

**Board of Directors' Meeting
February 2021**

Report	Infection Prevention and Control Report			
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	✓
Executive summary:	Report recommendations:		Link to BAF / risk:	
	For assurance	✓	561, 1771	
	For decision / approval		Link to risk register:	
	For review / discussion	✓		
	For noting			
	For information			
	<p>This report provides an overview of the Infection Prevention and Control key metrics including hospital acquired infections for December 2020.</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 9 open Covid outbreaks across the Trust • 19 Covid outbreaks have closed, these affected a total of 153 patients and 110 staff <p>An assurance visit to ward 26 took place on the 18th December 2020, the actions from this visit have been included in the overarching assurance visit action plan. 52 actions, 62% have been completed within the action plan and the remaining actions are in progress and include estates and facilities work.</p> <p>The IPC BAF is reviewed by the IPC Operational Group and IPC Assurance Committee Meetings monthly.</p>			
Appendices	None attached			

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 December 2020 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 December 2020 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.

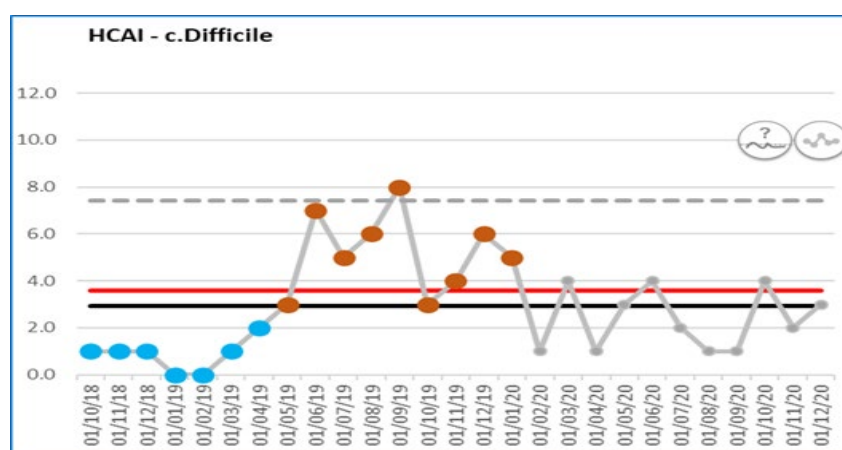
2.1 MRSA Bacteraemia

The target for MRSA bacteraemia remains 0 cases for 2020/21. There were no MRSA bacteraemia infections reported in December 2020. The last MRSA bacteraemia was in May 2019.

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

2.2 Clostridium Difficile

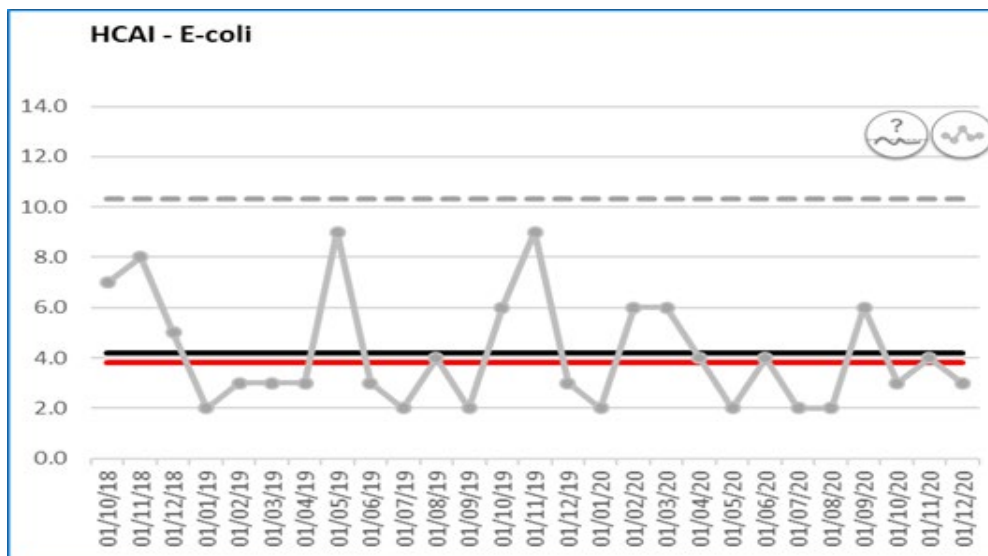
The target agreed with the CCG for this year is no more than 43 cases (same target as the previous year). Year to date there have been 21 cases of CDiff against a target of 27 cases by month 9. The Trust remains below the trajectory YTD and on track for the target to be met. Total number of C-Diff cases reported per month is shown:



There were 3 cases of C difficile attributed to the Trust in December 2020; all cases were post 48 hour cases. Ongoing themes from the RCAs relate to timeliness of obtaining a stool sample, inconsistencies in completion of the stool chart and inappropriate prescribing of Tazocin. Anti-microbial stewardship is reported through to IPC Committee, further work is required across the Trust in relation to antimicrobial stewardship. Timely isolation of patients with diarrhoea has been aided by the use of the redi-rooms across the Trust which increases the availability of isolation facilities.

2.3 E.Coli Bacteraemia

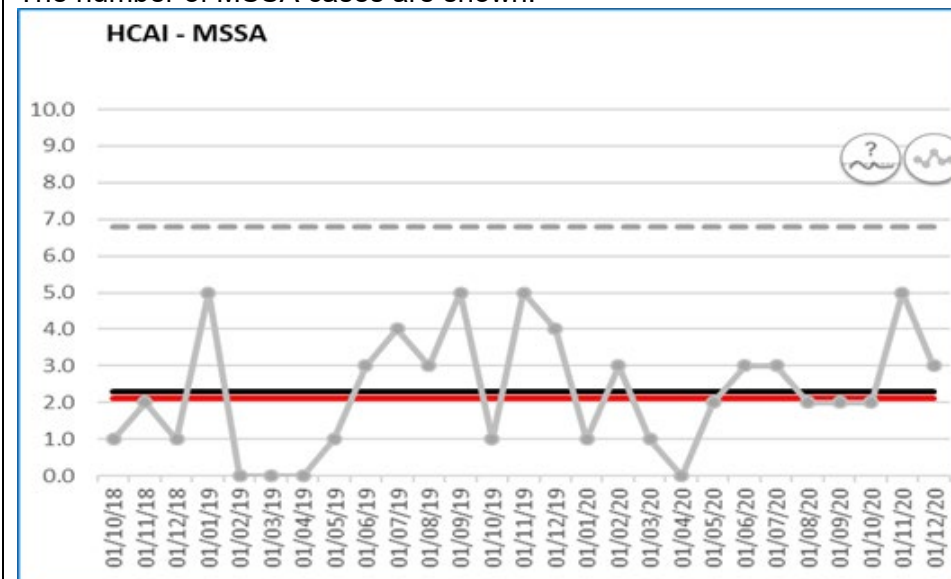
The Number of E.Coli cases are shown:



There were 3 cases of post 48 E.Coli Bacteraemia in December 2020. In total YTD there have been 30 cases against a target by month 9 of 33 cases. The target for 2020/2021 is no more than 44 cases; the Trust is on trajectory to achieve this target. A RCA is now completed on all post 48 hour E.Coli cases to identify if they were device or intervention related. In the first case the source was unknown, in the 2nd case the source was due to pancreatitis, these two cases are therefore not device related. The RCAs from the 3rd case deemed that the infection was unavoidable; the patient had sepsis from a cyst, screening from all devices including the catheter specimen of urine were all negative. Improvement work includes a Trust Catheter Care Group to improve catheter care and a new catheter care plan to be implemented in February 2021.

2.4 MSSA Bacteraemia

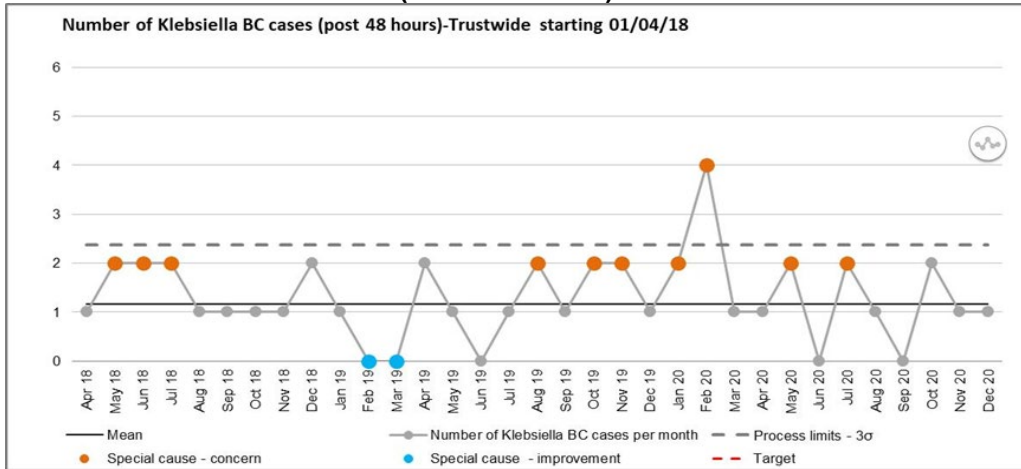
The number of MSSA cases are shown:



There were 3 cases of post 48 hour MSSA bacteremia in December 2020. YTD there have been 22 cases against a target by month 9 of 18 cases. The target for 2020/2021 is for a 20% reduction in cases with no more than 24 cases, this target will not be achieved.

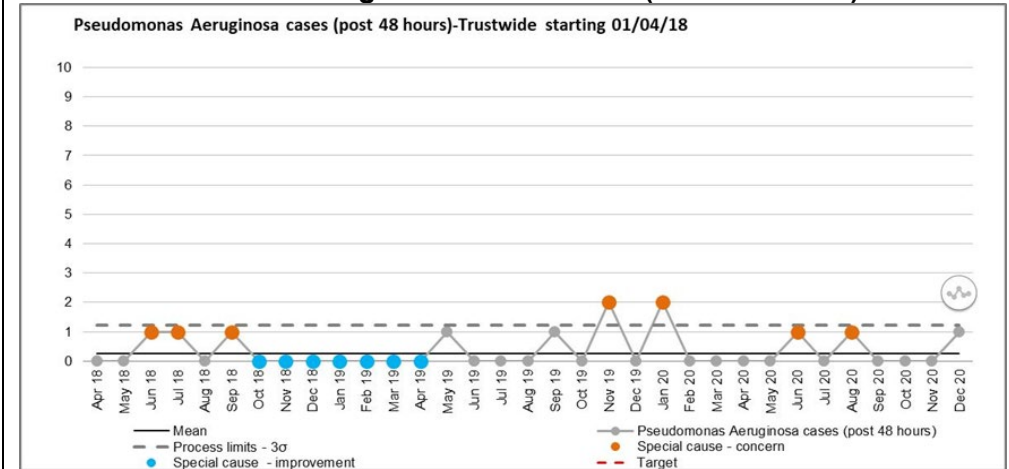
RCAs are being undertaken to determine if any of these cases were device or intervention related. The RCA for a recent case deemed that the infection was unavoidable, blood cultures antibiotics were prescribed as per Trust policy. Learning included ensuring that the details of the health professional taking the blood cultures is always clearly documented.

2.5 Klebsiella Bacteraemia (Post 48 Hours)



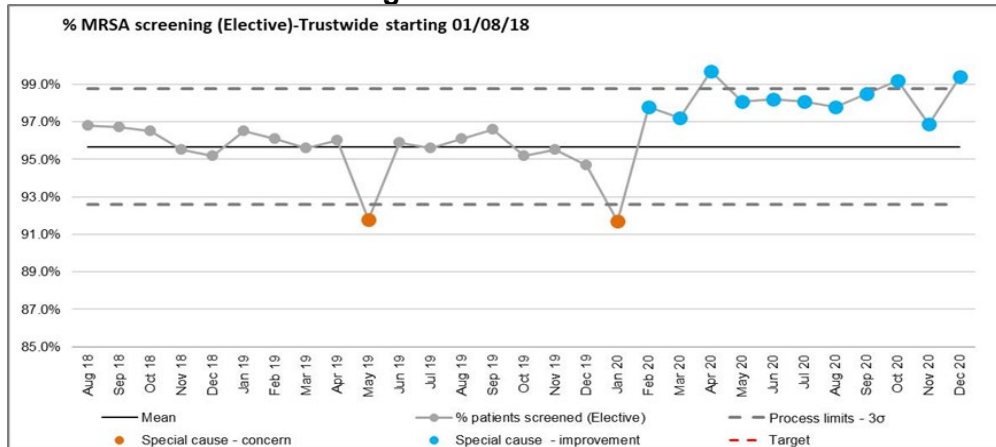
There was one case of post 48 hour Klebsiella Bacteraemia in December 2020. There have been 10 cases YTD.

2.6 Pseudomonas Aeruginosa Bacteraemia (Post 48 Hours)



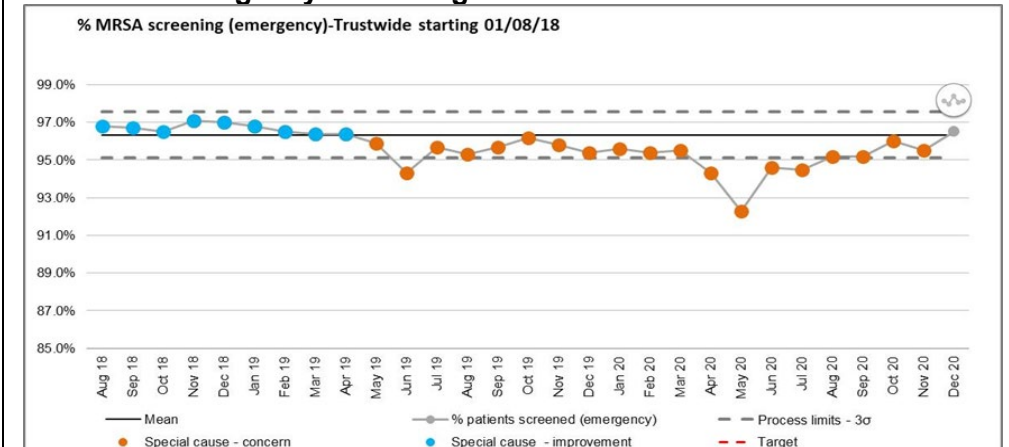
After 3 months of no cases being reported there was one cases of post 48 hour Pseudomonas Bacteraemia in December 2020.

2.7 MRSA Elective Screening



MRSA Elective screening in December 2020 was 99.4%. MRSA elective screening has been consistently above the 95% national target throughout 2020/21 YTD.

2.8 MRSA Emergency Screening



The MRSA emergency screening compliance for December 2020 improved to 96.5% although there remains variation in performance by Care Group. YTD compliance remains below the 95% target at 94.9%.

3. PERIODS OF INCREASED INCIDENCE/OUTBREAKS

There was one period of increased incidence reported in November 2020. This relates to 3 cases of Vancomycin-Resistant Enterococcus (VRE) on Ward 23 Oncology; one case was not related to the other 2 cases which have been sent for typing. The typing is still awaited but the initial outbreak meeting has been held, further action will be taken if required following the typing results. Findings from the outbreak meeting were:

- The first patient was neutropenic at the time of the infection and had positive blood cultures from the PICC (Peripherally inserted central catheter) so the infection may have been line related
- The 2nd patient was also neutropenic but the outbreak meeting concluded that the infection was probably not PICC line related
- Both patients were at high risk of VRE infection due to extensive use of antibiotics due to their underlying illnesses
- This is at present a period of increased incidence/cluster until typing is back, if typing the same then this will be an outbreak

In December 2020 there was a case of increased incidence which has been considered as a potential outbreak, an outbreak meeting took place on the 12th January 2021. This related to Ward 8, these patients were not cared for in the same Bay. Patient 1 was in a side room (with en-suite) as Covid positive and had an extensive antibiotic history meaning they were at very high risk of CDiff. The 2nd patient was also on antibiotics and needs this reviewed in more detail as part of the RCA. Samples have been sent for typing.

An outbreak was declared for 2 MRSA acquisitions on Ward 6, an outbreak meeting has been held and the RCAs are being finalised.

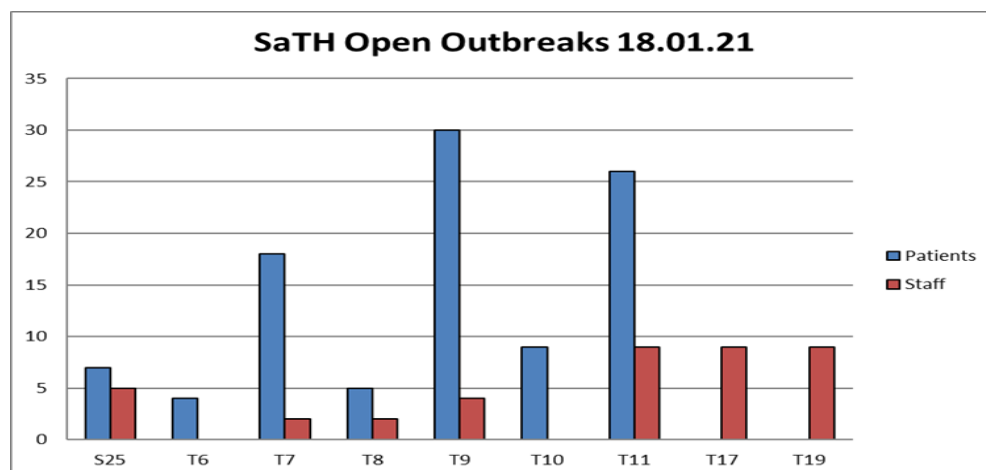
4. COVID 19

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 December 2020 and into January 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 7th January 2021 are shown:



A majority of these outbreaks are at the Princess Royal Hospital site and include both patients and staff. Two of these, one on the positive and high risk respiratory ward (Ward 17) and one on the paediatric ward (ward 19) involved staff only, with the latter outbreak linked to a lack of social distancing in the staff room which has been resolved by allocation of a much larger space.

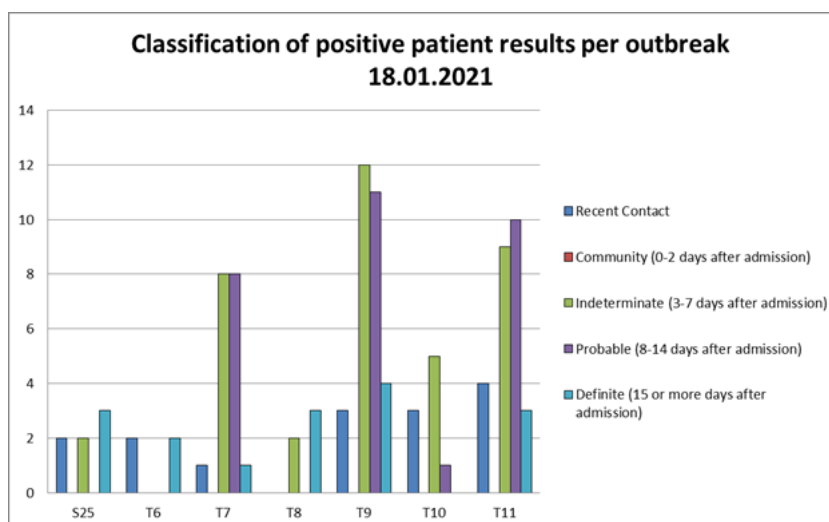
In total 99 patients and 40 staff were involved in these outbreaks, with the largest number of patients being on Ward 9 and Ward 11.

	Ward	Number of Patients Involved	Number of Staff Involved
RSH	Ward 25	7	5
PRH	Ward 6	4	0
PRH	Ward 7	18	2
PRH	Ward 8	5	2
PRH	Ward 9	30	4
PRH	Ward 10	9	0
PRH	Ward 11	26	9
PRH	Ward 17	0	9
PRH	Ward 19	0	9

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 in January 2021, the duration of time from admission to a patient being screened as positive is shown:



This shows that a majority of the cases were classified as indeterminate i.e. between 3-7 days, (38%). Another 31% were classified as probable (between day 8-14) and 16% were classified as definite hospital acquired cases (day 15 or above). A further 15% were contacts of recent contacts. 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
- Ensuring enhanced cleaning is taking place, and that twice daily cleaning schedules are being signed off
- Proactive / reactive staff & patient screening, and ongoing communication that staff testing should be accessed through the Trust testing as this aids tracing and support of cases and contacts
- Robust adherence to PPE and hand hygiene with ongoing monitoring and audits, addressing non-compliance with individuals
- Encouraging patients to wear masks at all times
- Daily robust review of cases
- Ongoing monitoring of patient swabbing on admission, Day 3 & Day 5, via ward level processes and the COVID-19 dashboard
- Further increase in Redi-rooms 6 per site has now been increased to 10 at the RSH site; this has increased our isolation facilities across both sites.
- Further installation of plastic protective curtains for use in ED and wards to try to limit the number of contacts for patients.

Closed Outbreak Summary (Second Wave)

During October 2020 and November 2020, the Trust reported a number of Covid-19 outbreaks across both hospital sites. There were a total of 18 outbreaks, 6 involving staff only in Estates, Research Team, Maternity Sonographers, Porters, Emergency and Ward 32 (High Risk Covid-19 Respiratory Ward). The remaining 12 outbreaks involved both patients and wards with the largest outbreaks being on Ward 26 and ward 25.

	Ward	Number of Patients Involved	Number of Staff Involved
RSH	Ward 22F / SS	5	4
RSH	Ward 24	23	8
RSH	Ward 25	23	7
RSH	Ward 26	2	0
RSH	Ward 26	35	25
RSH	Ward 27	17	12
RSH	Ward 32	0	10
RSH	A&E	0	9
RSH	Estates	0	3
RSH	Ward 28	7	1
RSH	Research Team	0	2
PRH	Ward 4	5	4
PRH	Ward 6	8	2
PRH	Ward 7	10	0
PRH	Ward 9	5	2
PRH	Ward 10	2	2
PRH	Ward 15	11	12
PRH	Maternity Scanning	0	5
PRH	Porters	0	2
Total		153	110

As part of the management of the second wave of the Covid-19 pandemic and the need to manage high risk (red) and amber pathways, ensuring 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. A SOP has been developed to do this and when this is enacted this has to be agreed with the Director of Infection Prevention and Control in hours or the Executive on –call out of hours and reported as a Datix. This enables oversight of when this has occurred and the ability to monitor this.

In December 2020, the following Datix were reported for Covid-19 mixed sex or mixed contact incidents:

Covid Datix Reason	Ward
Mixed Contacts	Ward 26 Ward 11 Ward 9 Ward 10
Total	4
Mixed Sex Breaches	Day Unit PRH Day Unit PRH Ward 8 shared bathroom facilities
Total	3

Covid-19 Outbreak Assurance Visits

A number of assurance visits have taken place. The most recent assurance visit was undertaken by the Lead IPC Nurse for the CCG on the 18th December 2020. This visit focused on Ward 26 which had a large outbreak including patients and staff.

Areas of good practice in relation to this visit to Ward 26 included:

- Location and availability of hand gel and face masks at ward and hospital entrances
- Use of alert posters and banners at ward and hospital entrances
- Staff BBE & wearing surgical masks
- Good hand hygiene practices observed with the exception of one instance, observed staff member used hand gel instead of soap and water after removal of apron & gloves
- Correct use of PPE with the exception of one instance, observed Medics coming onto the ward and not changing masks
- Crash trolley checklist completed
- Commodes clean & system observed to clearly identify that these were clean & ready for use
- System in place for monitoring patient Covid-19 testing in line with national guidance
- Processes in place for staff safety briefings and care huddles
- Ward staff have a clear understanding of Covid-19 risk pathways and the control measures required to prevent transmission, including the adoption of 'bubble nursing' Staff awareness of social distancing whilst moving around the hospital

Some of the areas for Improvement included:

- Some Estates issues
- Some issues with the standard of the initial preparation and cleaning prior to HPV and UV decontamination,
- Patient information folders at each bed space, these have been removed and will be replaced with an individual ward leaflet for each patient
- Twice daily cleaning checklists not signed in all Bays
- Lockers in poor condition, chipped tops, new ones have been ordered since the outbreak declared

- Ensuring wipes are readily available for cleaning all observation equipment between patients
- Unlamented signs & posters
- Review of staff room required, advised this was for 3 staff only, but had 6 chairs in it, need to remove additional chairs
- Encouraging/reminding patients to wear face masks

All improvement actions have been completed or commenced and have been included in the overarching action plan from all the previous assurance meetings and is monitored through the IPC Operational Group.

A number of previous assurance visits have taken place including the University Hospital North Midlands NHS Trust supportive peer visit carried out in August 2020 and assurance visits by NHSE/I and the CCG following the Covid-19 Outbreaks in October and November 2020. An overarching action plan was developed following the assurance visits, which now includes the actions from the most recent Ward 26 visit consists of actions to be undertaken by nursing, estates and facilities. Of the 52 actions, 62% have been completed, and the remaining actions are in progress and involve estates and facilities work. This action plan is monitored through the IPC Operational Group and reported through to the IPC Committee monthly.

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. This report is currently being finalised for submission but a summary of the report is provided.

The outbreaks on the wards related to both patient and staff cases, however, the SI investigation focussed solely on the patient cases. At the time of these outbreaks patients were swabbed for COVID-19 as part of their admission and at day 5 post admission, in addition to being swabbed prior to discharge, in line with National Guidance at the time.

Hospital Onset definition for cases included in this investigation:

Definition	Number
Definite (Day 15 and over)	3
Probable (Day 8-14)	16
Indeterminate (Day 3-7)	18

The outbreak patient outcomes were:

Patient outcome	Number	Comments
Patient discharged and Recovered	20	
Patient deceased COVID related	8	Full case review to be undertaken – potential to report as SI
Patient deceased not COVID related	9	ME review completed Mortality review

Lessons learned/Recommendation

The lessons learnt outlined in the SI investigation report have already been implemented at the time of the outbreaks as part of the outbreak management and twice weekly outbreak meeting chaired by the DON/DIPC and added by key Trust staff, NHSE/I, PHE and the CCG:

- Enhanced cleaning in place, with SOP outlining accountability for sign off
- PPE use & practices reviewed
- Re-enforcing good Hand hygiene
- Encouraging patients to wear masks when in the Bays as well as practices already in place for when patients leave the bays to go to bathrooms/off ward
- Challenging poor behaviours / practice immediately

- Daily review of cases
- Monitoring of patient Day 0 & Day 3 and day 5 screens; systems and processes reviewed and reinforced at ward level to ensure this is consistently achieved.
- Dashboard to support monitoring of compliance
- Redi-rooms 6 per site to increase the availability of side room capacity
- Plastic protective curtains for use in AMUs and wards for patients with a view to try to limit the number of contacts for patients in large bays in AMU.
- Reinforce social distancing

The recent outbreak on ward 26 has also been raised as a serious incident in December 2020.

6.0 IPC INITIATIVES

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. The IPC team continue to monitor all outbreaks ensuring that IPC policy and practice are adhered to, including the quality of cleanliness and undertake regular IPC Quality Ward Walks each week.

In December 2020 the team worked with the Patient Experience Lead to ensure written information for patients included the importance of patients wearing face masks at all times unless clinically not indicated. The implementation of medi-screen/Covid “plastic” curtains in Ward Bays across the Trust to help reduce the risk of patient contacts has also taken place and a Standard Operating Procedure for the use of Medi screens /Covid “ plastic” curtains is in place. The completion of RCAs for MSSA and E.Coli bacteraemia has also commenced and is co-ordinated by the IPC team.

7.0 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 Trust completed its self-assessment and this was reported through to Board in May 2020 COVID 19 wave 1 and again in December 2020.

The IPC BAF is reviewed and updated monthly, via the IPC operational and assurance groups.. 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.

Ongoing actions in relation to the amber items include:

- Ongoing recruitment to the cleaning team. It has been agreed to have an addition domestic on each site from 10pm-6am. This means that in addition to having a domestic in the Emergency Departments at each site, there will also be an additional member of staff to help with ward cleaning which will significantly support the nursing staff with ward cleans out of hours which has increased significantly due to the capacity issues relating to appropriate placement of infected and suspected COVID patients and contacts.
- Compliance with PPE training, this is ongoing monitored through the Care Group reporting at the IPC Operational Group
- Restriction of the movement of staff to work in other clinical areas whenever possible. This is increasingly challenging due to staff absences and staff begin required to move to maintain patient safety across all clinical areas.

8.0 RISKS AND ACTIONS

The Infection Prevention and Control Risk Register is presented monthly at the IPC Committee. Two risks were closed in December 2020. The risk register consists of 13 risks relating to aspects

of IPC across the Trust, it is being comprehensively reviewed in January 2021 and the revised Risk Register will be presented to the IPC Assurance Committee in February 2021.

9.0 CONCLUSION

This IPC report has provided a summary of the performance in relation to the key performance indicators for IPC for December 2020. Overall performance in relation to many of the IPC KPIs is good, with the Trust remaining under-trajectory for C.Diff cases and set to achieve the target of no more than 43 cases in 2020/21. There have been no MRSA bacteraemia in the month or for 19 months. The challenges associated with Covid-19 pandemic remaining ongoing and have increased in December due to the increased number of Covid positive inpatients across the Trust.

A handwritten signature in blue ink, appearing to read 'H. Flavel'.

**Director of Nursing
January 2021**