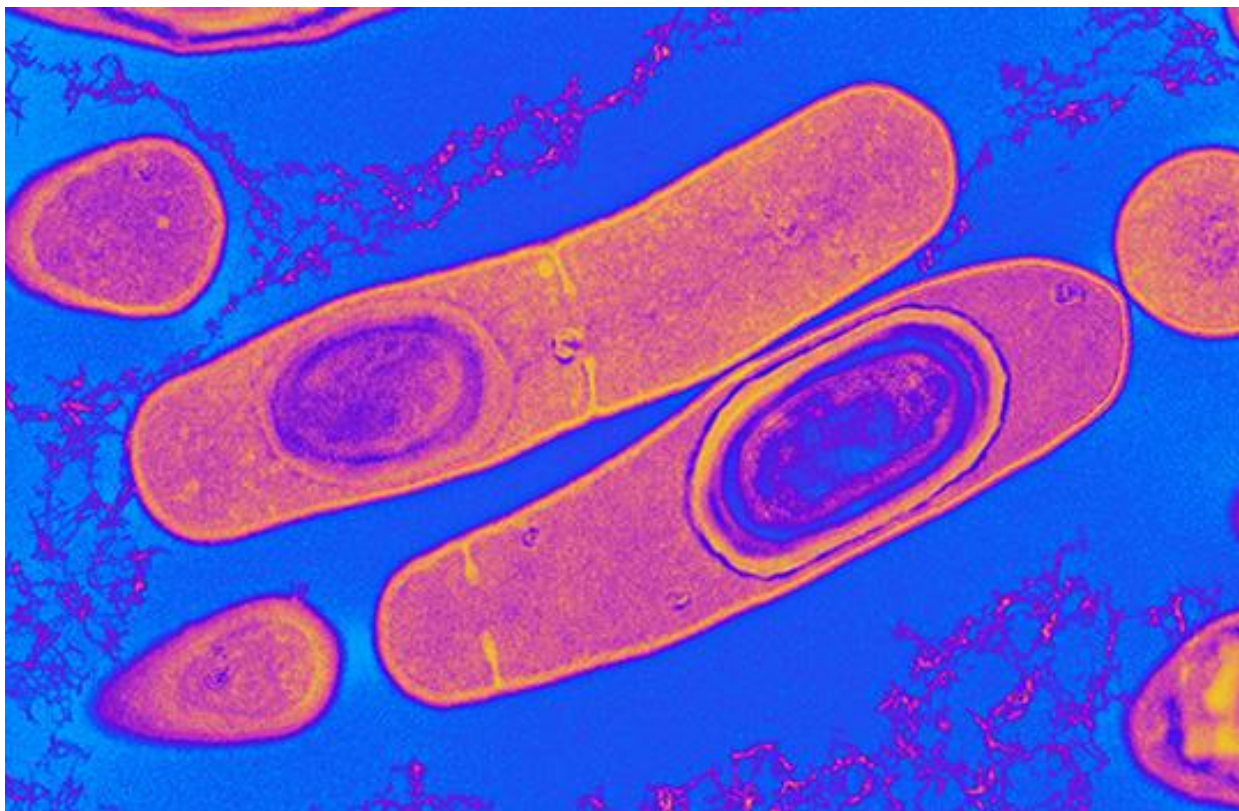


Infection Prevention and Control Annual Report

2022/23



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Infection Prevention and Control Annual Report 2022-23

Executive summary

This Annual report covers the period 1 April 2022 to 31 March 2023 and has been written in line with the ten criteria outlined in the Health and Social Care Act 2008 Code of Practice in the Prevention and Control of Infection (updated 2022). The ten criteria outlined in the code are used by the Care Quality Commission to judge a registered provider on how it complies with Cleanliness and Infection Prevention & Control requirements detailed in the legislation. It looks at all aspects of IPC, including monitoring and surveillance, environment, cleaning, staff, policies, and laboratory provision.

The most significant event during this period was the ongoing SARS CoV2 pandemic and its highly complex IPC management. The emergence of the Omicron variant, and subsequent many daughter variants, since December 2021, coupled with the successful UK vaccination programme led to a much milder forms of respiratory disease. During this period the NHS was attempting to return to normal functioning to address the large backlogs in care and procedures. The effect of this I has been more in -patients in hospital more elective procedures more diagnostic work and more human traffic throughout our hospitals than we have seen for the last 2 years.

All of this has had an impact on key indicators of Infection Control, with an increase in cases of CDI and bacteraemia's. Our NHSE targets, set during the midst of the pandemic, when hospitals were largely dealing only with Covid-19 and emergencies have significantly been breached. However, these targets may not be realistic in relation to the changes in hospital activity over this period. We regard the navigation of the Trust back towards normal running despite ongoing Covid circulation and in-hospital outbreaks, a major achievement.

The Trust has had number of NHSE IPC review visits during year 2022-23. In July 2022 the Trust was assessed as Amber on the NHSE IP matrix. Ongoing improvement support by NHSE who provided a series of masterclasses where our Divisional Directors of Nursing, Matrons and Ward Managers were able to join the audit and discuss issues observed. This has been followed by NHS Improvement Infection Prevention peer review on 12 December 2022 where the Trust was de-escalated to GREEN on the NHSE IP matrix.

Sustainability review took place in March 2023. The Trust sustained the GREEN rate. During the visit the Trust provided a video presentation of their continued IPC journey from July 2021 to now. The feedback received stated that it was evident that staff were fully engaged and were aware of their roles and responsibilities. The staff clearly articulated the challenges they were addressing and acknowledged the actions and mitigations required. Patient safety was fundamental to the processes discussed.

As a team it is very rewarding to observe that all staff groups are now truly committed in making a change and being compliant to the best of their ability. During the 2022-23 year the overall compliance for hand hygiene for all staff groups remains steady at 95%. Adherence to the Hand Hygiene practices is monitored monthly by each ward and is recorded on the Nursing Quality Metrics and ward dashboards.

A major IPC Team initiative has been the introduction of Air Purification Units to the Trust; initially designed to combat Covid spread within wards but something that should provide benefits in reducing airborne spread of other nosocomial pathogens such as MRSA or Norovirus.

Improving air quality to prevents outbreaks has been high on our agenda. Within the Trust we could only do so much in opening windows to improve ventilation. For wards & ED departments where it is not possible to make any modifications to the existing ventilation system, or where mechanical ventilation is not provided the portable AIRQON

air purification systems were introduced to improve air quality and maintain patient safety, by helping prevent further outbreaks of COVID-19 and other respiratory infections.

The League of Friends (LoF) of the Royal Shrewsbury Hospital (RSH) has gifted nearly £12,000 for the air filters. Funding paid for four filters at RSH and The Shrewsbury and Telford Hospital NHS Trust (SaTH) bought four for the Princess Royal Hospital site in Telford. Inivos Ltd, the company which supplies the filters, also donated two machines one for each hospital site.

our achievements for 2022-23 have been:

- Navigating the trust through the Covid 19 pandemic and, during the reports specific time period, managing the relaxation of Covid restrictions and allowing more normal hospital functioning
- Managing a particularly difficult winter 2022-23 in infection control terms due to a number of unusual additional infections, such as Group A Streptococcus Pneumonia.
- Providing expert IPC advice and guidance for the Trust's New Build projects
- Sustaining Green on the NHSE IP matrix.
- Implementation of air purification units within the Trust

SECTION 1: KEY POTENTIAL RISKS OF 2022-23

In 2022/2023 the COVID 19 global pandemic continued to be the most significant issue faced in relation to Infection Prevention and Control (IPC) in the Trust and across the NHS.

- The COVID 19 pandemic introduced a new and very significant challenge to all acute services and the NHS as a whole in the UK and to health services internationally. The IPC team has continued to be actively involved in planning for patients with COVID- 19 and helping staff with their management. This involved continuous updating and training of staff in line with new guidance being released as knowledge about the virus emerged.
- E.coli Bacteraemia:
The total cases attributed to the Trust for the financial year 2022/23 was 118. This is almost identical to the last financial year (2021-22) which was a total of 117 cases. This figure is significantly above our nationally set target which was no more than 96 cases. This year we had fewer cases diagnosed in hospital (39 vs 49 last year) but more community onset with recent hospital admission cases (79 vs 68 last year). Urinary catheterisation is the commonest avoidable risk factor. COHA E.coli bacteraemia will require a cross healthcare economy approach to look at, and if possible, mitigate factors that lead to community onset E.coli bacteraemia's.
Specific factors to explore would be management of long-term urinary tract infections and also upper airway hygiene in community hospital facilities.
- MSSA Bacteraemia:
The total cases attributed to the Trust for the financial year 2022/23 was 57. This is an increase from the last financial year (2021-22) which was 47 cases. There continues to be no target set for MSSA bacteraemia in 2022-23.
- Clostridioides difficile:
The target for SaTH was to have no more than 33 cases for the financial year 2022/23. The end of year figure was 60 cases. In 2021/22 the year end figure was 33. For the last 2 years we have had very low levels of C difficile cases but we now appear to be back to our pre pandemic level. This probably reflects in part the changed case mix now as we get back to normal or even increased activity post pandemic. However this past year we have had a large increase in cases. All cases have been reviewed, most common contributing factors identified and action plan created. The most common issues found to be delay in sample collection and isolation of symptomatic patients. Inadequate decontamination of the rooms and hand hygiene issues were also noted. However confirmed cross infection was uncommon. Broad spectrum antibiotics without timely review was also identified as an important issue. The action plan has been distributed to Divisions, and a meeting was held to discuss the findings and way to progress. A C.Difficile questionnaire has also been created and sent for staff to identify gaps in knowledge. PPI policy for community prescribing review and where possible deprescribing should be explored with relevant stakeholders

To address sample collection, isolation and decontamination issues series of posters and One minute briefs have been created and communicated to staff during weekly Nursing and Midwifery Forum (NMF) meetings and Face to Face training on wards.

- Klebsiella Bacteraemia:
The total number of cases attributed to the Trust for the financial year 2022/23 was 37. This was an increase from 2021-22 which was a total of 19 cases. This was also above the nationally set target which was no more than 23 cases.

- Pseudomonas aeruginosa Bacteraemia:
The total cases attributed to the Trust for the financial year 2022/23 was 16. This is an decrease in cases from the last financial year (2021/23) which was a total of 21 cases. It is below the nationally set target which was no more than 19 cases.
- MRSA Bacteraemia. The Trust Meticillin-resistant Staphylococcus aureus (MRSA) bacteraemia target is zero. In 2022/23 the Trust reported two cases of MRSA bacteraemia; one was a tubo-ovarian abscess post emergency LSCS section, in the other case the cause was thought to be an infected iv canula site. Post Infection Review meetings were held for both cases, action plans created, and completion monitored by divisions and IPC. Lessons learnt identified following the review meetings were issues with management of invasive devices, insufficient communication between hospital and community, insufficient sampling (blood cultures, wound swabs), sepsis screening protocol not followed, and incidents of poor record keeping. Although we did not achieve the zero cases target, we continue to have very low numbers of cases.
- The IPC team attended daily meetings on control on COVID-19, including placement of patients, advice on ventilation, Personal Protective Equipment (PPE) for different procedures, management of clusters of patients, outbreaks, and additional methods of reducing transmission e.g., improving social distancing of patients by removing beds from bays, using “pop-up” isolation rooms and education of staff.
- Despite the COVID-19 pandemic the trust continued to undertake root cause analysis (RCA) for significant events such as some cases of hospital acquired bacteraemia including C Diff, Escherichia Coli (E. coli) and Meticillin-susceptible Staphylococcus aureus (MSSA), and MRSA. Medical staff, ward nurses, the IPC team, pharmacy, cleanliness staff and microbiology clinical staff participated in these RCAs.
- The IPC team continue to carry out a large part of its audit programme despite the demands of the COVID-19 pandemic, this included: commode audits, urinary catheter prevalence audits, PPE use, Quality Ward Walks and Exemplar Ward audits.
- The Flu Campaign for 2022/23 was delivered through a combination of co-delivery with COVID vaccinators at our hospital hubs and through a range of pop-up flu clinics and vaccinators visiting our clinical areas across the Trust. All frontline staff were offered the vaccine over the 12-week programme. The campaign this year vaccinated 44% (v 61% last year) of frontline healthcare workers which equates to 3,224 staff (v 4,176 staff last year).
- In relation to staff training, one of our Band 6 nursing staff successfully completed the Infection Prevention and Control degree course at Staffordshire University. Also, our acting deputy IPC lead nurse is currently completing the Infection Prevention and Control degree course at University of Dundee.

SECTION 2: Abbreviations

AMR	Anti-Microbial Resistance
ASG	Antimicrobial Stewardship Group
CCG	Clinical commissioning groups
<i>C difficile</i>	<i>Clostridoides difficile</i>
CDI	<i>Clostridoides difficile</i> infection
COVID-19	Coronavirus disease 2019
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation Payment Framework
DH	Department of Health
DIPC	Director of Infection Prevention & Control
DivDoN	Divisional Director of Nursing
DoN	Director of Nursing
E coli	Escherichia coli
ESBL	Extended Spectrum Beta Lactamase
GDH Ag	Glutamate dehydrogenase antigen of <i>C. difficile</i>
GRE	Glycopeptide Resistant Enterococcus
GP	General Practitioner
HCAI	Health Care Associated Infection
IM&T	Information & Technology
IPC	Infection Prevention & Control
IPCAC	Infection Prevention & Control Assurance Committee
IPCOG	Infection Prevention & Control Operational Group
IPCN	Infection Prevention & Control Nurse
IPCT	Infection Prevention & Control Team
MGNB	Multi Resistant Gram-Negative Bacilli
MHRA	Medicines and Healthcare Products Regulatory Agency
MRSA	Meticillin Resistant <i>staphylococcus aureus</i>
NHSE	NHS England
MSSA	Meticillin Susceptible <i>staphylococcus aureus</i>
PCR	Polymerase Chain Reaction
PFI	Private Fund Initiative
PLACE	Patient-led assessments of the Care environment
PPE	Personal Protective Equipment
RAG	Red, amber, green
RCA	Root Cause Analysis
SaTH	Shrewsbury & Telford Hospitals
SSI	Surgical Site Infection
STW ICB	Shropshire Telford & Wrekin Integrated Care Board
UKHSA	United Kingdom Health Security Agency
VNTR	Variable number tandem repeat (a form of DNA typing)

SECTION 3: INTRODUCTION

The Trust recognises that the effective prevention and control of healthcare associated infections (HCAI) is essential to ensure that patients using our services receive safe and effective care. Effective prevention and control must be an integral part of everyday practice and applied consistently to ensure the safety of our patients. In addition, good management and organisational processes are crucial to ensure high standards of infection prevention and control measures are maintained.

This report demonstrates how the Trust has systems in place for compliance with the Health and Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.

The Trust set out to continue the commitment to improve performance in infection prevention practice. As outlined in the Health and Social Care Act 2008, at the heart of this there are two principles:

- to deliver continuous improvements of care
- it meets the need of the patient.

Compliance with the Health Act is judged against 10 criteria which we will look at in detail in the next section.

Criterion	Detail
Criterion 1	There are systems to monitor the prevention and control of infection. These systems use risk assessments & consider the susceptibility of service users and any risks that their environment and other users may pose to them
Criterion 2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections
Criterion 3	Ensure appropriate antimicrobial use to optimise patient outcomes and reduce the risk of adverse events and antimicrobial resistance
Criterion 4	Provide suitable accurate information on infectious to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion
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
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 7	Provide or secure adequate isolation facilities
Criterion 8	Secure adequate access to laboratory support as appropriate
Criterion 9	Have and adhere to policies, designed for the individual's care and provider organisations, that will help to prevent and control infections
Criterion 10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection

SECTION 4: COMPLIANCE

Criterion 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.

1.1 Infection Prevention Team

The Infection Prevention and Control Team (IPC) provided IPC advice and support to wards and departments. The team continued to support frontline staff and prioritise urgent IPC issues during winter pressures.

At the Shrewsbury and Telford Hospital NHS Trust (SaTH) the Director of Infection Prevention and Control (IPC) has overall responsibility for the IPC Team; the team is managed by a Lead Nurse Infection Prevention and Control. The structure for Infection Prevention and Control in the Trust is shown in Appendix 1.

A Consultant Microbiologist works for the IPC team part-time as the Infection Prevention and Control Doctor (IPCD).

1.2 External reviews

IPC NHSE REVIEW

The Trust have had number of NHSE IPC review visits during year 2022-23. In July 2022 the Trust was assessed as Amber on the NHSE IP matrix. Ongoing improvement support by NHSE who provided a series of masterclasses where our Divisional Directors of Nursing, Matrons and Ward Managers were able to join the audit and discuss issues observed. This has been followed by NHS Improvement Infection Prevention peer review on 12 December 2022 where the Trust was de-escalated to GREEN on the NHSE IP matrix.

Sustainability review took place in March 2023. The Trust sustained the GREEN rate. During the visit the Trust provided a video presentation of their continued IPC journey from July 2021 to now. The feedback received stated that it was evident that staff were fully engaged and were aware of their roles and responsibilities. The staff clearly articulated the challenges they were addressing and acknowledged the actions and mitigations required. Patient safety was fundamental to the processes discussed.

The IPC team supported the Divisions and the improvements required which included:

- Providing IPC Masterclasses for staff to raise awareness of areas audited during visits.
- Visiting the wards every morning to support staff with IPC concerns and identifying relevant IPC issues. This includes advising on patient movement, PPE usage and escalation of estates concerns.
- Working with Estates in relation to sustaining improvements in the Bed store/mattress areas and weekly reviews of the areas.
- Making improvement to face mask stations, removing mask station tables, where possible and replacing them with face mask dispensers.
- Monitoring use of Pre NHSE Visit checklists and actions arising from the visits.
- Continuous review of the Covid-19 Policy to include several changes based on the updated UKHSA guidelines.
- Weekly preparation meetings with Deputy Chief Nurse, Divisions, IPC, Estates and

Facilities

- Providing weekly updates to the Nursing, Midwifery and AHP meetings and Senior Nurse Meetings.

1.3 Committee Structures and Assurance Processes

There is a monthly Infection Prevention and Control Operational Group (IPCOG) chaired by the Deputy Director of Nursing and attended by the Divisional Teams, Estates, Facilities, and Integrated Care Board (ICB). This Group plays a key role in monitoring the organisation's performance around Infection Prevention and Control including external objectives and compliance with each Division is required to report monthly on IPC performance and key actions.

The IPCOG reports to the Infection Prevention and Control Assurance Committee (IPCAC); IPCAC reports monthly to the Quality and Safety Committee. The monthly performance in relation to HCAs is also included in the Trust Integrated Performance Report which reports to the Quality Operational Committee, Quality and Safety Assurance Committee and to Trust Board monthly.

A quarterly IPC Update report which includes the IPC Board Assurance Framework (BAF) is also presented the Trust Board by the Director of Nursing.

The IPC service is provided through a structured annual programme of work which includes expert advice, audit, teaching, education, surveillance, policy development and review as well as advice and support to staff, patients, and visitors. The main objective of the annual programme is to maintain the high standard already achieved and enhance or improve on other key areas. The programme addresses national and local priorities and encompasses all aspects of healthcare provided across the Trust. The annual programme is agreed at the IPC Assurance Committee.

Trust Board

The Code of Practice requires that the Trust Board has a collective agreement recognising its responsibilities for Infection Prevention and Control. The Chief Executive has overall responsibility for the control of infection at the Trust, the Trust designated Director of Infection Prevention and Control (DIPC) is undertaken by the Director of Nursing. The DIPC attends Trust Board meetings with detailed updates on infection prevention and control matters.

Quality & Safety Assurance Committee

The Quality & Safety Assurance Committee (QSAC) is a sub-committee of the Trust Board and is the committee with overarching responsibility for managing organisational quality risks. The committee reviews high level performance data in relation to infection prevention and control, monitors compliance with statutory obligations and oversees management of the risks associated with infection prevention and control.

Quality and Safety Assurance Committee (QSAC) is responsible for ensuring that there are processes for ensuring patient safety, and continuous monitoring and improvement in relation to infection prevention. QSAC receives assurance from the IPC Assurance Committee each month that adequate and effective policies and systems are in place.

Antimicrobial Management Group

The Antimicrobial Stewardship Group (AMG) is a multidisciplinary group responsible for the monitoring and review of good antimicrobial stewardship within the Trust. The AMG reports through to the Drug and Therapeutics Committee and should meet on a bi-monthly basis. The

AMG has been working to improve involvement from clinicians and the ability for the meetings to be quorate and beneficial to the organisation. The group drives forward local activities to support the implementation of International and National initiatives on antimicrobial stewardship including Start Smart then Focus and the European Antibiotic Awareness Campaign. The AMG produces and updates local antimicrobial guidelines which consider local antibiotic resistance patterns; regular auditing of the guidelines; antimicrobial stewardship practice and quality assurance measures; and identifying actions to address poor compliance with guidelines.

Antimicrobial audit results related to compliance with the local antimicrobial guidelines are produced monthly and are reported quarterly to IPC Operational Group and IPC Assurance Committee. The results of these audits are to be included in reports to the Divisions for discussion at Divisional Governance Meetings. There is an escalation process for clinical areas that do not follow clinical guidelines and there is active engagement at Executive level with senior clinicians in specialities with repeated non-compliance. Antibiotic usage information is reviewed to benchmark the Trust against other trusts in the area or of a similar size to identify variation in consumption and stimulate investigation where necessary. The Trust maintains the highest proportion use of World Health Organisation (WHO) 'Access' category antibiotics in the region.

Antimicrobial Pharmacists based on each site provide a point of contact for support and advice for other members of the pharmacy team, clinical teams and microbiology regarding Antimicrobial Stewardship and prescribing.

Decontamination Meetings

The Trust Decontamination Lead is the Head of Estates. The management of Decontamination and compliance falls into three distinct areas: Estates, Decontamination, and the Equipment User.

Water Safety Group

The Water Safety group is a sub-group of IPC Assurance Committee; the Water Safety Group meets quarterly. It is chaired by the Deputy Director of Nursing/Deputy DIPC with Divisional and multi-disciplinary representation.

Infection Prevention and Control Committees

The Infection Prevention and Control Operational Group (IPCOG), reports into the into the Infection Prevention and Control Assurance Committee (IPCAC). The following papers/updates are received to the IPCOG:

Monthly	Quarterly
COVID Update	IPC Board Assurance Framework Update
IPC Monthly Report	HCAI Self-Assessment Update
IPC Policy Updates	IPC Strategy Assurance Framework
Divisional Update Reports	Antimicrobial Stewardship Report
Facilities Update (Cleanliness Monitoring)	Specific Area Action Plans (If relevant)
Decontamination Update	Water Safety Group AAA Report
Estates Update	Decontamination Group AAA Report
Health and Safety Update (FFP3)	Health and Safety (Sharps and Splashes)
Risk Register	Annually
Flu Plan	Previous year IPC Annual Programme
PHE Update	Next IPC Annual Programme for Approval
Bimonthly	IPC Annual Report
Occupational Health Update	

The following papers/updates are received by the Infection Prevention and Control Assurance Committee:

Monthly	Quarterly
IPC Current Incidents Report	Antimicrobial Stewardship Report
IPC Operational Group AAA Report	IPC Board Assurance
IPC Risk Register and New Risks	Health Act Self-Assessment Update
Facilities Update	Estates Report
Decontamination Update	Annually
Flu Update	IPC Annual Report

Groups and Meetings attended by the Infection Prevention Team

Weekly or More Frequently	Monthly
Nursing, Midwifery, AHP & Facilities	IPC Operational Group
Divisional Medicine Safety Huddles	IPC Assurance Committee
Trust Silver Command	Housekeepers meetings
COVID outbreak meetings	Integrated Care System (ICS) IPC
As Required	Devices, Products and Gases Committee
Cohorting Meetings	Quarterly
Decision Making Group (Staff return)	Water Safety Group
C diff / MSSA / Ecoli RCA Review Meetings	Decontamination Group
	IPC Link Nurse

1.4 Infection Surveillance (including external targets)

All organisms of IPC significance are monitored by the IPC team. The IPC Team use an automated surveillance system (ICNET).

1.5 COVID-19

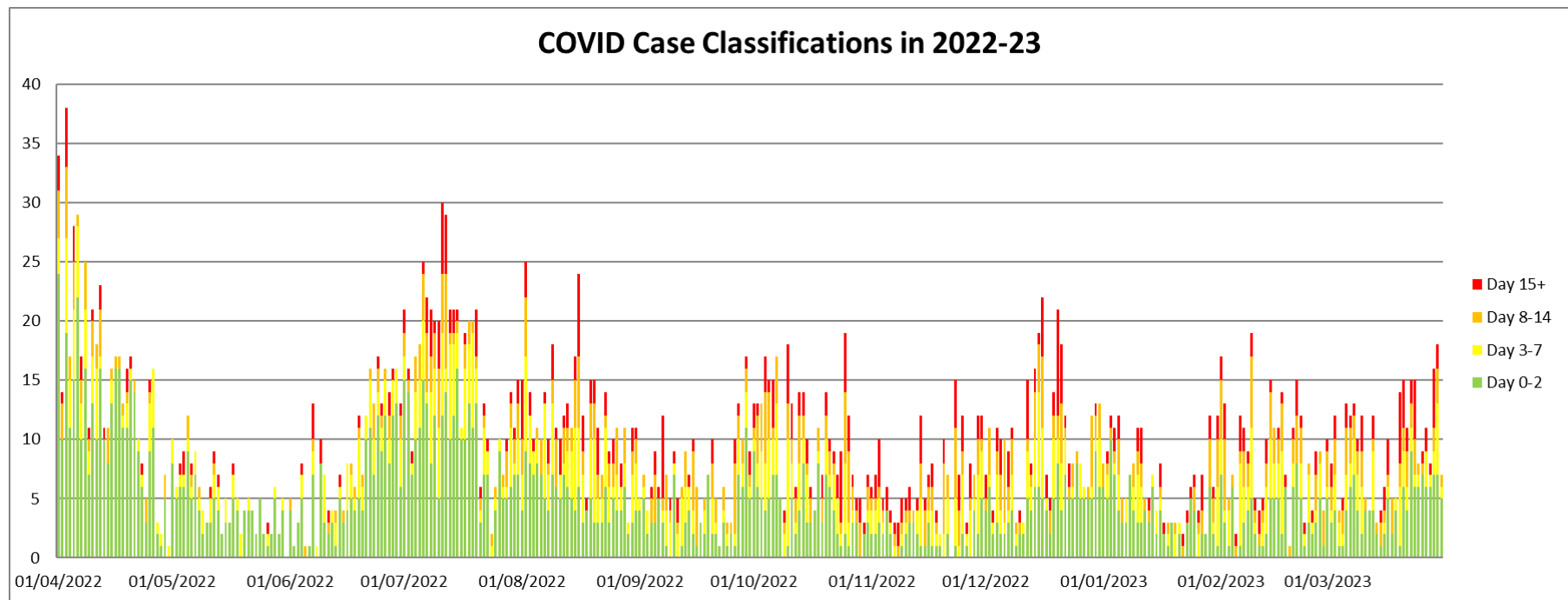
Due to the ongoing need to report outbreaks, the outbreak assurance tool we created in 2021 is continually added to as more information was required and considered an important part of outbreak management. This quality improvement project followed a Plan, Do, Study Act (PDSA) cycle and led us to include information such as FFP3 mask fit testing uptake.

COVID results are sent instantly from the Lab to the IPC team via the ICNET system. This allows the IPC team to quickly act on positive results as they became available. The ICNET system has also enabled the IPC team to construct Period of Increased Incidence (PII) alerts flagging 2 or more patients that may be linked to one area triggering outbreak investigations.

There were 68 outbreaks of COVID identified in the Trust between 01/04/2022 and 31/03/2023 compared to 68 the year previous. Each outbreak identified was investigated by the IPC team and discussed at outbreak meetings twice weekly with involvement of NHSE, UKHSA and the ICB. Outbreaks are reported online via the NHS outbreak system for regional and national oversight.

We have continued to see different waves and new variants with some degree of escape from the vaccine. The Alpha variant that appeared in November 2020 was superseded by the more serious Delta variant in July 2021. This was then followed by Omicron which has been with us since December 2021. Fortunately, omicron appears to be milder but is very infectious which has caused disruption through staff illness and patient outbreaks. However, since the vaccine programme has been introduced protection against severe illness has been maintained and we have seen far fewer deaths and intensive care admissions for the number of cases.

Below is an overview of the classifications of cases seen in the Trust in 2022/23.



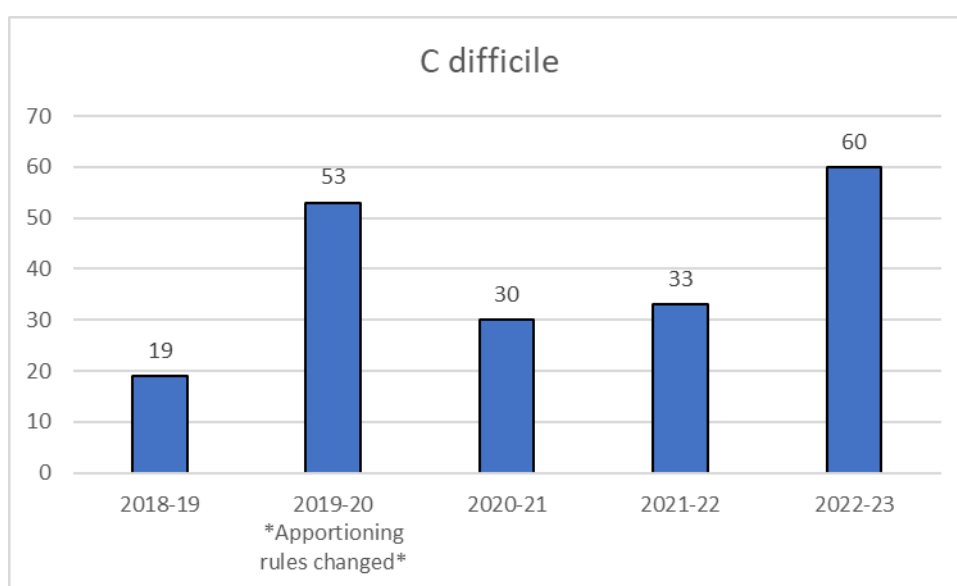
1.6 Healthcare Acquired Infections

Clostridoides difficile

Clostridoides difficile (C.difficile) is a bacterium found in the gut which can cause diarrhoea after antibiotics. It can rarely cause a severe and life-threatening inflammation of the gut called pseudo-membranous colitis. It forms resistant spores which require very effective cleaning and disinfection to remove them from the environment.

Infection is nearly always preceded by antibiotic treatment, but antibiotics may have been stopped up to 6 weeks before the patient presents with symptoms. Although most antibiotics have been implicated, broad-spectrum agents such as cephalosporins, quinolones and carbapenems (e.g., Meropenem) are most likely to cause it as they wipe out the “normal flora” of the gut which usually holds C difficile in check.

The Trust reports all cases of C difficile diagnosed in the hospital laboratory to Public Health England. Prior to April 2019, only cases where the sample was taken later than the third day after admission were considered attributable to the trust. But this definition changed as of April 2019 and now considers cases attributable to the Trust if they are collected after the second day of admission.



The C difficile target for SaTH in 2022/23 was to have no more than 33 Trust apportioned cases in patients over the age of 2 years. By the end of the financial year there were 60 cases apportioned to the Trust which was clearly above the target that was set. This was a sharp increase in cases apportioned in 2021/22 which was 33 cases.

Of the 60 cases apportioned to the Trust in 2022/23, 49 cases were Hospital Onset – Hospital Associated i.e., their sample was collected more than two days after their admission. This was an increase from 20 cases in the previous financial year. There were 11 cases that were Community Onset – Hospital Associated i.e., the patient was positive in the community, but had been an inpatient in the Trust in the preceding 28 days. This was a reduction of two cases from the previous year.

Over a sharp drop during Covid our C difficile rates are back to the pre Covid level seen in 2019-20 in the graph above (2018-19 is not comparable because rules of apportioning cases changed after that).

Our rate per 100,000 bed days over the last 4 years is as below:

2019/20 our rate was 21.2 per 100,000 bed days (pre pandemic)



2020/21 our rate was 14.8 per 100,000 bed days

2021/22 our rate was 13.6 per 100,000 bed days

2022/23 our rate was 22.1 per 100,000 bed days

The exact cause is unclear but similar rises have been observed both nationally and regionally. In part it probably reflects the reduction in patients in hospital during covid and also the change in case mix. However this recent large increase is a cause for concern, and we have developed an action plan to counter it.

The Trust continues to review all cases through Root cause analysis (RCA) to identify any potential lapses in care or any common themes that may have contributed to the infection. All cases have been reviewed, most common contributing factors identified and an action plan created. There are no obvious changes in the issues found. The most common problem is delay in sample collection and isolation of symptomatic patients. Inadequate decontamination of the rooms and hand hygiene issues were also noted in some cases. Excessive glove wearing from pandemic infection control advice was evident which paradoxically is a risk factor for cross infection. A "Gloves Off" campaign has been held to remind people about changing or not wearing gloves. Prescribing broad spectrum antibiotics is probably the commonest immediate cause of C difficile infection. This is often unavoidable to treat sepsis but there has been a lack of timely review and supporting specimens to allow changing antibiotics to lower risk narrow spectrum antibiotics or stopping as soon as possible. The need to treat Covid patients with broad spectrum antibiotics may have contributed to increasing use of these antibiotics. The action plan has been distributed to Divisions and a meeting was held to discuss the findings and way to progress. A C.Difficile questionnaire has also been created and sent for staff to identify gaps in knowledge.

To address sample collection, isolation and decontamination issues series of posters and One Minute Briefs have been created and communicated to staff during weekly NMF meetings, and in Face to Face training on wards.

SIGHT poster

On identification of suspected infectious diarrhoea please apply the following protocol (SIGHT):

- S** Suspect that a case may be infective where there is no clear alternative cause for diarrhoea.
- I** Isolate the patient and consult with the infection control team – escalate if unable to isolate. Complete Datix.
- G** Gloves & aprons must be used for all contact with the patient and their environment.
- H** Hand washing with soap & water should be carried out before and after each contact with the patient and the patient's environment.
- T** Test the stool for C.Diff toxin, by sending a specimen immediately.

Further Actions:

- Patients should be monitored daily for frequency and severity of diarrhoea using the Bristol Stool Chart.
- All antibiotics should be reviewed, as should other drugs that might cause diarrhoea.
- C.Diff infection should be managed as a diagnosis in its own right, with each patient reviewed daily regarding fluid resuscitation, electrolyte replacement and nutrition review.
- Monitor for signs of increasing severity of disease as patients may deteriorate very rapidly.

Our Vision: To provide excellent care for the communities we serve

Decontamination One Minute Brief

Your One Minute Brief on . . . HPV / UVO Cleaning

Date of issue: 14/09/22

All rooms, after discharge/move of CPE or C.Diff positive patients, require detergent and water clean followed by HPV/UVO clean.

(Please always request the HPV clean for CDiff)

Prior to HPV/UVO cleaning taking place in any room, a senior nurse/ sister must sign off the cleaning checklist to say that the ward's staff/domestic have cleaned the area using detergent and water first and that all disposables including paper towels, curtains, toilet brushes, toilet roll etc. have been removed and their holders also cleaned. Please use this opportunity to clean other equipment like commodes and shower chairs by placing them in the room when HPV/UVO is used. To request the HPV/UVO clean please contact Facilities supervisors via switch board.

Please ensure the Tristel deep clean is performed thoroughly in case of HPV not being available.

Check List for Managers and Team Leaders

- Deliver the One Minute Brief face-to-face to your team.
- Print and display this One Minute Brief for your staff to see it.

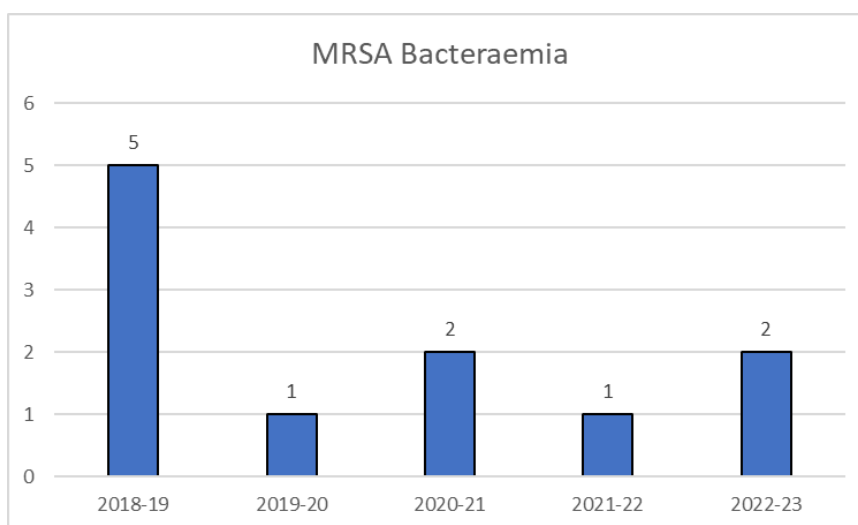
Contact details:
For more information contact
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Secretaries: Jennie / Natasha (RSH) Ext 1134 / (PRH) Ext 4489
Nurses: Emilia Chrusciel, Sue Southworth, Marlene Goncalves, Lynn Marsden
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Our Vision: To provide excellent care for the communities we serve



MRSA Bacteraemia

- MRSA Bacteraemia.** The Trust Meticillin-resistant Staphylococcus aureus (MRSA) bacteraemia target is zero. In 2022/23 the Trust reported two cases of MRSA bacteraemia; one was a tubo-ovarian abscess post emergency LSCS section, in the other case the cause was thought to be an infected iv canula site. This compares with one case in 2021/22. Post Infection Review meetings were held for both cases, action plans created and completion monitored by divisions and IPC. Lessons identified from the review meetings were: issues with management of invasive devices, insufficient communication between hospital and community, insufficient sampling (blood cultures, wound swabs), sepsis screening protocol not followed, and incidents of poor record keeping. Although we did not achieve the zero cases target, we continue to have very low numbers of cases.



MSSA Bacteraemia

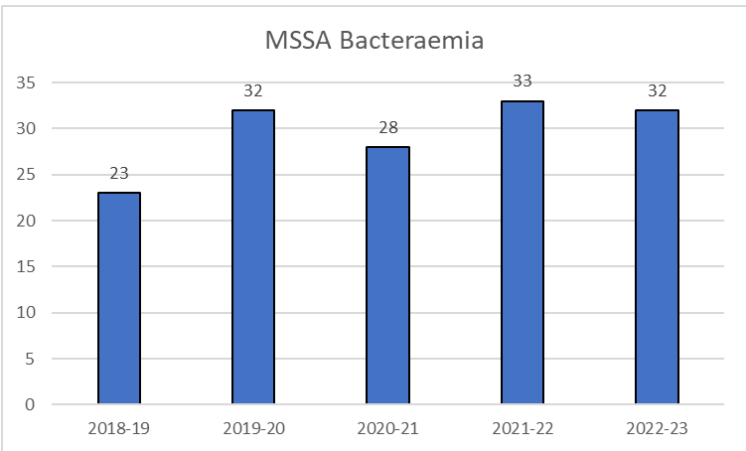
MSSA (Meticillin sensitive Staphylococcus aureus) is the much commoner antibiotic sensitive version of Staphylococcus aureus and less likely to be hospital acquired. There has been a change in reporting of MSSA bacteraemia cases so that we now include patients who have been in the hospital in the previous 28 days in our numbers as well as those who were positive for the infection more than 2 days after admission. These cases are referred to as Hospital Onset Healthcare Associated (HOHA) for those that are positive later than the 2 day of admission, and Community Onset healthcare Associated (COHA) for those that are admitted with the infection but have been in the hospital in the 28 days prior to the positive sample.

There were 57 cases apportioned to SaTH in 2022/23 compared with 47 in 2021/22 (note that numbers from 2021/22 have been changed to include those in hospital in the 28 days prior to their positive sample so the two years are comparable). There is not a formal target for reduction of MSSA bacteraemia cases but we are continually trying to reduce the numbers.

Of the 57 cases 32 were HOHA cases i.e. in patients who had been in hospital for more than 2 days (28 in 2021/22). Of these 16 cases were thought to be health care associated. Twelve had infected intravenous lines (4 central lines and 8 peripheral IV lines), two had surgical site infections and one had a urinary tract infection after insertion of a urinary stent to bypass a blockage. There was one case of post-partum infection. For 7 cases the source was unknown. The sources of the remaining cases included: septic arthritis, osteomyelitis, skin and soft tissue infections, chest infection and one contaminant.

There were 25 patients with COHA cases i.e. who were admitted with the infection but had been in the hospital in the last 28 days (19 in 2021/22). Of these six patients were thought to have Health Care associated infection. Four had infected central lines, one had a surgical site infection, and one had catheter associated UTI. Of the rest, in six the source was unknown and in two the blood culture was probably contaminated so not a true infection. The other cases were not health care associated; sources included bone and joint infection, skin and soft tissue infection, chest infection, urinary tract infection and endocarditis.

All device or intervention cases are reviewed with Route Cause Analysis completion, to look for preventable actions and learning. The commonest Health Care Associated source is line infection and we continue to focus on monitoring aseptic technique for IV-line insertion, careful monitoring of the line site for signs of infection and early removal.



Graph of MSSA bacteraemia cases positive more than 2 days after admission to hospital over the last 5 years (HOHA). This does not include patients admitted with infection who had been in the trust in the previous 28 days.

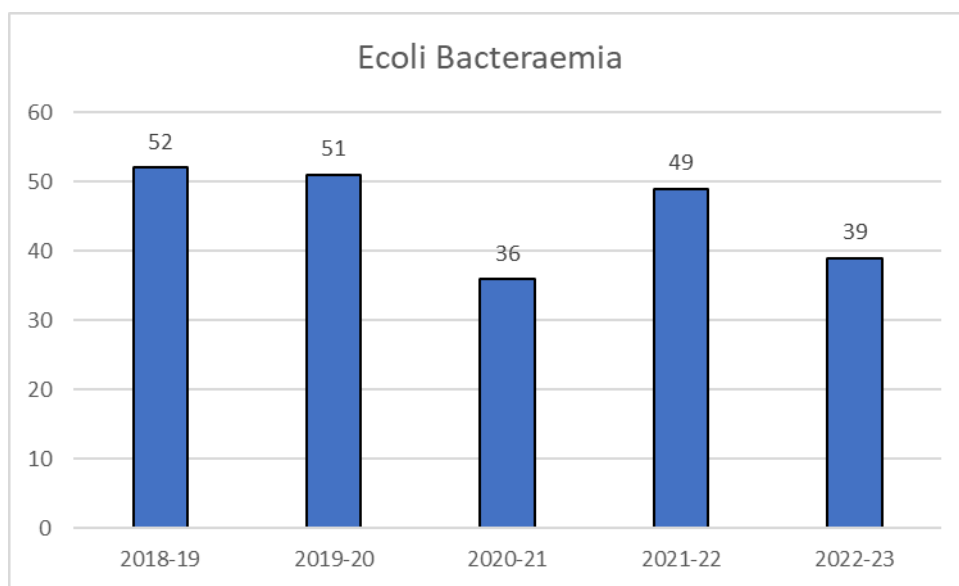


Gram Negative Blood Stream Infections

We are required to monitor blood stream infections (or bacteraemia) for three Gram negative bacteria - E coli, Klebsiella and Pseudomonas. As with MSSA bacteraemia cases there has been a change in reporting of Gram-negative bacteraemia cases so that we now include patients who have been in the hospital in the previous 28 days in our numbers (COHA cases) as well as those who were positive for the infection more than 2 days after admission (HOHA).

E coli

E. coli is a common commensal of the human colonic flora. If it escapes from the gut it may become the cause of bacteraemia and sepsis, Most common causes or sources include the urinary tract, intra-abdominal/ biliary sepsis and hospital acquired pneumonia. Severe immunosuppression may allow direct translocation from the gut into the bloodstream, Many cases are associated with the instrumentation of the urinary tract including insertion and maintenance of urinary catheters.



Graph of E coli bacteraemia cases positive more than 2 days after admission to hospital over the last 5 years (HOHA). This does not include patients admitted with infection who had been in the trust in the previous 28 days.

In 2022/23 we had 118 trust apportioned Escherichia Coli bacteraemia cases, compared to 117 cases in 2021/22 (note that numbers from 2021/22 have been changed to include those in hospital in the 28 days prior to their positive sample so the two years are comparable). We are therefore over our target of 96. The numbers are very similar to last year but there were fewer hospital onset cases (39 vs 49 in 2021/22) and more people who came in with the infection but had been inpatients in the previous 28 days (79 vs 68 in 2021/22). All cases were reviewed by Microbiology to determine the source, and if they were considered to be device or intervention related an RCA would be completed to determine any learning points.

Of the 39 hospital onset (HOHA) cases, 17 were considered to be health care related with the sources being: 8 CAUTI's, 3 neutropenic sepsis post chemotherapy, 2 infected central lines, 2 Hospital Acquired Pneumonia, 1 post op infection and 1 postnatal infection following Caesarean section. The sources of infections for the non-healthcare related cases can be divided into the following sources of infection: UTI (not a CAUTI), hepatobiliary, intra-abdominal infection, and chest infection. There were 5 cases where the source was unknown.

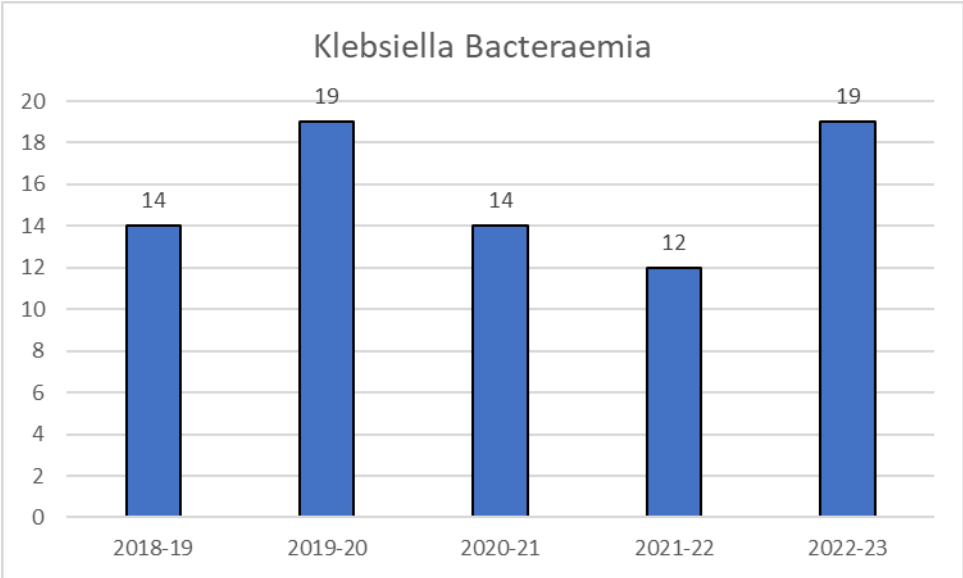


For the 79 patients who came in with the infection but had been in the hospital in the 28 days prior (COHA cases) the source was only known for 45 cases. There were 34 patients where the cause of bloodstream infection was unknown. Of the 45 blood stream infections with a known source 14 were thought to be healthcare acquired. Eight patients had CAUTI. Of these 5 had long term catheters and were not related to the recent admission, 3 had recent catheterisation in hospital. Two patients with a UTI did not have a catheter but in one it followed a recent bladder washout in the hospital and in the other it followed recent insertion of a urinary stent to bypass a blockage caused by a cancer. Two patients had neutropenic sepsis after recent chemotherapy. One had cholecystitis probably caused by an infected stent put in to bypass blockage of bile by pancreatic cancer. One patient had a surgical site infection. The commonest source in patients where the infection was not thought to be health care related was UTI with 15 cases and biliary sepsis with 9. Other sources included lower abdominal sepsis, skin and soft tissue infection, chest infection and post-natal infection.

E coli bacteraemia continues to be a challenge. Catheter associated UTI continues to be the commonest healthcare associated cause. This includes not just catheters put in but the hospital but also in the community, so we need to work together with our partners in the community to reduce this. Line infections also feature and are another focus of our work in reducing HCAI. We also need to improve our surveillance of community onset health care associated infections.

Klebsiella

Klebsiella, like E coli, is part of our normal flora and causes similar infections, particularly UTI. However it is more resistant to antibiotics than E coli and infections are more commonly found to be healthcare acquired. In 2022/23 there were 37 Trust apportioned Klebsiella bacteraemia cases compared with 19 cases in 2021/22 (note that numbers from 2021/22 have been changed to include those in hospital in the 28 days prior to their positive sample so the two years are comparable). The target is no more than 23 cases, so we have exceeded that and also seen a large rise in cases. We have seen a rise in hospital onset cases to 19 from 12 in the previous year, and also in those who came in with the infection but had recently been in hospital. There were 19 in 2022/23 compared with 7 in 2021/22.



Graph of Klebsiella bacteraemia cases positive more than 2 days after admission to hospital over the last 5 years (HOHA). This does not include patients admitted with infection who had been in the trust in the previous 28 days.

Of the 19 hospital onset (HOHA) cases 10 were considered to be health care acquired; 4 had CAUTIs, 3 were central line infections, 2 were post-surgical infections (both had surgery at other hospitals not SaTH), 1 had an infected pacemaker (the pacemaker was put in many years ago in another hospital so not caused by SaTH). Of the other 9 cases 2 had biliary sepsis, 2



had UTI, 2 had infected leg ulcers and 1 had a chest infection. There were 2 cases where the cause was unknown but they had not had any recent devices or interventions likely to cause the infection.

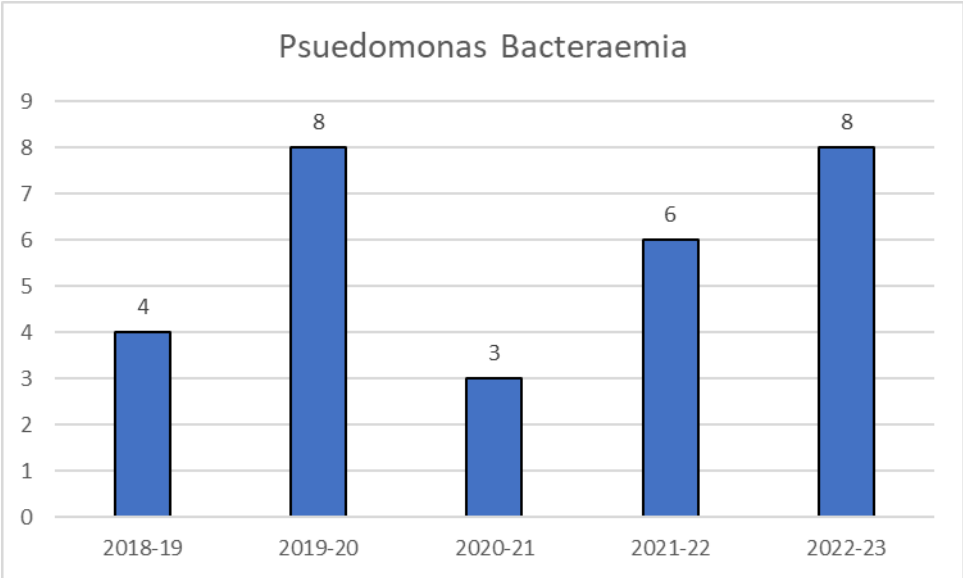
Of the 18 cases where the patient came in with the infection but had been in the hospital in the previous 28 days (COHA cases), 6 were considered to be health care acquired; 2 had CAUTI (both long term catheters put in in the community), 1 patient had UTI with catheterisation on their previous admission, 1 patient had UTI possibly caused by a urinary stent put in to bypass blockage caused by cancer, 1 patient had biliary sepsis due to a biliary stent put in to bypass blockage caused by cancer and 1 patient had surgical site infection. For the other cases that did not appear to be health care acquired 6 had a UTI, 2 had biliary infection and 1 had a chest infection. In 3 cases the source was unknown.

Again the commonest preventable source of infection was infection associated with urinary catheters and intravenous lines.

Pseudomonas aeruginosa

Pseudomonas aeruginosa, unlike E coli or Klebsiella, is an environmental organism and not part of our normal flora. It is naturally highly resistant to antibiotics and is considered an opportunistic pathogen. This means it is unlikely to cause infection in healthy people but can take advantage of situations where the patient is debilitated by illness or treatment, and also infects after use of broad-spectrum antibiotics which destroy competition from our normal flora, and allow the pseudomonas to colonise and then cause infection.

In 2022/23 the Trust had 16 cases of Trust apportioned Pseudomonas aeruginosa compared with 21 in 2021/22 (note that numbers from 2021/22 have been changed to include those in hospital in the 28 days prior to their positive sample so the two years are comparable). This is a drop of 5 cases from the previous year, but still below the target that was set for the financial year which was no more than 19 cases. There was a slight rise in hospital onset (HOHA) cases with 8 in 2022/23 compared with 6 in 2021/22. However there was a fall in patients coming into hospital with infection who had been in the hospital in the previous 28 days (COHA cases). In 2022/23 there were 8 COHA cases compared with 15 in 2021/22.



Graph of Pseudomonas bacteraemia cases positive more than 2 days after admission to hospital over the last 5 years (HOHA). This does not include patients admitted with infection who had been in the trust in the previous 28 days.



Of the 8 hospital onset (HOHA) cases 6 were considered to be healthcare acquired; 2 patients had neutropenic sepsis post chemotherapy, 1 had an infected central line, 1 had hospital acquired pneumonia, 1 had biliary sepsis post ERCP and 1 had a surgical site infection. Of the cases not thought to be health care acquired 1 had endocarditis and 1 had a chest infection.

Of the 8 community onset cases who had recently been inpatients (COHA cases), 5 were thought to be health care acquired: 2 had neutropenic sepsis post chemotherapy, 2 had hospital acquired pneumonia and 1 had CAUTI. Of the other 3 cases; in 2 the source was unknown and the other had endocarditis (this is the same patient as the HOHA case with endocarditis as the patient had 2 episodes of blood stream infection with pseudomonas).

Overall Summary of Performance

Organism	COHA	HOHA	Total (HOHA/COHA)	Trajectory for 2022/23
CDI	11	49	60	33
MSSA	25	32	57	n/a
MRSA	0	2	2	0
E Coli	79	39	118	96
Pseudomonas	8	8	16	19
Klebsiella	18	19	37	23

HOHA – Hospital Onset Healthcare Associated. Cases where the positive sample was taken more than 2 days after admission and therefore assumed to be acquired during current admission.

COHA – Community Onset Health Care Associated. Cases where the patient was admitted with the infection but has been an inpatient at the Trust in the previous 28 days.

1.7 Carbapenemase–Producing Enterobacterales cases (CPE)

CPE are Gram negative bacteria which are so resistant to antibiotics that even our last line of defence, carbapenem antibiotics, are ineffective. So, it is extremely important to detect patients with these bacteria and prevent spread through isolation and cleaning. Public Health England published a toolkit for the early detection, management, and control of CPE in December 2013. The toolkit provides expert advice on the management of CPE to prevent or reduce the spread of these bacteria into (and within) health care settings, and between health and residential care settings. The Trust has a CPE policy in place. This reflects screening guidance recommended by Public Health England.

In 2022/23, there were no new cases of CPE acquired in the Trust.



1.8 Audit Programme to Ensure Key Policies are Implemented

There is an extensive IPC audit plan across both sites. To ensure consistent compliance with evidence practice, and national and Trust's policies the audits are conducted as a minimum on an annual basis, by both the clinical areas and the IPC team. To ensure the audit tools used by the IPC team can capture changes in guidance, the IPC team consistently revises the audit template.

Audit results and completion of the actions from the audits are reviewed at the IPC Operational group, and through the Divisional Quality meetings, and are reported to the Board via these meetings. All outbreak audits are also analysed during the post infection reviews.

The IPC team aims to routinely visit each clinical area at least every 3 months, and areas with identified issues are visited monthly or weekly, depending on the level of compliance. Due to the ongoing COVID pandemic and sustained pressure on the Trust, the IPC programme of audit focused on responding to the COVID-19 outbreaks with weekly audits undertaken across the Trust that have had an impact on infection prevention and control practice. Unfortunately, this has affected the number of routine visits carried out during this year.

Audit type	Completed by	Frequency	Reported to:	Details
PPE donning and doffing	IPC	Weekly on outbreak areas and at least every 3 months in the areas not affected by outbreaks.	Division and DIPC during outbreak meetings and as part of the QWW reports.	<ul style="list-style-type: none"> Medical staffing lack of compliance escalated to DIPC/ Clinical Directors PPE donning and doffing training made an annual mandatory compliance.
Hand Hygiene audits	IPC	Weekly on outbreak areas and at least every 3 months in the areas not affected by outbreaks.	Division and DIPC during outbreak meetings and as part of the QWW reports	<ul style="list-style-type: none"> Any non - compliance issues are challenged at the time by IPC/ward managers and matrons.
	Matrons	Monthly as part of the Nurse Quality matrix.	Reviewed as part of the Divisional Quality reviews with Matrons and DHoN	<ul style="list-style-type: none"> Ward managers and matrons are required to complete a monthly quality review of IPC practises on the ward.
Quality ward walks	IPC	Weekly/ Monthly/ Quarterly	Division and DIPC during outbreak meetings, as well as IPCOG	<ul style="list-style-type: none"> Routine Quality Ward Walks (QWW) are undertaken every 3 months to audit the IPC practice and environment. Weekly audits have taken place on outbreak areas for assurances, this is in addition to the daily ward visits the IPC team would complete to



				<p>support and observe staff practice.</p> <ul style="list-style-type: none"> • Consecutive monthly QWW's are completed in areas that fall below the required 90%, and quarterly are done routinely. • The QWW's undertaken by the IPC team are often accompanied by cleanliness team members/Ward Managers, Matrons and Heads of Nursing.
Exemplar Audits	Quality team within Corporate Nursing	Each area is audited 3 monthly	Ward manager/ Matron and Divisional DoN. They are reported through the monthly Quality meetings within the Divisions	<ul style="list-style-type: none"> • Exemplar assessments have been undertaken in various clinical areas by the IPC team in conjunction with the quality team. These audits are to look at standards and improvements required in clinical areas covering all areas of patient care, safety, and management.
High Impact Interventions including:				
Commode Audit	IPC	ANNUAL	IPCOG and clinical area leads	<ul style="list-style-type: none"> • A total of 79 commodes were audited for the purpose of this report. (42 PRH/37 RSH) • All the commodes assessed were clean. Therefore, adhering to the Trust's guidelines • Replacement of some commodes is advised due to damage, discoloration, or missing parts. This was observed in 3 of the 79 commodes audited. • On the 46 areas that were audited 46 had the commode cleaning poster that includes the guidelines for safe cleaning and storage of this equipment, (100% compliance).
Independent review of Commodes	External company	Ad hoc	Divisions	<ul style="list-style-type: none"> • External company reviewed condition and cleanliness of the commodes across the TRUST and provided education regarding cleaning of the equipment. This audit included teaching to staff.
Sluice Audit	IPC	ANNUAL	IPCOG and clinical area leads	<ul style="list-style-type: none"> • All sluices in the Trust were audited. • A total of 179 issues were identified during this audit within the Trust. The issues found are mix of estates,



				nursing, cleanliness, and housekeeping matters. This a significant increase from last year's audit results where 71 issues were identified. Key concerns: <ul style="list-style-type: none"> • Completion of cleaning checklists • Damage doors and door frames at PRH • Damage to skirting boards
Waste Management	External contractor – Catalyst Waste Solutions Ltd	ANNUAL October 2022 – Pre acceptance audit	IPCOG/ Assurance/ Director for facilities/ estates	<ul style="list-style-type: none"> • Undertaken by an external company called Catalyst Waste Solutions Ltd, and reported through estates/facilities at assurance/IPCOG
Sharps Audits –	carried out by Sharp smart company.	Monthly	IPCOG/ Assurance/ Directors of; facilities & estates	<ul style="list-style-type: none"> • Review of contents of Sharp Smart containers returned for incineration.
Credits 4 cleaning (C4C)	Facilities	MONTHLY	Division and then through NQM triangulation	<ul style="list-style-type: none"> • Completed monthly and reported through NQM, QWW's and IPCOG in facilities monthly report

1.9 Infection Prevention and Control Quality Ward Walks

Quality ward walks (QWW) of the Trust clinical areas are undertaken by the IPC team on a quarterly basis, or when areas fall below the expected standard of 90% compliance are audited more frequently accompanied by the ward matron/HON. However, the areas that have outbreaks are monitored weekly and are reported directly to the DIPC through the outbreak assurance meetings.

For routine QWW's the IPC team use a proforma tool based on 45 key points which provide an in depth and rounded audit of a ward/department focusing on several areas including hand hygiene and PPE, cleaning and decontamination, estates and waste management, invasive devices, and isolation. The audit contains a hand hygiene and PPE audit to be complete by the IPC nurse, upon observation of practices. This enables the IPC team to validate the hand hygiene and PPE audit undertaken by the departments. Credits for Cleaning scores are also included to provide a triangulated approach to the status of a clinical area in any point and time. The action plan associated to those findings is attached to the QWW as a "live" hyperlinked document so that the leads for the ward/department can input corrective actions and monitoring notes where required.

A specific audit tool was developed to use in areas where COVID-19 outbreaks are identified, this allows the IPC team to provide relevant assurance to the outbreak control team via internal and external outbreak meetings. These elements are based on essential IPC practice and encompass the guidance regarding PPE, space, ventilation, hand hygiene and environmental cleanliness.

In the 2022/23 period the IPC team have completed:

- 153 routine quality walks
- 451 quality ward walks completed due to multiple outbreaks/PII.



- In addition to this, the IPC team conducted daily visits on all outbreak areas and was involved in all the Exemplar Assessment Visits.

1.10 Audits of Hand Hygiene Practice

As a team it is very rewarding to observe that all staff groups are now truly committed in making a change and being compliant to the best of their ability. The hand hygiene practice results are shown in the table below.

Adherence to the Hand Hygiene practices is monitored monthly by each ward and is recorded on the Nursing Quality Metrics and ward dashboards. The audits of hand hygiene are also carried out by Infection Prevention and Control team during Quarterly Quality Ward Walks.

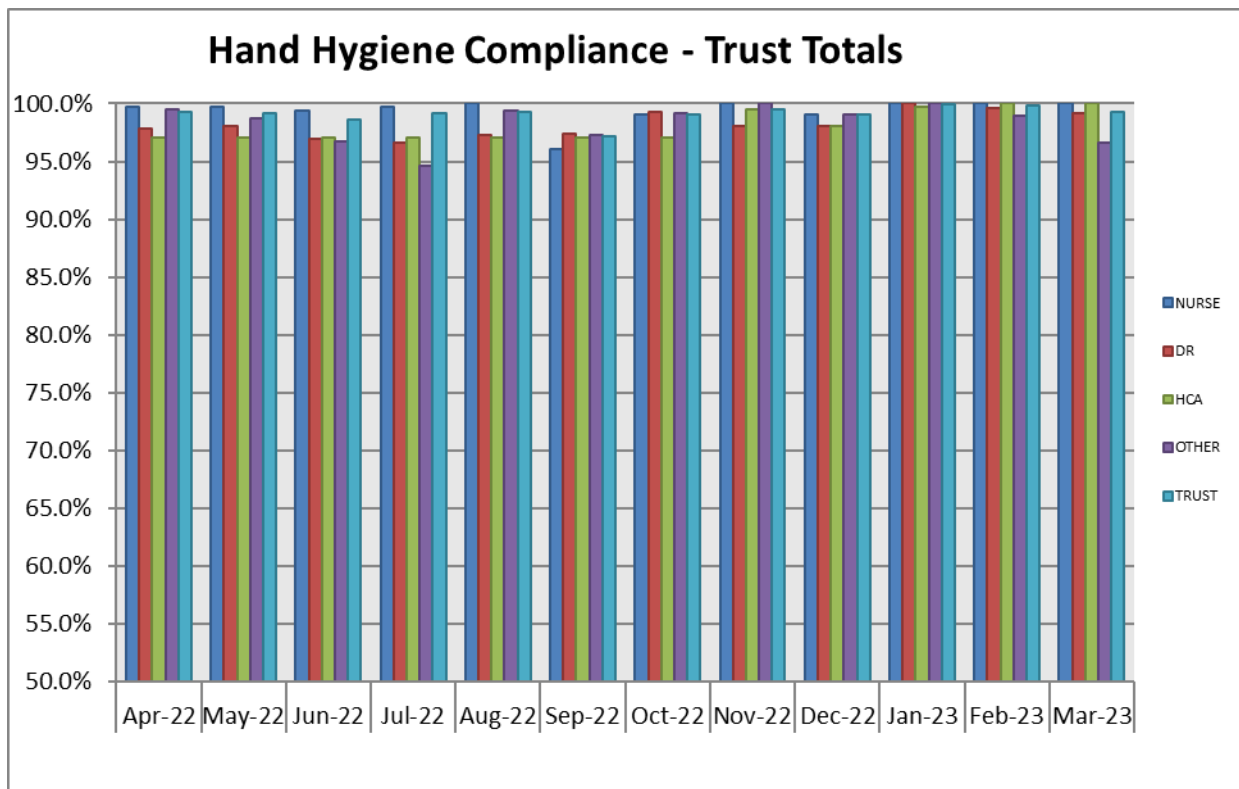
During the 2022-23 year the overall compliance for all staff groups remains steady at 95%.

The results listed in the table below show that all staff groups are truly committed in making a change and being compliant to the best of their ability.

	NURSE	DR	HCA	OTHER	TRUST	Opp	Obs
Feb-21	100.0%	95.8%	100.0%	100.0%	99.2%	796	790
Mar-21	100.0%	100.0%	100.0%	100.0%	100.0%	849	849
Apr-21	98.5%	99.3%	98.7%	100.0%	99.0%	682	675
May-21	98.4%	99.5%	98.5%	96.8%	98.3%	1065	1047
Jun-21	100.0%	100.0%	98.0%	98.9%	99.3%	972	965
Jul-21	99.2%	97.5%	99.6%	100.0%	99.2%	1008	1000
Aug-21	98.6%	99.4%	98.1%	100.0%	98.9%	893	883
Sep-21	100.0%	99.5%	99.1%	100.0%	99.7%	1902	1896
Oct-21	99.5%	98.1%	100.0%	99.0%	99.3%	1010	1003
Nov-21	97.9%	100.0%	97.0%	98.3%	98.0%	858	841
Dec-21	100.0%	98.9%	97.0%	100.0%	99.8%	943	941
Jan-22	99.3%	98.5%	97.0%	100.0%	99.2%	776	770
Feb-22	98.7%	96.9%	97.0%	99.3%	98.5%	812	800
Mar-22	99.4%	98.8%	97.0%	97.9%	99.1%	847	839
Apr-22	99.7%	97.8%	97.0%	99.5%	99.3%	988	981
May-22	99.7%	98.0%	97.0%	98.7%	99.2%	833	826
Jun-22	99.4%	96.9%	97.0%	96.7%	98.6%	878	866
Jul-22	99.7%	96.6%	97.0%	94.6%	99.2%	843	836
Aug-22	100.0%	97.3%	97.0%	99.4%	99.3%	884	878
Sep-22	96.1%	97.4%	97.0%	97.3%	97.2%	1027	998
Oct-22	99.0%	99.3%	97.0%	99.2%	99.0%	762	756
Nov-22	100.0%	98.1%	99.5%	100.0%	99.5%	888	884
Dec-22	99.0%	98.0%	98.0%	99.0%	99.0%	931	919
Jan-23	100.0%	100.0%	99.7%	100.0%	99.9%	1132	1131
Feb-23	100.0%	99.6%	100.0%	98.9%	99.8%	2099	2095
Mar-23	100.0%	99.2%	100.0%	96.6%	99.3%	1027	1020

The hand hygiene practice results are shown in the table below.

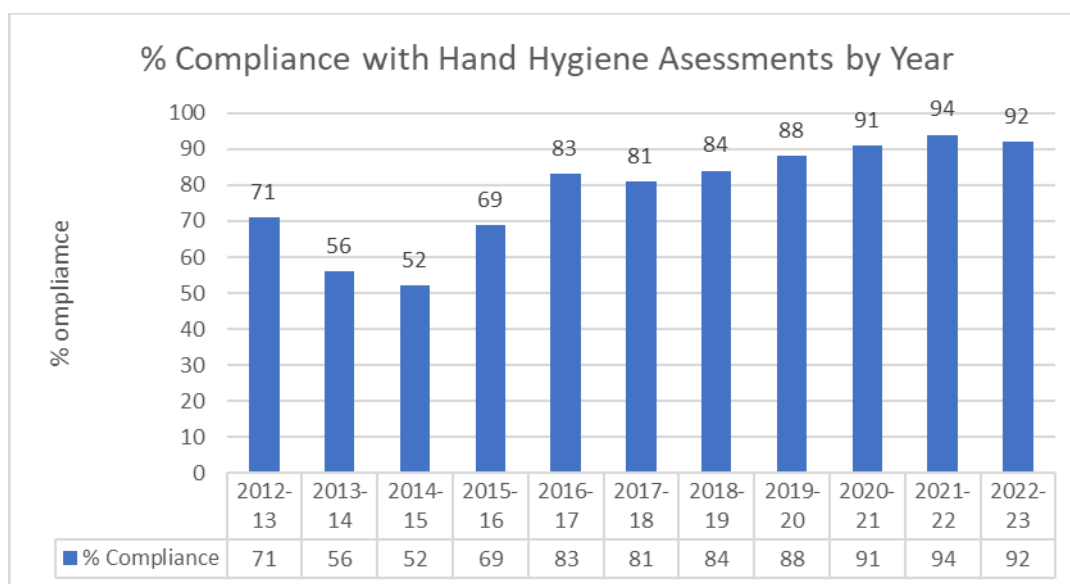




Hand hygiene technique assessments

The Trust Hand Hygiene Policy stipulates that all staff should have their hand hygiene technique assessed within one month of starting their employment and reviewed every three years. The requirement was temporarily changed to yearly at the beginning of the COVID pandemic however this has now returned to the pre-pandemic requirement of three yearly. It is the responsibility of the Ward Manager, the individual staff member, and the IPC link nurses to ensure these assessments are carried out.

The overall compliance rate for 2022-23 is 92% and includes all staff groups within the Trust. This is a slight reduction from last year's 94%.



Criterion 2:



2.1 Cleanliness Team

The Cleanliness Team provides a 24/7 service to the Trust in accordance with the National Standards of Healthcare Cleanliness. Cleanliness Technicians are trained and adhere to, robust method statements and IPC Protocols.

New National Standards of Healthcare Cleanliness

The new National Standards of Healthcare Cleanliness has been implemented and the Commitment to Cleanliness Charter is now displayed in all patient areas along with the revised cleaning responsibilities.

The implementation of the new Micad Audit System is still to be implemented once a few minor issues have been resolved. Efficacy audits are being carried out for Cleanliness Team responsibilities only as a trial – at some point in the future this will become a multi-disciplinary approach involving all responsibility groups.

Monitoring Processes for In-house Cleaning

The Cleanliness Team are committed to ensuring high standards of cleanliness and that these standards are maintained by promptly addressing any shortfalls. The Team work to national targets and local standards which are reflected in the Environmental Audit scores and our Patient-Led assessments of the care environment (PLACE) results. Cleanliness Supervisors carry out daily quality inspections across both hospitals.

The Trust monitoring team use the MiC4C software (which is widely used across the NHS), carry out visible checks of all elements, the system then generates a report and percentage score, the reports are sent to the Cleanliness Management Team, Estates Team, Ward Managers and Matrons for action. Matrons and Ward Managers are encouraged to join the audits to promote ownership of cleanliness.

The results of the audits are reported monthly to IPC Operational Group and exceptions presented at IPC Assurance Group.

The Senior Cleanliness Manager or Site Cleanliness Managers also participate in any outbreak or periods of increased incidents (PII) meetings when issues are identified on site.

The Cleanliness Management Team accompany the IPC Team on Quality Ward Walks and mini-PLACE Assessments. Meetings with Infection Prevention, Matrons, and clinical colleagues to regularly monitor, review progress and address/resolve any issues are held to ensure that standards and performance target and compliance is met, whilst empowering Nurse Managers to be involved in the monitoring of cleanliness standards.

Terminal Cleans

All terminal cleans at the Trust are requested via the internal bleep system during. Hydrogen Peroxide decontamination of side rooms is requested as per the Cleanliness Team RAG poster.



Radiator Cleaning

The Trust has a planned programme of radiator cover removal to allow for cleaning. It has also been agreed that radiator covers are removed, and radiators cleaned after any outbreak of infection.

Criterion 3:

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

3.1 Antimicrobial Stewardship (AMS)

The Trust antimicrobial management group (AMG) includes representatives from pharmacy, microbiology, nursing, and medical staff. This group manages policy with regard to antimicrobial stewardship, formulates policy with regard to antimicrobial stewardship and responds to concerns in this area. The group feeds back actions and concerns via the Drug and Therapeutic committee and reports into the Infection Prevention and Control Operational Group and through to the IPC Assurance Committee.

The action of AMG continues to be hampered by the lack of attendance of the medical and nursing representatives. During 2022-23 the group has not met, meetings arranged to start May 2023 with better clinical engagement. Antimicrobial stewardship actions are communicated through direct contact. In addition to the restarting of the SaTH Antimicrobial Management Group the Integrated Care System now also has an Antimicrobial Stewardship Committee with contributions from other local healthcare services and future efforts for a local health economy wide approach to antimicrobial stewardship.

The group undertakes the following actions.

- Production of the antibiotic guidelines publishing them on the micro guide app
- Yearly update of the antibiotic guidelines or more frequently as necessary
- A regular update of the Trust Antimicrobial Stewardship Policy.
- A rolling Antimicrobial Audit Programme in line with Start Smart then Focus has been in place across the Trust for a number of years.
- Review of guidelines and issue of temporary alternative guidance when certain key antibiotics are unavailable due to global and national shortages.
- The Antimicrobial Guideline App (Micro-guide) for mobile devices continues to be popular with prescribers, facilitating easy access of antimicrobial guidelines at the point of prescribing. The desktop version of the guidelines on the Micro-guide app has now been rolled out across the trust to enable consistency with appearance and allowing for updates to be enabled more quickly and efficiently. The Trust now has both Adult and Paediatric Antibiotic Policies available through Micro-guide.

Undertaking of audits continues to be difficult to achieve without the facility of electronic prescribing however a replacement Antimicrobial Pharmacist was appointed this year and steps are being taken to reintroduce feedback to clinical governance leads. Regular monitoring of prescribing at ward level continues and pharmacist antibiotic related interventions are reviewed each month.

The Antibiotic Pharmacist continues to undertake FY1 junior doctor teaching in August/September for the new intake and attends medical and surgical clinical governance meetings to communicate information where necessary.

The work of the Sepsis Nurse and team has led to positive work surrounding sepsis and sepsis boxes and drawers or a sepsis trolley to assist in the prompt treatment of those patients



suspected of having sepsis are fully embedded. Work continues on emphasising the use of the sepsis pathway across the Trust in the management of sepsis and the success of these changes is monitored by the Sepsis Nurses.

Challenges as a result of ongoing shortages of various antimicrobials during the year due to manufacturer's supply problems continues to be managed by the pharmacy team. The AMG, Microbiology and Pharmacy Departments work collectively to ensure that alternative agents are available for patients in a timely manner.

- Antimicrobial guidelines were reviewed, and alternative agents chosen taking into account antimicrobial stewardship and local resistance patterns, benefits, and risks of proposed substitute agents, including cost pressure to the Trust as a result of using more expensive alternatives.
- Where necessary, alternative medicines are sourced, purchased, and made available in key areas via review of stock lists.
- Information on dosing, administration and side effects of alternatives are communicated to prescribers, nursing staff and pharmacists.
- Antibiotics that are in short supply are restricted to those conditions considered highest priority or where an appropriate alternative is not available.

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.

4.1 Communication Programme

Communications have continued to be a priority for the IPC team in 2022/23.

The team have ensured that changes in national or local guidance, changes to policy and lessons learned from outbreak investigations have been shared throughout the trust and have worked closely with the communications team to ensure that this has happened in a timely manner.

The Director of Infection Prevention and Control and Director of Nursing also includes IPC related information in her column in the local newspaper, the Shropshire Star.

The IPC team continue to be part of the trusts Silver Command meeting, that have varied in frequency in line with the pressures experienced. Communications are sent out trust wide following these meetings and signed off by the Medical Director, Director of Nursing or Chief Operating Officer.

Colleague alerts are also sent out to signal a change in practice.



In the past 12 months the IPC and Communications Teams have worked together to:

- To develop information for patients and staff regarding visiting restrictions and requirements

- To develop eye catching, easy to read, clear instructional PPE guidance which has changed as per UKHSA guidance throughout the pandemic.
- To share COVID updates including policy change/SOP development
- Shared IPC improvement news and lessons learned following outbreak investigations.
- Update the Trust website and intranet.
- Issue media statements during outbreaks.
- Support the annual flu vaccination campaign.

Table with comms messages related to IPC published throughout year 2022/23

Date	Topic
07 April 2022	Colleague message: Staff COVID-19 testing.
15 April 2022	Updated IPC guidance for COVID-19 outbreaks.
26 April 2022	COVID-19 swabbing update.
29 April 2022	Adult inpatient wards – visiting to be reintroduced.
26 May 2022	Monkey pox virus guidance.
05 May 2022	Colleague message from your Director of Nursing: PPR update.
10 June 2022	Colleague Message from your Director of Nursing: PPE Update
04 July 2022	COVID-19 contacts – new guidance.
05 July 2022	COVID-19 & Ops update – PPE and staff testing.
08 August 2022	Colleague message changes to asymptomatic COVID-19 testing. Changes to visiting arrangements.
10 October 2022	Colleague message – Rise in number of COVID-19 cases.
16 December 2022	Survey: IPC C. Diff.
20 December 2022	New Way of managing COVID-19 outbreaks introduced. Air-purification units.
28 December 2022	Managing COVID-19 outbreaks when patient/staff screening is required.
04 January 2023	Colleague message: Updated guidelines around PPE, hand hygiene and other IPC measures.
14 February 2023	Aerosol Generating Procedures

Weekly Nursing, Midwifery, AHP & Facilities meetings

The IPC team have a permanent section in agenda for weekly Nursing, Midwifery, AHP & Facilities meeting. Presentation with updates on all changes, lessons learnt from outbreaks and RCAs are discussed and shared with all attendees.

One Minute Briefs

The IPC team have created and published number of One Minute Briefs through the year 2022/23.

The following topics have been raised:



- HPV / UV clean
- Ultrasound Gel
- E. Coli bacteraemia Lessons Learnt.
- C. Diff lessons Learnt.
- Aerosol Generating Procedures

NHS
The Shrewsbury and Telford Hospital NHS Trust

Your One Minute Brief on . . . Date of issue: 14/09/22

HPV / UVO Cleaning

All rooms, after discharge/move of CPE or C-Diff positive patients, require decontamination and must be followed by HPV/UVO clean on UV class.

Please always request the HPV clean for CDM!

Prior to HPV/UVO cleaning taking place in any room, a senior nurse/ sister must sign off the cleaning checklist to say that the ward's staff/domestic have cleaned the area using detergent and water first and that all disposables including paper towels, curtains, toilet brushes, toilet roll etc, have been removed and their holders also cleaned.

Please use this opportunity to clean other equipment like commodes and shower chairs by placing them in the room when HPV/UVO is used. To request the HPV/UVO clean please contact facilities supervisors via switch board.

Please ensure the Tristel deep clean is performed thoroughly in case of HPV not being available.

Check List for Managers and Team Leaders

- Deliver the One Minute Brief face-to-face to your team.
- Print and display this One Minute Brief for your staff to see it.

Contact details:
For more information contact
Lead Nurse: Janette Pritchard Ext 3512
Secretaries: Jennie / Natasha (RSH) Ext 1134 / (PRH) Ext 4489
Nurses: Emilia Chruściel, Sue Southworth, Marlene Gonzalez, Lynn Marston
Bleeps: (RSH) 710 / 429 (PRH) 679 / 266
Phone: (RSH) Ext 3052 (PRH) Ext 4726

Spot Check (WB / DE / MARION)
Please call in job and when complete

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NHS
The Shrewsbury and Telford Hospital NHS Trust

Your One Minute Brief on . . . Date of issue: 03.10.22

C.Diff—lessons learnt

Clostridioides difficile (C. difficile) is a bacterium that is found in people's faeces. Even the food in healthy people, when it contains no organisms, **C. difficile** causes disease when the normal bacteria in the gut are disrupted, usually by previous antibiotic use. The spores of **C. difficile** are able to produce to much levels where it attacks the intestines and causes mild to severe diarrhea.

C. difficile can lead to serious infections of the intestines with severe inflammation of the bowel (pseudomembranous colitis). **C. difficile** is the top cause of infectious diarrhea in hospitalized patients.

What are the symptoms of C. difficile infection?

Classroom office
Symptoms include (not to be used) and usually life-threatening information of the infection.

- Water-pump-like diarrhea
- Fever
- Loss of appetite
- Nausea
- Abdominal pain or tenderness.

Management and prevention—Lessons learnt

- Ensuring that antibiotics are only prescribed when necessary and according to the Trust's antibiotic guidelines or microbiology advice
- Review and discontinuation of antibiotics
- Timely identification of infectious patients
- Timely collection of stool sample
- Isolation of patients with potential infectious diarrhoea as soon as possible
- Thorough decontamination of patients space or side rooms
- Hand hygiene with soap and water (not: hand gel not effective for staff and patients)
- Appropriate use of PPE

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Your One Minute Brief on . . . Date of issue: 08.02.23

Aerosol Generating Procedures

An aerosol generating procedure (AGP) is a medical procedure that can result in the release of aerosols (particles suspended in the respiratory tract) when breathing someone who is suspected or known to be suffering from a infectious agent transmitted either in part by the airborne, contact, or droplet route.

AGP List

- Awake bronchoscopy (including awake tracheal intubation)
- Awake ear, nose, and throat (ENT) airway procedures that involve respiratory suctioning
- Awake upper gastro-intestinal endoscopy
- Dental procedures (using high speed or high frequency devices, for example ultrasonic scalers/high speed drills)
- Reduction of sputum (this is a physio led cyclical breathing technique for diagnostic purposes)
- Respiratory tract suctioning
- Surgery or post-mortem procedures (like high speed cutting / drilling) likely to produce aerosol from the respiratory tract (upper or lower) or tissues.
- Tracheostomy procedures (insertion or removal)

It is the consensus view of the UK IPC cell that only open suctioning beyond the oropharynx is currently considered an AGP that a oral-pharyngeal suctioning is not an AGP.

Individual staff patient procedure risk assessments may result in staff wearing a higher level of PPE for procedures not included in this list

NO LONGER classed as AGPs

AIRVO
NIV
Basic CPR

Check List for Managers and Team Leaders

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- Print and display this One Minute Brief for your staff to see it.

For more information contact:
Lead Nurse: Janette Pritchard Ext 3512

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Your One Minute Brief on . . . Date of issue: 03.10.22

Escherichia coli—what I need to know

E.coli (Escherichia coli) is a gram negative bacteria found in the gut of most people and animals. E.coli does not usually cause problems when kept in the gut. However it can cause infection if transferred to vulnerable areas like urinary catheters, wounds, etc. Resistant strains can colonize the environment.

Gram negative bloodstream infections (GNBIs) are serious infections resulting from bacterial dissemination into the bloodstream and are associated with an increased risk of sepsis and mortality.

GNBIs have seen a global increase in incidence over the last 20 years, with E.coli representing 50% of all cases.

Risk factors

Urinary catheterisation
Intravascular devices
endoscopic, prostate biopsy, surgery
Gall bladder or kidney stones
Neutropenia
Recent Antimicrobial Rx or Hospital admission
Dehydration
Open wounds or ulcers

Prevention of infection?

Review and remove indwelling devices if possible
Timely diagnosis of infections
Appropriate prescribing based on antibiotic policy and sensitivities
Hand hygiene for staff and patients
Correct PPE usage and changing between patients
Cleanliness of equipment and environment

Check List for Managers and Team Leaders

- Deliver the One Minute Brief face-to-face to your team.
- Print and display this One Minute Brief for your staff to see it.

Contact details:
For more information contact
Lead Nurse: Janette Pritchard Ext 3512
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4.2 Trust Website and Information Leaflets

A dedicated COVID-19 information page is regularly updated with trust wide communications, COVID-19 policy changes and advice for staff on working through the pandemic, including information for patients and visitors. This included topics such as volunteering, Human resources and workforce information, symptoms of COVID-19, how to keep healthy and avoid infection, how to get tested and visiting.

The Trust website also promotes the IPC information page for general IPC issues and guidance including link nurse information, information on MRSA, *Clostridioides difficile* and other organisms. This is also the media area to review a range of information leaflets on various organisms and access the regularly updated policies and guidance.



Following IPC patient and visitors' leaflets are available on Intranet:

- Clostridium difficile leaflet
- Clostridium difficile carrier leaflet
- Norovirus leaflet
- Reducing the Risk of Infection Whilst in Hospital
- Washing clothes patient leaflet
- A guide to MRSA
- MRSA Screening and Guidance leaflet
- Hand Hygiene
- Seasonal Flu
- CPE
- Vancomycin Resistant Enterococcus (VRE)
- Scabies
- Group A Streptococcal Infections
- Group B Streptococcus Infections
- A Guide to ESBL and other Multi Gram-Negative Organisms (MDRGNO)

Following Staff leaflet are also available on Intranet.

- How to take a Blood Culture
- MRSA guidelines for non-clinical staff
- Advice for bank and agency staff
- Estates and Contractors Leaflet

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.

Infection Prevention Nurses are alerted of daily laboratory alert organisms.

The Trust has a policy for screening both elective and emergency patients for MRSA and a system is in place for monitoring compliance.

5.1 Clinical Portal System/SEMA

ICNET now updates the IPC team regarding patient alerts. Due to the constraints of the SEMA system ICNET is unable to add a patient flag on SEMA, therefore the IPC Team manually flag all patients. The current list of flags that are used include: MRSA, C difficile, PVL toxin producing *Staphylococcus aureus*, extended spectrum beta-lactamase (ESBL), Vancomycin resistant enterococcus (VRE) or Carbapenemase producing multi-resistant Gram-Negative Bacilli, Flu, blood borne viruses, and COVID 19 cases and contacts.

These alerts produce a red diamond on the PSAG board on wards which enable ward staff and departments to promptly identify patients that have an active IPC alert, this allows the ward to isolate in a timely manner, follow-up patients appropriately and to prescribe appropriate empiric antibiotics if antibiotic treatment is indicated. Alerts are automatically added to clinical portal from SEMA to ensure the information is available on all systems used.

5.2 Surgical Site Infection Surveillance (SSISS)



Surgical site infection (SSI) is a healthcare-associated infection in which a wound infection occurs following a surgical Procedure. A National Surveillance System was established in England in 1997 through the Public Health England (PHE), which has now transferred its health protection functions into UK Health Security Agency (UKHSA) this continues with the same functions targeting different categories of surgical procedures that are relatively common or associated with relatively high risk of infection. Standardised definitions and monitoring systems enable the SSISS national centre to provide high quality comparative data, which is shared between hospitals.

Mandatory surveillance of surgical site infections began in 2004, specifying each Trust should conduct surveillance for at least one orthopaedic surgical category for one period in a financial year. The categories include total hip replacement, total knee replacement, repair of neck of femur, and reduction of long bone fracture. In addition to the orthopaedic surgery surveillance, there are 14 other categories, which can be reported. These are selected by using the 3-year surveillance programme which can be adapted if there are any concerns in a particular area.

During the COVID pandemic some elective orthopaedic surgery was transferred to Robert Jones and Agnes Hunt Orthopaedic Hospital (RJAH) from the 24th of March 2020, this will return to SaTH again in total hip replacement and total knee replacement from April 2023.

The team collect local evidence of surgical site wound infections, which develop whilst the patient is in hospital and once discharged home. This continues for 30 days postoperatively, (if an implant is present this can continue up to one year) and is followed up with a patient review using positive microbiology wound swab results, patient's readmissions due to wound healing problems, and the review of hospital follow up appointments.

The Gynaecology ward staff collect continuous surveillance in abdominal hysterectomy including post discharge.

Cases of identified SSIs are reviewed through a Root Cause Analysis (RCA). The definitions for a deep, superficial and organ space infection are described in the SSISS guidelines via UKHSA. An RCA ensures that a robust process is in place for the identification of any SSI and identifies where improvements can be made in clinical practice. This aids effective and thorough reporting to UKHSA, as often just one infection can take us above the National Benchmark due to low numbers of surgeries per category.

Due to our operation numbers being relatively small we tend to look back over the last 4 quarters in which we participated in; this is included in the table below.

Summary of Surveillance Carried out at SaTH 2022-23 per quarter.

Type of Surgery	Qtr	No. of Cases	No. Inpatient Readmission Infections (%)	National infection Rate	% Last 4 quarters	No. Eligible for post discharge/ review	Post Discharge infections
Neck of Femur RSH	1	100	0 (0%)	0.8%	0.3%	99	1
Neck of Femur PRH	1	57	1 (1.8%)	0.8%	2.1%	54	1
Abdominal Hysterectomy	1	28	0 (0%)	0.8%	0.9%	28	2



Neck of Femur RSH	2	100	1 (1.0%)	0.8%	0.6%	99	1
Neck of Femur PRH	2	73	1 (1.4%)	0.8%	2%	68	0
Reduction of Long Bone RSH	2	58	0 (0%)	0.7%	0.6%	55	1
Reduction of Long Bone PRH	2	57	0 (0%)	0.7%	0%	57	0
Abdominal Hysterectomy	2	29	0 (0%)	0.8%	0.9%	29	0
Neck of Femur RSH	3	93	0 (0%)	0.8%	0.5%	85	0
Neck of Femur PRH	3	71	0 (0%)	0.8%	1.6%	63	0
Large Bowel	3	104	4 (3.8%)	8.1%	5.6%	99	4
Abdominal Hysterectomy	3	38	0 (0%)	0.8%	0%	38	0
Neck of Femur RSH	4	104	1(1%)	0.7%	0.5%	101	0
Neck of Femur PRH	4	66	1(1.5%)	0.7%	1.1%	62	1
Vascular Surgery	4	53	0 (0%)	2.2%	1%	51	3
Abdominal Hysterectomy	4	39	0 (0%)	0.6%	0%	39	2

We have reviewed 3 general categories over the year.

Large bowel: Reviewed for one quarter; 104 operations with 4 (3.8%) inpatient/readmission infections. This falls well below the national infection rate recorded for large bowel surgery which is 8.1%. Over the last four quarters in which we participated SaTH's infection rate is 5.6%, 342 operations with 19 infections. Ninety-nine patients were reviewed 30 days post operation, 4 of these patients had slow healing wounds which required antibiotics and further intervention from a District Nurse.

Vascular surgery: Reviewed for one quarter; 53 operations with no inpatient/readmission infections. Over the last 4 periods we participated in, we have had 192 operations with 2 infections an infection rate of 1%. The national infection rate being 2.2%. Reviewing 51 patients post discharge it was found that 3 patients required ongoing care in the community.



Abdominal Hysterectomy: The Gynaecology Ward carry out their own continuous wound surveillance. Over the last year there has been no wound infections in 134 operations, the national infection rate is 0.6%. Patients reported 4 infections following discharge.

Orthopaedic Categories:

Reduction of long bone was reviewed across SaTH for one quarter, PRH site we had no inpatient/readmission infections. Paediatrics was also reviewed which included children 15 years and under, no infections in 43 operations.

RSH site we also had no infections in 58 operations, the national infection rate being 0.7%, looking back over the last 4 quarters our infection rate is 0.6% which over all compares well to the national infection rate.

Neck of femur (NOF)

NOF PRH: We received a high outlier letter from UKHSA regarding the high infection rate during April-June quarter (quarter 1). During this quarter there was one readmission infection in 57 operations: an infection rate of 1.8%, compared to the national rate of 0.8%. This was a late deep infection at 73 days post operation. An RCA was undertaken, several co-morbidities were identified including long term steroid use, Boems Syndrome, Multiple Myeloma, Castles and Addison's Disease, no further common themes were identified when compared to the previous infections which were reported last year.

The IPC team conducted a visit to theatres 1 and 2 in May as part of the NOF infections investigation the compliance score was 93%, issues identified have been addressed and rectified. Further quality ward walks have been carried out on ward 4, in September which scored 97% and January 2023 with a score of 90%.

The Orthopaedic team conducted their own investigation which concluded in difficulty to isolate a clear cause, rather more likely to be multi-factorial, this will require further assessment of future cases to identify links and continued observation of SSI in NOF patients. IPC team will continue monitoring NOF operations.

For the following three quarters we have had a further 2 wound infections. When reviewing the 3 infected cases no common links were identified: All operated in theatre 2, appropriate antibiotics given as an induction prophylaxis, appropriate skin preparation, all have multi co-morbidities with one being a diabetic. Two were operated on by a ST3 (different Drs) the other a locum Consultant. Different microorganisms isolated from deep tissue swabs in each case, onset of symptoms of infection occurred day 15, 31 and day 73.

Looking back over the last four quarters we have operated on 267 with an overall wound infection rate of 1.1%, this rate is half of the pervious years figures.

NOF RSH: Reviewed continuously for four quarters; During this year we have had two deep wound infections in 396 operations which gives us an infection rate of 0.5%, which compares well to the national rate now being 0.7%. An RCA was carried out on these 2 cases. The only common link was the same anaesthetist for both patients.

We will continue to monitor NOFs across the trust for the next year and investigate any infected wounds through an RCA.

5.3 Managing Outbreaks of Infection - Responses to Incidents and Outbreaks

The IPC Team are involved in the management of outbreaks, periods of increased incidence and incidents.



The IPC team monitors all alert organisms to identify trends and potential links between cases based on their location and time frame. If links are identified, a Period of Increased Incidence (PII) investigation is commenced and a meeting to discuss potential cases is held within 3 working days wherever possible. Since August 2021, the ICNET system has alerted us to PIIs and allow the IPC nurses to carry out rapid investigations and potentially trigger outbreak investigations.

In 2022/23 15 non-COVID PIIs were identified and investigated as potential outbreaks, following typing only 3 were confirmed as outbreaks.

In 2022/23, 108 COVID outbreaks were identified.

All outbreaks are discussed for the purpose of shared learning and service development through divisional governance meetings. Recurring themes from these investigations are disseminated through the IPC operational and assurance committees. Lessons learnt are shared with the trust and disseminated through communications.

Action plans that are put in place by the ward manager and/or matron are monitored by the IPC team for compliance, once compliance has been demonstrated the action plans are signed off by the lead nurse or Infection Prevention and Control and the Matron or Head of Nursing for the area.

If further PIIs are linked to the same area, previous action plans are revisited.

COVID 19

Ward	Month/Year	Date first case	Number of pts	Number of staff	Total involved
Ward 28	June 2022	14/06/2022	22	3	25
	August 2022	14/08/2022	24	0	24
	September 2022	26/09/2022	16	0	16
	December 2022	12/12/2022	12	2	14
	January 2023	27/01/2023	12	0	12
	April 2022	17/04/2022	5	0	5
	February 2023	14/02/2023	14	1	13
	March 2023	16/03/2023	7	1	8
Ward 29	October 2022	12/10/2022	3	0	3
	October 2022	20/10/2022	3	0	3
	January 2023	26/01/2023	4	2	6
Ward 32	January 2023	27/01/2023	11	0	11
	March 2023	29/03/2023	2	0	2
Ward 33	May 2022	07/05/2022	6	0	6
	June 2022	10/06/2022	4	0	4
	February 2023	26/02/2023	4	0	2
Ward 35	July 2022	07/07/2022	9	2	11
	April 2022	09/04/2022	10	0	10
Ward 24	February 2023	27/02/2023	5	1	6
Ward 25	January 2023	30/01/2023	20	0	20
	March 2023	16/03/2023	11	1	12
Ward 18 (RSH)	March 2023	26/03/2023	3	1	4
Ward 21	March 2023	22/03/2023	13	2	15
Ward 23 ONC	February 2023	14/02/2023	12	2	14
Ward 26	February 2023	21/02/2023	2	1	3
Ward 26 TO	March 2023	06/03/2023	5	1	6
Ward 27	March 2023	06/03/2023	3	0	3
	March 2023	16/03/2023	6	0	6
	January 2023	31/01/2023	16	4	20



Ward 10	July 2022	01/04/2022	19	0	19
	September 2022	07/09/2022	9	0	9
	January 2023	12/01/2023	10	2	12
	February 2023	02/03/2023	5	0	5
	November 2022	23/11/2022	3	0	3
	July 2022	28/07/2022	11	0	11
	November 2022	24/11/2022	4	0	4
	December 2022	01/12/2022	16	2	18
Ward 11	July 2022	10/07/2022	15	2	17
	August 2022	19/08/2022	9	0	9
	October 2022	02/10/2022	9	0	9
	November 2022	11/11/2022	6	0	6
	December 2022	18/12/2022	3	0	3
	December 2022	28/12/2022	2	0	2
	January 2023	26/01/2023	12	5	17
	February 2023	16/02/2023	2	1	3
Ward 14	November 2022	23/11/2022	3	0	3
Ward 15	February 2022	11/02/2022	2	0	2
	October 2022	24/10/2022	4	0	4
	December 2022	16/12/2022	12	0	12
Ward 15/16	August 2022	27/08/2022	7	0	7
	September 2022	21/09/2022	5	0	5
Ward 16	June 2022	27/06/2022	3	0	3
	December 2022	21/12/2022	3	0	3
Ward 17	August 2022	09/08/2022	3	0	3
	January 2023	29/01/2023	2	0	2
	February 2023	22/02/2023	2	0	2
	October 2022	13/10/2022	4	0	4
	October 2022	20/10/2022	2	0	2
Ward 36	July 2022	10/07/2022	4	0	4
	December 2022	05/12/2022	6	0	6
	February 2023	06/02/2023	5	1	6
Ward 4	April 2022	14/04/2022	7	0	7
	July 2022	05/07/2022	16	0	16
	August 2022	03/08/2022	9	0	9
	October 2022	22/10/2022	3	0	3
	January 2023	04/01/2023	4	3	7
	January 2023	21/01/2023	2	0	2
Ward 6	April 2022	29/04/2022	10	0	10
	June 2022	18/06/2022	6	0	6
	July 2022	20/07/2022	11	0	11
	August 2022	24/08/2022	12	0	12
	September 2022	16/09/2022	5	0	5
	October 2022	19/10/2023	3	0	3
	December 2022	04/12/2022	15	1	16
	March 2023	18/03/2023	6	1	7
	March 2023	30/03/2023	5	0	5
Ward 6/7	March 2023	01/03/2023	31	5	36
Ward 7	April 2022	08/04/2022	5	0	5
	July 2022	10/07/2022	31	1	32
	August 2022	29/08/2022	5	0	5
	September 2022	27/09/2022	11	0	11
	November 2022	11/11/2022	22	4	26
	December 2022	13/12/2022	8	0	8
	February 2023	11/02/2023	9	5	14
	March 2023	20/03/2023	8	0	8
Ward 8	July 2022	31/07/2023	9	8	17
Ward 9	July 2022	05/07/2022	16	0	16
	August 2022	13/08/2022	6	0	6
	September 2022	08/09/2022	7	0	7



	November 2022	29/11/2022	5	0	5
	January 2023	29/01/2023	4	0	4
	February 2023	06/02/2023	8	1	9
	February 2023	10/02/2023	6	0	6
TED	January 2023	11/01/2023	0	12	12
TDSU	April 2022	06/04/2022	11	0	11
	June 2022	24/06/2022	9	0	9
	August 2022	30/08/2022	5	0	5
	March 2023	28/03/2023	5	0	5

Other Organisms

Ward	Month	Organism	No. of cases	Typing results	Outcome
Ward 11	August 2022	C. diff	4	2 cases – CE (039) 1 case – CE (020)	Outbreak
Ward 4	August 2022	C. diff	3	CE (014), CE (015), and CE (078)	PII
Ward 10	August 2022	C. diff	2	Both cases 339	Outbreak
T23 NNU	September 2022	ESBL	2	Both cases had unique types	PII
Ward 36	September 2022	C. diff	2	CE (015) and CE (050)	PII
Ward 9	January 2023	MRSA	2	Both cases – 3,3,1,1,4,3	Outbreak
Ward 23ONC	April 2022	C. diff	2	CE (015), CE (078) and CE (014)	PII
Ward 23ONC	April 2022	Pseudomonas	2	12,5, -,2,6,1,6,4,12 10,5,6,15,6,5,9,2,11	PII
Ward 33	June 2022	C. diff	2	CE (023) and CE (023)	PII
Ward 27	December 2022	C. diff	2	CE (014) and CE (013)	PII
SITU	January 2023	Pseudomonas	2	10,3,4,5,5,3,9,3,10 11,3,5,5,3,4,3,2,14	PII
SAMA	March 2023	C. diff	2	CE (014), CE (002) and CE (078)	PII
Ward 25	March 2023	C. diff	2	CE (018) and CE (013)	PII
Ward 28	February 2023	C. diff	2	CE (216) and CE (015)	PII
Ward 23	March 2023	C. diff	2	CE (078) and CE (050)	PII

5.4 Seasonal Illnesses

SaTH had 2 Norovirus outbreaks for the year of 2022/2023 on wards 27 and 24 at RSH. Also, in December an outbreak of influenza was identified on ward 24.



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.

At the Trust, Infection Prevention responsibilities and expectations are included in all job descriptions. All clinical staff must complete a Trust Induction that includes IPC training as well as regular updates at Level 1 &/or 2 depending on staff group. The IPC team provides bespoke training for different groups including on the Ward Transition Programme for international nurse recruits. Training is also provided as part of the Ward Readiness Programme for new HCAs. There are leaflets for contractors explaining their responsibilities and external work must be signed off by the IPC team with Estates to ensure appropriate cross infection measures are in place, such as, dust control.

6.1 Staff Training & Education

Due to the COVID Pandemic, face to face training sessions such as Corporate Induction and Statutory Training did not take place. IPC training was completed via online learning during 22-23. This table shows the average compliance by staff group for all levels of IPC training and Hand Hygiene competence as of March 2023.

Staff Group	Infection Prevention & Control	Hand Hygiene Competence
Add Prof Scientific and Technic	89%	85%
Additional Clinical Services	83%	86%
Administrative and Clerical	77%	80%
Allied Health Professionals	92%	92%
Estates and Ancillary	81%	95%
Healthcare Scientists	95%	98%
Nursing and Midwifery Registered	73%	90%
Medical and Dental	76%	64%
Students	Non-medical 84%	100%
Subject Total	72%	88%

The IPC team designed a questionnaire to use with staff to identify gaps in knowledge about treatment of patients with diarrhoea. The findings have led to short support sessions being offered on wards, sometimes joining the safety huddle to remind staff of key messages.

Key messages continue to be communicated to wider staff groups through presentations at the Nursing and Midwifery Forum as well as the issuing of 'One Minute Briefs' where appropriate to reach a large audience very quickly.

The IPC Team are taking opportunities to talk to staff and educate them about the reasons to wear and not to wear gloves as part of the Gloves Off campaign. This has been supported by the making of a video with ward staff and an accompanying song.

6.2 Infection Prevention and Control Team/Team Development

The Infection Prevention and Control Team found this another challenging year due to the COVID-19 pandemic as study leave has been difficult to take.

One of our Band 6 nursing staff successfully completed the Infection Prevention and Control degree course at Staffordshire University. Also, our acting deputy IPC lead nurse is currently completing the Infection Prevention and Control degree course at University of Dundee.



Criterion 7: Provide or secure adequate isolation facilities

The average proportion of single rooms available in NHS acute trusts in England in 2016/17 was 30.2%. The average for single rooms with en-suite was 20.7% (Public Health England).

SaTH are significantly below the national average at 23.3% overall (*excluding women's and children's and other specialist areas*) and with only 11.6% en-suite. This significantly impacts the ability to isolate all patients who should be isolated according to national guidelines. Therefore, when side room capacity is low a risk assessment is completed for the appropriate allocation.

A risk assessment tool is available to help staff in making these decisions and ensuring that practice is consistent. The IPC team work closely with ward staff and Clinical Site Managers, including daily meetings, to ensure the most effective use of side rooms according to risk assessment.

As a mitigation for the lack of side rooms and the added complication of the social distancing guidelines introduced due to the COVID-19 pandemic, the trust has procured Redi-rooms during 2020 & 2022, a mobile "pop up" isolation facility to help facilitate the timely isolation of patients who require it. These are still being used on daily basis to facilitate and increase isolation capacity.

Following the plans for further pods to be installed across site to further increase single room capacity. The Trust have also procured and installed two permanent rigid plastic Bioquell pods in the Critical care unit at the at Princess Royal Hospital to enable isolation and segregation of patients. This brings the total to 4 Bioquell pods installed in this unit between the years of 2021/22 and 2022/23. Also on ward 24 Respiratory an additional 4 Bioquell pods were installed allowing the ward to isolate patients that require respiratory input within the areas, therefore, meeting their clinical needs, without further patient movement.

In open bay areas the trust installed Mediscreens and/or clear plastic curtain/barriers between bed spaces in inpatient as we were not able to maintain a 2-metre distance between beds. Fortunately, with the successful Covid-19 vaccination campaign and the changes in strains, the Trust was able to remove the Mediscreens from all clinical areas in April 2022.





Covid variants such as Omicron BA 245 is extremely infectious leading to outbreaks amongst patients. Improving air quality prevents outbreaks, within the Trust we could only do so much in opening windows to improve ventilation.

For wards & ED departments where it is not possible to make any modifications to the existing ventilation system, or where mechanical ventilation is not provided the portable AIRQON COMBI-1200 HEPA and UV-C air purification systems were introduced to improve air quality and maintain patient safety, by preventing further outbreaks of COVID-19 and other respiratory infections.

The League of Friends (LoF) of the Royal Shrewsbury Hospital (RSH) has gifted nearly £12,000 for the air filters. Funding paid for four filters at RSH and The Shrewsbury and Telford Hospital NHS Trust (SaTH) bought four for the Princess Royal Hospital site in Telford. Inivos Ltd, the company which supplies the filters, also donated two machines – one for each hospital site.

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

Laboratory services for SaTH are located in the purpose-built Pathology Laboratory on-site at both sites (Royal Shrewsbury Hospital & Princess Royal Hospital). The Microbiology Laboratory has full Clinical Pathology Accreditation (CPA).

Due to a series of unfortunate events the microbiology team has been reduced to, at its worst, to 2.5 WTE consultants. The team is now being rebuilt with the recruitment and addition of a clinical scientist and the prospect of a further fulltime recruitment later in the year.

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

The overarching policies are written in line with the Trust Governance policy which outlines requirements for responsibility, audit, and monitoring of policies to provide assurance that policies are being adhered to. Both policy and manual are available for staff to view on the Trust intranet.

The IPC have a rolling programme of policies which require updating each year. This being in line with the annual program. Associated patient and staff information leaflets are also updated as part of the rolling program and are also available on the Trust intranet. In addition, policies are updated prior to review date if national guidance changes.

In 2022/23 the team reviewed and updated the following IPC polices:

- Seasonal Respiratory Infections Policy
- IPC arrangements and responsibilities policy
- IPC Streptococcal Infection Group A (Including Group C and G) Policy
- IPC Diarrhoea and Vomiting including Norovirus Management of Affected Patients and Staff Policy
- IPC C Diff Policy
- Bloodborne Virus policy for Management of patients
- MRSA IPC Policy
- ESBL IPC Policy
- Management of Infections in Staff Policy
- BBV Policy
- IPC Transmissible Spongiform Encephalopathy (TSE) Policy

An Infection Prevention & Control A-Z of Common Infections is available on the trust's intranet. This significantly enhances the quick location of key infection prevention guidance by our front-line staff in regard to infection control common infections. Staff also have a direct link from the intranet to the Royal Marsden polices on nursing procedures.

Criterion 10:

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

The Trust has a contract with TP Occupational Health who are contracted to carry out preplacement health assessment and immunisation needs.

TP Occupational Health working alongside the Workforce Team is responsible for the staff Influenza and COVID-19 vaccination program. All front-line staff have been offered influenza and COVID-19 vaccinations to protect themselves and the patient they look after.

10.1 Safer Sharps Directive

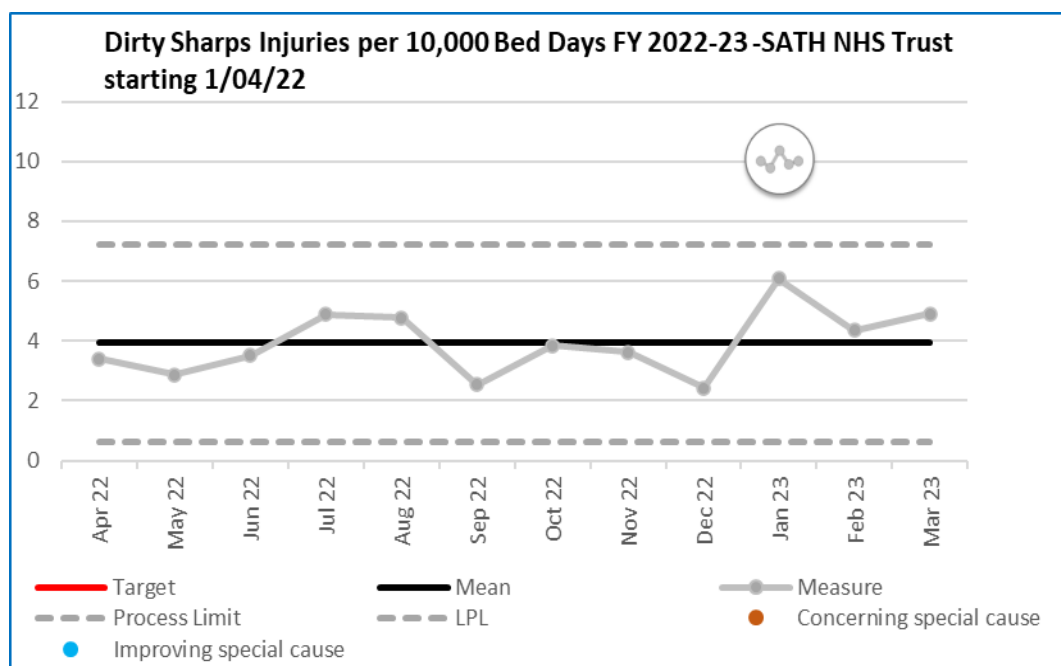
The Trust requires that all sharps are disposed of in dedicated SharpSmart bins which are widely available. Wheeled bins are taken to the point of the procedure to prevent unnecessarily walking with dirty sharps.

Staff are required to complete the SharpSmart e-Learning package for which departmental compliance is monitored through the H&S policy compliance audits.

Sharps incidents and near misses are reported through Datix which are then investigated by the H&S Team to ensure that staff receive the appropriate follow-up care, are reminded of safer sharps features where appropriate and opportunities for improvement to work practices are taken. These are collectively reported on a quarterly basis to the IPC Operational Committee and HSSF.



Dirty Sharps Injuries per 10,000 Bed Days FY 2022-23 -SATH NHS Trust starting 1/4/22



This is described in table form below.

Month and Year	Bed-days data	Number of Dirty sharps injuries	SaTH Dirty sharps injuries per 10,000 bed days
Apr-22	23506	8	3.4
May-22	24352	7	2.9
Jun-22	22831	8	3.5
Jul-22	22531	11	4.9
Aug-22	25121	12	4.8
Sep-22	23663	6	2.5
Oct-22	23349	9	3.9
Nov-22	24914	9	3.6
Dec-22	24755	6	2.4
Jan-23	26294	16	6.1
Feb-23	23009	10	4.3
Mar-23	26444	13	4.9



SECTION 5: IPC FOCUS FOR 2022 - 2023

Infection Prevention & Control is a priority for The Shrewsbury and Telford Hospital (SaTH). Keeping our patients safe from avoidable harm is everyone's responsibility. Our focus for 2022/23 will be:

- Reduction in the incidence of Clostridoides difficile infection in SaTH based on a strong health economy partnership approach including surveillance, implementation of best practice, audit, and root cause analysis.
- Review environmental decontamination. As the Trust are always running on 90% plus it is difficult to HPV terminal clean areas
- Ongoing training 'Gloves are off' campaign & education to remind staff to wash hands with soap and water after dealing with enteric precautions.
- Continuing work related to the COVID-19 pandemic. We will use the latest IPC guidance to ensure that risks relating to this complex problem are addressed and that gaps in compliance are promptly acted on. This will continue to be monitored through the Board Assurance Framework which regular assurance updates presented to Trust Board
- Microbiologists will encourage antibiotic prescribing to be tightened up in certain areas. Tazocin is used too readily for a number of clinical situations, especially for CAP and lower urinary tract infections.
- Consider introduction to the Trust Formulary of a few new antibiotics (notably Temocillin) with lower C.difficile induction potential.
- Consider introduction of more forward-thinking guidelines on the management/ treatment of CDI cases e.g., the recent ESCMID guidance.
- Continue to reduce device related health care associated infections (HCAI)
- Ensure compliance with all core IPC standards.
- Ensure all IPC mandatory training is above 90%
- We will continue to use the published NHS IPC Board Assurance Framework to ensure that all guidance and risks relating to this complex problem are addressed and that gaps in compliance are promptly acted on. This will be presented at IPC Operational Group and IPC Assurance Committee. It will also be included in a Quarterly IPC Report to Trust Board



SECTION 6: CONCLUSION

Overall, our success is measured by our compliance with the Health Act, which encompasses all aspects of infection prevention and control, including management systems, environment, cleaning, training, and policies to protect patients and staff. Our current compliance (as of 29/6/23) is very high at 94%. Outstanding issues include clinical engagement at antimicrobial stewardship committee meetings. Low levels of isolation facilities remain a constant issue.

We have also completed 93% of our IPC program from last year. Incomplete tasks will be addressed in the first three months of the 2023/24 programme.

C diff levels remain a concern and the exact cause is unclear but similar rises have been observed both nationally and regionally. In part it probably reflects the reduction in patients in hospital during covid and also the change in case mix. However this recent large increase is a cause for concern and we have developed an action plan to counter it.

SECTION 7: REFERENCE

Department of Health: The Health and Social Care Act 2008 (Revised Dec 2022): Code of Practice on the prevention and control of infections and related guidance.

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

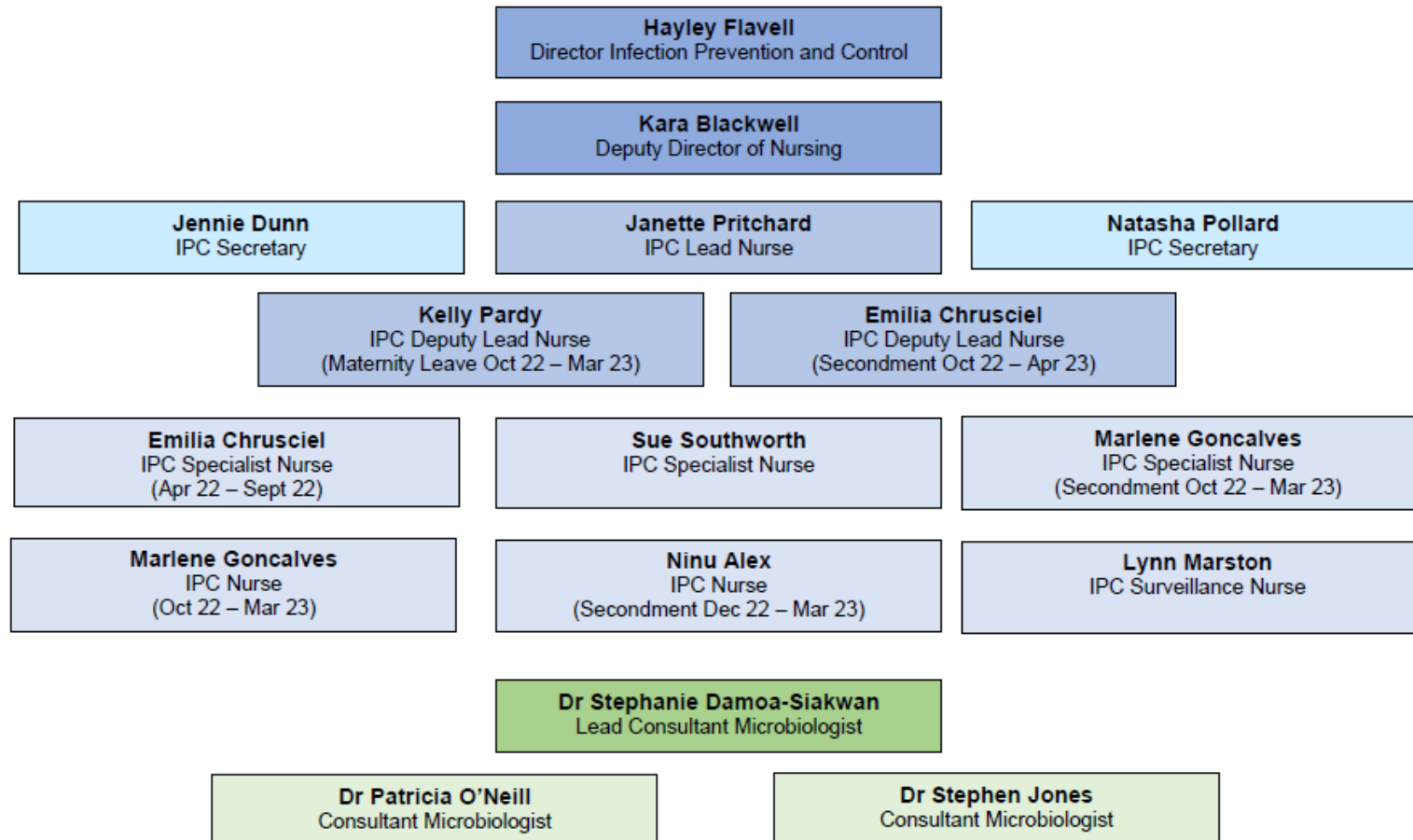
Department of Health: Improving outcomes and supporting transparency

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/545605/PHOF_Part_2.pdf

Infection Prevention Society Audit tools. <http://www.ips.uk.net/professional-practice/quality-improvement-tools/quality-improvement-tools/>



Appendix 1: Infection Prevention and Control Structure



IPC Team Structure 2022-23



Partnering
Ambitious
Caring
Trusted

