UNIVERSITY HOSPITALS COVENTRY & WARWICKSHIRE NHS TRUST

REPORT TO QUALITY AND SAFETY COMMITTEE

Infection Prevention and Control (IPC) Annual Report 2022 - 2023

1. INTRODUCTION

Good IPC including cleanliness is essential to ensure that people who use health and adult social care services receive safe and effective care. This report provides the Quality and Safety Committee of University Hospitals Coventry and Warwickshire NHS Trust (hereafter known as UHCW) with an annual review of the mandatory reporting and activities undertaken by the IPC Team between April 2022 and March 2023.

The publication of the IPC Annual Report is a mandatory requirement in accordance with the Health and Social Care Act 2008: Code of Practice on the Prevention and Control of Infection and related guidance (updated DOH 2022). The act requires registered providers to demonstrate safe, effective care or treatment that prevents avoidable harm and drives improvements in the quality and safety of services provided. Compliance is measured against ten criterions, to which CQC Key lines of enquiry align.

This report acknowledges the hard work and diligence of all grades of staff, clinical and non-clinical, which play a vital role in improving the quality of patient and stakeholders experience as well as helping to reduce the risk of infections. Additionally, the Trust continues to work collaboratively with a number of outside agencies as part of its IPC and governance arrangements including:

- NHSE
- Coventry and Warwickshire ICB
- West Midlands Health Protection Team/ UKHSA

A zero-tolerance approach continues to be taken by the Trust towards all avoidable HCAIs. We ensure that good IPC practices are applied consistently and are part of our everyday practice meaning that people who use services at UHCW receive safe and effective care.

Infection Prevention and Control Board Assurance Framework.

The IPC BAF was produced by NHSE in May 2020 to support all healthcare providers to effectively self-assess their compliance with UKHSA and other COVID-19 related infection prevention and control guidance and to identify risks. The tool has undergone several updates, and in September 2022 version 1.11 was released.

Using this framework is not compulsory; however it was developed as a source of internal assurance to support organisations to maintain quality standards. The IPC BAF has been shaped using the criterion from the Health and Safety Act, although specific requirements of evidence are made. This document has been included in IPC updates to the Quality Safety Committee on a quarterly basis during 2022/23.

This 2022/23 IPC annual report will focus on compliance with the Health and Safety Act criterion and provide assurance against these objectives. The 2023/24 IPC annual work plan is included to further support this report and its findings by demonstrating activities planned to strengthen the previous financial years position, and to develop supporting evidence in the next financial year (see appendix 2).

2. CONTENT

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 risks that their environment and other users may pose to them.

This criterion links with Hygiene Code Outcome 6 and Regulation 24 relating to co-operating with other providers in the CQC guidance about compliance.

The Trust has in place:

- A Board level agreement outlining their collective responsibility for minimising risks of infection and how this is to be achieved.
- A Director of Infection Prevention & Control accountable to the Chief Executive and the Board.
- Mechanisms in place by which the Board ensures sufficient resources are available to secure effective prevention & control of HCAI.
- Measures to ensure relevant staff, contractors and other persons directly or indirectly concerned with patient care receive suitable and sufficient IPC information, training and supervision relevant to their roles throughout their employment, to minimise the risks of IPC relevant principles of antimicrobial stewardship, risk assessment and how to escalate concerns.
- Systems in place for service users and staff to raise concerns and to receive feedback.
- A programme of audit and quality improvement to ensure key policies and practices are being implemented appropriately.
- A designated decontamination lead.
- Provision of designated antibiotic pharmacist hours and a consultant microbiologist with an antibiotic stewardship role.
- A water safety group and water safety plan.
- A ventilation group.
- An infection related patient risk assessment that takes place on and during admission, and on result feedback.
- Methods and interventions to monitor the risks of infection, to determine whether further steps are needed to reduce or control infection.

Infection Prevention and Control Structure

The Chief Nursing Officer is the Trust designated Director of Infection Prevention & Control (DIPC) and is supported in this role by the Deputy Chief Nursing Officer/ Deputy Director of Infection Prevention and Control.

The IPC team led by the Lead Nurse provide specialist education, support, and advice to all Trust staff with regard to IPC and sepsis. The team also liaise regularly with patients and relatives to provide information on alert organisms, offering advice and reassurance when required.

The remit of the team includes:

- To have policies, procedures and guidelines for the prevention, management, and control of infection in place across UHCW.
- Provision of advice to clinical and management colleagues including:
    - Monitoring of infection risks
    - On-going staff education and training
    - Appropriate advice in response to major outbreaks of communicable infections
    - Appropriate IPC advice to key Trust committees, taking national guidance and policy into account.
- To work with other clinicians to improve surveillance and to strengthen prevention and control of infection
- To share information with relevant stakeholders within the NHS where required.
- To ensure high standards of infection control are maintained throughout UHCW through a programme of audits and surveillance.
- To liaise with clinicians and operational teams providing operational support and risk management.

To deliver a safe service, there is a close working relationship with teams across the Trust, including the Microbiology Laboratory, Estates and Facilities, Health and Safety, procurement, the communications team and across the PFI structure. As necessary, members of the wider microbiology/infectious diseases team are co-opted on to the team.

IPC Medical leads for each clinical group have been in place since July 2020. The position is allocated a 0.25 PAs to work alongside GDNA’s in order to strengthen IPC leadership at group level. Trust data and themes are shared with leads, and group level action plans including this real time data are generated. A key objective of 2023/24 is to refresh this role and realign the provision to the NHSE Board Assurance Framework and IPC educational strategies, with recruitment to new vacancies underway.

Infection Prevention and Control governance, assurance and reporting framework

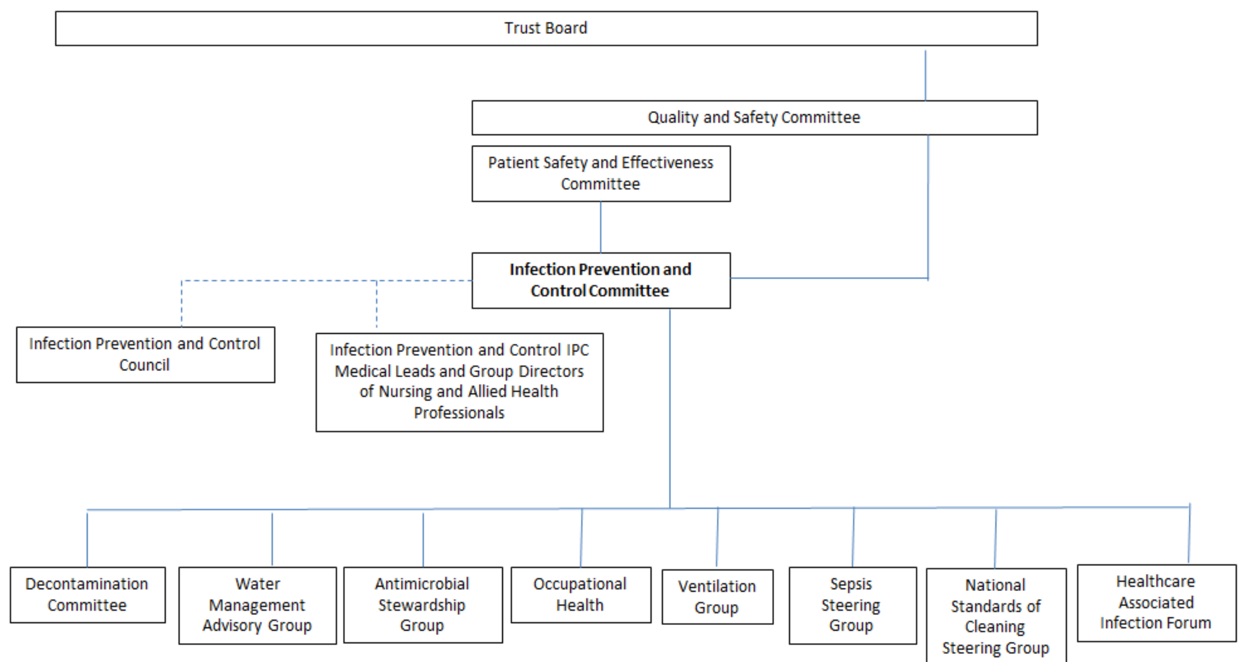
The IPC team reports on a monthly basis to the Infection Prevention & Control Committee (IPCC), and are directly accountable to the deputy chief nurse and the DIPC. IPCC provides

strategic direction for the prevention and control of HCAI at UHCW. IPCC is responsible for supervising the delivery of the annual infection control priorities and audit programme and the infection control annual report, as well as identifying risks relating to infection control via review of risk assessments and incident reports. It oversees the Trust performance against KPI and ensures there is a strategic response to new legislation and national guidelines.

Membership comprises of:

- Representatives from the IPC team
- Representatives from other relevant groups within the Trust (CSSD, Occupational Health, Pathology)
- Consultants in microbiology and virology
- UKHSA
- ICB

A number of sub-groups reports into IPCC, from which upwards assurance is provided to the Patient Safety and Effectiveness Committee, Quality and Safety Committee and Trust Board as demonstrated in the diagram below.



An ambition of 2023/24 is to receive group level IPC reports to IPCC for action plan monitoring and assurance. The newly developed IPC dashboard will support this, enabling group’s rapid access to ward/ department level data and IPC investigation findings.

The DIPC reports regularly to the board on performance against target trajectories; key issues and actions and any other infection issues when relevant. A quarterly report to Quality Safety Committee is submitted, and the IPC lead nurse or representative attends the meeting to present the paper and update on Trust performance in mandatory reporting fields.

The Trust monitors risks of infection through data collection, audit and review of clinical incident reporting. These findings and a review of current risk assessments are reported to IPCC and the findings are used to inform future actions and strategy.

The Trust has a robust incident reporting system through which staff can report adverse incidents such as deviation from a clinical guideline or poor practice that may be detrimental to patient care. The IPC team have daily oversight of all incidents reported and will provide expert guidance and advice as required to mitigate any further risk or patient harm. This is also used by the IPC team to upwardly report HCAI incidents and outbreaks.

A trust wide review of QIPS data packs is being undertaken by the Patient Safety Team and the IPC team are working in collaboration with them to design the infection section, including DATIX reports. This will align to the ambition of group level reporting to IPCC and offers excellent opportunities for IPC leads to generate discussion, share learning and quality improvement initiatives providing an excellent opportunity for development in 2023/24.

Organisms subject to mandatory reporting

The trust is required to report centrally on the following organisms

- Methicillin-resistant Staphylococcus aureus (MRSA)
- Methicillin-sensitive Staphylococcus aureus (MSSA)
- Gram negative Bloodstream Infections (E. coli, Klebsiella spp. and Pseudomonas aeruginosa)
- Clostridioides difficile (C. difficile)

For all of the above infections, a category is given for reporting purposes based on nationally set criteria. The following two categories assume a link to healthcare provision and therefore attribution is to the Trust (healthcare associated).

- Hospital-Onset, Healthcare Associated (HOHA)

  Any NHS patient specimens taken on the third day of admission onwards (i.e. ≥ day 3 when day of admission is day 1) at an acute trust.

- Community-Onset Healthcare-Associated (COHA)

  Any case reported by an NHS acute trust not determined to be Hospital-Onset Healthcare Associated and where the patient was discharged within 28 days prior to the current specimen date (where date of discharge is day 1).

Reporting and Investigation

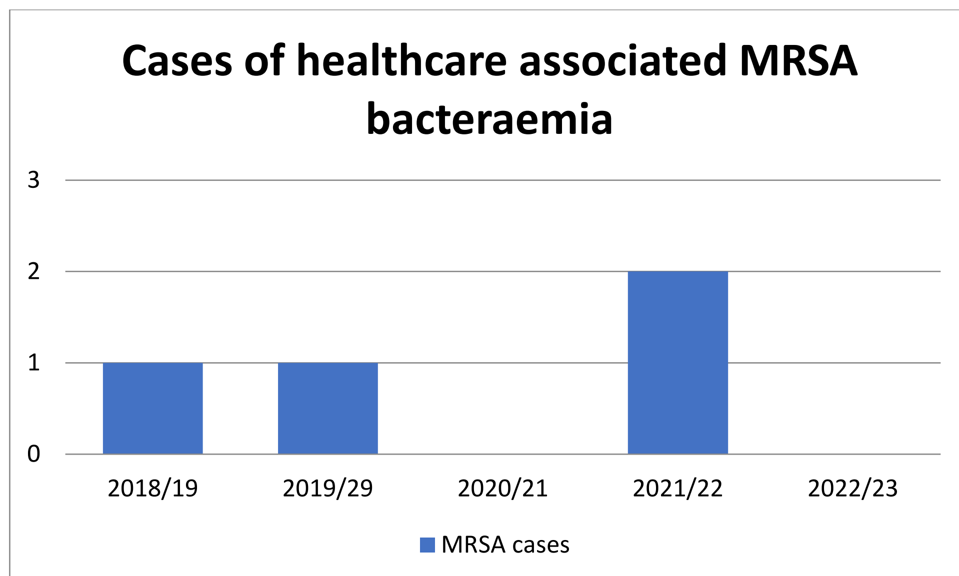
MRSA

Staphylococcus aureus is a bacterium commonly found on human skin which can cause infection if there is an opportunity for the bacteria to enter the body. In serious cases it can cause blood stream infection. Methicillin Resistant Staphylococcus aureus (MRSA) is a strain of these bacteria that is resistant to many antibiotics, making it more difficult to treat.

Many patients carry MRSA on their skin and this is called colonisation. It is important that we screen some groups of high risk patients when they come into hospital so that we know if they are carrying MRSA. Screening involves a simple skin swab. If positive, we can provide special skin wash and nasal cream that helps to get rid of MRSA. This measure reduces the risk of an infection developing.

The Trust reported zero cases of Trust acquired MRSA Bacteraemia during 2022/23 meeting the national mandate.

This is a decrease of two cases from 2021/22, where two cases of Trust acquired MRSA Bacteraemia were reported.



Of note, an increase in community attributed cases was seen in 2022/23 across the system, and ICB colleagues have undertaken post infection reviews of each case. Where the patient attended or was admitted to the Trust, the IPC team have had a representative at the review and have considered each case for learning opportunities and improvement. Aseptic Non-touch Technique training refreshers and improvement in decolonisation implementation were two items discussed and cascaded to Trust groups.

MRSA screening

UHCW employs a risk based approach to minimising the risk of MRSA bacteraemia, in line with national guidance. All admissions to areas considered high risk are routinely screened for colonisation with MRSA to ensure that appropriate action can be taken to prevent transmission.

The Trust continuously monitors compliance with this process. Compliance with admissions for 2022/23 as of March 2023 is shown in the table below, demonstrating above expected compliance in all categories. During 2022/23 deep dives took place into emergency and elective performance, and ward/ department level feedback given to groups. Medicine and Trauma and Neuro both presented improvement strategies to the IPCC and performance was monitored through that forum. This will continue in 2023/24 with the addition of a monthly MRSA power BI report to enable responsive and robust reporting.

MRSA screening category	Percentage compliance as of March 2023
Emergency Screen (Compliance >90%)	94.4%
Elective Screen (Compliance >95%)	97.9%
Elective Day Case (Compliance >95%)	96.7%

MSSA bacteraemia

MSSA is a strain of Staphylococcus aureus that can be effectively treated with antibiotics. It can cause infection if there is an opportunity for the bacteria to enter the body and in serious cases it can cause blood stream infection.

The Trust is required to report all healthcare associated MSSA bacteraemia to UKHSA each month, however of note there is no externally set annual ceiling threshold of the number of cases. The Trust instead sets an internal threshold guided by reduction principles applied by NHSE to the other infections of a 5% reduction. UHCW has reported 42 healthcare associated MSSA bacteraemia during the year 2022/23, a decrease of 22 cases since 2021/22, and a reduction of 34%. During the reporting period, a rate of 11.9 per 100,000 bed days was found.

A Root Cause Analysis (RCA) is performed on all cases meeting a HOHA definition, and a thematic review is undertaken of COHA cases allowing the IPC to raise any issues and provide feedback. During 2022/23 the key themes included skin or soft tissue complications, line/ device related or clinical condition e.g. hepatobiliary related sepsis. A deep dive is planned in May 2023 in collaboration with the Clinical Diagnostics IPC medical lead to review biliary stent and percutaneous transhepatic biliary drainage, and a key objective of 2023/24 for the IPC team is improving documentation of care of cannulas and lines throughout the trust. This will align to Electronic Patient Records (EPR) and will be monitored through IPCC.

During 2022/23, the medicine group undertook an audit of compliance with the MSSA bacteraemia pathway, a tool developed by Infectious Diseases and Microbiology to standardise patient management post positive result. The retrospective audit was undertaken from January 2022 to February 2023, with 48 sets of patient records able to be

reviewed. The findings demonstrated good compliance with the pathway, with areas of improvement to be developed into an action plan. This will be repeated during 2023/24.

Gram Negative Bloodstream Infections

NHSE/I has set a national target of halving of healthcare associated GNBSI by 2023/24 and therefore introduced thresholds related to GNBSIs in 2021/22 to the NHS Standard Contract for the first time.

However, nationally changing trends in GNBSI were seen during and post the COVID-19 pandemic, aligning to UHCW findings and performance in 2021/22, with breaches seen in E.coli, Klebsiella spp and Pseudomonas. The Trust ceiling thresholds for GNBSI in 2022/23 from NHSE reflected the increase in the previous financial year and was increased in direct disparity to the national 2023/24 reduction ambition.

There remains an uncertainty to the degree and speed to which a bounce back to pre-pandemic counts might occur and the regional NHSE task and finish group continues to build upon action plans regarding catheter passports and mouth care. UHCW IPC team chair a system wide urine group with key stakeholders from across the ICB which is discussed at the local Public Health Antimicrobial Stewardship (AMS) forum on a quarterly basis. This work has included urine sample techniques, early detection through sampling, and hydration awareness in collaboration with ISS, Acute Kidney Injury team and pathology services.

The table below demonstrates ceiling threshold and cumulative total of results for 2022/23 and for comparison, ceiling thresholds and performance in 2021/22. Overall performance across all three infections was very good and below the ceiling threshold. Conversely, all three would have met the lower ceiling thresholds set the financial year before, and Klebsiella and Pseudomonas performance was below threshold again.

	2022/23 ceiling threshold	2022/23 cumulative total	2021/22 ceiling threshold	2021/22 cumulative total
E.coli	137	**130**	130	136
Klebsiella spp	63	**45**	58	70
Pseudomonas	40	**30**	37	39

Escherichia coli blood stream infection

Often referred to as E. coli, this is part of the normal gut flora and can commonly cause urinary, biliary or gastrointestinal tract related infection leading to blood stream infection (E. coli blood stream infection). Some E. coli are enzyme producers known as extended spectrum beta lactamase (ESBL) which increase the resistance to multiple antibiotics.

A total of 130 cases of E.coli were reported in 2022/23, generating a rate of 36.9 per 100,000 bed days compared to the previous year's rate of 38.2.

It is relevant to note that E. coli remains the most frequent cause of bloodstream infection in the UK, aligning to the higher number of reports shown therefore continues to be a key area of focus.

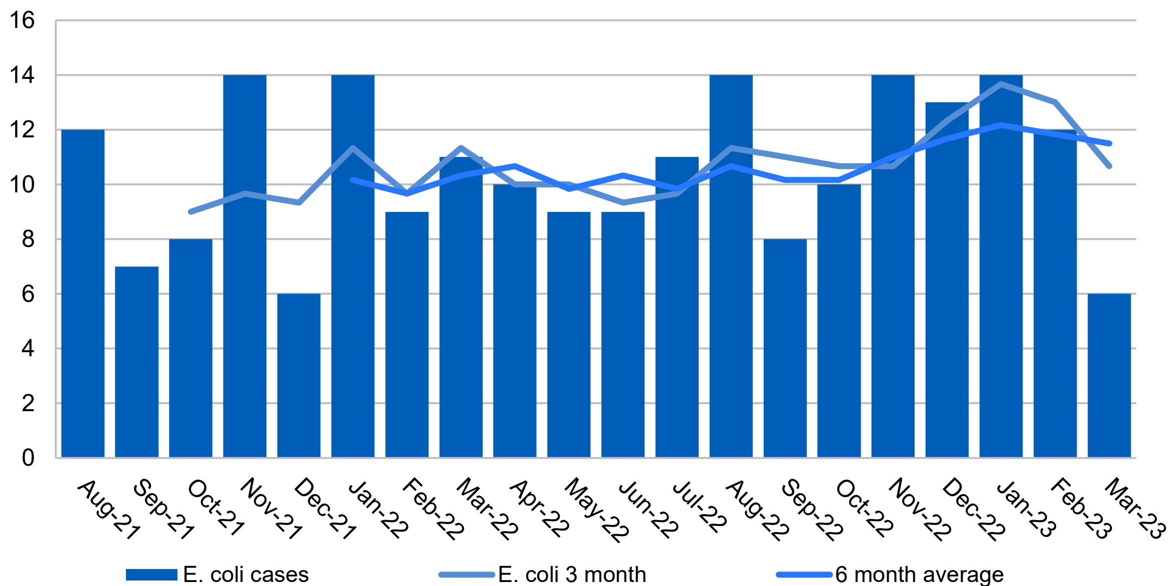
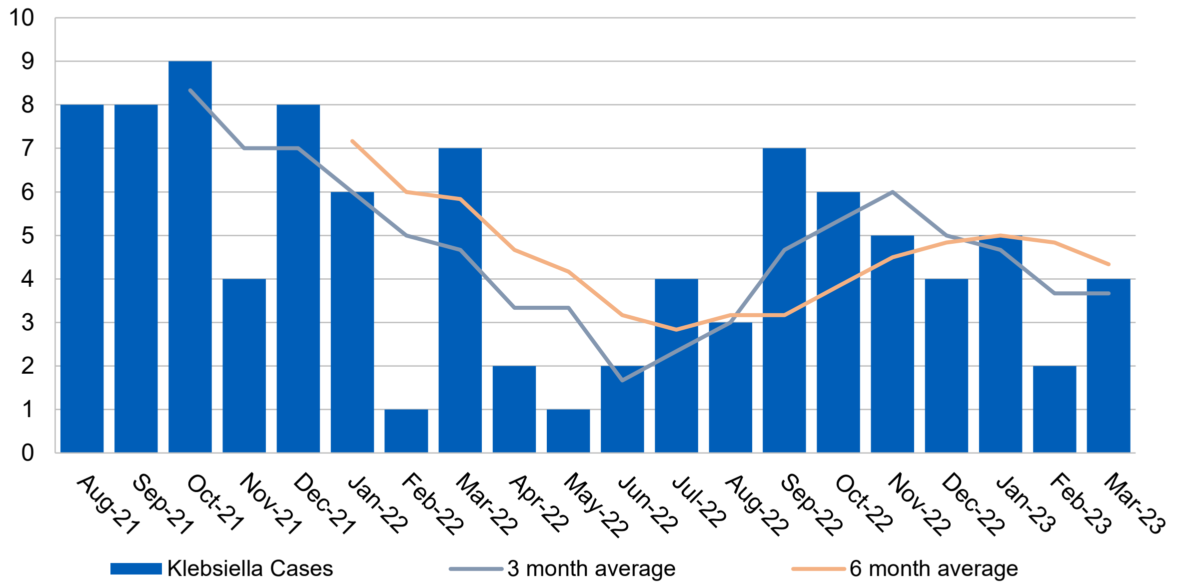


Table top reviews of E.coli cases are undertaken, and hepatobiliary sepsis remains the most common cause documented for the positive result, followed by urinary tract infection as per 2021/22 themes. As already described, exploration of biliary stent insertion and percutaneous transhepatic biliary drainage is taking place in 2023/24 for assurance due to an emerging theme, and will be monitored through IPCC.

<u>Klebsiella species blood stream infection</u>

Klebsiella species belong to the family Enterobacteriaceae. Klebsiella species are commonly associated with a range of healthcare associated infections, including pneumonia, bloodstream infections, wound or surgical site infections and meningitis.

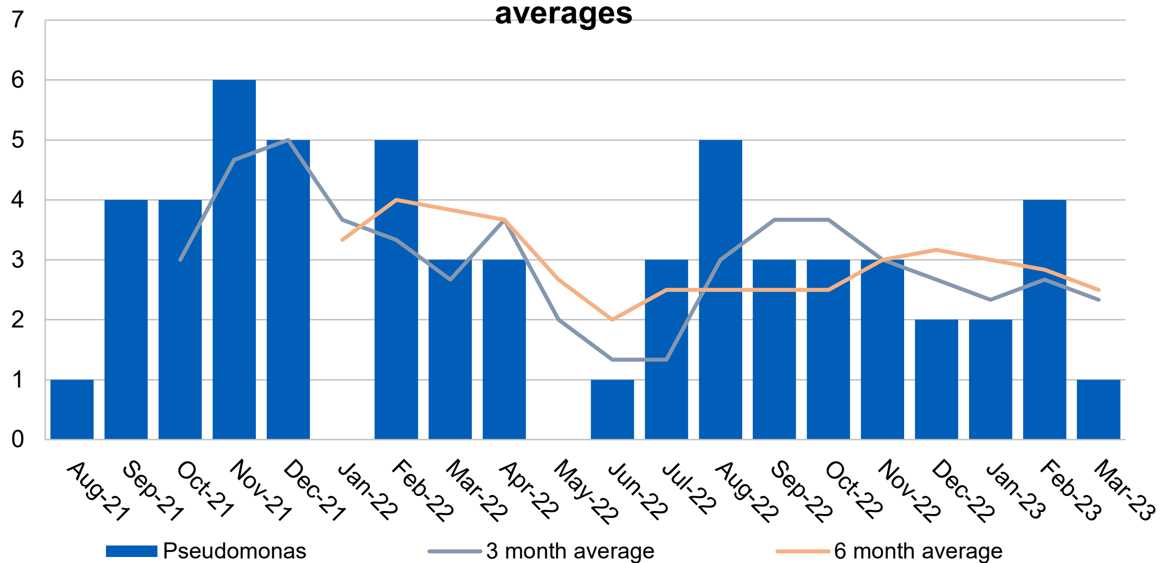
There were 45 hospital onset cases of Klebsiella bacteraemia in 2022/23, generating a rate per 100,000 bed days decreased from 19.3 in 2021/22 to 12.8 in 2022/23.



Pseudomonas aeruginosa blood stream infection

Pseudomonas aeruginosa is a type of bacteria found commonly in the environment, including soil and in water. Of the many different types of Pseudomonas, the one that most often causes infections in humans is called Pseudomonas aeruginosa, which can cause infections in the blood, lungs (pneumonia), or other parts of the body after surgery.

There were 30 hospital onset cases of Pseudomonas aeruginosa bacteraemia in 2022/23, with a rate of 8.5 per 100,000 bed days, a decrease from the previous 2 financial years which had maintained a rate of 11 per 100,000 bed days.



Pseudomonas in General Critical Care

A Period of Increased Incidence (PII) is defined as two or more new cases of the same infection (occurring >48hours post admission, not relapses) in a 28-day period. When a PII is identified, it is recommended that a standard set of actions be put in place including ribotyping of isolates and ward audits. An outbreak is then defined as two or more cases caused by the same strain related in time and place over a defined period that is based on the date of onset of the first case.

In December 2022, the IPC team instigated investigations into a PII involving 5 patients identified as Pseudomonas aeruginosa between December 2022 and January 2023 in the General Critical Care unit. This included rates of infection over time, the timeline of the patients involved, the environment, hand hygiene, and water testing.

Four patient samples were able to be sent for typing, three of which were identified by the national reporting laboratory as being identical. However, the feedback also notified us that this type of Pseudomonas aeruginosa is common and has been isolated from numerous hospitals across the UK.

As per incident management guidance, a meeting was held with external parties including the ICB and NHSE, and following presentation of case findings, actions and reference lab feedback it was agreed it is difficult to determine there transmission from patient to patient or if these patients would have become colonised with this common strain individually as a result of their critical care admission.

Good practice was identified in instigating outbreak management principals to gain assurance that all is being done to minimise the risk of infection to patients and the unit is currently finalising outstanding actions from the plan. IPC continue to monitor the unit for any new cases of concern. There have been no further cases linked to this cluster of cases at the time of writing

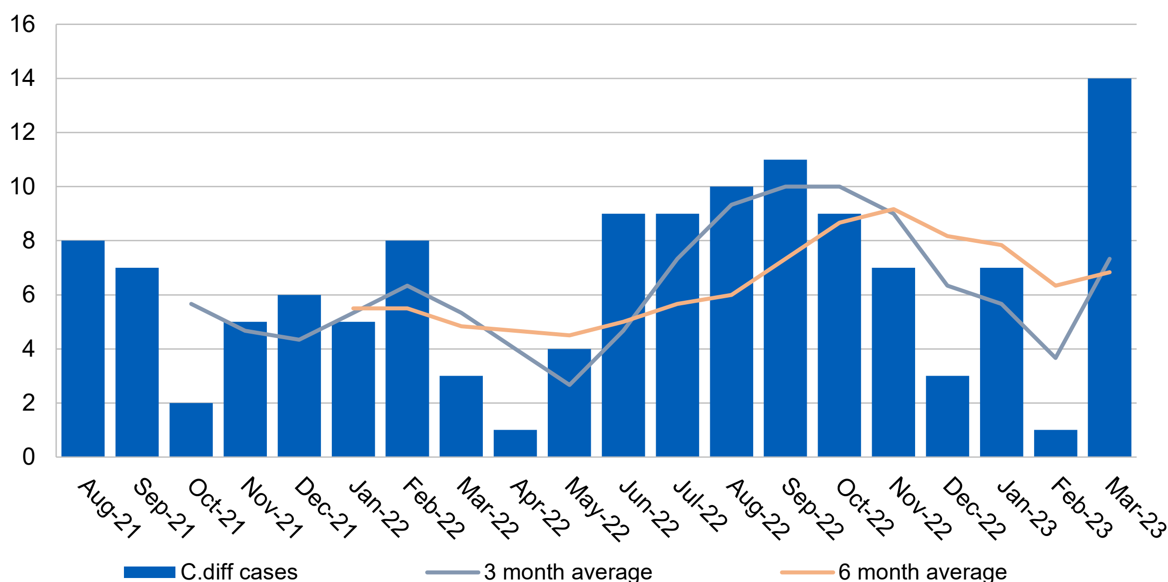
Clostridioides *difficile* (C.diff)

C.diff is a bacterium found in the gut of around 3% of healthy adults. It seldom causes a problem as it is kept under control by the normal bacteria of the intestine. However certain antibiotics can disturb the bacteria of the gut and Clostridium difficile can then multiply and produce toxins which cause symptoms such as diarrhoea.

The ceiling for UHCW apportioned cases of C. difficile for 2022/23 was set at 65 cases, a reduction of 5 cases from the 2021/22 threshold of 70. The Trust reported a total of 85 cases for the financial year, 20 more than the threshold set, and 16 more than the 2021/22 reporting period.

The chart below shows that quarter 1 performance was below expected ceilings, however between June and November 2022, the monthly reported cases exceeded the monthly ceiling thresholds. March 2023 was particularly poor and above 3 and 6 month rolling averages.

A C.diff reduction plan has been created and is monitored through IPCC for assurance, escalations and risk.



Further analysis of the cases is displayed in the table below, dividing cases by the COHA and HOHA criteria. The percentage of cases found positive in both categories has remained the same as the previous reporting period despite the increased number of cases, with a shift demonstrated from 2020/21 of an increased number of COHA cases. This could be due to a number of influences from the COVID-19 pandemic, including lower numbers of attendance, fewer samples taken by community providers and changes in prescribing practices from community providers such as dentists.

	2020-21	2021-22	2022-23
Total number of cases (1st April – 31st March)	68	69	85
Total meeting HOHA criteria	45	40	49
Total meeting COHA criteria	23	29	36
Percentage of total cases meeting HOHA	66%	58%	58%
Percentage of total cases meeting COHA	34%	42%	42%

An RCA takes place of all COHA and HOHA related C.diff, and each case is discussed with the ICB and other multidisciplinary team members at the HCAI forum for validation and investigation of the case to identify if any lapses of care as per NHSE requirements (2016) that have likely attributed to the acquisition of C.diff.

Lapses of care refer to issues that may have contributed to the development of a patients C.diff infection. The HCAI forum also determines if there are any lapses in care that require redress by the clinical area. This enables the formation of an action plan to assist in praise of good practice and drive forward change for elements and practice that may need developing in order to improve patient safety. Lapses in quality are also reviewed and actioned and these refer to issues relating to the management of the patients with confirmed C.diff.

The table below demonstrates of the 70 cases reviewed to date, 55 cases to date have not been considered attributable to the Trust. 15 cases were identified as having lapses in care that attributed to the acquisition of C.diff. A further 15 cases are awaiting review – a plan is in place for these to be undertaken, with planned meetings scheduled.

Month	Healthcare associated cases			Cases reviewed with ICB	ICB agreed lapses in care
	Hospital onset	Community onset	Total		
April 2022	1	0	1	1	0
May 2022	3	1	4	4	0
June 2022	6	3	9	9	1
July 2022	5	4	9	9	3
August 2022	5	5	10	10	1
September 2022	5	6	11	11	4
October 2022	4	5	9	9	2
November 2022	2	5	7	7	2
December 2022	2	1	3	3	0
January 2023	6	1	7	5	1
February 2023	1	0	1	1	0
March 2023	9	5	14	1	1
YTD	49	36	85	70	15

Themes from the lapses of care findings considered avoidable:

- Antimicrobial stewardship – length of course, type of antimicrobial, completion of documentation, indication for antibiotic.

- Delays in sampling – missed opportunities to send a stool sample sooner, poor sampling techniques meaning delays to results being received.
- Failure to take prompt samples in the admission wards.
- Matching ribotypes on reference lab testing indicating transmission (Period of Increased Incidence/ outbreak).

Key messages have been shared regarding antimicrobial practice and C.diff throughout the year. This has included Chief Medical Officer safety notices, IPC Safety Huddle messaging, general communications and face to face discussions. A "Think Test Treat" campaign has been launched with an aide memoire for all staff aligned to the key messages of thinking, testing and treating C.diff that reminds staff of the importance of AMS.

As part of a national C.diff Collaborative, the IPC lead attend an NHSE workshop and along with the regional team, have developed an animation education video for staff regarding stool sampling, including some common myths regarding suitability. This resource will be released in 2023/24 and access given to all clinical staff. In the meantime IPC supported clinical teams with face to face discussions and safety huddle presence.

An action plan was submitted by the Emergency Department regarding the delay in samples, with GDNA oversight and supported by clinical group educators.

Lapses in quality have included;

- Overuse/ inappropriate use of gloves - Decreased compliance with hand decontamination
- Prioritising pressures for side rooms – COVID/ mental health safety interventions
- Proton Pump Inhibitor (PPI) use
- Laxatives prior to sampling

A key ambition of 2022/23 is to complete a series of work streams in relation to glove use based upon the Gloves Awareness campaign launched by NHSE. This work has already commenced with KPO team guidance and key stakeholders involved in the discussions and feedback regarding its implementation and use. An implementation plan is underway for the work streams for launch in quarter 2.

A partnership with the gastroenterology team has been formed, and a PPI information poster is being created by the pharmacy team with IPC and gastroenterology to inform decisions around PPI prescribing and continuation. During the reviews it was apparent this often was stopped on receipt of the C.diff result (good practice) but had not been reviewed prior to this, with PPI use associated to changes in bowel flora and C.diff development. An aim of 2023/24 is to further audit and critique prescribing of PPI's – an item that will be significantly assisted by the launch of EPR in October. This will also incorporate antimicrobial stewardship prescribing practice review.

Of note, during 2022, implementation of updated National Institute for Health and Care Excellence (NICE) guidance on Management of C.diff infection has been undertaken which included a switch from Metronidazole to oral Vancomycin as first line therapy, and accessibility of fidaxomicin as a second line consideration. Faecal Microbiota transplants

(FMT) have been undertaken by the Infectious Diseases, microbiology and gastroenterology team in the trust, and an aim of 2023/24 is to further establish this service with IPC involvement.

Period of Increased Incidence (C.diff)

During 2021/22, 12 C.diff PII were managed by the IPC team, of which 3 demonstrated matching typing, indicating it was likely transmission had occurred and an outbreak was declared. These areas were terminally cleaned and where possible fogging has taken place. This has been restricted due to operational pressures, but mitigations are put in place where this has happened of “sign-off” cleans and development of a tracker system of rooms waiting for fogging. Extra hand hygiene and Personal protective Equipment (PPE) reviews were undertaken to support teams in identifying areas of improvement. All IPC findings were shared with the clinical group and rectifications monitored. Antibiotic prescribing audits are performed as part of the associated action plan with feedback shared with IPC medical leads as clinical teams for cascade and learning.

Carbapenemase Resistant Organisms (CRO)

Carbapenem are a class of antibiotic that are active against many organisms. Of all the beta-lactam antibiotics, Carbapenem possess the broadest spectrum of activity and the greatest potency against bacteria. Because of this, they are often reserved for more severe infections or used as "last-line" agents.

Carbapenemase Resistant Organisms (CRO) are bacteria that are resistant to Carbapenem antibiotics through a range of mechanisms which can destroy antibiotics in this group making the bacteria resistant to the treatment.

Bacteria live in the gastro-intestinal tract (gut) of people and animals and contribute to the digestion of food. It only becomes an issue if these bacteria are Carbapenem resistant. Whilst in the gut CRO are harmless and cause no ill effects; this is called colonisation. However CRO can cause a range of serious infections if the bacteria is outside of the gut, these include wounds, blood stream, urinary tract and respiratory tract infection and infections associated with invasive procedures or devices.

The Trust follows the national screening guidance for CRO, which currently focusses on those patients who have been an inpatient in a hospital outside of local area (e.g. UHCW) or who have a known contact history. A business case establishing rapid PCR test to the trust was agreed in June 2022, enabling an eight hour turnaround time for results and improving operational delivery. This trial has been extended into 2022/23 and IPC continue to support.

The IPC team follow up all hospital transfers with clinical teams to ensure a rectal swab or stool sample has been taken (as applicable) and assist teams in the management of any positive or suspected cases including isolation, theatre/recovery management and PPE. Where a positive case is identified, the IPC team will undertake a contact tracing exercise and any patient deemed at risk is alerted on CRRS and surveillance swabs undertaken as per local guidance.

Period of Increased Incidence (CRO)

(From September 2022, the stroke pathway for Coventry and Warwickshire was altered and UHCW became the acute centre for all new patients. In line with this restructuring process, testing for CRO increased for neurosciences. Patients being discharged to different care facilities would also be screened if this was required in order for them to accept the patient (local hospitals and rehab units).

In November 2022, IPC observed an increase in laboratory results that were positive for CRO. These results were from patients who had recently been on, or were still residing on the neurosciences footprint (wards 41 stroke, 42 neurology and 43 neurosurgery). All were asymptomatic but required a screen due to inter-hospital transfer.

Incident management was commenced; including estates review and maintenance of taps, sinks and showers (a commonly associated risk). All cases were sent for typing at the national reference lab and 4 patients tested positive with the same strain, and the reference laboratory indicated that this also matched a previous CRO producing *E. coli* that was sent to them from the ward a year before. This outbreak remains open and under close review, including further testing taking place at the reference lab for more detailed information due to the sporadic timeframe and mixture of organisms found.

Of note, due to national guidance not requiring screening all patients on admission to hospital it is unknown what the rate of carriage is in the community. Through increased vigilance and surveillance screening in of contacts, more positive results are being reported e.g. where the enzyme grown is different to the index cases, this indicates they were a carrier in their own right. Consideration of increased screening in high risk areas such as stroke is under discussion.

COVID-19

During 2022/23 COVID-19 has remained a challenge to the Trust. Guidance changes in the community were not reflected in healthcare settings and this had a negative impact in terms of transmission across our wards.

National guidance on COVID-19 from NHSE and UKHSA was implemented on 01.09.22 changing the screening requirements for COVID-19. The guidance recommended a “pause” on routine, blanket testing for COVID-19 instead recommending testing on symptomatic individuals or those considered immunocompromised or vulnerable. Screening of patients returning to a nursing/ residential home on discharge continues to be required. The Trust is complaint against this guidance, offering COVID-19 point of care testing in ED and rapid testing across other pathways as required.

A revised document released 31/03/2023 will be implemented during quarter 1 2023/24 removing the requirement to use PCR testing for nursing and residential homes, and to only use PCR testing for symptomatic individuals (aligning to other respiratory virus testing).

During December 2022 there was an increase in the number of patients testing positive for COVID-19. Referred to as a “5th wave” of COVID, it involved new variants. The Omicron variant of concern remains the dominant variant circulating globally.

The use of masks in clinical areas remained under review in 2022/23, with national guidance to locally risk assess and consideration of stepping down mask wearing in clinical areas followed in June 2022 being stood back up following an increased prevalence in the community. This has been revisited in April 2023 and masks are no longer routinely worn in clinical areas.

COVID-19 outbreaks

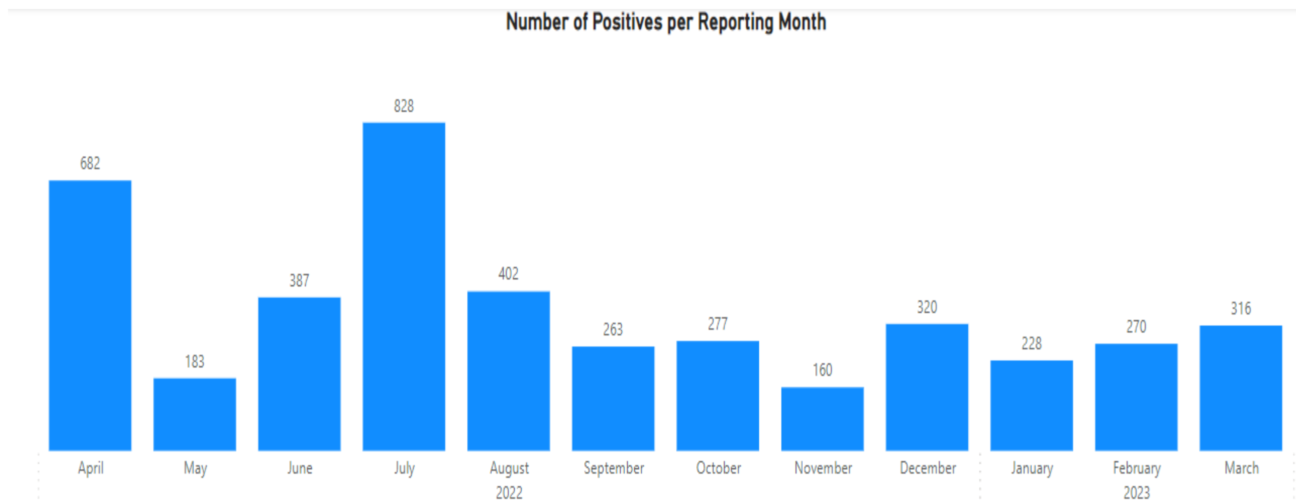
The definition of a COVID outbreak was set by NHSE in May 2020 as two or more COVID-19 cases place linked by time and place, where once case has been in hospital for more than 8 days. During 2022/23 there were 47 outbreaks of COVID identified and managed. Themes from the RCA's include:

- External visitors to Trust attending inpatient settings with symptoms or with a confirmed COVID result
- Asymptomatic contacts returning positive
- Asymptomatic inpatient swab taken for discharge requirement
- Visitors to trust compliance with PPE – mask wearing
- Delay to swabs being taken

During 2022/23 the national requirement was for monitoring to continue for 28 days after the last positive result. The IPC team had oversight of this and updated all clinical areas on a weekly basis to those still in outbreak, achieving the requirement. Audits of PPE, hand hygiene and environmental cleaning are undertaken weekly by the clinical teams with support from IPC and monitored through the weekly outbreak meetings. Staff mandatory training, absence due to COVID and any operational impact during outbreak was considered as part of the review.

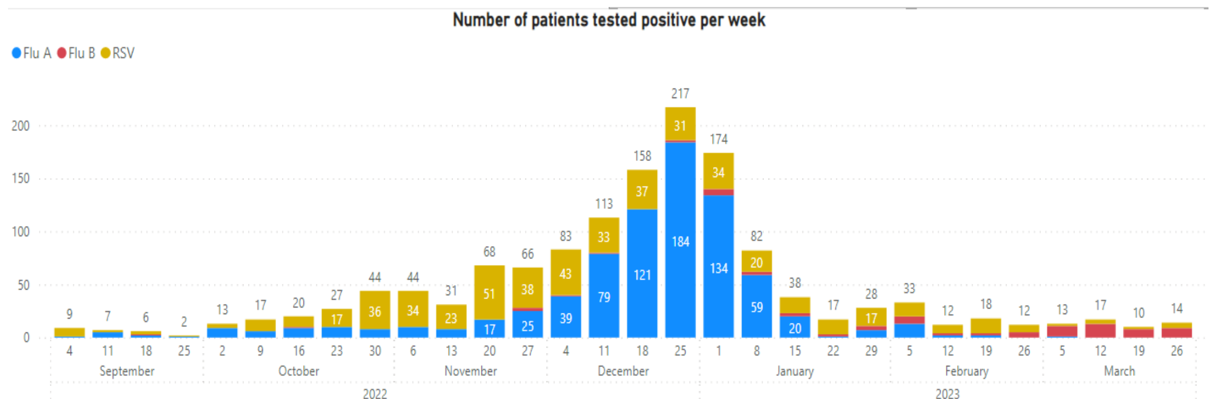
Outbreak meetings have been held and include ICB, NHSE and UKHSA colleagues, and all outbreaks are recorded on the IIMarch system in line with NHSE requirement.

NHSE guidance states any patient who tested positive for COVID-19 8 days after admission is considered a possible or definite nosocomial case. A Datix is completed with a review undertaken 28 days after the positive result to consider outcomes and interventions. Any death or serious harm is reported on STEIS, and duty of candour offered in line with national guidance. This review is undertaken with the patient safety team and Deputy Chief Medical Officer, providing a robust patient specific process. An overview of the number of completed cases is reported through the serious Incident group and to IPCC for noting.



Influenza

As predicted, the numbers of admissions with influenza over the Winter period of 2022/23 were significant, with an increase seen in both paediatric and adult attendances. Historically, during influenza season there have been 50 patients detected with flu per week; in the week of 25/12/2022 we saw a peak of over 200 cases (adults and paeds).



Pathways in place for respiratory presentations at admission areas assited in the trusts management of those presenting with influenza. Point of care testing in direct admission pathways is established for COVID testing, and through Winter planning was extended to include influenza A, influenza B and RSV. This enabled some discharges directly from the Emergency Departments with appropriate treatment and advice, and for those requiring admission has minimised risk of transmission events. It is hoped with Winter planning in 2023/24 this will be reinstated and pathology have started a proposal for consideration.

There have been 6 influenza outbreaks managed within the trust during 2022/23, concentrated in the December period. These were all managed within a bay, and

transmission outside of the immediate shared environment was not seen. These incidents were reported to the ICB, UKHSA and NHSE colleagues in line with NHSE requirements.

Mpox

Mpox is a viral infection belonging to the Poxviridae family. Its main host is in wild mammals, including rodents and primates. Typically, mpox has an incubation period of 7 – 14 days, but it can be up to 21 days.

On 18th May the UK Health Security Agency (UKHSA) reported 9 confirmed cases of mpox in England with atypical history i.e. no links to foreign travel and the Trust was required to rapidly create a pathway through which suspected cases could be managed safely. There were 24 suspected presentations of mpox to the Trust, with three confirmed cases. A virtual clinic was set up by Infectious Diseases team to manage cases in the community where possible, and incident meetings were held with colleagues from UKHSA, NHSE and ICB to discuss each patient for any contact tracing etc. Risk assessments were undertaken on a case-by-case basis for exposure and vaccine as per national guidance.

There was one incident where 5 contacts were offered prophylaxis following a potential exposure, this was managed by UKHSA and no further positive cases were identified. The patient self-discharged and was managed in the community.

Norovirus

The trust reported 7 outbreaks of norovirus during 2022/23. Staff and patient involvement was monitored and restrictions placed on admissions to effected bays as required. This was reviewed on a daily basis to minimise disruption and updates shared across the Trust for information and assurance purposes. An index case is assigned to each outbreak by nature of having tested positive first; however it is often difficult to understand how the virus is introduced to the area initially. Lessons learnt from the events suggested staff were isolating cases before the result was known but transmission had already occurred, or had isolated the patient and then admitted to the empty bed space therefore increasing risk of further transmission. The norovirus testing can return results rapidly (1-2 hours) and this learning was shared with clinical teams. A norovirus standard work is being prepared by the IPC team for internal management to ensure consistency.

Sepsis

The recognition of sepsis is a key element of clinical assessment in the acutely unwell patient, and this is supported by screening tools to aid staff in recognising and managing patients with sepsis. Audits are carried out to identify patients that ‘trigger’ for sepsis assessment to determine if appropriate screening and management is in place. For the reporting period, the Trust has maintained the NHS contractual requirement agreed with the ICB and improved performance against the Trust internal target.

The below tables demonstrates the Trust performance from audits undertaken across the year. The methodology selected is based on that described in the standard contract and a single percentage is achieved based on “doing the right thing” i.e. screened for sepsis, treated for sepsis within an hour if required or de-escalated as not sepsis, therefore demonstrating antimicrobial stewardship best practice.

Emergency admissions refer to the Emergency Medicine (EM) footprint, and inpatient areas all other. With the move to direct access pathways the classifications of ward areas will need re-consideration in 2023/24 but it is hoped this this will be improved with EPR. Compliance (>90%) is demonstrated throughout the year in EM, with an improved performance each quarter in inpatient areas.

Emergency Admissions	Compliance achieved – Treated in 1 hour + Screened & not sepsis / Number of records with infection suspected
Q1	97%
Q2	95%
Q3	96%
Q4	95.4%

Inpatient Admissions	Compliance achieved – Treated in 1 hour + Screened & not sepsis / Number of records with infection suspected
Q1	79%
Q2	83%
Q3	90%
Q4	92%

In order to support further targeted improvements, the process for data collection for audit purposes has been reviewed and streamlined and now provides real time data as well as utilising retrospective analysis to improve clinical group representation. During 2022/23 maternity and neonate data has been included, which were previously underrepresented groups, and the IPC team have started to undertake reviews of all patients with sepsis listed on their death certificate for assurance and oversight. A deep dive into sepsis mortality has taken place and a report is to be prepared and shared with the Mortality Committee. A recommendation from that paper is the process is repeated during 2023/24.

The data collection is limited by the requirement for paper record audit and the team have worked closely with the EPR team to describe the benefits associated with sepsis and the new electronic system.

Education has been provided by the sepsis medical lead and IPC team through varying forums in 2022/23. Regular slots are scheduled for junior doctor induction and nursing preceptorship, and we have supported with adhoc requests for clinical educators who organise training at local level for new starters. All members of the IPC team are able to lead sepsis sessions on the AIM course and have supported the programme throughout the year. The sepsis medical lead role is currently being advertised and it is hoped this will be filled by the end of quarter 1 2023/24.

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

This criterion links with Outcome 10, Regulation 15 safety and suitability of premises contained in CQC guidance about compliance.

The IPC team, in collaboration with the estates and facilities team and the decontamination lead, monitors standards of cleanliness within the Trust and promotes best practice by ensuring the following:

- Decontamination of medical devices and equipment
- The trust is under PFI contract, managed and monitored by the Director of Estates. The ISS head of cleaning services alongside the soft services performance manager provides the Trust with oversight and management of cleaning and environmental services including service planning to delivery at the care level.
- A fortnightly meeting for key stakeholders is in place to discuss cleaning standards and escalate concerns collaboration with key stakeholders. This is further discussed at the national standards for healthcare cleanliness steering group.
- A planned programme of essential maintenance and cleaning is planned and implemented
- The person in charge of any area has direct responsibility for ensuring that cleanliness standards are consistently maintained and all clinical and non-clinical staff has personal responsibility and accountability for maintaining a safe and clean care environment.
- An auditing schedule is in place to monitor cleanliness and ensure building maintenance is in good physical repair and condition.
- FR statuses have been applied to all wards and departments as per the National Standards for Healthcare cleanliness and schedules are in pace in each area depicting responsibilities and frequency of clean. These are monitored for change in use of area/ requirements.
- Adequate provision of suitable hand-washing facilities and products throughout the trust.
- Cleaning schedules are in place on each area, regular audit checks take place by IPC and ward staff of clinical point of care equipment such as commodes.
- Linen and laundry are manged through our PFI providers under the remit of Estates and aligned to national guidance.

Environmental Cleaning

Cleaning services at UHCW in all clinical and non-clinical areas are managed by ISS, supporting the safe environment to patients as well as monitoring the standards achieved against the National Standards of healthcare Cleanliness 2021.

Throughout 2022, the ISS cleaning managers, Estates team, IPC team, and clinical staff worked together to implement the new standards. Clinical and non-clinical areas were reviewed and re-categorised into the new functional risk categories.

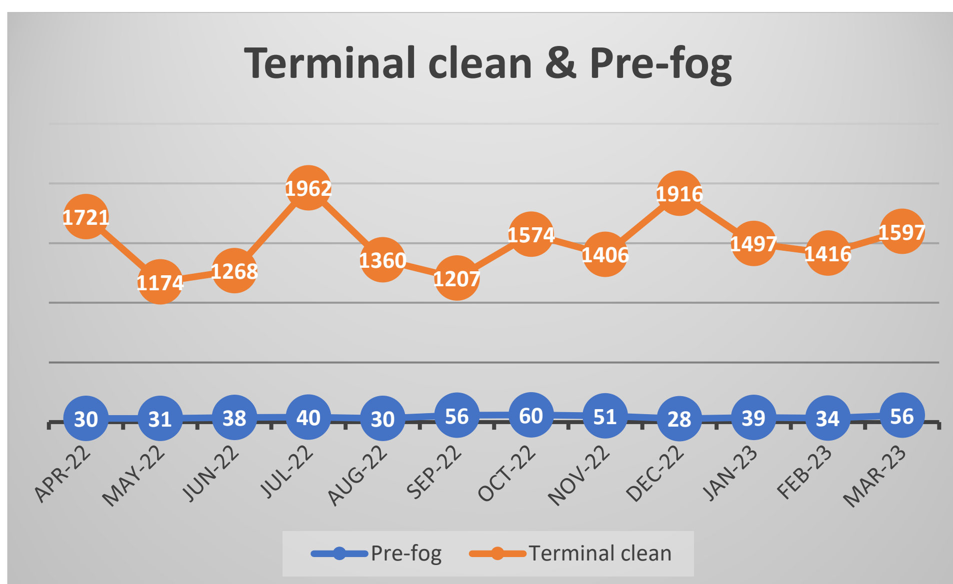
By the end of 2022, the environmental cleaning was fully implemented and being audited against. 2023 will see the implementation of the clinical cleaning, as well as displaying the Commitment to Cleanliness charter and star rating posters in patient facing areas. The ISS cleaning team continue to work alongside clinical teams to support the new standards and to implement the audit process around clinical cleaning.

Audit reports are shared with the ISS management team, Estates team, ward managers and Modern Matrons for escalation and action. Were performance drops to a 3 star or below, and automatic review process is instigated to understand the cause of poor performance, and action plan to remediate any areas of concern. In 2022, there were 7 areas that went through a review process. These were discussed at IPCC and with the Director of Estates under the PFI agreement. All have been rectified.

Terminal Cleans

In addition to routine cleaning, trust staff can request additional cleaning in the event of an infection outbreak or increased incidence of an infection.

All terminal cleans at the Trust are requested via the helpdesk, and are available 24 hours a day, 7 days a week. Hydrogen Peroxide Vapour (fogging) decontamination of infected side rooms is requested as per IPC guidance, and is managed by the Soft Facilities Management Team in partnership with ISS. A total of 18,098 terminal cleans and 493 pre-fogging cleans were requested in the reporting period.



The number of terminal cleans has been heavily impact by COVID, with peaks in performance (July and December) correlating to increased prevalence of the virus. The advice regarding environmental cleaning in COVID remains the same, and alongside the terminal cleans touchpoint cleaning was put in place for the duration of the outbreak to support those area where increased prevalence was noted.

The pre-fog clean is performed prior to hydrogen peroxide vapour being used on a room. This may be done for C.diff or CRO purposes, or as part of the routine enhanced maintenance programme of high risk areas. The number performed remains similar to that of 2021/22 potentially due to operational pressures limiting availability to undertake the procedure (in total the room closure takes 6-8 hours) but also due to limitations on service (not available on weekdays after 16:00, 12:00 on weekends and no availability on bank holidays). This has been raised by the IPC team as a potential risk and alternative solutions are under discussion.

Decontamination and Sterile Services Decontamination (SSD)

The Trust operates an on-site Central Sterile Services Department (CSSD) and a centralised Endoscope Decontamination Facility. CSSD holds several reciprocal Service Level Agreements with other Trusts for contingency decontamination of reusable, invasive medical devices.

CSSD is fully accredited as compliant with the Medical Devices Regulations 2002 (SI 2002 No 618, as amended) and BS EN ISO 13485:2016. As such, the facility is able to provide automated cleaning, disinfection and sterilisation of re-usable, invasive medical devices to all applicable standards. The CSSD Quality Management System (QMS) ensures continuing compliance via ongoing internal audits of every process with the QMS itself being audited at least annually by CSSD's approved body. January 2023's annual surveillance audit resulted in four minor non-conformances, all of which will be actioned and closed out by quarter 2 2023.

The main UHCW endoscopy department along with the St. Cross endoscopy service are inspected to the standards developed by the Joint Advisory Group on gastrointestinal endoscopy (JAG). The external JAG audit took place in summer 2022 resulting in several recommendations, following actioning the recommendations full JAG accreditation was awarded in April 2023. The Endoscopy Decontamination Facility and the satellite decontamination areas has also invested in implementing a new ISO 13485 quality system moving towards best practice, ensuring scopes are processed correctly to the relevant standards.

The Trust has continued to invest in decontamination with new Endoscope washer-disinfectors in place at all three sites, new washer-disinfectors and low temp H2O2 sterilisers in place in CSSD. Plans for steriliser replacement with new steam storage technology resulting in efficient steam usage and reduction of carbon emissions are in development.

An ambition of 2023/24 is to launch the Tristel 3T digital traceability system into the trust. This is currently being organised by the IPC team, decontamination lead and the innovation team alongside ICT. The system will be used to register and document the decontamination procedures performed at point of care using the Tristel three stage wipe system. This is currently a paper based process and this digital solution will create less waste, increase productivity, ensure mandatory record keeping guidance is met and allow better traceability.

An extension to this is the development of a trust based App that allows staff to search for decontamination and cleaning advice for specific items e.g. a keyboard, or a hoist. This project is likely to extend over 12 months due to significant undertaking of the project, and the aim is to generate the information on a group by group basis.

Waste Management including Sharps

The overall responsibility for correct processing of waste in the Trust sits with the Estates team. The Trust Waste Management Policy is in place and available for staff via the Trust intranet.

Monitoring and auditing of process is done in partnership with ISS facilities in accordance with DoH requirements. Clinical waste is monitored on a daily basis by ISS to ensure it has been placed in the correct stream before leaving site, including a visual check of bin content.

The Trust employs an external provider to collect and dispose of sharps via their reusable bins. Reports of their audit findings are provided to the Sustainable Development Manager and IPC on a monthly basis.

Compliance with process is monitored via Datix incident reports and Sharp smart audit findings, with reports received by the Waste Management Group annually.

Health and Safety risk assessments

In keeping with national guidance, the hierarchy of controls was considered part of the risk assessment for all clinical and non-clinical spaces. Risk assessments were requested in all areas, and the Health and Safety team have compiled a repository of the responses for audit purposes. This same principle has been applied to the use of masks in clinical areas following guidance and support from IPC and the Health and Safety team. These

documents the risks and mitigations associated with the ward/ department/ office and allow oversight by the Health and Safety department.

Criterion 3: Ensure appropriate antimicrobial use and stewardship to optimise service user outcomes and to reduce the risk of adverse events and antimicrobial resistance.

The Trust has systems in place to manage and monitor the use of antimicrobials to ensure inappropriate and harmful use is minimised and patients with severe infections such as sepsis are treated promptly with the correct antibiotic. These systems draw on national and local guidelines, monitoring and audit tools such as NICE AMS guidelines, guidance on patient group directions and Start Smart then Focus in secondary care.

During 2022/23 the sepsityper test for rapid identification of bacteria from blood cultures has been introduced. This allows rapid identification of blood culture organisms, thus stopping the overuse of antibiotics or early recall of patients back in to secondary care, benefiting patients and those prescribing. An ambition of 2023/24 and the newly developed Trust AMS strategy is to further develop more efficient and effective technologies to enable the SMART approach to be more effective whilst continuing our usual intra-diagnostic duties (i.e. releasing appropriate but not excessive antibiotic treatment options).

Staff has access to timely microbiological diagnosis, susceptibility testing and reporting of results through the electronic alerts system, and automatic alerts have been set up by the IPC team to ensure the flag is placed in real time. The ability of the new EPR programme to replicate this is still under discussion, but it has been agreed all currently alerts will be transferred prior to launch day.

Advice on appropriate choice of antimicrobial therapy is available through the Microguide© application, online resources, and a microbiologist telephone service. During 2022/23 updates have included the new neurosurgical guidelines, C.diff management changes, the diphtheria guideline and the communications given to Coventry and Warwickshire regarding the management of Streptococcus pyogenes infections.

AMS is listed on the risk register due to the lapses of care in C.diff associated to prescribing. It is also reflective of the limited resource for rounds, with the pharmacist having dual responsibilities for AMS across the whole trust and Outpatient therapy prescribing. The role of microbiology in ward rounds is also limited to set ward areas, although those focussed on are considered to be higher risk. A guardian system for stewardship is being introduced across the groups, with training provided by the AMS lead to support this. It is hoped these members will form part of the reinvigorated AMS group.

A communication has been put out to all members of UHCW to ask those people interested in AMS to volunteer to be part of the AMS group. Support from the clinical directors, the matrons, and pharmacy have been requested.

The main aspects of AMS management at UHCW will include:

- The formation of a new AMS group with new members which will include all departments at UHCW with a MDT approach.
- On-going novel ideas to promote and enforce AMS at UHCW

- Progression of the accreditation of AMS via Global Antimicrobial Stewardship Accreditation Scheme

Global Antimicrobial Stewardship Accreditation Scheme (GAMSAS)

The IPC team, with microbiology and the AMS pharmacist were successful in applying to the British Society for Antimicrobial Chemotherapy GAMSAS programme in 2022/23, and will be undertaking the process in 2023/24.

This is a new scheme which has been set up with the aim of facilitating the development of local antimicrobial stewardship programmes within organisations through a continuous quality improvement process.

An external assessor and regional antimicrobial stewardship expert have been allocated to the Trust, and will assist in a gap analysis surrounding the provision of antimicrobial stewardship, laboratory services, IPC and HCAI surveillance. This will measure the organisations provision against set standards, and enable an assessment to be completed highlighting areas of good practice and areas for improvement.

The Trust is 1 of 6 Trusts in the UK to be accepted into the scheme, and once accreditation is received will be acknowledged as a centre of excellence for AMS.

Further Innovations in AMS during 2022/23

- A study regarding the carbon foot print of IV to oral antibiotic therapy in CAP has been performed by Dr Steve Montgomery-Laird was presented to the 33rd ESCMID Conference in Copenhagen (2023). This study aligns to the Trusts green plan and sustainability ambition.
- Application to the Biodrive Study, a study regarding the use of antifungal prophylaxis dominantly in patients with Acute Myeloid Leukaemia. This study will aim to use biomarkers to reduce the amount of antifungals prescribed to this cohort of patients. Dr Steve Montgomery-Laird and Dr Duncan Murray will lead on this at UHCW.
- We have registered for the National Institute for Healthcare research study, looking into our antibiotic use at UHCW.

Local Authority AMS Group

The local authority Public Health department have re-established the system wide AMS group. The Lead Nurse for IPC and a member of the microbiology team represent UHCW on this call, and the IPC nurse is now chair of the urine management subgroup, focussing on UTI's and sampling, dehydration and lab processes.

Point Prevalence

A Trust wide quarterly point prevalence audit is completed by the pharmacy department. The were shared at IPC Committee, with IPC Medical Leads and GDNA's and distributed for sharing lessons learnt and highlighting improvements. Key areas of focus remain prescribing practices and documentation.

The Antimicrobial Pharmacist supports areas with a Period of Increased incidence of infection. These findings are shared with clinical leads, medical and nursing teams, and group QIPS meetings for discussion and review.

Distribution of antimicrobials is monitored by the pharmacy team however the introduction of EPR for prescribing will allow the distribution model and the patient records to be monitored in tandem, creating a more robust and valid audit system.

Antimicrobial Ward Rounds

Clinical ward rounds from Microbiology take place on Critical Care, Haematology and oncology and neurosciences. There is also representation as part of the Outpatient Antibiotic Therapy team, UHCW@home.

Criterion 4: Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further health and social care support or nursing/ medical care in a timely fashion.

This criterion links with Outcome 6, Regulation 14 co-operating with other providers contained in CQC guidance about compliance.

The IPC team work with the clinical site managers to advise on patient transfers, moves and de-escalations of patients, during 2022/23 attending site meetings 7 days a week. This service will be altered in 2023/24 but mechanisms will be implemented to support in escalation.

General Communications

Since the onset of the pandemic, national and regional guidance distribution has been supported by the Trust's communications team, who for a second year have remained have instrumental in supporting distribution of these updates in guidance for staff.

This year this has included other infections including mpox, diphtheria and C.diff. These have also been shared via the Microguide app which has a prompt page when logging on.

Signage in the hospital has been reviewed and amended to support patient's staff and visitors understand the use of masks. Key messages have also been shared on social media. The Trust has commenced the removal of the social distancing signage implemented in 2020 as the recommendations have changed. This will be complete in quarter 1 2023/24.

The trust has put in place television screens outside of each ward/ department area with key messaging including IPC related items on hand hygiene.

Information for service users, visitors and carers

During 2022/23 the IPC team have established a formal process alongside the Patient Experience Team to ensure all Patient Information Leaflets are reviewed by members of the public as part of the standard review method. The Patient Experience Team enable the documents to be reviewed by the established UHCW Patient Partner Group, and Virtual Patient Panel, with feedback being collated by a Patient Experience Administration Specialist, before being sent on to the IPC team for analysis.

The new process successfully engaged members of the public in the patient information review process, gaining useful, insightful feedback in a timely manner with feedback received providing assurance that the information contained within is suitable for the target audience.

The IPC team have found the input of the Patient Partners and Virtual Panel invaluable in highlighting issues of language selection, and will continue to use this established process in 2023/24.

Confidence in Care

The IPC team supported by UHCW Volunteers has continued to use the Confidence in Care survey commenced during restoration in 2020. The questions cover core infection prevention themes and were revised to include professional appearance to complement the theme of confidence following GDNA feedback. The schedule was impacted during 2022/23 due to staffing constraints in the volunteer team, however for 2023/24 has secured dates for the entire year.

During quarter 4 87 patients completed questionnaires, 90% of which were inpatients of which 65% were emergency admissions. The feedback was generally positive, with 93% of patients agreeing they felt safe and secure during their hospital experience. Patients were asked if they found alcogel and handwashing facilities easily available, if the ward seemed clean and if staff looked tidy with hair back. Verbal feedback was also encouraged, and it was noticed a theme of feeling lonely in isolation rooms pulled through. This will be discussed further in 2023/24 around how we improve patient experience and consider what barriers are in place currently.

The confidence in care survey results are shared with the Patient Experience and Engagement Committee and to IPCC through the upward report from IPC council.

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

The Trust is able to demonstrate that responsibility for IPC is effectively devolved to all professional groups by means of inclusion in all job descriptions and mandatory inclusion in appraisal documentation. The IPC medical leads role is to ensure this is discussed and raised. Furthermore the Trust has in place:

- A robust method of red flag alerts on CRRS to highlight infections with clinical teams.
- Each week MRSA and C.diff patients are visited by the IPC team and reviewed for compliance against guidance.
- CRO alerts are checked three times weekly to ensure required swabbing is performed and mitigations in place. These patients are reviewed whilst inpatients on a weekly basis.
- Surveillance systems in place to monitor for prevalence

- The team support the management of outbreaks, periods of increased incidence and clinical incidents including the monitoring of all alert organisms to identify trends and potential links between cases based on their location.
- Good relationships and strong governance in alerting NHSE, UKHSA and the ICB to outbreaks and incidents.
- Fortnightly attendance to the IPC system call with other Coventry and Warwickshire providers to update and share position and any learning. At the time of writing this is chaired by the UHCW IPC lead nurse, but this is rotated on a quarterly basis.
- The Trust monitors compliance with the appropriate isolation of C.diff patients, including time to isolation on a weekly basis through Quick Action Guide reviews.

Criterion 6. Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.

Criterion 6 refers to the training and education of staff. Mandatory training in IPC is a requirement for all Trust staff including clinical, non-clinical staff and contractors. All clinical staff receives training in IPC annually via electronic learning and a hand hygiene assessment.

Compliance with mandatory training and completion of appraisal are reported at group and department level monthly through the insite scorecard. This is monitored at executive level through group quarterly reviews, but is also shared with Group Leads and the IPC safety huddle on a monthly basis. Compliance against these metrics is also reviewed at any outbreak meetings for assurance with key actions to address any deficit captured on the monitoring pro-forma.

In April 2023, an IPC education framework has been disseminated by NHSE in collaboration with Skills for Health to outline the behaviours, knowledge and skills required by the health and social care workforce to improve the quality of IPC practice and thereby improving patient outcomes.

The key objectives of the framework are to:

- Support the national and local commissioning, design and delivery of educational programmes
- Enable staff to understand and demonstrate required expectations for effective and safe IPC practice.
- Ensure IPC is a core component of training.
- Ensure evidence-based IPC is consistently built into and delivered within all health and social care related educational programmes

Changes to mandatory training requirements are described in the document, and it has been shared with Learning and Development, Practice Development and PFI providers for information. An implementation date has not been provided, and at the time of writing no

supportive resources have been released however a task and finish group will be convened during 2023.24 to consider risks/ mitigations and implementation.

Guidance for compliance with criterion 7: Provide or secure adequate isolation facilities.

The Trust has 1100 beds across both University Hospital and Rugby, St Cross sites. Of these approximately 220 are side rooms, with 25 having negative and positive pressure facilities. These rooms are monitored by estates through the PFI contract. An annual programme for monitoring of ventilation and air exchanges is in place across both sites in line with national requirements. A project has been commenced with the Estates provider to improve reporting mechanisms surrounding ventilation and pressure rooms, whilst also updating the information held on side room use and availability e.g. The dialysis unit rooms are negative pressure but they are not available for inpatient admissions.

Where side rooms are not available escalations to clinical site and IPC take place and a risk assessment is undertaken of side room usage and requirements, including where necessary cohorting of patients where appropriate e.g. COVID-19.

During 2022/23 IPC supported by reviewing effected COVID bays on a daily basis, and advising on potential opportunities to free up capacity. As guidance changed in September 2022 this requirement became less, however IPC were responsive in influenza in instigating it again.

The annual audit completed by IPC and reported to IPCC demonstrated 45% of the side rooms were used for IPC reasons. This is in keeping with previous years audits. The side room data collection tool is accessible to all side, allowing staff to input at local level what types of patient conditions need to be in side rooms to assist the clinical site team in managing the spaces most effectively. IPC assist staff in their decision-making through the provision of a risk assessment tool for prioritisation of patients who require isolation.

The Trust recognises the need to maintain and expand facilities for patient isolation for infectious purposes, while recognising the need to provide single room facilities for patients requiring privacy for other reasons.

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

The Trust laboratory team maintained United Kingdom Accreditation Service (UKAS) 15189 accreditation for bacteriology, virology, parasitology, and mycology services during 2023/23. The accreditation underpins confidence in the quality of medical laboratories through a process that verifies their integrity, impartiality and competence. Assessments under UKAS ensure labs meet the relevant requirements including the operation of a quality management system and the ability to demonstrate that specific activities are performed within set criteria standards.

A further celebration in 2022/23 was continuing compliance with Health and Safety Executive standards following inspection in November 2022.

The pathology team work closely with IPC by through escalation and timely reporting of results, processing of clinical samples and provision of expert advice. Introduction of new

technology in the department has introduced selective reporting of antimicrobial susceptibility testing results to prioritise prescribing of narrow-spectrum antimicrobials, focussing on patient outcomes.

During 2022/23 the lab has supported with outbreak management – both in community (Group A streptococcus), asylum seekers and refugees (diphtheria), processing of samples for mpox, CROs within the hospital and COVID outbreaks.

The COVID testing service and 4plex was maintained during the reporting period, with near patient testing in the Emergency Department taking place in a dedicated “hot lab” within the footprint.

Virology has completed procurement process to modernise automation in the department and microbiology has commenced the procurement process to do the same in 2023/24.

Criterion 9: The service provider should have and adhere to policies designed for the individual’s care, and provider organisations that will help to prevent and control infections.

The IPC team have a range of policies and guidelines on the Trust e-library system to support staff in delivering safe effective care. Documents available identify all infections and infectious conditions which require isolation or specific infection control management and describe any specific precautions required.

During 2022/23 the IPC team have been responsible for the maintenance and updating of the infection control policies, procedures and guidance documents. The team have a monitoring process in place in order to ensure documents are updated in a timely manner and have version control and named authors in place.

The National Infection Prevention and Control Manual is mandated to be in place by March 2024. The document will replace a significant number of the current documents in circulation and inclusion of key stakeholders such as Health and safety, estates and PFI colleagues as part of the implementation plan.

A full gap analysis in currently underway regarding what will be required to be amended in terms of quick action guides/ aide memoires, what will need removing, ability to signpost and the intranet ability to assist staff with this, as well as any implications/ risk raised within the document in terms of deviation from current practice.

This will be reported through the IPCC for updates and awareness, and a timeframe applied to ensure the deadline is met.

Criteria 10: The registered provider will have a system or process in place to manage health and care worker health and wellbeing and organisational obligation to manage infection, prevention and control.

All staff have access to Occupational Health advice and out of hours access to medical advice in the event of exposure to a blood borne virus or an alert organism.

There is a screening and immunisation programme which is in accordance with national guidance, specifically "immunisations against infectious diseases", including pre-placement screening and ongoing health screening for communicable diseases where indicated.

Occupational Health continues to undertake:

- New starter/preplacement health assessments
- Immunisation and vaccinations
- Blood contamination incident management
- Utilising the biopsychosocial model within an Occupational Health assessment/ consultation informs appropriate signposting for support with:
  - Lifestyle changes
  - Stress management
  - Counselling
  - Emotional health
- The Occupational Health team is supported professionally and able to access on a consultancy basis clinical support from a Clinical psychologist, based within the Occupational Health team who is also scoping, reviewing and developing in line with a trust strategy staff mental health support.

The Occupational Health team has seen significant leadership changes in 2022/23 and is currently recruiting and developing a team of advisors with increased skill mix. A risk is raised on the risk register regarding capacity and skill mix and this is reviewed under the Workforce governance stream.

Learning, improving and celebrating

<u>NHSE IPC Assurance Review</u>

NHSE conducted an IPC focused inspection on the University Hospital site in June 2022.

The increase in GNBSI in 2021/22 triggered a review of the Trust against the NHS England-Midlands IPC internal escalation matrix, moving the Trust to an amber Red/ Amber/ Green (RAG) rating. Verbal feedback was given at the time of the visit; the formal response from NHSE was received in November 2022.

Following the visit the RAG status was reviewed and the Trust moved back to a green RAG rating, with the exception of the emergency department which remained at amber due to some concerns raised with the report pending a review visit (to be arranged).

An action plan has been developed for the areas identified for improvement, including an NHS planned visit to provide a "Matrons masterclass". This will be monitored through the IPCC.

The letter suggests a follow up visit to review Emergency Department at 6 months, but it was agreed due to the timing of the report being issued and winter pressures this timeframe would be extended to an agreed mutual date.

HCAI Forum

The HCAI forum is an initiative led by IPC to improve the processes surrounding RCAs and the shared learning from case reviews. The group aligns to the functions of the falls forum and pressure ulcer forum, and enable a multi-disciplinary team discussion of cases. The group has been in place for a year and has good success. Improvements are planned for the action matrix and documentation of the meeting, to ensure ease of oversight for IPC medical leads and GDNA's. This will be enabled through the development of the IPC dashboard and BI tool.

Clean4Green

Clean4Green is a rolling-project led by the UHCW IPC team involving and supporting 12 health and social care settings, identified by the ICB. The project is funded by NHSE innovations monies. Over an 18-month period a series of face-to-face masterclasses will be deploy an educational toolkit, develop a peer-to-peer support network, and share quarterly data driven practice improvement bulletins.

Each health and social care setting is provided with a "Swab, RAG, Act" method to allow staff to "see" levels of surface contamination, and develop identifiable and distinct quality improvement processes. The first session was held in July 2022, with selected attendees from nursing and residential homes in the system. Feedback from the sessions and from external visitors to the homes has indicated the engagement in cleaning has increased and environmental benefits are evident.

Hydration Week

In June 2022 a hydration week was held in collaboration with other key stakeholders in the Trust. Discussions focussed on IPC and sepsis related issues as well tissue viability, Acute Kidney Injury and nutrition. Resources from the event were shared across the system, and Coventry and Warwickshire Partnership Trust and public health at Coventry Council promoted the event. A further event is planned in 2023/24.

Sepsis September

In support of Sepsis related improvements a number of events were held in September to promote awareness and treatment. Key items to note:

- 3 slides, 3 minute – IPC assisted clinical educators to create a brief 3 minute PowerPoint session discussing sepsis related issues in their areas. Surgical services won this competition with a package around wound care and infection. The resources are freely available to staff on the intranet.
- Ward displays – the ward and department staff played games, served cake and made themselves into miniature superheroes to reiterate key messaging and draw people's eye. The theme was sepsis 6 administration.

This will take place again in September 2023/24.

3. IMPLICATIONS AND CONCLUSIONS

The report has provided an overview of the vast array of activity undertaken by the IPC team throughout the period including collaboration with other key services and teams. Any implications for activity, results or assurances have been provided throughout the body of the report. However, in summary:

- Health and Social Care Code of Practice 2008 (DOH 2022) statutory standards have been met, with priorities for 2023/24 described in the report and annual work plan (appendix 3)
- Statutory Reporting for HCAI (C.diff, MRSA, MSSA, GNBSI) have been monitored and reported
- C.diff ceiling thresholds were breached and an action plan has been developed.
- Evidence of service development including system wide working
- NHSE visit and action plan development.

4. RECOMMENDATIONS

The committee is asked to note the contents of the report and receive assurance that statutory obligations and evidence under the Health and Social Care Act 2008 (2012) have been met.

The committee is also asked to note the significant sustained activity and contributions of the IPC team during 2022/23.

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Appendix 1
Department of Health: The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance (2022) Criterion

https://www.gov.uk/government/publications/the-health-and-social-care-act-2008-code-of-practice-onthe-prevention-and-control-of-infections-and-related-guidance

CRITERION	DESCRIPTION	EVIDENCE (Section Reference)
1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.	Section 2.1
2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infection.	Section 2.2
3	Appropriate antimicrobial use and stewardship to optimise outcomes and to reduce the risk of adverse events and antimicrobial resistance.	Section 2.3
4	Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support of nursing/medical care in a timely fashion	Section 2.4
5	That there is a policy for ensuring that people who have or are at risk of developing an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of transmission of infection to other people.	Section 2.5
6	Systems are in place to ensure that all care workers (including contractors and volunteers) are aware of and know their responsibilities in the process of preventing and controlling infection	Section 2.6
7	The provision or ability to secure adequate isolation facilities	Section 2.7
8	The ability to secure adequate access to laboratory support as appropriate.	Section 2.8
9	That they have and adhere to policies designed for the individual's care, and provider organisations that will help to prevent and control infections.	Section 2.9
10	That they have a system or process in place to manage staff health and wellbeing, and organisational obligation to manage infection, prevention and control.	Section 2.10

Appendix 2: Annual Work plan 2023-24

Objective Number	Operational objective	Action/ Priority	Lead	Financial Year	Due Date	Revised Due Date	Progress Rating	Expected Outcome	Markers of Evidence	Progress Log	DOH Hygiene Code-NHSE IPC BAF/ CQC KLOE
1	To Implement national guidance	Gap analysis of NIPCM against UHCW documents	KJ/ MG	2023-24	01/09/23		On target	Data presented to IPCC with mitigations to any gaps/ deviations described.	IPCC minutes	01/05/2023 Stakeholders emailed. Feedback from ISS and decontamination returned.	DOH-IPC BAF Criteria 1/9/10 CQC KLOE S5.2, S5.3
		Implementation plan of NIPCM roll out – communications, PFI, staff, quality team, workforce (task and finish group)	KJ/ MG	2023-24	31/03/24		Not started	GANTT chart of events and dates, roll out plan. Removal of previous documents. Presentation to stakeholders Programme to be completed and in place by March 2024	Attendance records, communications Tracked Action log GANTT chart PDR	Not started	
2	To Implement national guidance	IPC Education Framework gap analysis against current provision (task and finish group)	FW	2023-24	01/09/23		On target	Data presented to IPCC with mitigations to any gaps/ deviations found	Attendance records, Tracked Action log IPCC minutes	10/05/2023 Document sent to PFI, Practice education, Learning and Development	DOH-IPC BAF Criteria 1/2/3/4/6/9/10 CQC KLOE S5.2, S5.3
		Implementation of IPC Education Framework	FW	2023-24	31/03/24		Not started	GANTT chart of events and dates, roll out plan. Programme to be completed and in place by March 2024	Attendance records, communications Tracked Action log GANTT chart	Not started	
3	To ensure IPC data is included in all group QIPs meetings	IPC and QIPs – new meeting pack development	EE/NW	2023-24	30/09/23		On target	IPC standardised pack to each QIPs All HCAI and outbreak recorded	Retrospective audit to check all HCAI logged Standardised pack created and in place	05/04/23 NW/FW met with SC and JN – agreed change to DATIX reporting to allow pull to QIPs 10/05/23 (FW) IPC medical lead requested to contribute	DOH-IPC BAF Criteria 1/6/9 CQC KLOE S5.2, S5.3

4	To remove waste from HCAI investigations	DATIX and investigation template aligned to PSIRF -influenza, norovirus	EE/JR	2023-24	30/09/23		Not started	Investigation reporting template built into DATIX	Completion of form	Not started	DOH-IPC BAF Criteria 1/9 CQC KLOE S5.2
5	To aim to become a centre of excellence in AMS	GAMSAS Antimicrobial Accreditation – IPC evidence collection	KJ/ FW	2023-24	TBC		Not started	Completion of the online survey	Completion of IPC data capture	Not started	DOH-IPC BAF Criteria 3/9 CQC KLOE S5.3
6	To improve the quality of blood culture sampling.	NHSE Blood Culture Project	FW	2023-24	31/03/24		On target	Improved technique in blood cultures	Blood culture video. Tdoc. Attendance registers. Pre and post tuition contamination markers.	11/05/2023 Video filmed; recruitment started. First planned session 31/05/23	DOH-IPC BAF Criteria 6/8/9 CQC KLOE S5.3
7	To provide assurance to the Trust	IPC BAF	FW	2023-24	Quarterly submission		On target	Quarterly report to IPCC Completed document and repository of information	IPCC Minutes	First edition due to IPCC June 2023	DOH-IPC BAF Criteria 1/2/3/4/5/6/7/8/9/10 CQC KLOE S5.3
8	To reduce numbers of Cdiff	Cdiff reduction plan	FW/ KJ	2023	30/07/2023		On target	Reduction in Cdiff Assurance of completed actions	Reduced monthly Cdiff reporting figures within NHSE threshold Lapses of care/ HCAI forum discussions logged Completed action plan	11/05/2023 Updated action lo fog Cdiff reduction plan.	DOH-IPC BAF Criteria 1 S5.3,S 5.4
9	To ensure preparedness for transition to EPR	EPR implementation	All	2023/24	01/10/2023		On target	IPC team prepared for go live	IPC team super user identified IPC reports supported Organism alerts in place	All team members undertaking EPR basics course. Sepsis value and benefits stream completed.	DOH-IPC BAF Criteria 1/8/9
10	To drive and safety and quality across all	IPC Medical Leads	FW	2023-24	01/08/2023		Delay	Roles and responsibilities document	Roles and responsibilities document	Emailed re date of "reset" – may require small subsets due to diaries.	DOH-IPC BAF Criteria 1/6 CQC S5.4

	clinical groups							Action Plan	Action Plan Register of attendance at meetings	Vacancies chased by DCNO to triumvirate.	
11	To align to the Trust net green ambition and to improve IPC practice	Gloves awareness	CD	2023-24	Monthly review		On target	Reduction in glove usage	Trust Project planner -reduced glove usage by	Launch on 30 May as part of Green Plan – monthly updates planned via net zero	DOH-IPC BAF Criteria 1/6/9/10
12	To identify learning opportunities and improvements	Trend analysis of key infections/ emerging themes	FW/ KJ/ JR	2023-24	31/07/2023		On target	Patient level report re procedure, potential improvement strategy Sepsis Heroes	Assurance report to IPCC Dashboard development Action Plan development Training attendance	PTC with Diagnostics 11/05/2023 – high level data request underway – denominator, samples, procedure	DOH-IPC Criteria 1 CQC LKOE 5.3, 5.4
13	To ensure appropriate antimicrobial use and stewardship to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.	Antimicrobial stewardship awareness	FW/KJ	2023-24	31/11/2023			Heightened awareness of AMS	Attendance at AMS group sessions, European Antimicrobial Awareness Week event	10/05/23 – AMS lead has prepared sessions, attendance promoted through groups. Stewardship round planned to commence 18/05/23	DOH-IPC Criteria 3 CQC LKOE 5.3