

**Board of Directors' Meeting
March 2021**

Agenda Item	054/21		
Report	Report from the Director of Infection Prevention and Control (DIPC)		
Executive Lead	Hayley Flavell, Director of Nursing		
	Link to strategic pillar:		Link to CQC domain:
	Our patients and community		Safe ✓
	Our people		Effective ✓
	Our service delivery	✓	Caring ✓
	Our partners		Responsive ✓
	Our governance	✓	Well Led ✓
	Report recommendations:		Link to BAF / risk:
	For assurance	✓	561, 1771
	For decision / approval		Link to risk register:
	For review / discussion		
	For noting		
	For information		
Executive summary:	<p>This report provides an overview of the Infection Prevention and Control key metrics including hospital acquired infections for January 2021.</p> <p>Key points to note by exception are:</p> <ul style="list-style-type: none"> • The Trust remains below the trajectory YTD and is set to achieve the target of no more than 43 cases of Clostridium Difficile (CDI) in 2020/21 • The Trust remains on target to achieve the 20% reduction set for E.Coli bacteraemias in 2020/21 • The planned target of no more than 24 cases of MSSA bacteraemia in 2020/21 is unlikely to be achieved with 22 cases reported YTD • There are 17 open Covid-19 outbreaks across the Trust at the time of this report , involving 202 patients and 62 staff • 23 Covid-19 outbreaks have closed • There was 1 MRSA bacteraemia in January on ward 33, which is currently being investigated. • 2 outbreaks, an MRSA acquisition involving 2 cases on ward 6 and a Cdiff outbreak involving 2 cases on ward 8 were confirmed in January 2021 following receipt of the typing results <p>The overarching assurance visit action plan has been updated, outstanding actions relate to estates and facilities work are delayed due to the impacted by the pandemic.</p> <p>An updated NHSE/I IPC BAF was issued in February 2021 and a gap analysis against this is currently being undertaken.</p>		

Appendices	
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1.0 INTRODUCTION

This paper provides a report on the monthly performance against the 2020/21 objectives for Infection Prevention and Control. An update on hospital acquired infections: Methicillin-Resistant *Staphylococcus aureus* (MRSA) Clostridium Difficile (CDI), Methicillin-Sensitive Staphylococcus (MSSA) Escherichia Coli (E.Coli), Klebsiella and Pseudomonas Aeruginosa bacteraemia for January 2021 is provided. An update in relation to Covid-19, the recent outbreaks, actions and the learning in relation to these is provided. Details of other reported potential Health Care Acquired Infection (HCAI) outbreaks in January 2021 are included. The report also outlines any recent IPC initiatives and relevant infection prevention incidents.

2.0 KEY QUALITY MEASURES PERFORMANCE

This section of the report provides an update on hospital acquired infections: Clostridium Difficile, MRSA, MSSA, E.coli, Klebsiella and Pseudomonas Aeruginosa bacteraemia.

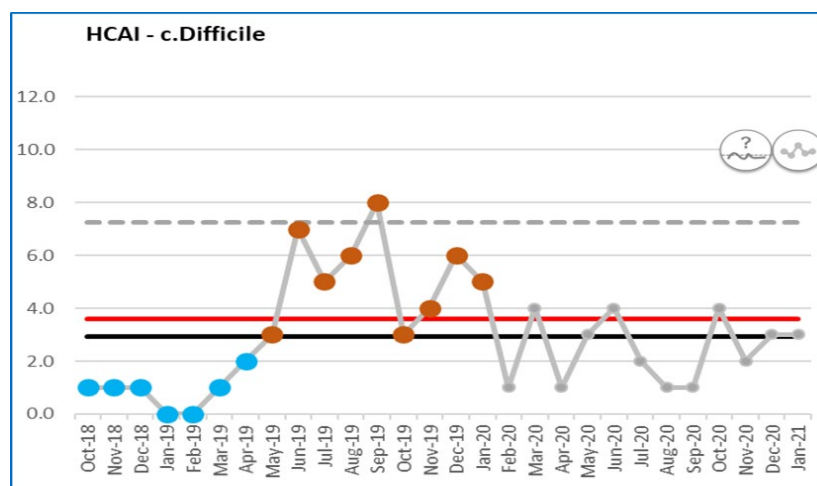
2.1 MRSA Bacteraemia

The target for MRSA bacteraemia remains 0 cases for 2020/21. There was 1 post 48 hour MRSA bacteraemia infections reported in January 2021, this occurred on Ward 33. A Post Infection Review is currently being undertaken to determine if this case was avoidable.

MRSA Bacteraemia	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sept 20	Oct 20	Nov 20	Dec 20	Jan 20	Annual Target
Number of Cases	0	0	0	0	0	0	0	0	0	1	0

2.2 Clostridium Difficile

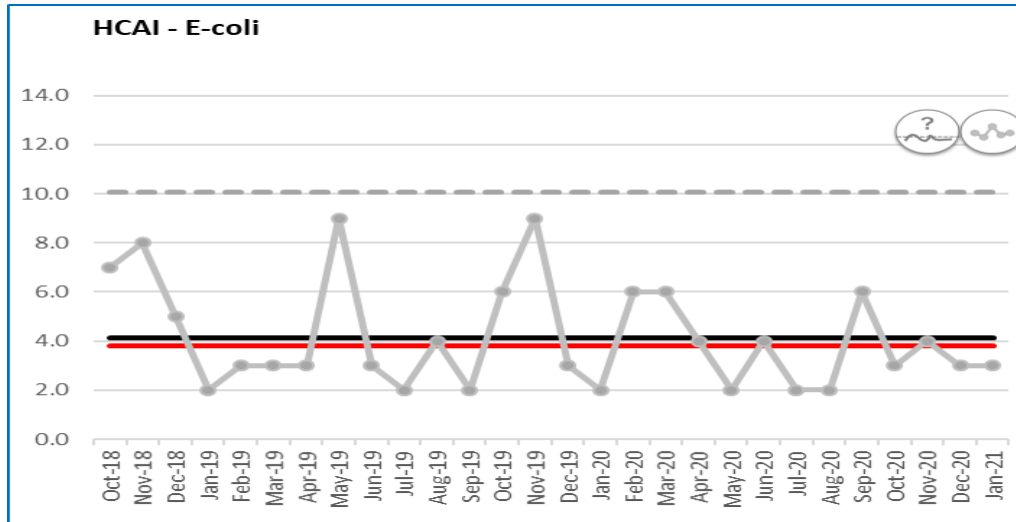
The target agreed with the CCG for this year is no more than 43 cases (same target as the previous year). Year to date there have been 24 cases of CDiff against a target of 30 cases by month 10. The Trust remains below the trajectory YTD and on track for the target to be met. Total number of C-Diff cases reported per month is shown:



There were 3 cases of C difficile attributed to the Trust in January 2020; 2 cases were post 48 hour cases and 1 case was a patient who had an inpatient stay in the four weeks prior to the positive sample. Themes from the RCAs continue to be related to timeliness of obtaining a stool sample, isolating patients in a timely manner and antibiotic prescribing. Anti-microbial stewardship is reported at the IPC Operational Group but this also needs to be reported at Divisional Level moving forward as part of the Divisional Governance meetings to ensure this is addressed at Divisional and speciality level.

2.3 E.Coli Bacteraemia

The Number of E.Coli cases are shown:



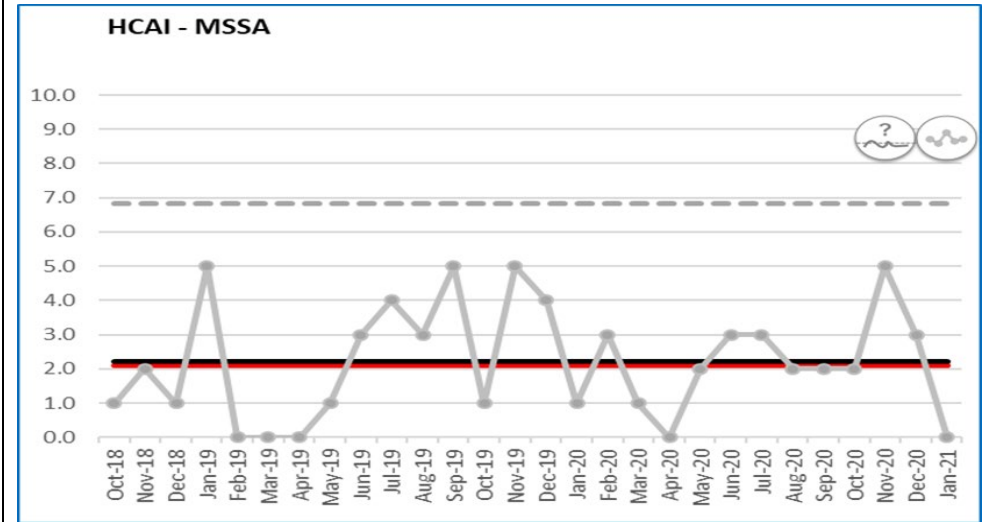
There were 3 cases of post 48 hour E.Coli Bacteraemia in January 2021. In 2 cases the source was considered to be a catheter associated urinary tract infection (CAUTI) and was therefore device related. In the third case the source was unknown.

There have been 33 cases YTD against a target by month 10 of 37 cases. The target for 2020/2021 is no more than 44 cases; the Trust is on trajectory to achieve this target. Learning from RCAs undertaken to date include obtaining catheter, urine samples and blood cultures in a timely manner.

Improvement work includes a Trust Catheter Care Group and the implementation of a catheter care plan which is now in use and education around this is being supported by the Quality Team.

2.4 MSSA Bacteraemia

The number of MSSA cases are shown:

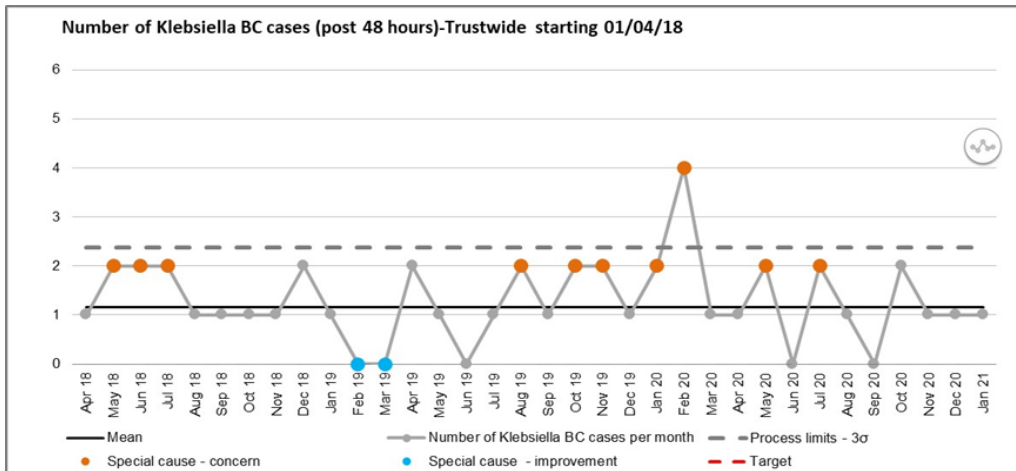


There were no cases of MSSA bacteraemia in January 2021.

YTD there have been 22 cases against a target by month 10 of 20 cases. The target for 2020/2021 is for a 20% reduction in cases with no more than 24 cases, this target is unlikely to be achieved.

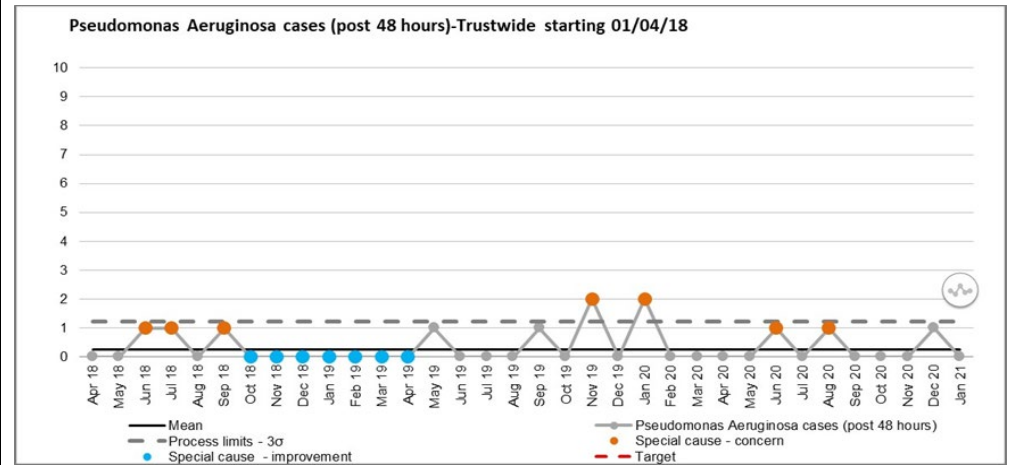
Outcomes from RCAs undertaken for cases to date have showed that blood cultures and intravenous antibiotics prescribed according to Trust Policy. Improvements included ensuring the name of the staff member who has taken the blood culture to be recorded on the blood culture request forms.

2.5 Klebsiella Bacteraemia (Post 48 Hours)



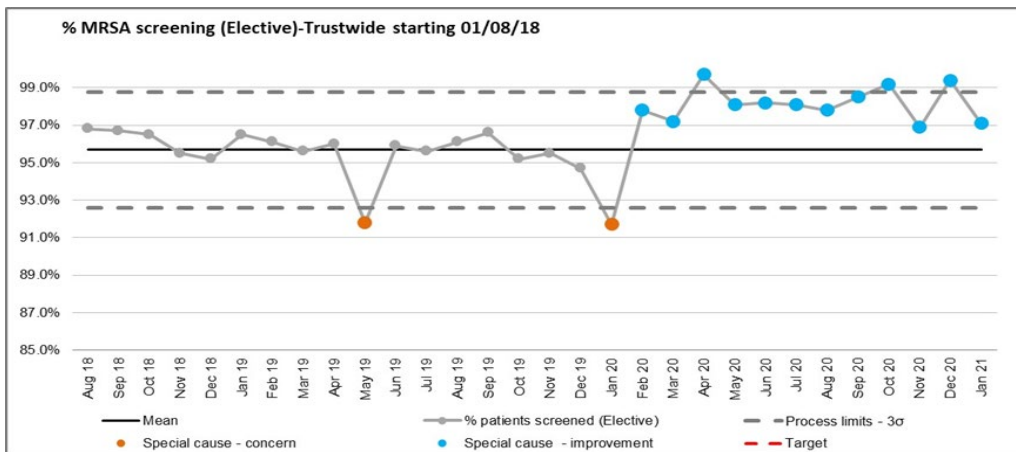
There was one case of post 48 hour Klebsiella Bacteraemia in January 2021.

2.6 Pseudomonas Aeruginosa Bacteraemia (Post 48 Hours)



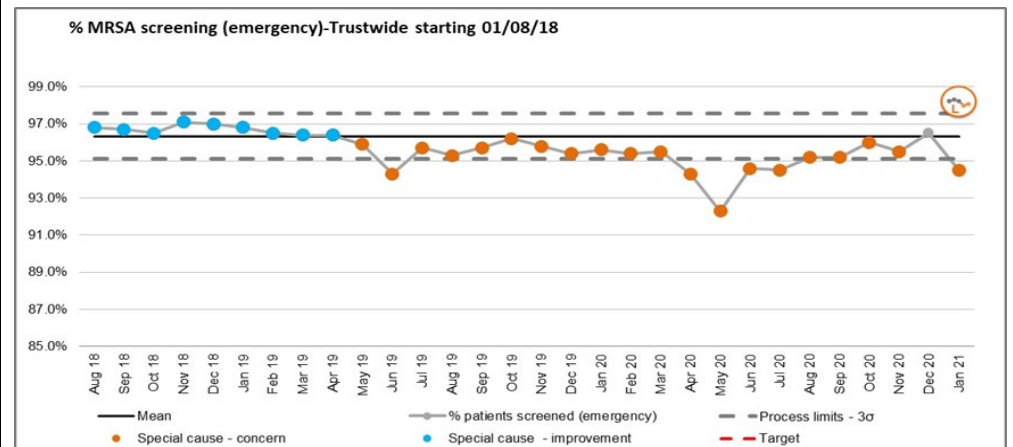
No cases of post 48 hour Pseudomonas Bacteraemia were reported January 2021

2.7 MRSA Elective Screening



MRSA Elective screening in January 2021 was 97.1%; the monthly performance has been consistently above the 95% national target throughout 2020/21.

2.8 MRSA Emergency Screening



The MRSA emergency screening compliance for January 2021 was 94.5%, this is below the 95% target

MRSA Emergency Screening.

MRSA Emergency screening compliance has been discussed at IPC Operational Group for the Divisions to ensure actions for screening are in places. The performance for individual clinical areas, some of which are below 80%, have been escalated to individual ward managers and the matrons to ensure that ward screening is completed. Direct ward admissions has had an impact on the screening compliance in January 2021.

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 an RCA completed. There have been some delays in the completion of these RCAs due to the availability of the clinical teams in order to complete the documentation and attend meetings as a result of the current pressures caused by the Covid-19 pandemic. A number of RCA meetings have taken place and action plans have been completed, meetings are scheduled for the remaining RCAs which are outstanding, with plans in place for these to be completed by March 2021.

3.0 PERIODS OF INCREASED INCIDENCE/OUTBREAKS

Period of Increased Incidence

Ward 23 Oncology had a period of increased incidence with 3 VRE (Vancomycin Resistant Enterococcus) cases reported in November 2020; the typing for these cases was confirmed as all being different so this was not declared as an outbreak. A further 2 cases of VRE were reported in January 2021; a meeting has taken place and the cases have been sent for typing prior to determining if this is an outbreak .

Outbreaks

Ward 8- In December 2020, Ward 8 had two cases of C.Diff which triggered a Period of Increased Incidence investigation. Typing of the 2 cases subsequently confirmed that these were the same so this was confirmed as an outbreak, and a further outbreak meeting was held. Lessons learnt include documentation of stool type and not following the appropriate pathway in taking a stool sample.

Ward 6- An outbreak was declared for ward 6 after the typing for 2 cases of MRSA acquisition confirmed these were the same. In one case the patient had a wound which it was not clear was present on admission due to poor documentation with no wound chart completed, this was subsequently found to be colonised with MRSA following discharge from hospital.

4.0 COVID 19

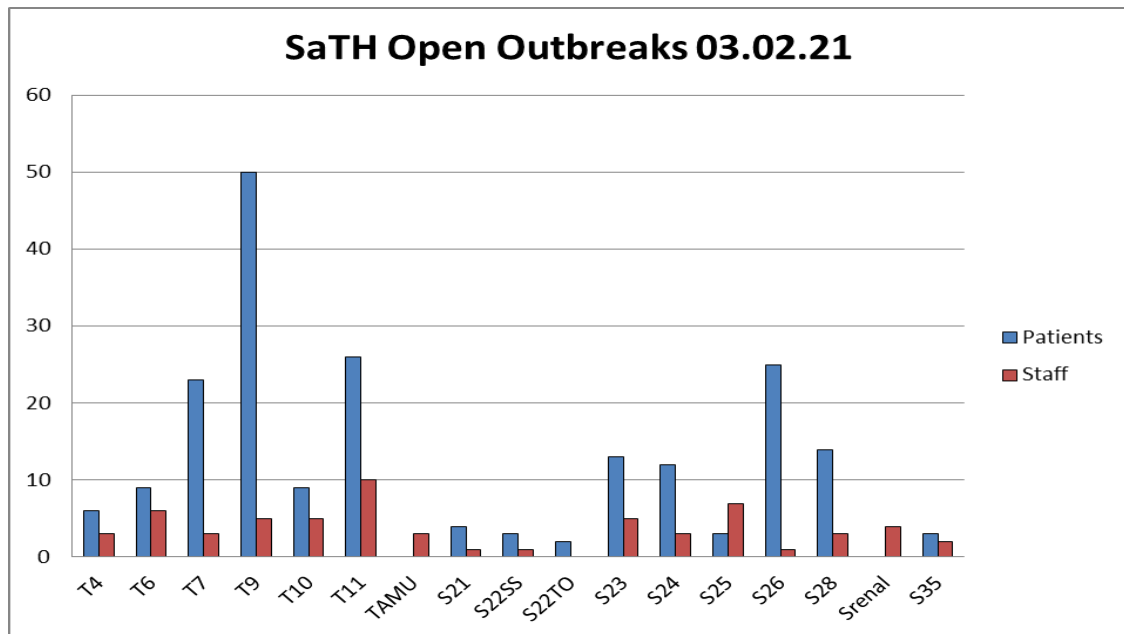
In relation to COVID 19, the criteria for an outbreak are defined as:

“Two or more test-confirmed or clinically suspected cases of COVID-19 among individuals (for example patients, health care workers, other hospital staff and regular visitors, for example volunteers and chaplains) associated with a specific setting (for example bay, ward or shared space), where at least one case (if a

patient) has been identified as having illness onset after 8 days of admission to hospital". (Public Health England, August 2020).

Current Open Outbreak Summary (Second Wave)

During January 2021 and into February 2021 the Trust has continued to have a number of Covid-19 outbreaks. A summary of the outbreaks including the number of patients and staff involved and the current status of the Covid-19 outbreaks open as of the 3rd February 2021 are shown:



As of the 3rd February 2021 there were 17 Covid-19 outbreaks open across the Trust. A majority of these outbreaks included both patients and staff. However, 2 outbreaks related to staff only; these were on the Renal Unit at The Royal Shrewsbury Hospital and on the AMU at the Princess Royal Hospital. The outbreak on Ward 22 Trauma and Orthopaedic at the Royal Shrewsbury Hospital involved patients only.

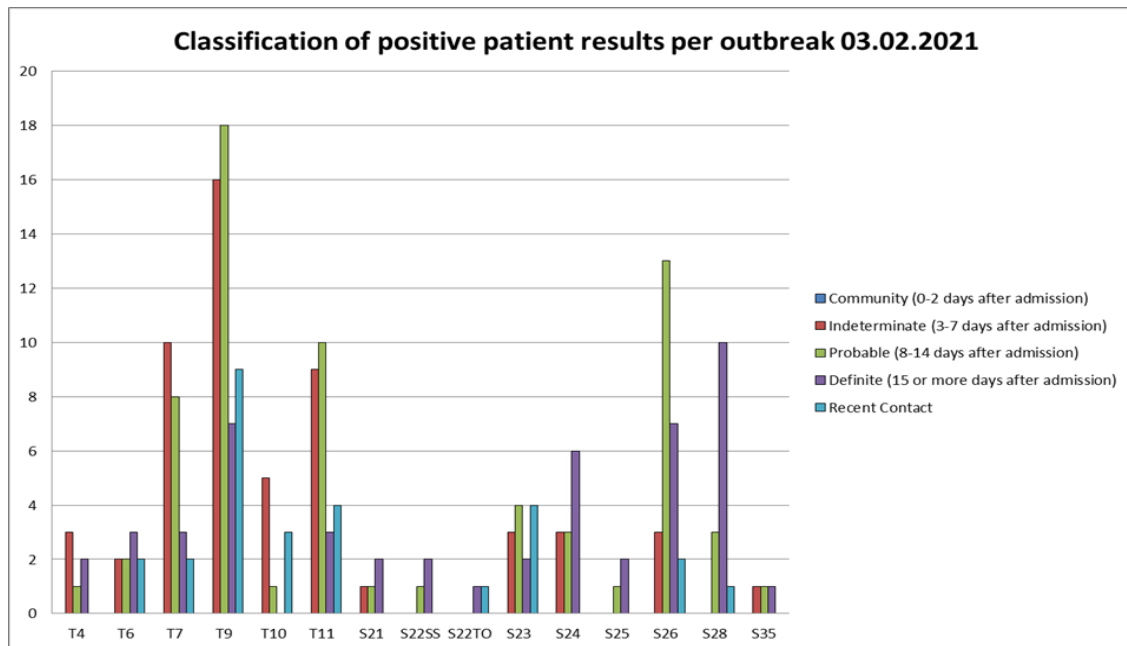
In total 202 patients and 62 staff were involved in these outbreaks, with the largest number of patients being on Ward 9 and Ward 11.

Site	Ward	Number of Patients Involved	Number of Staff Involved	Total Involved
PRH	4	6	3	9
PRH	6	9	6	15
PRH	7	23	3	26
PRH	9	50	5	55
PRH	10	9	5	14
PRH	11	26	10	36
PRH	AMU	0	3	3
RSH	21	4	1	5
RSH	22SS	3	1	4
RSH	22TO	2	0	2
RSH	23	13	5	18
RSH	24	12	3	15
RSH	25	3	7	10
RSH	26	25	1	26
RSH	28	14	3	17
RSH	35	3	2	5
RSH	Renal	0	4	4
Total		202	62	264

Classification of Positive Patient Results per Outbreak

Definitions in relation to Hospital Onset (HO) COVID 19 is defined as illness onset (or positive first specimen) 15 days or more after admission. Probable Hospital Onset COVID-19 is defined as an illness onset (or first positive specimen date) between 8-14 days after admission and indeterminate as 3-7 days.

For the outbreaks reported and open as of the 3rd February 2021, the duration of time from admission to a patient being screened as positive is shown:



This shows that 28% of cases were classified as indeterminate i.e. between 3-7 days; another 33% were classified as probable (between day 8-14) and 25% were classified as definite hospital acquired cases (day 15 or above). A total of 14% of cases were contacts of recent cases.

Outbreak meetings continue to take place twice weekly and are chaired by the Director of Infection Prevention and Control/Director of Nursing and are attended by key staff across the Trust, CCG, PHE and NHSI/E IPC leads.

Ongoing actions and monitoring in relation to the current outbreaks include:

- Daily IPC visits to outbreak areas
- Enhanced cleaning, proactive/ reactive staff & patient screening,
- Ongoing monitoring of PPE and hand hygiene,
- Ongoing education and support to ensure patients wear masks at all times
- Ongoing monitoring to ensure patient Covid-19 swabbing is undertaken as per national guidance
- Installation of plastic protective curtains for use in ED and wards to try to limit the number of contacts for patients. The impact of the protective curtains in relation to any reduction in contact conversions is currently being evaluated by the IPC and Microbiology team.

Closed Outbreak Summary (Second Wave)

From October 2020 the Trust has reported a number of Covid-19 outbreaks across both hospital sites which at the time of this report had closed. There were a total of 23 outbreaks, 9 involving staff only in Ward 19 (Paediatrics), Ward 35, Estates, Research Team, Maternity Sonographers, Porters, Emergency (RSH), Ward 32 (High Risk Covid-19 Respiratory Ward), and Ward 17 (High Risk Respiratory Ward). One outbreak on Ward 7 involved patients only and the remaining 13 outbreaks involved both patients and wards with the largest outbreaks being on Ward 24, 25 and 26.

Site	Ward	Number of Patients Involved	Number of Staff Involved	Total Involved
PRH	4	5	2	7
PRH	6	8	2	10
PRH	7	10	0	10
PRH	8	5	2	7
PRH	9	5	2	7
PRH	10	2	2	4
PRH	15/16	11	11	22
PRH	17	0	9	9
PRH	19	0	9	9
PRH	Maternity Scanning	0	5	5
PRH	Portering	0	2	2
RSH	22F/SS	5	4	9
RSH	24	20	7	27
RSH	25	23	7	30
RSH	25	7	6	13
RSH	26	37	27	64
RSH	27	17	10	27
RSH	28	2	2	4
RSH	32	0	10	10
RSH	35	0	3	3
RSH	A&E	0	9	9
RSH	Research Team	0	2	2
RSH	Estates	0	3	3
Total		157	136	293

Mixed Sex Accommodation Breaches and Covid Mixed Contacts

To ensure the provision of cohorting and the safe management of patients requiring cohorting or patients who are contacts of positive patients there is, on occasion the need to mix sexes in the Ward Bays and mix contacts, this has to be authorised by the Director of Infection Prevention and Control in hours or the

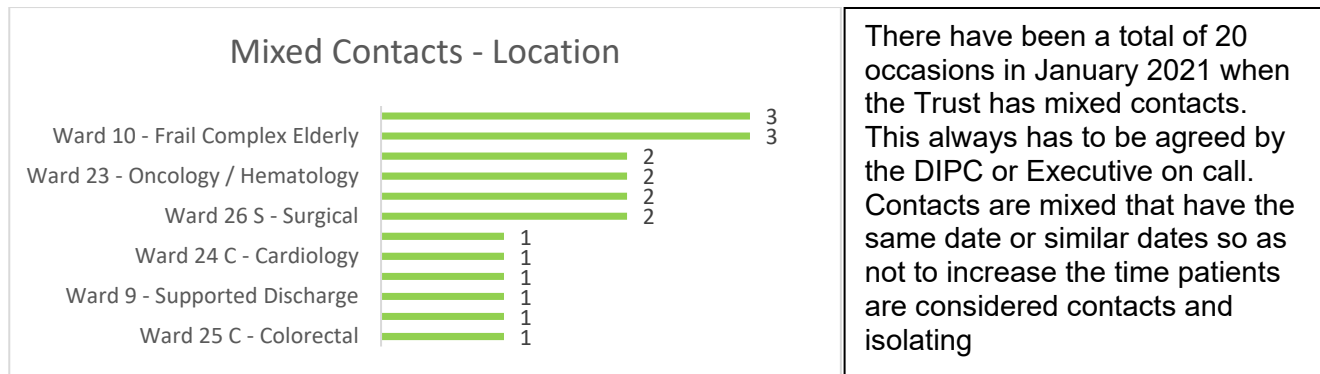
Executive on –call out of hours and reported as a Datix.

Mixed Sex Breaches

In January 2021, the following Datix were reported for Covid-19 mixed sex accommodation breaches:

	Ward	Number
Mixed Sex Breaches	Ward 10	5
	Ward 23	1
	Ward 6	3
	Ward 7	2
	Ward 8	7
Total		18

Covid-19 Mixed Contacts



Covid-19 Outbreak Assurance Visits

A number of assurance visits have taken place in relation to Covid-19 and the ongoing outbreaks. The University Hospital North Midlands NHS Trust undertook a supportive peer visit in August 2020 and assurance visits by NHSE/I and the CCG following the Covid-19 Outbreaks in October, November and December 2020. All improvement actions have been completed or commenced and have been included in the overarching action plan from all the assurance meetings and is monitored through the IPC Operational Group.

Of the 52 actions, 62% have been completed, and the remaining actions are in progress and involve estates and facilities work including:

- Installation of permanent doors in Bay 1 on ward 33, Bay 1 on ward 27 and between Bay 2 and 3 on AMU. This has been delayed by contractors not wanting to come on site during Covid-19 pandemic
- Cleaning of radiators on all wards,
- Minor estates work across the Trust

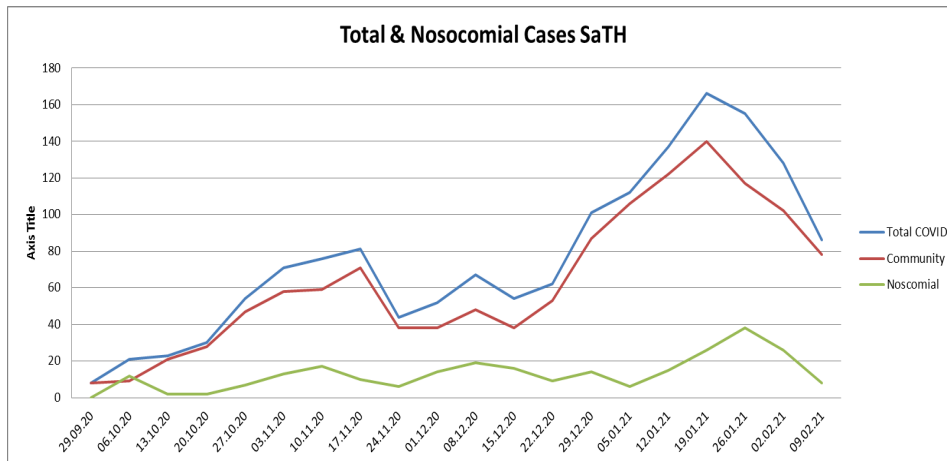
There is an Estates and Facilities planned works schedule for undertaking planned annual works, there is to be a review meeting with Estates, Facilities and IPC to ensure this schedule of work is robust and meets all the requirements including IPC.

Ongoing assurance visits have been undertaken in and out of hours by the Deputy

Director of Nursing in January 2021.

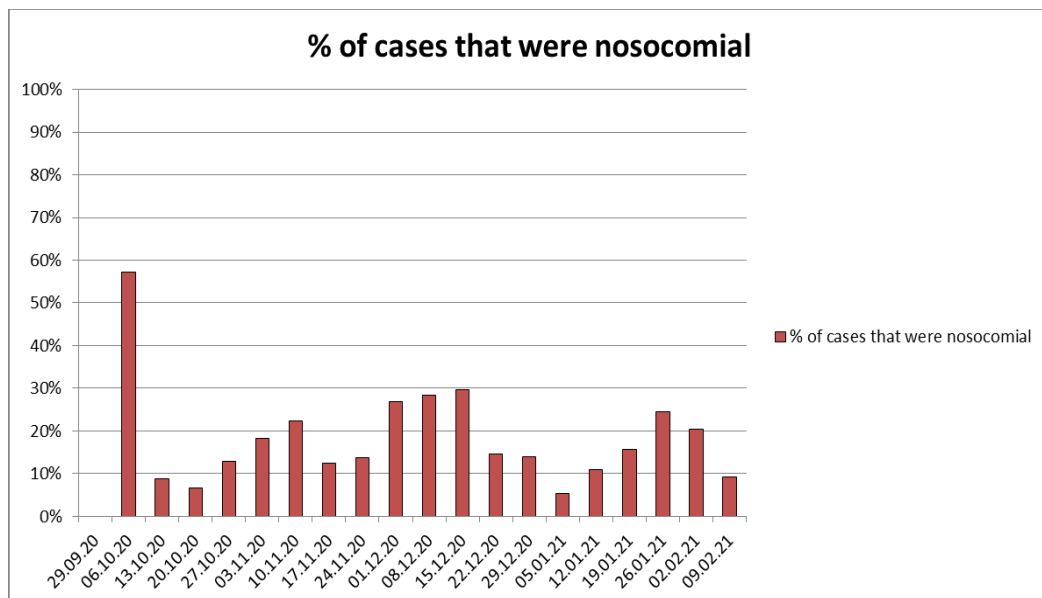
Analysis of Covid-19 Nosocomial Infections

The IPC Team has completed an analysis of nosocomial Covid-19 cases. Nosocomial cases are those deemed to have been acquired at Day 8 or above following admission to hospital.



The analysis shows that the nosocomial hospital infections follow the pattern seen for overall cases and those in the community. This shows that the Trust had a significant increase in cases in mid-January 2021 but that cases since have fallen and were reported as to 9.3% for the latest reporting week (9th February 2021).

The percentage of cases which were nosocomial per week since the start of September 2020 are shown.



Of the 260 nosocomial cases since 29.09.2020:

- 228 have been included in outbreak investigations (87.6%)
- 187 had previously been identified as contacts of positive cases (71.9%)
- There were 14 cases (5.4%) that were not identified as contacts **AND** not been included in outbreak investigations. Of these the RCAs showed:

- 3 were found to be positive in the community prior to their admission
- 2 had been being treated as positive since admission due to clinical symptoms
- 3 had been present on an outbreak ward
- 2 were being cared for by clinicians whose base was an outbreak ward
- 1 patient had been admitted with symptoms but tested negative until day 8
- 1 patient had frequent family visitors as long-term inpatient
- 2 patients RCA's did show give a clear source

The identified Risks for Covid-19 acquisition in hospital include:

- Being present on a Ward during an outbreak, even if not directly a contact of a positive case
- Being identified as a Covid-19 contact
- Missed or mistimed Covid-19 screens

Initiative Introduced through November 2020 to present to mitigate the risk of nosocomial Covid-19 acquisition:

- Redirooms introduced in November 2020
- Rapid testing platforms went live November 2020
- Day 3 screening introduced 24th November 2020
- A roll-out programme for the implementation of clear plastic curtains commenced which has continued throughout January 2021. Clear plastic curtains are there to serve as a physical barrier to reduce the risk of transmission between bay contacts
- All patients are advised to wear facemasks even if not being cared for in an outbreak area to reduce potential transmission
- Patient leaflet reviewed to emphasise the requirement for facemasks for patients, introducing an opt out system
- Ward and management teams are sent a daily report detailing each patient who is due or overdue a screen

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

The previous Covid-19 outbreaks at the PRH and RSH in October and November 2020 were raised as a serious incident, a summary of the finding and recommendations were previously reported to Board in January 2021.

The outbreak on ward 26 in December 2021 was also raised as a serious incident and is currently being investigated; the findings and any recommendations will be presented in the March 2021 report. No further serious incidents relating to Infection Prevention and Control were reported in January 2021.

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presented in the March 2021 report. No further serious incidents relating to Infection Prevention and Control were reported in January 2021.

7.0 IPC INITIATIVES

Quality Ward Walks continue to be undertaken by the IPC team. Compliance scores range from 78-100% across the clinical areas reviewed. Common themes identified include:

- Ensuring raised toilet seats/toilet frames are correctly decontaminated
- All cleaning checklists are completed and signed off following twice daily enhanced cleaning with Tristell
- Correct labelling and availability of Tristell
- Assurance that patients are being educated about the importance of wearing a mask and that staff are offering mask changes regularly throughout the day to patients
- Ensuring that social distancing is maintained between staff when not delivering direct patient care

Issues are escalated at the time of the Quality Ward Walks and areas of non-compliance highlighted to the ward manager/matron.

The IPC team have continued to support the ongoing work in relation to COVID-19, ensuring that swabbing is being undertaken as per national guidance, supporting the outbreak meetings and national reporting of outbreak information.

8.0 IPC BOARD ASSURANCE FRAMEWORK

In May 2020 NHSE/I issued an Infection Prevention and Control Board Assurance Framework (IPC BAF) for all acute Trusts to use to assess themselves with regards to best practice and use as a tool to monitor actions required to ensure continuous improvement. The Infection Prevention and Control Board Assurance Framework (IPC BAF) has 10 Sections with 63 key lines of Inquiry. The IPC BAF continues to be reviewed and updated monthly. The Trust remains RAG rated Green for 53 of the 63 key lines of enquiry in the IPC BAF and amber for the remaining elements with no new actions identified or implemented in February 2021.

An updated version of the IPC BAF was issued by NHSE/I on the 16th February 2021. This updated BAF consists of an additional 60 items within the key lines of enquiry. The IPC team are currently reviewing these, the actions required and evidence of assurance. The updated BAF will be presented at the IPC Operational Group and IPC Assurance Committee in March 2021 and the fully updated BAF will be included in the April IPC Board paper.

9.0 RISKS AND ACTIONS

The Infection Prevention and Control Risk Register is presented monthly at the IPC Assurance Committee. The risk register has been fully reviewed. There are IPC risks.

Two risks have been closed:

Risk 1947- SQL Report for Covid-19 swabbing, Day 0, 3 and 5, this is now in place and monitoring of compliance through matrons, Head of Nursing and IPC Operational Committee

Risk 1539- Shortage in IPC Team, all vacancies now recruited to.

10.0 CONCLUSION

This IPC report has provided a summary of the performance in relation to the key performance indicators for IPC for January 2021. Overall performance in relation to many of the IPC KPIs remains positive, which the improvement targets for C.Diff and E.Coli set to be achieved for 2020/21. There have been one MRSA bacteraemia in the month. The current Covid-19 outbreaks, nosocomial infections and mitigating actions have been outlined.