lowest, with 46 cases this year.
  - This links to the COVID-19 pandemic.

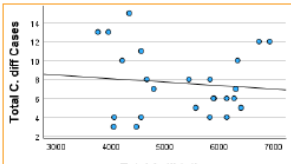
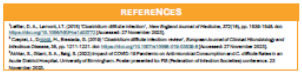


Figure 3: Pearson's correlation analysis.

- A Pearson's correlation analysis showed an **insignificant** correlation (p=0.05) between the incidence of CDI and antimicrobial consumption in the period, a R^2 linear value of 0.011 was also produced.

CONCLUSIONS & FURTHER RESEARCH

- The data suggests no direct link between antibiotic consumption and CDI rate fluctuation at DGNFT, as the analysis revealed an insignificant correlation.
- These results are consistent with the previous project findings.[3]
- Possible explanations for the lack of correlation include antimicrobial stewardship activities and infection prevention and control (IPC) measures within the DGNFT.
- These findings suggest that other factors may be influencing CDI rates.
- Further analysis is required to establish which factors contributed to the increase and decrease of CDI rates, such as antibiotic prescribing in primary care, trends of proton pump inhibitor (PPI) prescribing, and changes in IPC measures.



4.4 CRITERION 4

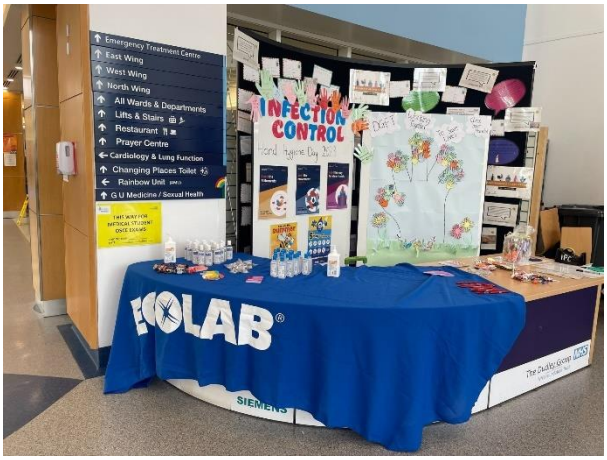
Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing / medical care in a timely fashion

- DGFT has a dedicated communication team. In cases of outbreaks where there may be interest from the media, the Communications Team are invited to meetings and their support and guidance on preparing Press statements is sought.
- Communication boards are located across the Trust providing patients and visitors of key communication.
- The IPC Team have a page on the Trust intranet page which provides information to staff.
- The external Trust website also has key messages relating to infection prevention and control.
- The Trust Intranet promotes infection prevention issues and guides users to information on specific alert organisms such as MRSA and *Clostridioides difficile* as well as key organisms that may be of particular concern seasonally.

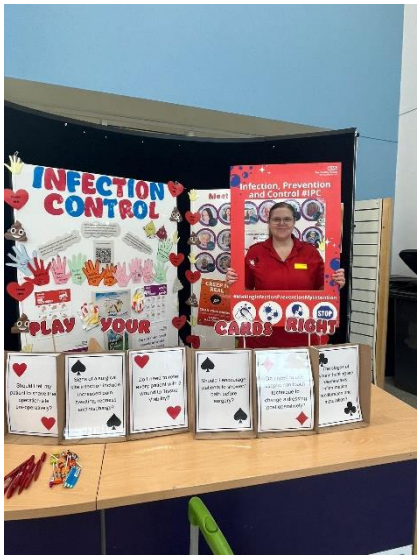
In January 2022, the IPC Team produced a newsletter for staff called “We’ve gone Viral” which provides updates to staff on current IPC matters. This newsletter will be published on a bi-monthly basis.

- IPC produced an annual report covering the organisation's approach to prevention and control of infections for publication on the DGFT website.
- Hand hygiene included in patient/visitor/volunteer/staff/agency staff and visiting health professionals' information leaflets.
- Strategically placed hand hygiene products available with information on their use.
- Continued encouragement for patient and public involvement in hand hygiene and cleanliness campaigns and services' Quality Review process, satisfaction surveys and PLACE inspections.
- Polices related to specific organisms and care pathways remind staff of the need to give affected patients and relatives leaflets about the infection.
- The IPC team continue to respond to ad hoc requests for information related to IPC under the Freedom of Information Act.
- IPC requirements are included in the health economy transfer/discharge form.
- IPC team share infection rates and outbreak information with appropriate services based upon local, regional, and national surveillance.
- Surgical Site surveillance data is submitted externally.
- Alert organism surveillance by the IPC team.
- IPC policies and procedures are available on the IPC page on the HUB.
- MRSA screening compliance shared.
- IPC team used the health Hub in main reception to promote Clean your Hands Day, Infection Prevention and Control Week and Antimicrobial Awareness Week

Hand Hygiene Day May 2023



Infection Prevention and Control Week October 2023



- The IPC team promoted AMR in conjunction with the Trusts Pharmacy team.

4.5 CRITERION 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

- The IPC Arrangements and Responsibilities policy reflects the management and reporting structure of SCHT outlining its collective responsibility for IPC and demonstrating responsibilities are disseminated to all staff/groups in the organisation.
- Responsibilities of groups and staff included in IPC policies.
- Support provided by IPC team included visits and telephone contact.
- Continued to develop link staff and support their role.
- Continued to audit compliance with IPC polices and care pathways.
- IPC team has access to IC NET Laboratory IT system.
- IPC team reported outbreaks and incidents of infection to the ICB, UK HSA and NHSE Outbreak of infection meeting are held with external partners and agencies to ensure transparency and that any lessons learnt are disseminated throughout the organisation.
- IPC received notification of outbreaks of infection within the local health economy.
- IPC specific organism policies available e.g., Measles, MRSA, CDI, VRE/GRE.
- Patients are screened for MRSA on admission.
- Antibiotic policy available to all clinicians.
- Staff have access to Microguide.
- PIRs will be undertaken on all MRSA Bacteraemia.
- Use of SIGHTED mnemonic
- Ward staff advised to use isolation checklist to ensure compliance with isolation policy.

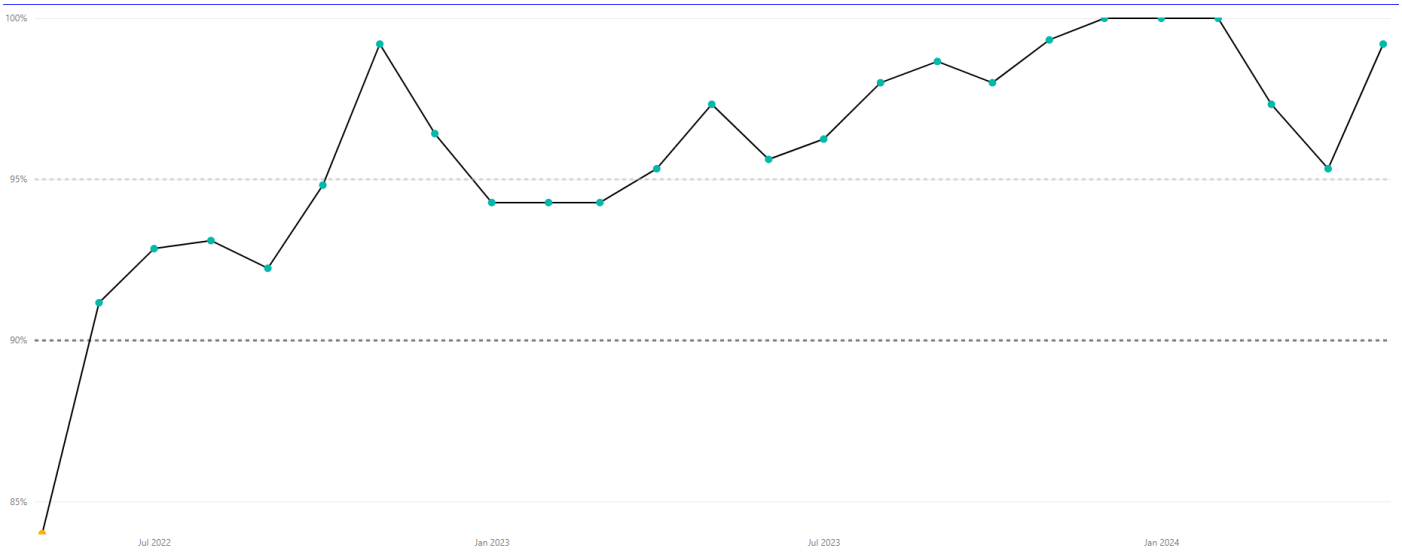
4.6 CRITERION 6

Systems to ensure that all care workers (including contractors and volunteers) are aware of their responsibilities in the process of preventing and controlling infection

At DGFT infection prevention is of paramount importance and everyone's responsibility, it is included in all job descriptions across the Trust.

All clinical staff receive training and education in infection prevention and control practices during their induction and mandatory training sessions. Additional bespoke training is provided to wards and departments as necessary and in response to shared learning.

The graph below identifies the compliance of mandatory IPC Training throughout the year. For each month compliance has been above 80%, however due to the COVID-19 pandemic these scores were not achieving the required objective of 90% compliance. Scores started to improve at the end of the financial year and following divisional escalation IPC Training continues to be a key priority in order to ensure the Trust reaches this objective with improvements in compliance being observed.


100%
95%
90%
85%
Jul 2022
Jan 2023
Jul 2023
Jan 2024

- Continued to work with NHS providers and facilitated by the LHE group, to aim to reduce all avoidable infections including MRSA Bacteraemia and CDI.
- Alerts are added to sunrise to highlight risk of infection.
- Compliance with MRSA screening policy audited monthly, and findings shared.
- As appropriate, joint investigations and reviews held between local partners and the acute trust on cases of MRSA Bacteraemia and CDI.
- To assist staff with managing outbreaks,
- Bespoke IPC Training is delivered if need identified.
- IPC team supported the development of DGFT clinical policies/procedures and Standard Operating Procedures (SOPs).
- Infection Prevention and Control Standard Operating Procedure for Building, Construction, Renovation and Refurbishment Projects in available for all contractors working in DGFT.
- IPC in the Built Environment Policy available via the HUB
- The IPC Team has attended conferences and study days throughout the year.

4.7 CRITERION 7
Provide or secure adequate isolation facilities

Spread of infection in healthcare facilities may be prevented by isolation or other barrier procedures, which may vary, according to the nature of the infection. Isolation may involve either source isolation, whereby infected patients are nursed with precautions necessary to prevent the spread of infection to others, or protective isolation, which is used for patients at special risk of acquiring infection such as haematology or oncology patients.

The decision to isolate a patient should be based on a risk assessment with regular assessments taking place to ensure the most appropriate use of the isolation facilities. 25% of the inpatient beds at Russell's Hall Hospital take the form of single ensuite rooms which are prioritised for patients with either confirmed or developing signs of infection.

- IPC Isolation Policy in place to support staff.
- Isolation Risk matrix developed to aid patient placement.
- Risk assessments performed by ward staff with support from the IPC team when insufficient isolation facilities were available to meet demand.
- Cohort approach taken as necessary within DGFT during outbreaks of diarrhoea and vomiting.
- All episodes where staff are unable to isolate patients are reported to Risk Management via Datix.
- COVID-19 swabbing has been updated throughout the year in line with National Guidance

4.8 CRITERION 8
Adequate access to laboratory support as appropriate

The IPC Team work closely with the clinical microbiology department which provides comprehensive microbiology advice. The laboratory forms part of the Black Country Pathology Services (BCPS) which covers 4 hospital sites to include The Royal Wolverhampton NHS Trust, The Dudley Group NHS Foundation Trust, Sandwell and West Birmingham NHS Trust and Walsall Healthcare NHS Trust.

The trust has access to a CPA/UKAS accredited laboratory. The clinical microbiology departments provide support to the IPC Team through reporting of results, processing of clinical samples and provision of expert microbiological advice as required. Electronic systems are available for the reporting of alert organisms.

Out of hours, the on-call duty microbiologists will provide Infection Prevention and Control advice for the Trust.

- Continuation of rapid testing for *Clostridiodes difficile* and use of typing to search for clusters and linked cases.
- Continuation of local test for Norovirus to speed up diagnosis and outbreak management of patients with infection.
- Continuation of local test for influenza to speed up diagnosis and outbreak management of patients with infection.
- Local testing for COVID-19.
- Point of Care testing available in Emergency Department for COVID-19 and Influenza
- Adequate resources available in laboratory for MRSA screening in line with national guidance.
- Mandatory surveillance also included MSSA, *E. coli*, pseudomonas Bacteraemia infections.
- Consultant Microbiologist at DGFT is DGFT's IPC Doctor.
- Medical microbiology support provided by DGFT 24 hours a day 365 days a year.

4.9 CRITERION 9

Have and adhere to policies, designed for the individual's care and provider organisations that help to prevent and control infections

All IPC policies, guidelines and SOPs are available for staff to view on the Trust Intranet site, the HUB. Access to these are clearly displayed under the documents section and there is a link on the IPC page for ease of use. A formal Governance structure is in place for the development, reviewing and ratifying such documents and is monitored via the IPC Group meeting.

- Rolling programme of policy / SOP review continued.
- Published evidence reviewed whenever policies were developed or reviewed on publication of new national guidance to ensure they reflect up to date, evidence based, best practice national guidance.
- New policies developed as need identified.
- In collaboration with Medicines Management team, commenced work to implement the relevant recommendations of the Tackling Antimicrobial Resistance 2019-2024, the UK's five-year national action plan.

Below is a list of all of the policies which relate to IPC and the date of review:

Carbapenemase producing enterobacteriacea (CPE) screening, management, and prevention of the spread policy	July 2024
Cleaning and disinfection of the environment policy	May 2025
Clostridiodes difficile (CDI) – control and management policy	Mar 2025
Control of an outbreak of infection in hospital policy	July 2024
Diarrhoea	July 2025
Group a streptococcus management policy	Nov 2024
Healthcare associated infections surveillance policy	May 2025
Decontamination policy	Oct 2025
Infection prevention and control in the built environment policy	May 2025
Infection control precautions for extended spectrum beta lactamase (ESBL) and Amp C producing organisms policy	Nov 2024
Meticillin-resistant *staphylococcus aureus* (MRSA) screening emergency and elective admissions policy	Dec 2025
Reporting infections to UK Health Security Agency and local authority policy	Nov 2024
Management of scabies policy	Jan 2025
Management of patients with proven or suspected transmissible spongiform encephalopathies (TSE) policy	Apr 2025
Management of influenza in the hospital setting policy	Feb 2026

Compliance with policies was audited locally through the hand hygiene, cleanliness and IPC audit tools/checklists, specific competency tools and peer assessments. Specific audits undertaken by the IPC team as part of their annual programme, clinical incident reporting and root cause analysis of infections including debrief meetings were also used to monitor compliance.

4.10 CRITERION 10

Providers have a system in place to manage the occupational health needs of staff in relation to infection

4.10.1 Staff Health and Wellbeing (SHAW)

The section below in italics has been completed Priyanka Nar, Occupation Health Lead for Occupational Health, and Wellbeing Department.

The section below in italics has been completed Priyanka Nar, Occupation Health Lead for Occupational Health, and Wellbeing Department.

Staff Health and Wellbeing (SHAW) offer a wide range of services and continue to support DGFT by reducing ill health at work and supporting those at work with health problems and disabilities. There is joint work between SHAW and the Health and safety team whereby sharps/splash incidents are discussed to improve the safety of staff when handling sharp devices.

Sharps / Splash incidents

160 incidents in 2023/24

Device	2023/24
Arterial Line	1
BM Lancet	3
Staples	1
Scalpel	2
Rectus Sheath	1
Biopsy Needle	2
Bite	2
Blade	2
Blood Gas Needle	2
Blood Culture Needle	1
Butterfly Needle	13
Cannula	19
IM Needle	22
SC Needle	10
Scratch	2
Vacuette	34
Insulin Needle	13
Suture Needle	28
LP Needle	1
Unknown	1

Division	Total incidents
Clinical Support	19
Medicine & Integrated Care	61
Surgery	78
Corporate/Mgt	2

Pre- Employment Checks

SHAW is continuing to work with the Trust to strengthen the process and frameworks to support new recruits into the organisation.

Health Surveillance

A new health surveillance programme has been devised for SHAW. Moving forward SHAW will work towards the new health surveillance programme and outcomes will be reported to the Health & Safety Steering Group. We will be working with Health & Safety to identify if there are any other areas that require health surveillance, and they will be included into the programme.

Surveillance	Department involved	Screening Required	Due Date	Comments
Skin Surveillance	All HCWs who use skin sensitisers	Questionnaire	Jun- 24	In Progress
Decontamination sensitiser	GI Unit	Questionnaire and Spirometry	May 2023	In Progress
TB	Respiratory wards, AMU, ED, ICCU, GUM and Respiratory Physiotherapists	Symptom reminder letter	November 2024	Pending

4.10.2 Health and Safety

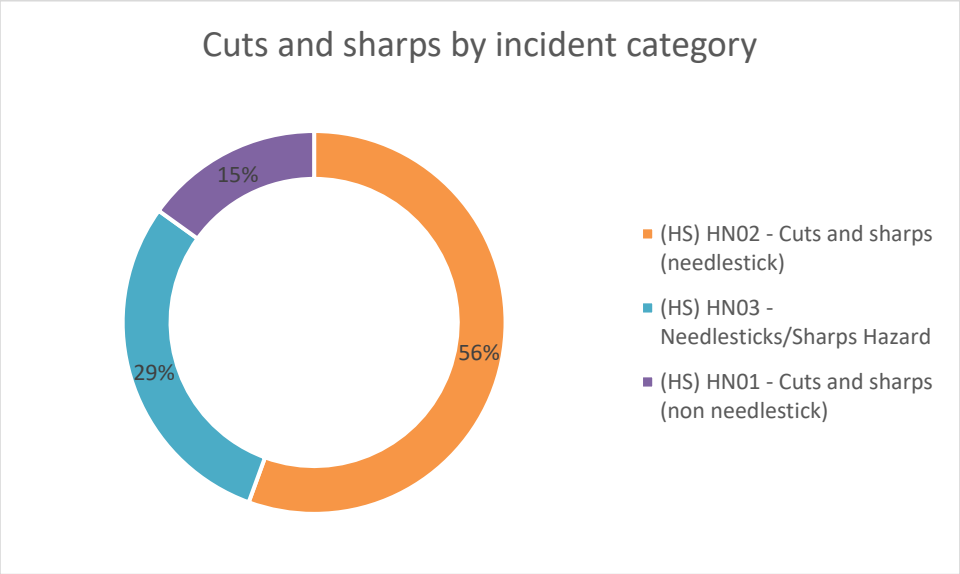
The section below in italics has been completed by Richard Maddocks, the Trust's Health, and Safety Advisor.

- *Previous Health and Safety Advisor for Trust, Jodi Griffin, left post in February 2024 with Richard Maddocks joining in March 2024.*
- *A Sharps Safety Group was established and held every 6 weeks to discuss incident trends and suggestions around reducing incidents.*
- *Incident trends identified several sharps incidents relating to the use of Inhixa Enoxaparin safety needles. A rep from Inhixa attended to deliver equipment training.*
- *A previous audit found that Datix reports contained very little information about the type of device involved in the sharps and cuts incident. A new drop-down box where the device involved can be entered has been made mandatory when completing a sharps and cuts Datix report.*
- *Sharps awareness month held in December 2023.*

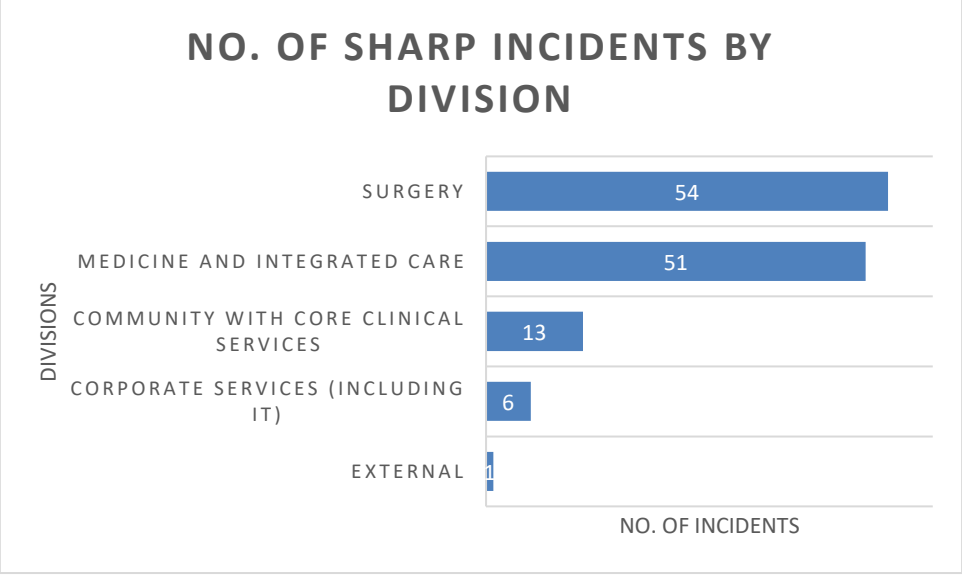
Sharps and Cuts injuries

- *Sharps and Cuts injuries are the most reported incident type under the Health and Safety Category year on year.*
- *Last year (April 1st 2023-March 31st 2024), a total of 126 sharps and cuts injuries were reported on the Datix system. 125 sharps incidents reported in 22/23.*
- *There is almost a 50/50 split between the needlesticks being caused by procedural use and by disposal of the needles.*
- *Butterfly needles were the most reported device involved at 25%.*

Sub category	Count of Sub category
(HS) HN02 - Cuts and sharps (needlestick)	70
(HS) HN03 - Needlesticks/Sharps Hazard	37
(HS) HN01 - Cuts and sharps (non needlestick)	19
Grand Total	**126**

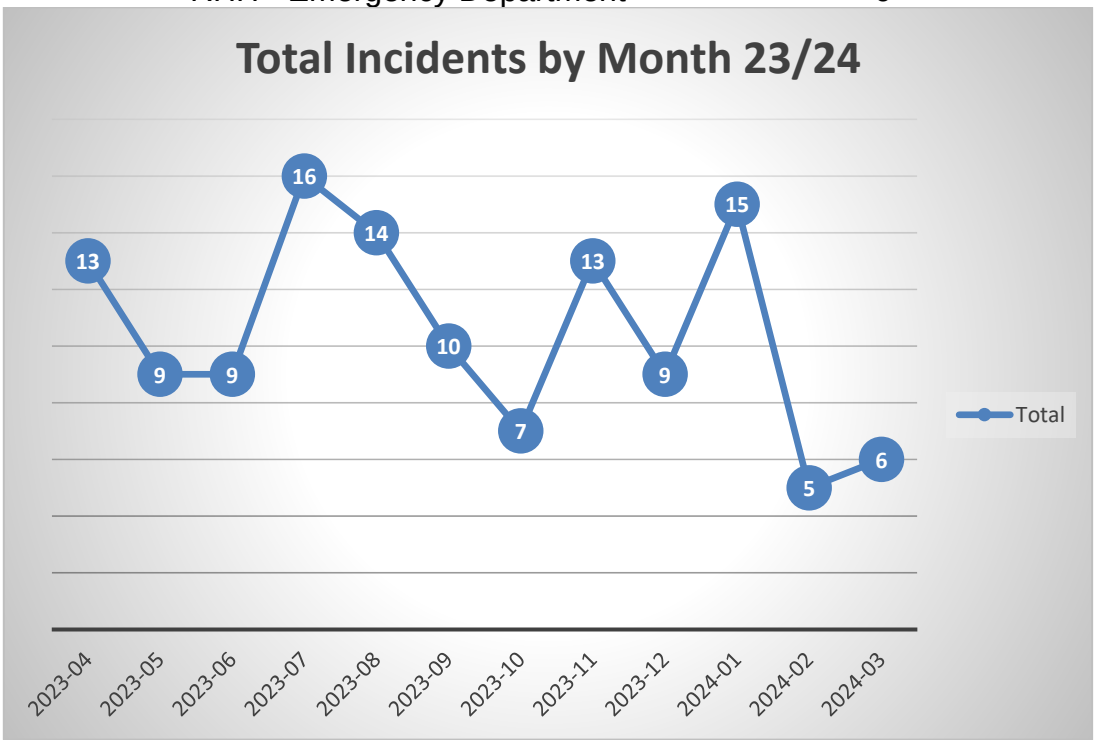


Please Note: (HS) HN03 - Needlesticks/Sharps Hazard no longer exists as an incident subcategory, incident reporters now need to choose between needlestick and non-needlestick sharp incidents.



Top 3 highest locations for number of sharps incidents

Location	Count of incidents
RHH - Main Theatres	8
RHH - Ward C7	7
RHH - Theatres (Day Surgery Unit)	6
RHH - Emergency Department	6



Splash Incidents

There were 10 splash related incidents reported in 2023/2024. The majority of these relate to a lack of PPE, such as a safety glasses/goggles, being worn by staff.

IPC related RIDDOR

There were 5 IPC related incidents reported to HSE under RIDDOR (Reporting of Injuries, Disease and Dangerous Occurrences Regulations) for 2023/2024. Four of these were a result of needlestick injuries and one was a splash incident all involving patients known to have a blood borne virus and thus categorised as a 'Dangerous Occurrence' under RIDDOR.

There were 4 IPC related incidents reported to HSE in 2022/2023.

SECTION FIVE:
LOOKING FORWARD TO 2024 / 2025

5.1 An Overview of Infection Prevention and Control Programme 2024/25

This section gives an oversight of the work planned to prevent and control infections in 2024/25 and to achieve external thresholds and comply with the Code of Practice on the prevention and control of infections. It is designed to reflect DGFT's Quality Strategy to deliver care that is clinically effective; care that is safe; and care that provides as positive an experience for patients as possible.

The key aims in 2024/25 will be to build on the work that has been done in previous years to prevent HCAIs and improve the lives of the people who come into contact with DGFT services. Patient safety is at the heart of IPC, and to ensure our work is sustainable, DGFT promotes that every member of staff takes responsibility for IPC in order that that **no person is harmed by a preventable infection.**

Infection Prevention and Control Strategy focus for the upcoming year are:

- Develop a new IPC system wide strategy.
- Minimise the risk to patients from healthcare-associated infection and prevent all avoidable HCAI's.
- Maintain compliance with all requirements of the Code of Practice for Health and Adult Social Care on the Prevention and Control of Infections and related (updated 2022).
- Continued commitment to working in partnership with other healthcare providers and the multidisciplinary team.
- Continued delivery of education and training on prevention and control of infection so that staff understands their responsibilities and action to take.
- Review and improve internal processes and systems related to infection control and PFI partners.
- Enhanced surveillance of infections and learning through actions
- Support proactive antimicrobial stewardship within the Trust.
- Ensure appropriate information relating to infection risks is communicated to relevant parties.
- Ensure collaborative working within the Trust and PFI partners to ensure the maintenance of a clean and appropriate environment.
- Ensure policies are in place and reviewed to ensure they fully reflect and meet the regulatory standard.
- Continued commitment to an approach whereby prevention and control of infection is viewed as integral to service delivery and development.
- Enhance patient and public involvement in infection prevention and control in order to improve patient experience and reduce risk to the public.
- Develop a programme of quality improvement to underpin the delivery of high-quality infection prevention practice with the potential to foster improvements in experience, safety, and effectiveness of patient care.
- Supporting National Campaigns including Gloves Off
- Introducing Mouth Matters throughout the Trust

- Team members will be supported to develop their skills and knowledge within the field of infection prevention and control ensuring that the quality of service provided by all the members of the team is robust and of high standard.

What are the key challenges?

- Level of hospital activity and service capacity
- Prioritising resources to deliver the Strategy within the current financial climate.
- Emerging infections, resistance patterns and new strains of microorganisms
- Limited isolation facilities
- Ensuring a clean fit for purpose environment
- Meeting regulatory HCAI targets
- Educating workforce, patients and public
- Engaging with key stakeholders and external agencies
- Providing assurance that there is continued compliance with Infection Prevention and Control policy and standards.
- Releasing staff to undertake training.
- Post COVID-19 recovery.

5.2 2024/25 Local Infection Prevention and Control Objectives

5.2.1 2024/25 Infection Thresholds

- Zero tolerance MRSA bacteraemia will continue in 2024/25 and reduction targets will be set for *Clostridiodes difficile* infection and Gram-negative bacteraemia (GNBSI), including *Escherichia coli*, Klebsiella and Pseudomonas. 2024/25 NHS Standard Contract
- Financial sanctions relating to MRSA bacteraemia and *Clostridiodes difficile* infection have been removed from the 2023/24 NHS Standard Contract and sanctions will not apply in relation to the new GNBSI targets.

5.2.2 2024/25 IPC Key Performance Indicator (KPI)

DGFT will continue to undertake MRSA screening for all relevant elective and emergency admissions.

5.3 Conclusion

The elimination of avoidable healthcare associated infections continues to be a priority for the Trust, patients and the wider public. In response, a robust annual programme of work has been implemented by the Trust over the last year which has been led by an experienced and highly motivated Infection Prevention and Control Team and supported by colleagues at all levels of the organisation.

The successes over the last year have only been possible due to the commitment for infection prevention and control that is demonstrated at all levels within the Trust. High standards of infection

prevention and control and antimicrobial stewardship will remain crucial to minimise the risk of infection and limit the emergence and spread of multi-drug resistant organisms.

SECTION SIX:
ACKNOWLEDGEMENTS AND FURTHER INFORMATION

Thank you for reading the IPC Annual Report for 2023/24.

If you require any further information about IPC in DGFT please email the team at dgft.infection.control@nhs.net or visit our webpage at Infection control - The Dudley Group NHS Foundation Trust (dgft.nhs.uk)

This report was prepared by DGFT's IPC team:

Mary Sexton - Chief Nurse & Director of Infection Prevention and Control (until October 2023)

Helen Blanchard - Interim Chief Nurse & Director of Infection Prevention (October 2023 – March 2024)

Martina Morris - Chief Nurse & Director of Infection Prevention and Control (March 2024 - Present)

Liz Watkins - Deputy Director of Infection Prevention and Control

Kim Jarrett - Trust Decontamination Lead

Hannah White - IPC Clinical Nurse Specialist

Samantha Ware - IPC Clinical Nurse Specialist

Georgia Lingard - IPC Nurse

Maisie Maund - IPC Nurse

Georgina Miller - IPC Nurse Rabia Arif - IPC Data Analyst

Simon Hipkiss - Decontamination Technician

Jemma Arrowsmith - Decontamination Technician (from May 2023)

Alison Painter - IPC Team Secretary

In conjunction with:

Muhammad Abdullah - Principal Pharmacist Antimicrobial Therapy

Richard Maddocks - Health and Safety Advisor

Priyanka Nar - Occupational Health Advisor

Jannine Dyke - Soft Services Contract Manager

Darren Lowe - Estates Advisor