Board of Directors' Meeting
14 March 2024

Agenda item		045/24		
Report Title		Report from the Director of Infection Prevention and Control Q3 2023/24		
Executive Lead		Hayley Flavell, Director of Nursing		
Report Author		Sara Bailey Deputy Chief Nurse, Janette Prichard IPC Lead Nurse		
CQC Domain:		**Link to Strategic Goal:**		**Link to BAF / risk:**
Safe	√	Our patients and community		BAF Risk 1
Effective	√	Our people		
Caring	√	Our service delivery	√	**Trust Risk Register id:**
Responsive	√	Our governance	√	438,440,443,444,481,722
Well Led	√	Our partners		
Consultation Communication		IPCOG 10.07.2023 IPCAC 17.07.2023		
Executive summary:		This report provides an overview of the Infection Prevention and Control key metrics for Quarter 3 2023/24 (October – December 2023). The key points to note are: • C. diff cases remain high with 33 cases reported for Q3 (46.2 per 100,000 bed days) • The IPC team has continued to manage outbreaks of COVID-19, there were 12 in Q3. • There were 6 periods of increased incidence (PIIs) of Clostridioides Difficile • 2 cases of MRSA bacteremia were identified in the quarter, one attributed to PRH AMU; on review this was agreed by system partners to be attributable to the community. • The IPC team have identified contaminated sanitary equipment, poor management of invasive devices and instances of inappropriate antibiotic prescribing via the IPC investigations undertaken and through their Quality Ward Walks. Actions have been agreed with the Divisions for implementing via the Divisional Directors of Nursing • The Trust are 97% compliant with the Health and Social Care act self-assessment.		
Recommendations for the Board:		The Board is asked to: **Note** the issues highlighted, particularly with regard to the increasing rate of C. diff, preparenenss for suspected and confirmed mealses and other HCAIs.		
Appendices:		Summary Table for Outbreaks/Period of Increased Incidence		

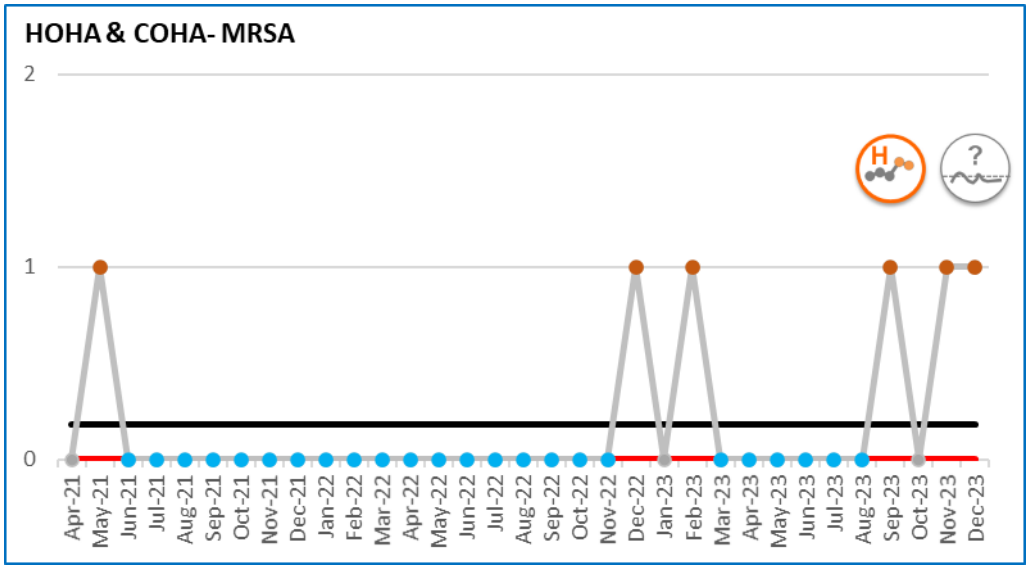
1.0 INTRODUCTION

This paper provides a report for Infection Prevention and Control for Quarter 3 (October - December 2023) against the 2023/24 objectives for Infection Prevention and Control. An update on hospital acquired infections: Methicillin-Resistant *Staphylococcus aureus* (MRSA), Clostridioides Difficile (CDI), Methicillin-Sensitive Staphylococcus (MSSA), Escherichia Coli (E. Coli), Klebsiella and Pseudomonas Aeruginosa bacteraemia for October - December 2023 is provided. An update in relation to Covid-19 is also provided. The report also outlines any recent IPC initiatives and relevant infection prevention incidents. The updated IPC BAF is also included.

2.0 KEY QUALITY MEASURES PERFORMANCE

2.1 MRSA Bacteremia

The target for MRSA bacteraemia remains 0 cases for 2023/24. There were two cases of MRSA Bacteraemia in Q3 2023-24. Both cases occurred greater than 48 hours after admission.



In the 2023/24 period, the Trust reported four cases of MRSA Bacteraemia, with one identified as a collection contaminant. The Emergency Care Division initiated a Blood Culture Collection Group to address contamination issues, reporting monthly to IPCOG.

Summary of Cases:

- 4 cases attributed to SaTH (1 contaminant)
- 1 Cardiology, 1 Medicine, 1 Surgery, and 1 Stroke ward (contaminant)
- 1 case acquired within the Trust, 2 likely community-acquired, and 1 considered a collection contaminant

Quarterly breakdown:

Q1		Zero cases reported
Q2	Patient 1	A case linked to unresolved residual osteomyelitis, highlighting issues with pre-surgery screening and post-operative care.
Q3	Patient 2	MRSA Bacteraemia due to IV drug use, delayed testing, and uncooperative patient.
Q3	Patient 3	Likely a skin contaminant, treated with precautionary antibiotics, emphasizing the importance of accurate screening.

Q4 Patient 4 Endocarditis case with challenges in documentation and identification of the source.

Interventions and Focus Areas:
- MRSA screening isolation & decolonization
- Line care, hand hygiene, and aseptic technique training
- Root cause analysis for each case
- Training on blood culture collection
- Urinary catheter care policy implementation
- Increased environmental cleaning
- Emphasis on wound care and discharge advice
- Antibiotic prescribing and reviews
- Medical devices
- Review of cannulas and documention

Our improvement work encompasses refining procedural gaps, implementing targeted training, and systematically enhancing processes. A specific focus quarter 4 is on advancing medical training for tasks such as blood culture collection and peripheral line insertion. These measures are instrumental in our commitment to reducing MRSA bacteraemia cases and further elevating the standard of Infection Control. The IPC team are to conducting a thorough deep dive analysis and presenting findings and progress against the actions plan to QSAC.

2.2 Clostridioides Difficile

The Trust trajectory for C diff cases in 2022-23 is no more than 32 cases. Currently 82 YTD (23/02/24)

There was a total of 33 cases of C diff for Quarter 3 2023/24 against a target of no more than 8 cases per Quarter.

23 of these cases occurred greater than 48 hours after admission (post 48) and the remaining 10 cases had recent contact in the Trust in the 28 days prior to the positive sample (recent contact).

This is a rate of 46.2 per 100,000 bed days a significant increase on last quarter (29.6 per 100,000 bed days).

The team will review all 33 cases, review how this lines up with declared critical incidents and overcrowding in ED, and if there is a relationship between these cases and areas that have adopted the hospital full policy.

A trial was commenced in Dec 2023 to review C. diff cases in line with PSIRF guidelines, the outcome appears to be comparable with root cause analysis.

Common themes being identified and reported were:

- Delay in collection of stool sample
- Delayed isolation
- Inappropriate antimicrobial prescribing
- Lack of stool chart/ documentation relating to stool type

There were lapses in terminal disinfection of the environment where HPV cleans have not been undertaken on discharge and cases where hand hygiene and IPC training compliance have been

below the expected standard.

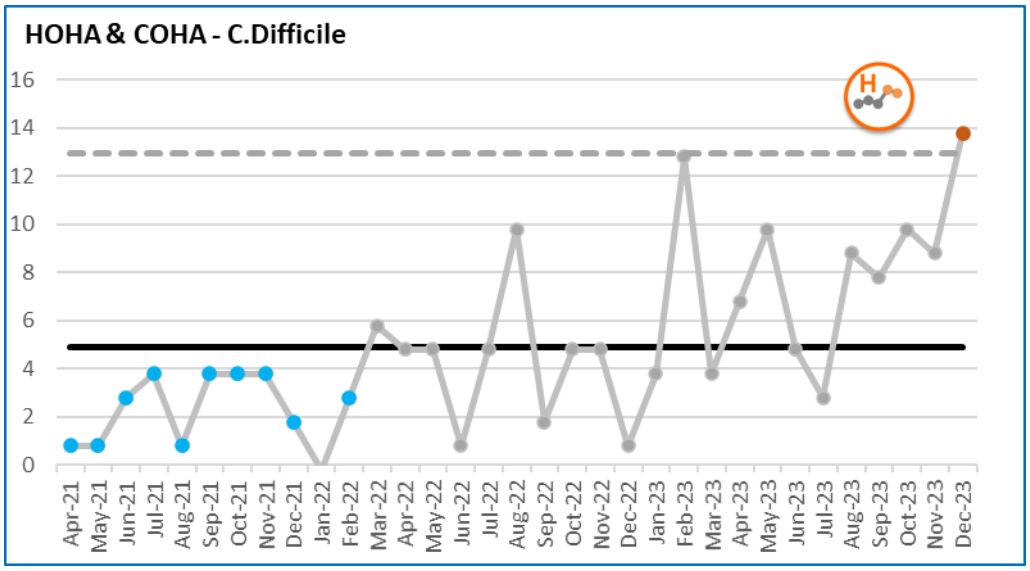
As part of the RCA process, action plans for each case include sharing of the cases with the relevant clinical division in their governance meetings so that lessons learnt can be shared and improvements can be made, and good practice can be identified and shared with other clinicians. Learning from the RCA's are also shared as part of the divisional reports in IPCOG.

Actions

A comprehensive action plan to reduce C. difficile infections systemwide has been established, with discussions taking place at the ICB (IPC) AMR group—a catalyst for proactive initiatives.

A dedicated working group is being formed to provide focus on delivering against the C. Dfficile action plan which includes system partners.

A supportive Peer visit was undertaken by the ICB in Q4 2023-24, the feedback was positive and the actions taken were clearly those reflected in the action plan.



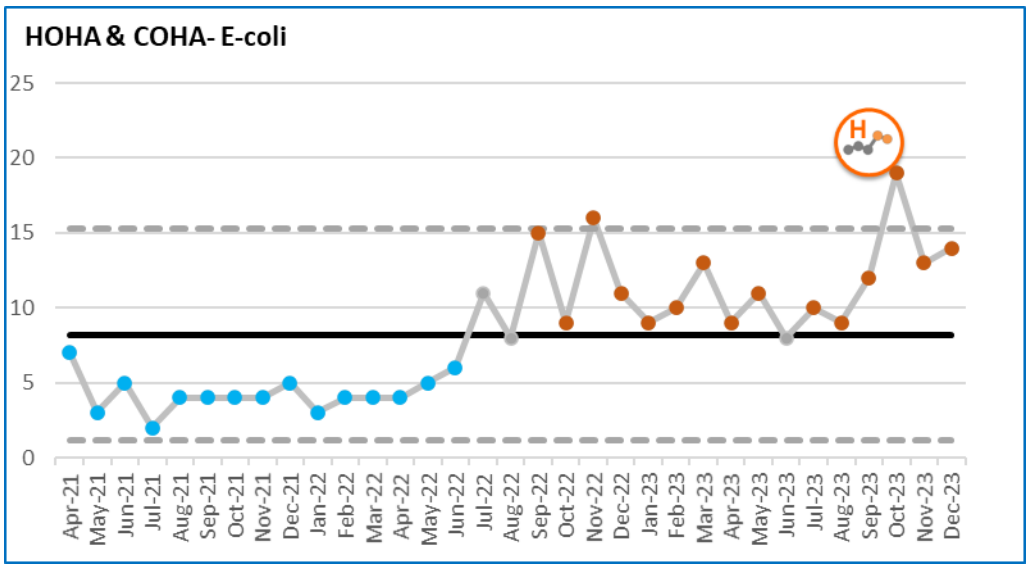
2.3 E. coli Bacteraemia

The target for 2023/23 is no more than 90 cases.

In Q3 there were 46 cases attributed to the Trust. 15 of these cases were post 48 hours of admission, and the remaining 31 cases had recent contact with the Trust in 28 days prior to the infection.

Post 48 cases which are deemed to be device related or where the source cannot be identified have an RCA completed. Only three of the cases in Q3 were considered to be device or intervention related with the source in all three being a CAUTI. There are three cases awaiting review by microbiology to determine the source.

The number of E. Coli cases are shown:



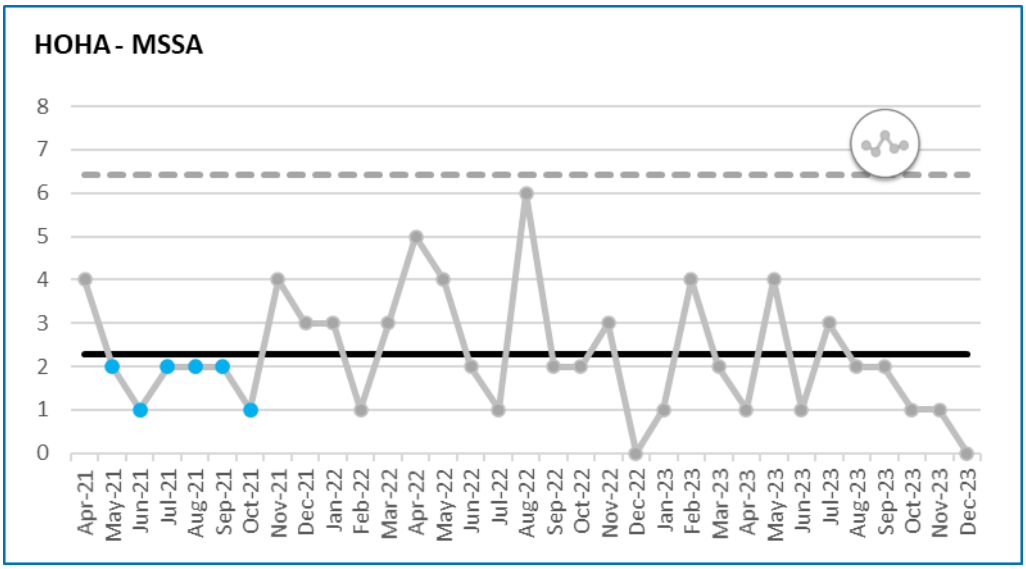
2.4 MSSA Bacteraemia

There is no nationally set target for the Trust for MSSA.

In Q3 2023/24 there were 12 cases identified that were attributed to the Trust. 2 of these cases were post 48 hours, and the remaining 10 cases had been in hospital in the 28 days prior to the positive sample.

All post 48 cases deemed to be device or intervention related have an RCA completed. In Q3 of 2023/24 this concerned 1 of the 2 post 48 cases. The source was identified as a central line.

The number of MSSA cases are shown:

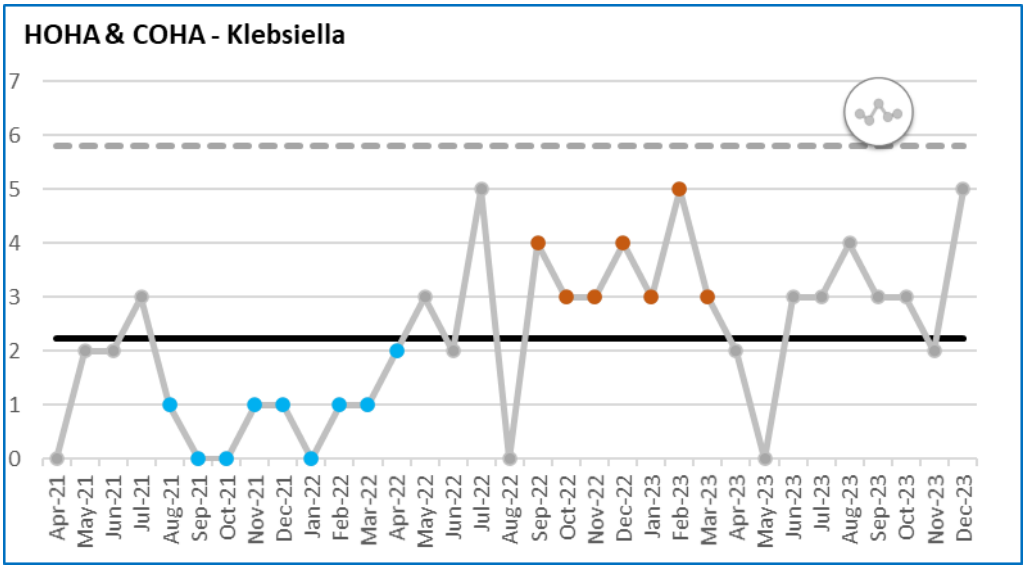


2.5 Klebsiella Bacteraemia

The target for 2023/24 is no more than 22 cases.

In Q3 2023/24 there were 10 cases of Klebsiella Bacteraemia attributed to the Trust. 6 of these cases were post 48, and the remaining 4 cases had been an inpatient in the Trust within 28 days of the infection.

One post 48 case was potentially considered to be a HCAI, with the source being a CAUTI.

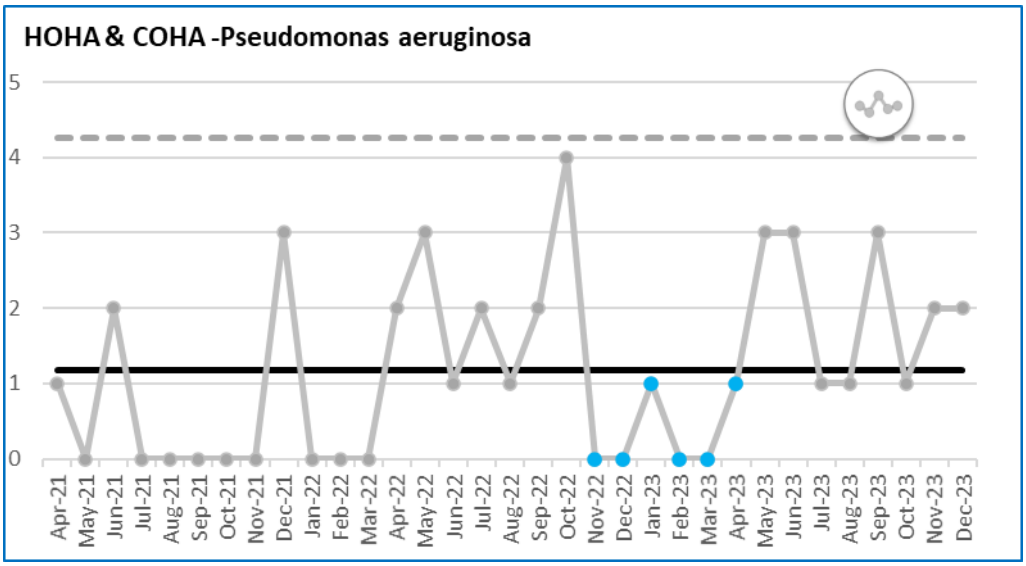


2.6 Pseudomonas Aeruginosa

The target for 2023/24 is no more than 18 cases.

In Q3 2023/24 there were 5 cases of Pseudomonas Aeruginosa attributed to the Trust, 2 of which were post 48, and 3 had recent contact with the Trust.

Both of the post 48 hour cases are under review by Microbiology to determine the source.



2.7 Root Cause Analysis Infections for MSSA and E.Coli Bacteraemia

All MSSA and E. coli post 48-hour bacteraemia are reviewed by the microbiology team. Those deemed to be device related, or, where the source of infection cannot be determined are expected to have a Root Cause Analysis (RCA) completed.

In Quarter 3:

- 12 MSSA bacteraemia's were identified, of which 1 required an RCA as it was deemed to be device related.
- 45 E. coli bacteraemia's were identified, 4 of which were deemed to be device related.

Learning from completed RCAs include:

- Lapses in the management of cannulas,
- Incorrect recording of VIP scores
- Lack of appropriate follow-up investigation to identify source of infection after blood culture result where necessary inc. repeat cultures, Echocardiograms etc.

Actions implemented in relation to improvements include:

- Lessons learned from all cases cascaded to staff in huddles, handovers, and clinical governance meetings.
- Discussion and practise during IPC and induction training in July 2023 with FY1's regarding Blood culture best practice. Blood culture 'top tips' poster distributed to all clinical areas to highlight best practice.
- Ward managers and nurses in charge monitor the VIP scores and compliance monitored at monthly nursing metrics meetings, these being reported by division through their IPCOG reports.
- Urology specialist nurses now linking with clinical practice educators to provide catheter care training as part of the statutory training requirement.
- Training on unnecessary use of gloves provided to various staff groups.
- Education on hand hygiene provided to staff members.

2.8 MRSA Elective and Emergency Screening

Elective MRSA Screening: MRSA Elective screening compliance has been above the 95% target

throughout Q3 2023/24. Average monthly compliance in Q3 was 97.76%.

Emergency MRSA Screening: The MRSA emergency screening compliance has not reached the required 95% in any month in Q3 2023/24. Average monthly Q3 compliance was 91.76%.

3.0 PERIODS OF INCREASED INCIDENCE/OUTBREAKS

3.1 COVID

During the period October – December 23, 12 COVID outbreaks were declared by SATH.

The most common issues identified during the outbreak management are:
- Asymptomatic, intentionally unscreened patients creating contacts, who then tested positive.
- Delayed isolation

In October 2023, the Trust implemented mask wearing in specific areas of the trust following a letter received from NHSE advising trust risk assessments were reviewed. This is reviewed 6 weekly. Masks are now worn in;
- ED (all areas)
- SDEC
- AMA
- AMU
- Ward 22 SS
- SAU
- CAU
- GATU
- Ward 24 and Ward 17 Respiratory
- Ward 23 Oncology/Haematology, Chemo Day Centre, Lingen Davies, Haematology clinics and Paediatric Oncology/Haematology
- Areas with COVID-19/Flu/RSV outbreaks

The details of the Covid outbreaks are shown for Quarter 3 2023/24 in Appendix 1.

3.2 Measles - Preparedness for and management of suspected or confirmed measles cases in SaTH during Q3 2023/24

Measles is an acute, highly infectious viral illness that is comparatively rare in the UK following the introduction of the Measles, Mumps and Rubella vaccine in 1988. However, if vaccine coverages fall below 90% the risk increases for community circulation and outbreaks. There is now evidence of this occurring in the UK due to the disruption of the Covid crisis and anti-vax sentiment in certain communities. Measles is, in most cases, a self-limiting condition; symptoms usually resolving over the course of about a week.

Measles remains a potentially highly dangerous disease in hospitals due to its highly infectious nature and the risk to immune-compromised patients.

In line with NHSE guidelines for the management of suspected or confirmed measles the following principles have been actioned:
1. Immunisation status of staff and contact tracing
2. Patient screening, triaging and testing protocols
3. Respiratory screening

4. FFP3 Respirator fit testing
5. Training in PPE
6. Risk assessments
7. Measles policy updated

A detailed action plan has been developed to address these principles which is monitored via Infection, prevention, and control operational group (IPCOG)

In Q3 SaTH had no reported positive measles cases.

4.0 SERIOUS INCIDENTS (SI) RELATED TO INFECTION PREVENTION & CONTROL

There were no IPC SI's in Quarter 3 2023/24.

5.0 IPC INITIATIVES

5.1 Quality Ward Walks (QWW)

The IPC team changed its approach to QWWs at the start of Q3 (Oct 2023). The emphasis is now on matrons completing QWWs in their wards and departments using the questionnaire available on Gather. This is to empower matrons to affect change in their areas and not rely on the IPC team to identify opportunities for improvement in their area.

This initiative requires the matron to complete and score the QWW, add relevant issues to their IPC action plan, and plan, complete and evaluate relevant actions. This should be shared with IPC.

Nine areas were audited by the IPC team in Q3. These were in areas where QWWs had already been arranged rather than targeting areas that raised concerns.

Outbreak QWWs, most commonly for Covid-19, continue to be conducted weekly on areas that have outbreaks or PIIs. In Q3 there have been 47 outbreak associated QWWs.

The most frequently non-compliant elements across all QWWs were:

- Management of urinary catheters.
- Cleanliness of equipment and environment.
- Cleanliness of sanitary equipment especially shower chairs and raised toilet seats.
- Lack of hand hygiene and inappropriate use of PPE.
- Inconsistent completion of ventilation and cleaning checklists.

5.2 Autumn Roadshow RSH

The IPC team conducted an Autumn Roadshow at RSH about the management of patients with loose stool. This involved the completion of a seven-question quiz. 87 staff completed the quiz including consultants, doctors in training, the wider medical team, therapists, ward-based nurses, Clinical Nurse Specialists and HCAs. Other staff chose not to complete the quiz but participated in the discussions in the clinical areas.

Gaps in knowledge identified following review of all responses were discussed with IPC colleagues and included in face-to-face training sessions delivered by the team.

6.0 RISKS AND ACTIONS

The Risk register for IPC is held by the Director of Nursing as the Director for Infection Prevention and Control (DIPC) and is updated monthly.

There are 2 newly identified risks on the risk register:

1 is currently rated “Extreme”

- Risk 679, COVID LFTs not being robustly reported to the trust Review system.

1 is currently rated “High”

- Risk 855, Risk of transmission of measles in hospital.

There are 6 active risks on the risk register. Of the 6 risks, after application of the risk controls and mitigations;

1 is rated “Extreme”

- Risk 443, lack of assurance in relation to decontamination of devices outside of endoscopy and sterile services. Discussions are taking place around appointing a decontamination lead.

4 risks are rated “High”

- Risk 772, increasing numbers of HCAIs. A C. diff reduction action plan is in place for SaTH and is now also in place for the system. A deep dive into Gram- negative blood stream infections (GNBSI) will be undertaken to inform a GNBSI reduction action plan, this is in addition to our annual programme of work.
- Risk 438, Lack of isolation facilities
- Risk 481, Lack of negative pressure isolation
- Risk 444, Lack of deep clean programme

Risks 773 and 440 were closed with approval of IPCAC

7.0 IPC BOARD ASSURANCE FRAMEWORK

The Infection Prevention and Control Board Assurance Framework had an update published at the end of September 2022. The 10 domains remain, with a total of 99 lines of enquiry. This is reviewed regularly and reported to the Trust Infection Prevention and Control Operational Group and Assurance Committee on a quarterly basis.

The BAF has a total of 99 Key Lines of Enquiry. 83 of which are rated as Green, 16 are rated as Amber, and 0 rated as Red.

8.0 HEALTH AND SOCIAL CARE ACT COMPLIANCE UPDATE

The Health and Social Care Act (2008) Code of Practice on the prevention and control of infections, applies to all healthcare and social care settings in England. The Code of Practice was updated in February 2023. The document sets out 10 criteria with 268 elements against which the Care Quality Commission (CQC) will judge a registered provider on how it complies with the infection prevention requirements, which is set out in regulations. To ensure that consistently high levels of infection prevention (including cleanliness) are developed and maintained Trusts complete a self-assessment.

The Health and Social Care Act (previously known as Hygiene Code) is reviewed quarterly by the IPC team and presented at the IPC Operational Group. Following the full review, the Trust is currently

97.0% compliant, being RAG rated ‘Green’ for 248 elements, ‘Amber’ for 19 and RAG rated ‘Red’ for 1.

The Trust self-assessment compliance against each of the 10 domains and the current gaps are shown below:

Health and Social Care Act 2008: code of practice on the prevention and control of infections and related guidance				
Self Assessment Tool				
Shrewsbury and Telford Hospitals NHS Trust				
Criterion	**Statement of Compliance**	**Compliance Score**	**Score**	**Potential Score**
Criterion 1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibililty of service users and any risks that their environment an other users may pose to them.	95%	120	126
Criterion 2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.	93%	75	81
Criterion 3	Ensure appropriate antimicrobial use and stewardship to optimise service user outcomes and to reduce the risk of adverse events and antimicrobial resistance.	79%	19	24
Criterion 4	Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further health and social care support or nursing/ medical care in a timely fashion.	100%	66	66
Criterion 5	Ensure that people who have or at risk of developing an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of transmission of infection to other people.	100%	6	6
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.	100%	18	18
Criterion 7	Provide or secure adequate isolation facilities.	92%	11	12
Criterion 8	Secure adequate access to laboratory support as appropriate.	100%	15	15
Criterion 9	The service provider should have and adhere to policies designed for the individual's care, and provider organisations that will help to prevent and control infections.	99%	405	408
Criterion 10	The registered provider will have a system or process in place to manage health and care worker health and wellbeing and organisational obligation to manage infection, prevention and control.	100%	48	48
Total Compliance		**97%**	**783**	**804**

9.0 CONCLUSION

This IPC report has provided a summary of the performance in relation to the key performance indicators for IPC in Quarter 3 of 2023/24.

The Trust continues to see high numbers of C. diff. In Quarter 3 we report 20 cases, 46.2 per 100,00 bed days, compared to 29.6 per 100,000 bed days in quarter 2, this is a significant increase in rate of C. diff.

The Trust has continued to see a number of COVID 19 outbreaks, we continue to review the need for mask wearing.

APPENDIX 1:

	Ward	Infective Organism	Typing	Contributing factors
Oct	10	COVID		Unclear
	16	COVID		Contacts who converted to positives
	17	COVID		Contacts who converted to positives
	22ss	CDI	Unable to type	Declared as an outbreak as unable to type
	24	CDI	Different	Not an outbreak
Nov	26	COVID		Contacts who converted to positives
	27	COVID		Contacts who converted to positives
	26	COVID		Contacts who converted to positives
	28	COVID		Contacts who converted to positives
	10	COVID		Contacts who converted to positives
	25	CDI	Different	Not an outbreak
Dec	25	COVID		Contacts who converted to positives
	27	COVID		Contacts who converted to positives
	6	COVID		Contacts who converted to positives
	DSU	COVID		Contacts who converted to positives
	S18	CDI	Different	Not an outbreak
	9	CDI	Different	Not an outbreak
	11	CDI	Different	Not an outbreak