Board of Directors' Meeting: 10 August 2023

Agenda item		097/23		
Report Title		Infection Prevention and Control Report Q1 2023-24		
Executive Lead		Hayley Flavell, Director of Nursing		
Report Author		Kara Blackwell		
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 1 2023/24 (April - June 2023). The key points to note are: C. diff cases remain high with 22 cases reported for Quarter 1 (32.9 per 100,00 bed days) The IPC team has continued to manage outbreaks of COVID-19 however, the number is decreasing due to the national changes to COVID testing guidance. 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 One new risk was added to the IPC Risk Register in Quarter 1, this relates to the risk of the Trust exceeding its targets for Healthcare Associated Infections (HCAIs) The Trust are 94% 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 and other HCAIs.		
Appendices:		Summary Table for Outbreaks/Period of Increased Incidence Q1 2022-23		

1.0 INTRODUCTION

This paper provides a report for Infection Prevention and Control for Quarter 1 (April to June 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 April – June 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

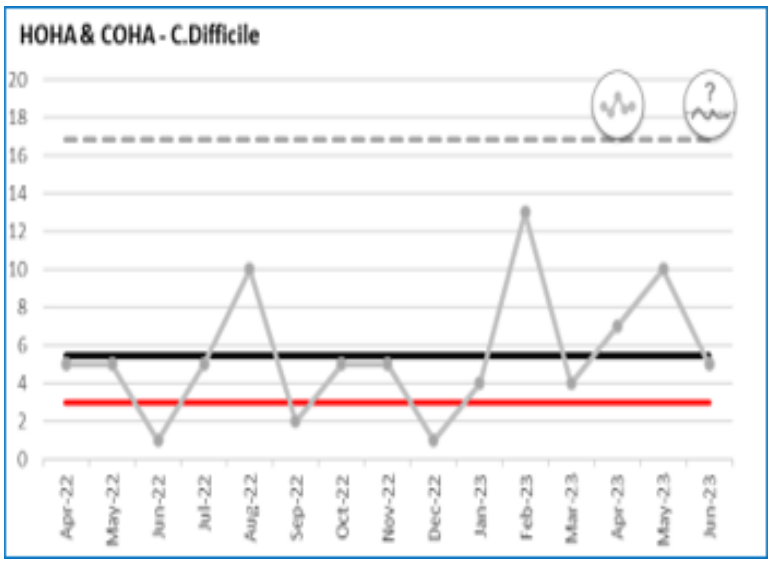
2.1 MRSA Bacteraemia

The target for MRSA bacteraemia remains 0 cases for 2023/24. There were no cases in Q1 2023/24. The last MRSA bacteraemia attributed to the Trust was February 2023.

2.2 Clostridioides Difficile

The Trust trajectory for C diff cases in 2022-23 is no more than 32 cases.

There was a total of 22 cases of C diff for Quarter 1 2023/24 against a target of no more than 8 cases for the Quarter.



13 of these cases occurred greater than 48 hours after admission (post 48) and the remaining 9 cases had recent contact in the Trust in the 28 days prior to the positive sample (recent contact).

This is a rate of 32.9 per 100,000 bed days and increase on last quarter (29.7 per 100,000 bed days). To compare to pre-COVID Q1 of 2019/20, 18.8 cases per 100,000 bed days were reported. This shows that case numbers are increasing, as well as the rate of infections.

Root cause analysis investigations are undertaken on all C. diff cases, 22 cases have been reviewed in Quarter 1. Common themes being identified and reported were:

- 7 cases of delay in collection of stool sample
- 5 cases of delayed isolation
- 4 cases of inappropriate antimicrobial prescribing
- 3 cases of lack of stool chart

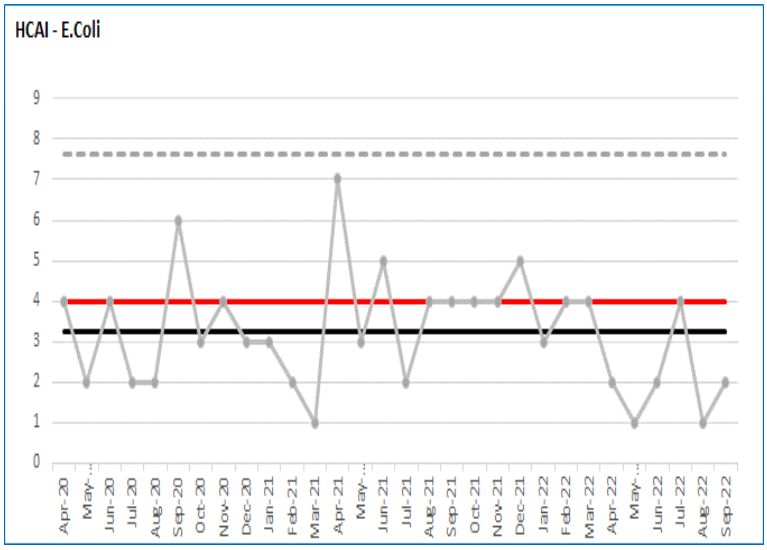
There were also lapses in terminal disinfection of the environment where HPV cleans have not been undertaken on discharge and cases where IPC standards such as hand hygiene and PPE use have been suboptimal.

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. Following discussion with the Integrated Care System (ICS) IPC and Anti-microbial (AMR group it has been decided that there will be a system wide C diff Reduction Action Plan.

2.3 E. coli Bacteraemia

The target for 2023/23 is no more than 90 cases. The number of E. Coli cases are shown:

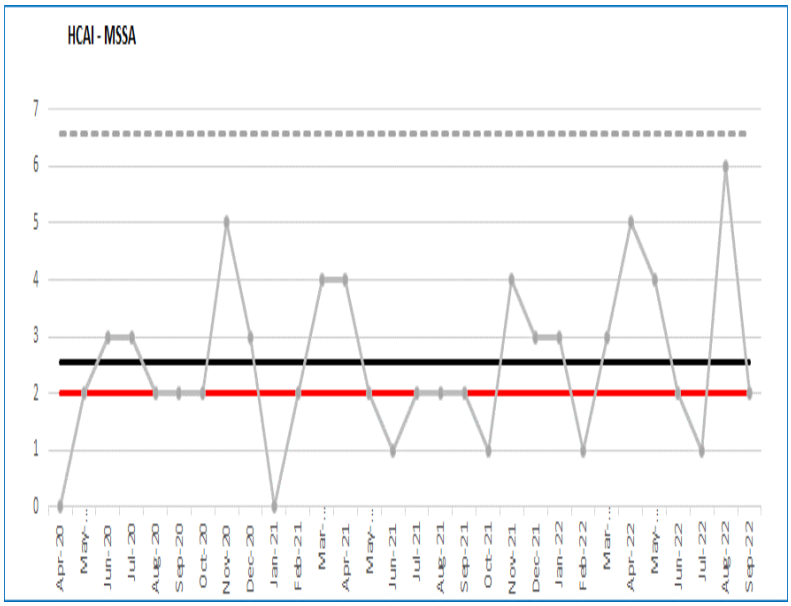


In Q1 there were 28 cases attributed to the Trust. 11 of these cases were post 48 hours of admission, and the remaining 17 cases had recent contact with the Trust in 28 days prior to the infection.

Cases which are deemed to be device related or where the source cannot be identified have an RCA completed. None of the cases identified in Q1 were considered to be device or intervention related.

2.4 MSSA Bacteraemia

There is no nationally set target for the Trust for MSSA. The number of MSSA cases are shown:



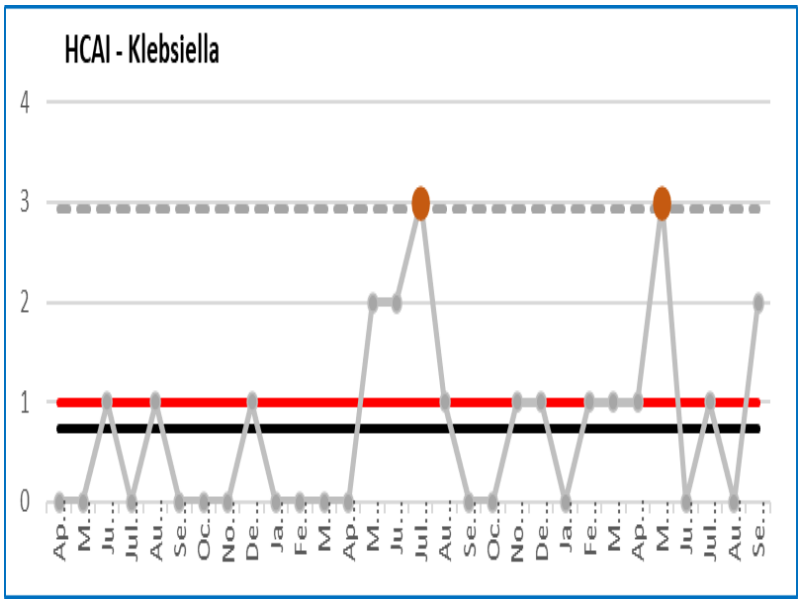
In Q1 2023/24 there were 13 cases identified that were attributed to the Trust. 6 of these cases were post 48 hours, and the remaining 7 cases had been in hospital in the 28 days prior to the positive sample.

All cases deemed to be device or intervention related have an RCA completed. In Q1 of 2023/24 this concerned 3 of the 13 cases. The sources were identified as

- 2 Infected intravenous devices
- 1 case the source was unclear

2.5 Klebsiella Bacteraemia

The target for 2023/24 is no more than 22 cases. The number of cases of Klebsiella are shown:



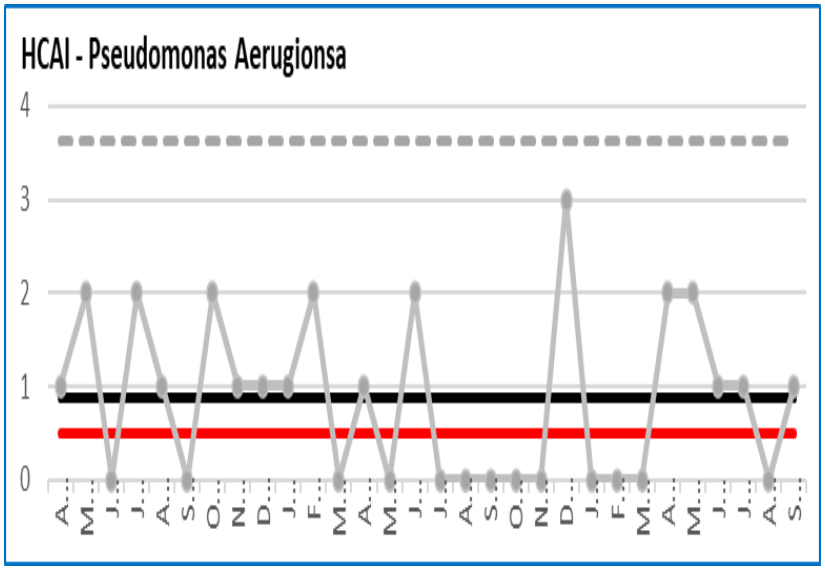
In Q1 2023/24 there were 5 cases of Klebsiella Bacteraemia attributed to the Trust.

1 of these cases was post 48, and the remaining 4 cases had been an inpatient in the Trust within 28 days of the infection.

2 of the 5 cases were considered to be HCAIs, with the source of the infection identified as a catheter associated urinary tract infection.

2.6 Pseudomonas Aeruginosa

The target for 202324 is no more than 18 cases. The number of cases per month in Q1 are shown.



In Q1 2023/24 there were 7 cases of Pseudomonas Aeruginosa attributed to the Trust, 6 of which were post 48, and 1 had recent contact with the Trust.

1 of the cases was considered to be a HCAI with the source being an infected Portacath (intravenous device). The remaining 6 cases were not considered to be HCAIs

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 1:

- 13 MSSA bacteraemia's were identified, of which 3 required an RCA as they were deemed to be device related. One case was deemed not to be device related following completion of the RCA.

- 28 E. coli bacteraemia's were identified, none of which were deemed to be device related.

Learning from completed RCAs include:

- Lapses in the management of cannulas, including dating of dressing and recording on VitalPac
- Incomplete documentation surrounding the insertion and review of urinary catheters, including the documentation lacking reason for insertion or the plan for removal of the catheter.
- Appropriate clinical specimens not being sent.
- Inappropriate antimicrobial prescribing

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 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 practise educators to provide catheter care training as part of the statutory training requirement.
- HOUDINI care plan implemented to better guide catheter care and accurate documentation.
- 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 Q1 2023/24. Average monthly compliance in Q1 was 98.61%.

Emergency MRSA Screening: The MRSA emergency screening compliance has not reached the required 95% in any month in Q1 2023/24. Average monthly Q1 compliance was 94.30%.

3.0 PERIODS OF INCREASED INCIDENCE/OUTBREAKS

During the period April to June 2023, 17 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 June 2023, the Trust implemented the new national guidance for COVID, this included no automatic testing of patients with symptoms of COVID, no staff testing and removal of mask mandate in clinical areas. This means moving forward it will now be difficult to

identify a source or cause of an outbreak as further mitigations for transmissions have been removed.

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

In Quarter 1 there was also one Period of Increased Incidence of C.diff declared for Ward 27, however, the ribotyping of the 3 cases involved were all different which means this was not declared as an outbreak.

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

There were no IPC serious incidents reported in Quarter 1 of 2023/24.

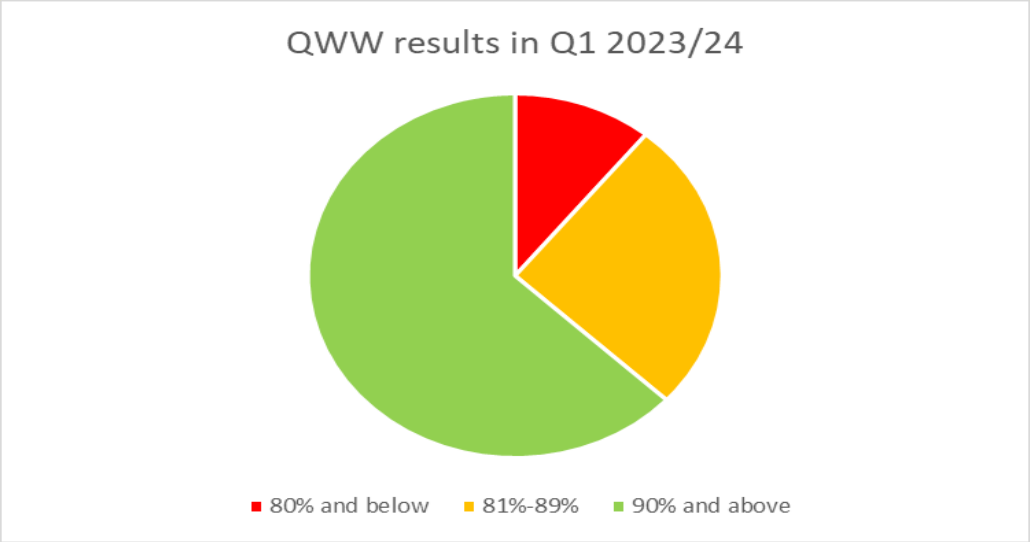
5.0 IPC INITIATIVES

The IPC team conducted 46 full QWW in Q1 2023/24.

The accepted standard is for QWW compliance of 90% and above. If compliance is between 100% and 90% the area will be re-audited quarterly in line with current schedule and the action plan should be returned to the IPC team within two weeks. If the compliance achieved is between 80-89%, the area will be reviewed in 1 month, and the action plan should be returned to the IPC team within a week. If an area scores less than 80%, a repeat audit will be completed in a week and action plan should be returned immediately.

Compliance scores ranged from 60% - 100%.

Of the 46 QWWs completed, 29 areas (63%) were over 90% compliant, 12 audited areas (26%) scored between 80% - 89% and 5 areas (11%) achieved a score below 80%. The areas with compliance below 80% were SAMA (2 occasions), SMLU (2 occasions), SAMU (one occasion). All of these areas had action plans put in place- they have been reaudited by IPC on an increased schedule, both SAMA and SAMU are now above acceptable standards. SMLU remain on an increased schedule and the unit management are aware of improvements needed.



During the same period, IPC team has also conducted QWWs in 17 areas where there have been COVID outbreaks and 1 area where there was a C. diff PII.

The most frequently non-compliant elements were:

- Management or urinary catheters.
- Cleanliness of equipment and environment.
- Cleanliness of sanitary equipment including commodes, toilet seat frames and bed pans.
- Lack of hand hygiene and inappropriate use of PPE.
- Inconsistent completion of ventilation and cleaning checklists.

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 6 risks on the risk register. Of the 6 risks, 4 risks are rated 'amber' after application of the risk controls and mitigations.

One of these risks was newly added in Quarter 1 of 2023/24.

Risk 722: There is a risk that the Trust will exceed the nationally set targets set for the Trust for healthcare Associated Infections (HCAIs)

This risk remains rated as red despite actions being in place which includes a C.Diff recovery plan. Further actions need to be undertaken across the Integrated Care System (ICS) to help reduce this risk including review of anti-microbial and Proton Pump Inhibitor prescribing, and this is being raised at the ICS IPC Meeting.

The decontamination risk also remains rated red.

Risk 443: Decontamination assurance for medical devices

A meeting with the Director of Infection Prevention and Control and the Director of Estates as the Trust Decontamination lead is being arranged to review and agree further actions required.

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 Hygiene Code is reviewed quarterly by the IPC team and presented at the IPC Operational Group. Following the full review, the Trust is currently 94.0% compliant, being RAG rated 'Green' for 234 elements, 'Amber' for 18 and RAG rated 'Red' for 16. The Red items are awaiting review to confirm compliance, but for completeness have been RAG rated red.

There are currently 15 elements awaiting review and RAG rating. The Trust self-assessment compliance against each of the 10 domains and the current gaps are shown:

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 susceptibility of service users and any risks that their environment and other users may pose to them.	90%	114	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.	94%	382	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		**94%**	**754**	**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 1 of 2023/24.

The Trust continues to see a rise in C. diff cases. In Quarter 1 we report 22 cases, 32.9 per 100,00 bed days, compared to 29.7 per 100,000 bed days in quarter 4. A number of actions have been implanted across the Divisions in relation to the increases seen.

The Trust has continued to see a number of COVID 19 outbreaks, although due to the change in testing guidance, the number is decreasing.

APPENDIX 1:

	Ward	Infective Organism	Typing	Learning
Apr 23	T7	Covid-19		Contacts became positive
	S27	Covid-19		Unclear- both cases asymptomatic
	TRenal	Covid-19		Patients share the same transport
	S27	Covid-19		Contacts became positive
	S28	Covid-19		Contacts became positive
	S35	Covid-19		Contacts became positive
May 23	T4	Covid-19		Contacts became positive
	S22	Covid-19		Contacts became positive
	S27	Covid-19		Contacts became positive with some seemingly unrelated positive patients
	S28	Covid-19		Symptomatic patients led to screening of whole ward identifying positive cases in a number of bays- no clear source
	S35	Covid-19		Unclear- both cases asymptomatic
	S18	Covid-19		Contact became positive
	S27	CDI	All 3 cases different	Not an outbreak
Jun 23	T7	Covid-19		Contacts tested positive
	S35	Covid-19		Untested patients
	S26	Covid-19		Untested patients
	S28	Covid-19		Untested patients