

Agenda Item 11

Healthcare Acquired Infection Performance Report



Falkirk IJB Clinical and Care Governance Committee

24 March 2023

Healthcare Acquired Infection Performance Report

For Consideration and Comment

1. Executive Summary

- 1.1 The purpose of this report is to provide an over-sight of all Healthcare Acquired Infection (HAI) related activity across Falkirk Community Hospital and Bo'ness Community Hospital from October 2022 to December 2022. Included in the report are details of all *Staph aureus* bacteraemias (SABs), *Clostridioides difficile* Infections (CDIs), *Escherichia coli* Bacteraemia (ECBs) and Device Associated Bacteraemias (DABs) for these areas, with a brief summary of the investigations that have been carried out.
- 1.2 The report also provides details of COVID-19 work. The report contains more graphs to enable the reader to have a more comprehensive and clearer understanding of the data.

2. Recommendations

The Clinical and Care Governance Committee is asked to:

- 2.1 consider and comment on the report.

3. Background

- 3.1 The NHS Forth Valley Board recognises the importance of the prevention and control of infections. The NHS Board supports the principle that infections should be prevented wherever possible. Where this is not possible, minimised to a level and that effective systematic arrangements for the surveillance, prevention and control of infection are provided within the Health Board area.
- 3.2 The Board has in place a programme for prevention, surveillance, active investigation, and control of infection in patients, staff and visitors to the Board. This programme is the responsibility of all staff, not just the central Infection Prevention & Control Team (IPCT), and the delegation to and acceptance of this responsibility by clinical divisional and corporate teams has increased and is key to success. The infection control programme aims to continuously review and build on existing activity, driven by local needs, while incorporating and complying with the latest relevant strategy and regulations as laid out by Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland.

4. Healthcare Acquired Infection Performance Report

- 4.1 The HAI related activity across Falkirk Community Hospital and Bo'ness Community Hospital for the reporting period October 2022 – December 2022 is attached at Appendix 1. This includes details of all HAI activities across both sites, including brief summaries of the investigations carried out where appropriate.
- 4.2 The Clinical and Care Governance Committee (CCGC) will note from the appendix that there are no concerns and that appropriate actions continue to be taken.

5. Conclusions

- 5.1 COVID-19 continues to present many challenges across the hospital sites. Inpatient cases have remained relatively stable this quarter.
- 5.2 This report to Committee is part of the monthly and quarterly reporting through NHS FV governance structures.

Resource Implications

There is no resource implication arising from the report.

Impact on IJB Outcomes and Priorities

There is no direct impact resulting from the recommendations of this report.

Legal & Risk Implications

There are no legal or risk implications arising from the report and data presented.

Consultation

No consultation was required to develop the report although the author recognises and thanks members of the oversight group for their contribution to the report.

Equalities Assessment

EPIA reference: 00477

An initial EPIA has been completed and a full EPIA is not required. This paper provides an overview of the Hospital Acquired Infection (HAI) related activity across Falkirk Community Hospital and Bo'ness Community Hospital for Committee to note. The Committee is not being asked to make a decision which will impact people, therefore a full EPIA is not required.

Should there be any future proposals to change procedures in relation to infection control, an EPIA may be required in that instance.

6. Report Author

6.1 Jonathan Horwood, Area Infection Control Manager

7. List of Background Papers

n/a

8. Appendices

Appendix 1: HAI Performance Report October 2022 – December 2022

Healthcare Acquired Infection Performance Report

Reporting Period
Oct 2022 – Dec 2022



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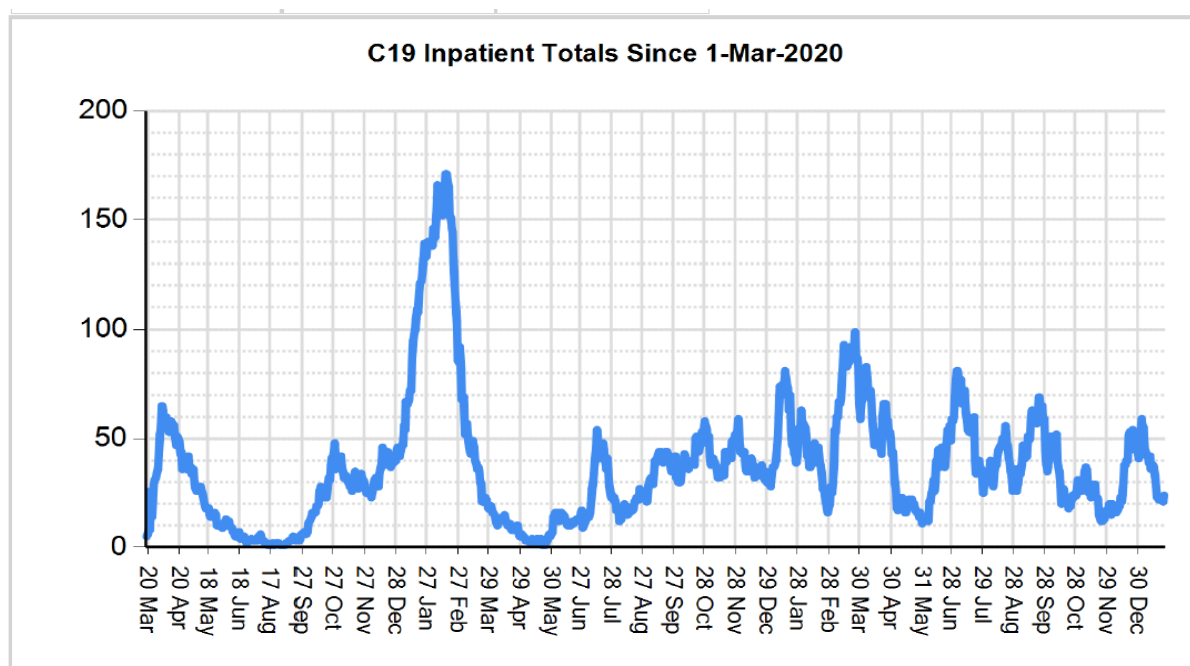
1. Key challenges this quarter

1.1. Covid-19 Pandemic

This quarter COVID-19 hospital case numbers peaked in December with approximately 65 inpatients. Fortunately, inpatient numbers slowly decreased by the end of the quarter to around 30 inpatients.

There were 7 COVID-19 related outbreaks reported for this quarter across NHS FV. There were no reported outbreaks in either Falkirk Community Hospital or Bo'ness Community Hospitals.

Graph of inpatients with confirmed Covid -19



1.2. IPCT Support to Care Homes

IPC support throughout the pandemic has been provided consistently as part of the Care Assurance Team. In January, the ICN supporting the Care Assurance Team will be returning to the IPC Team and will be responsible for the coordination of IPC activities across care homes going forward.

It is intended going forward, more relevant information pertaining to IPC support to care homes to the Falkirk area will be included in the next report.

2. Annual Operating Plan Target

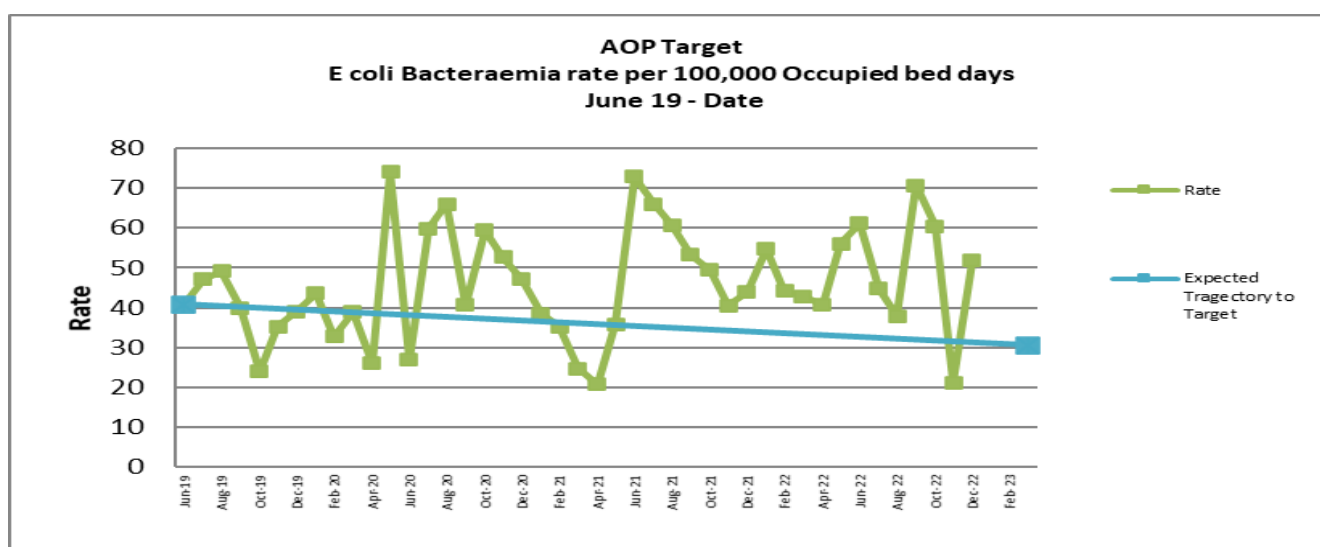
2.1. Hospital Acquired Infection Annual Operating Plan targets for 2019-2022 – Extension to March 2023

On the 10th October 2019, a letter was sent to all Health Board Chief Executives highlighting our new HAI targets. These targets are based on our (Forth Valley) current rates of infection and a percentage reduction has been set to be achieved by March 2022 however, has now been extended to March 2023. This target is different from our previous targets and includes the reduction in hospital and healthcare acquired infections and does not include community acquired. Hospital and healthcare acquired infections are now classified as healthcare infections as it is perceived nationally that all hospital and healthcare infections are all reducible. For continuity, we will continue to report separately hospital and healthcare infections to maintain our quality and transparency in our data, however, the total number of infections will reflect on what we are reported nationally and in line with our set targets. In addition to Staph aureus bacteraemia, (SABs) and Clostridioides difficile infection (CDI) targets, Escherichia coli bacteraemia (ECB) is now included in our targets.

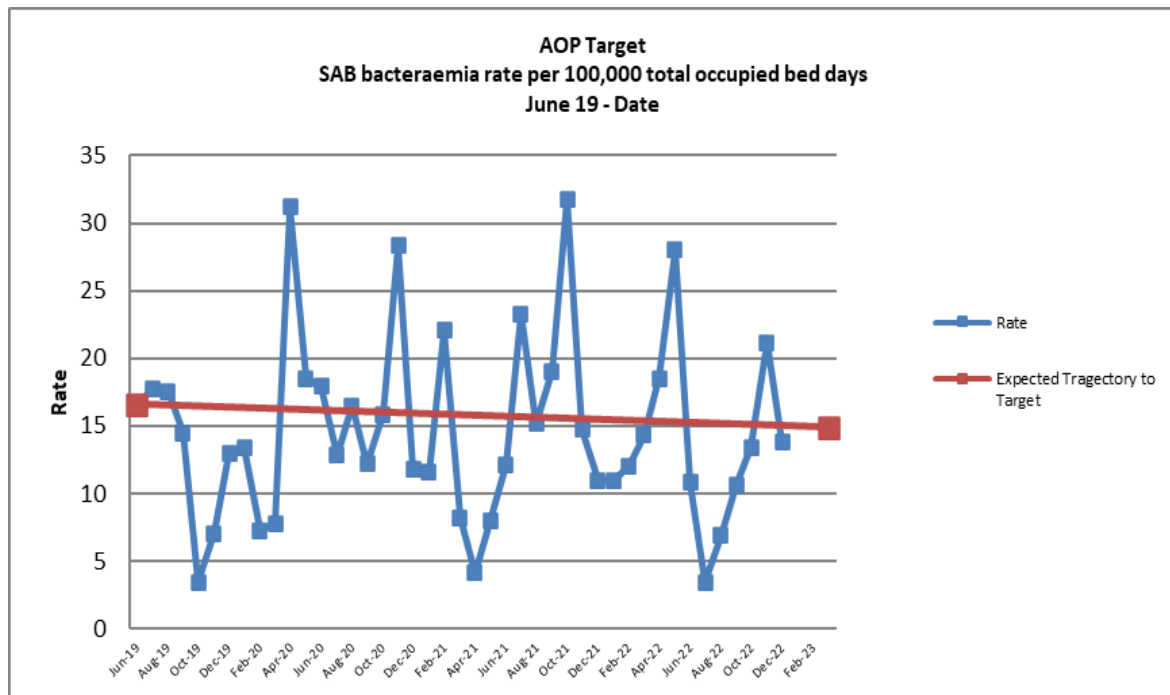
	2018/19 Rate *	No of cases (per annum)	Reduction %	Date for reduction	Target rate *	Target cases per annum
ECB	40.8	135	25	2022	30.6	101
SAB	16.6	55	10	2022	14.9	50
CDI	11.4	38	10	2022	10.3	34

*per 100,000 total bed days

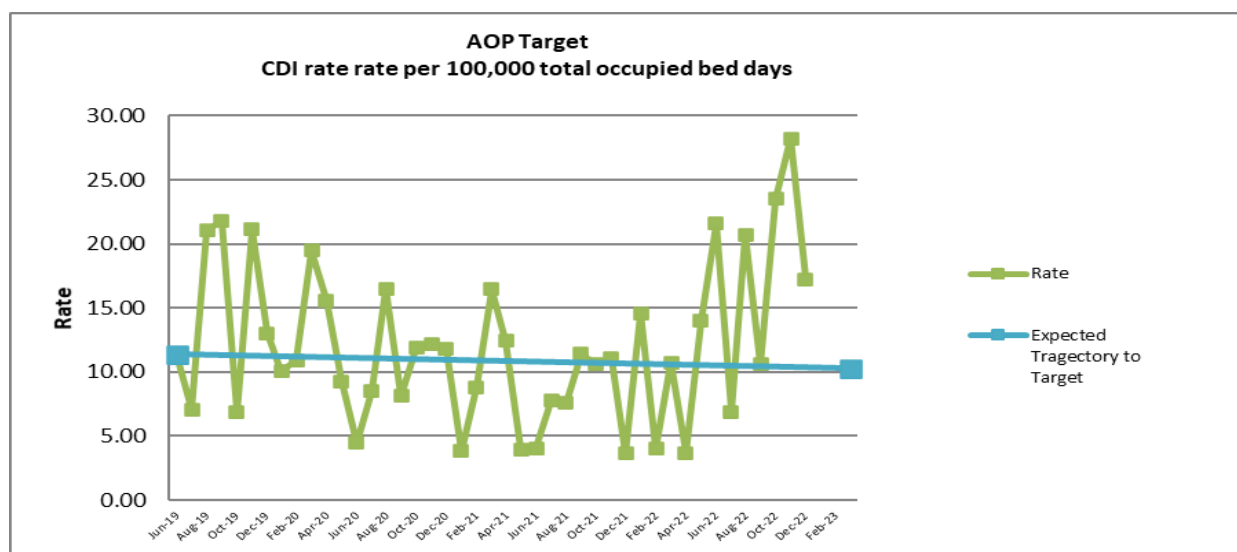
2.2. AOP Target Progress to date



Comments: Infection rates remain relatively high similar to the previous quarter. Healthcare sourced is again, largely responsible for the high rate and as a result NHSFV is unlikely to achieve this target. Work is ongoing looking at ways to reduce these infections.



Comments: Infection rate has remained consistent this quarter. It is anticipated the rate will continue to be on trajectory over the coming months.



Comments: Comments: Infection rates have further increased this quarter.

The table below shows the current rate and the target rate to date.

Target Organism	Target Rate *	Current Rate April 22 – date *	Status
ECB	30.6	49.4	Above trajectory
SAB	14.9	14.7	On trajectory
CDI	10.3	16.3	Above trajectory

*per 100,000 total bed days

3. *Staph aureus* Bacteraemias (SABs)

All blood cultures that grow bacteria are reported nationally and it was found that *Staph aureus* became the most common bacteria isolated from blood culture. As *Staph aureus* is an organism that is found commonly on skin it was assumed (nationally) the bacteraemias occurred via a device such as a peripheral vascular catheter (PVC) and as such a national reduction strategy was initiated and became part of the then HEAT targets in 2006. The target was a national reduction rather than a board specific reduction, however the latest target set for 2019-2022 are Board specific, based on our current infection rates.

3.1. NHS Forth Valley's approach to SAB prevention and reduction

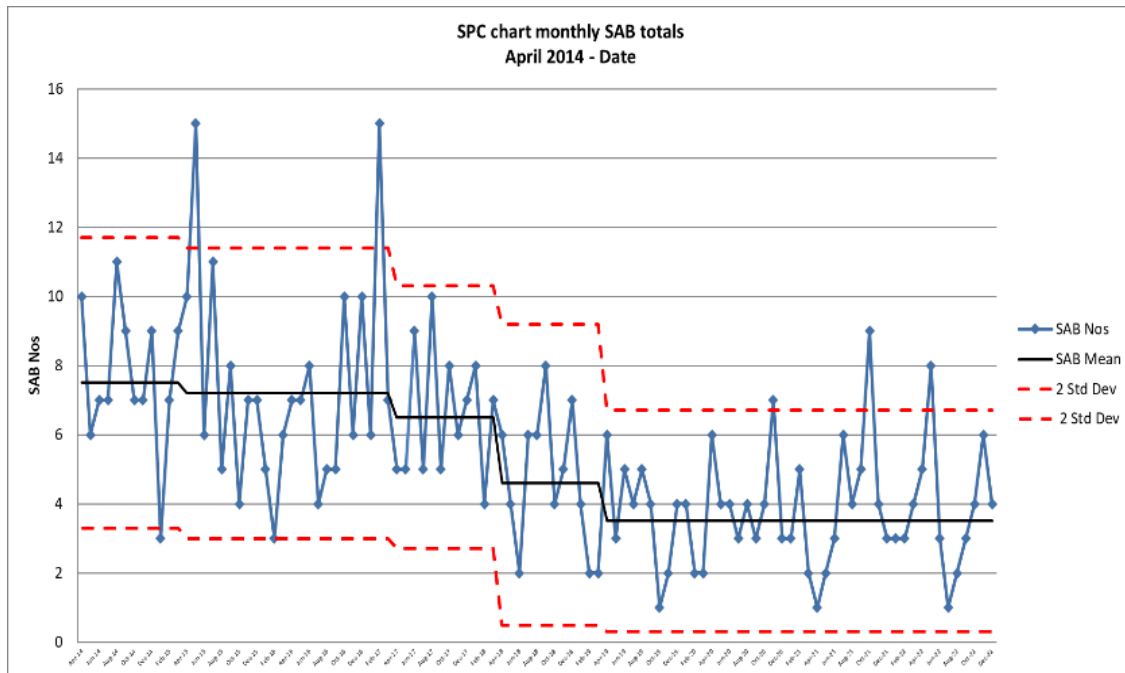
All *Staph aureus* bacteraemia are monitored and reported by the IPCT. Investigations to the cause of infection consist of examining the patients notes, microbiology, biochemistry and haematology reports to identify potential causes of the infection; from this, in most cases, a provisional cause is identified, however this is discussed further with the clinical team responsible for the management of the patient to assist further with the investigation. Any issues identified during the investigations, such as incomplete bundle completion etc is highlighted at this time and where appropriate an IR1 is reported. Once a conclusion has been agreed, the investigations are presented to the Infection Control Doctor/Microbiologist for approval. The investigation is concluded with the IPCT reporting their findings to the clinical team and management.

This data is entered into the IPCT database collated, analysed and reported on a monthly basis. The analysis of the data enables the IPCT to identify trends in particular sources of infections, such as Hickman line infections etc and identifying areas requiring further support. The data also influences the direction of the HAI annual workplan.

Oct - Dec 2022

	Oct – Dec 2022	July – Sept 2022
Hospital	2	4
Healthcare	12	2
Nursing Home	0	0
Quarterly Total	14	6

Hospital	No of SABs
Falkirk Community Hospital	0
Bo'ness Community Hospital	0



Comments: This quarter has seen an increase in SABs compared to the last quarter. There were no reported cases in Falkirk or Bo'ness hospitals this quarter.

4. Device Associated Bacteraemias (DABs)

In addition to the nationally set targets, infections from an invasive device caused by *Staph aureus* would be investigated fully and reported, any other organism causing the same infection was not mandated to report nationally or to be investigated. As a result of this, in 2014, the IPCT started reporting all bacteraemias attributed to an invasive device regardless of the bacterium causing the infection. Due to the importance and significance of this surveillance, it is now part of our local AOP.

4.1. NHS Forth Valley's approach to DAB prevention and reduction

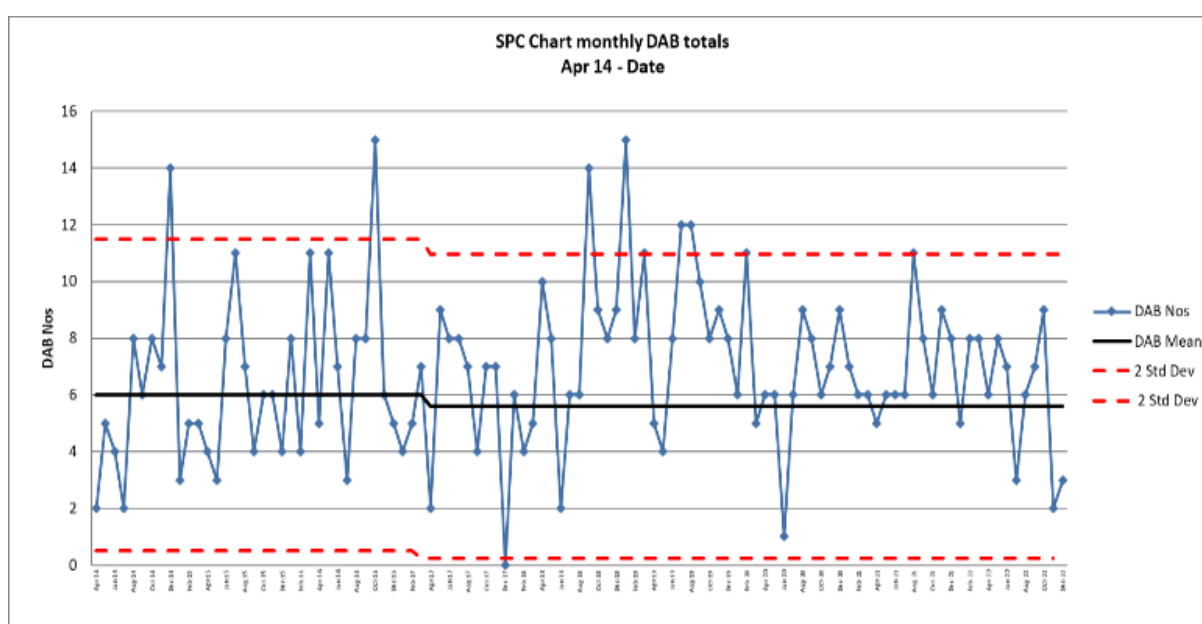
Continual monitoring and analysis of local surveillance data enables the IPCT and managers to identify and work towards ways to reduce infections associated with devices. All DABs are reviewed and investigated fully and highlighted to the patients' clinicians, nursing staff and management. Where appropriate an IR1 is generated to enable infections that require learning is shared and discussed at local clinical governance meetings.

In addition, on a weekly basis the IPCT assess bundle compliance of three invasive devices: peripheral vascular catheters (PVCs), urinary catheters, central venous catheters (CVCs) etc) as part of their ward visit programme and this is reported in the monthly Directorate Reports.

Oct - Dec 2022

	Oct – Dec 2022	July – Sept 2022
Hospital	4	5
Healthcare	7	9
Nursing Home	4	2
Quarterly Total	14	16

Hospital	No of DABs
Falkirk Community Hospital	0
Bo'ness Community Hospital	0



Comments: This quarter has seen a slight reduction in reported DAB cases compared to the previous quarter.

There were no reported DABs for Falkirk or Bo'ness hospitals this quarter.

5. *Escherichia coli* Bacteraemia (ECB)

5.1. NHS Forth Valley's approach to ECB prevention and reduction

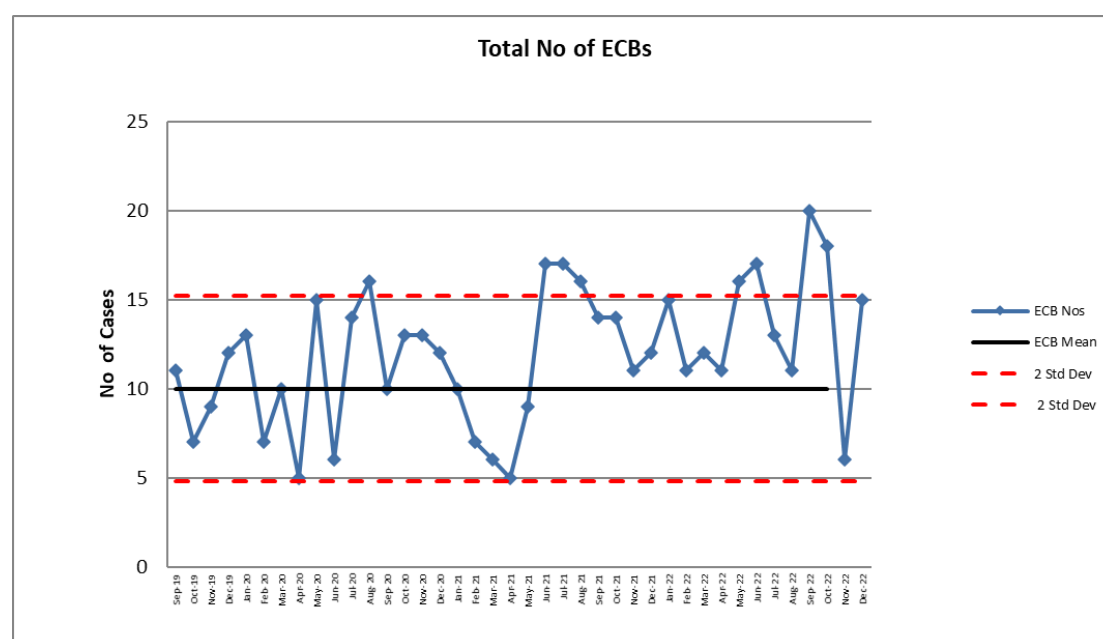
Escherichia coli (E coli) is one of the most predominant organism of the gut flora and for the last several years the incidence of E coli isolated from blood cultures i.e. causing sepsis, has increased so much that it is the most frequently isolated organism in the UK. As a result of this, the Healthcare Acquired Infection (HAI) Policy Unit has now included E coli as part of the AOP targets. The most common cause of E coli bacteraemia (ECB) is from complications arising from urinary tract infections (UTIs), hepato-biliary infections (gall bladder infections) and urinary catheters infections.

In NHS Forth Valley, device associated bacteraemias (DABs) surveillance has been ongoing since 2014 and have seen a reduction in urinary catheter bacteraemias over the years including E. coli associated infections and will hope to continue to reduce so to achieve our target for 2022.

Oct - Dec 2022

	Oct – Dec 2022	July – Sept 2022
Hospital	11	13
Healthcare	21	27
Nursing Home	7	4
Quarterly Total	39	44

Hospital	No of ECBs
Falkirk Community Hospital	0
Bo'ness Community Hospital	0



Comments: This quarter reported cases have reduced slightly compared to last quarter. In October case numbers exceeded control limits, predominantly from healthcare sourced infections. Hospital cases remain low.

There were no reported ECBs from Falkirk or Bo'ness hospitals this quarter.

6. *Clostridioides difficile* Infections (CDIs)

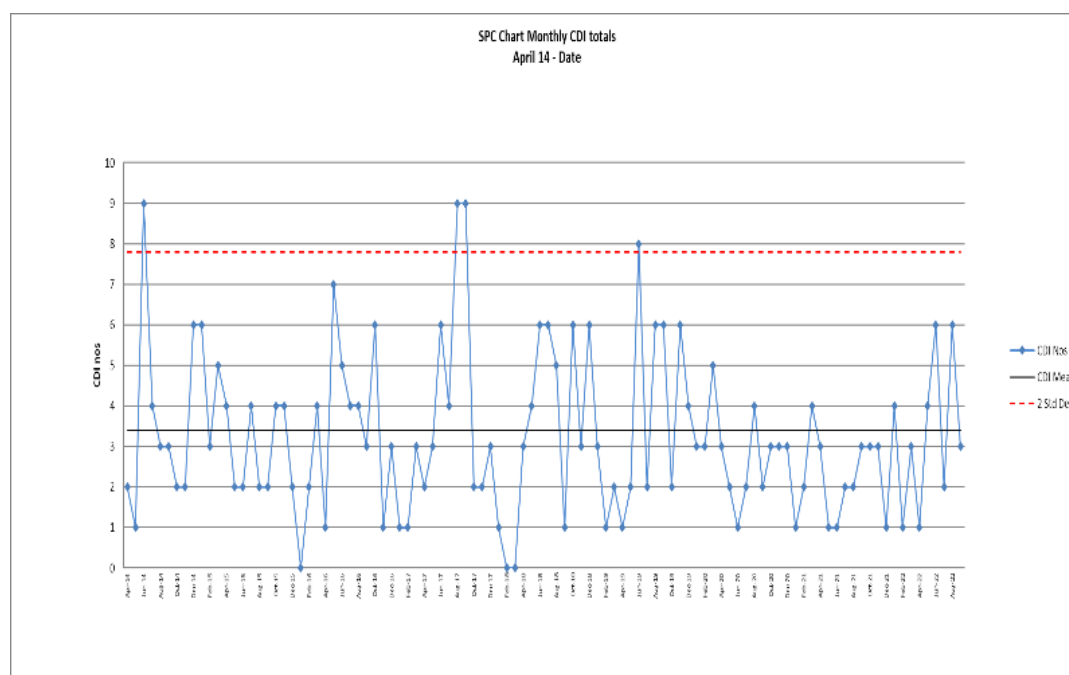
6.1. NHS Forth Valley's approach to CDI prevention and reduction

Similar to our SABs and DABs investigation, patient history is gathered including any antibiotics prescribed over the last few months. Discussion with the clinical teams and microbiologists assist in the determination and conclusion of the significance of the organism, as sometimes the organism isolated can be an incidental finding and not the cause of infection. Data is shared with the antimicrobial pharmacist and cases are discussed at the Antimicrobial Management Group to identify inappropriate antimicrobial prescribing.

Oct – Dec 2022

	Oct- Dec 2022	July – Sept 2022
Hospital	3	0
Healthcare	17	11
Nursing Home	0	0
Quarterly Total	20	11

Hospital	No of CDIs
Falkirk Community Hospital	0
Bo'ness Community Hospital	0



Comments: Reported CDI case numbers have increased compared to the last quarter. Hospital sourced infections have remained low and associated with antibiotic prescribing. Work is ongoing to identify the causes of this increase of healthcare sourced infections.

No reported cases were identified in either Bo'ness or Falkirk community hospitals this quarter.

7. Estate and Cleaning Compliance (per hospital)

The data is collected through audit by the Domestic Services team using the Domestic Monitoring National Tool and areas chosen within each hospital is randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 80% then a re-audit is scheduled. Estates compliance is assessed whether the environment can be effectively cleaned; this can be a combination of minor non-compliances such as missing screwcaps, damaged sanitary sealant, scratches to woodwork etc. The results of these findings are shared with Serco/Estates for repair. Similar to the cleaning audit, scores below 80% triggers a re-audit.

Board wide totals




	Jan – Mar 2022	Apr-June 2022	July–Sept 2022	Oct-Dec2022
Cleaning	95	94	95	95
Estates	95	94	94	95

Falkirk Community Hospital

	Jan – Mar 2022	Apr-June 2022	July–Sept 2022	Oct-Dec2022
Cleaning	94	93	94	95
Estates	86	88	88	88

Bo'ness Hospital

	Jan – Mar 2022	Apr-June 2022	July–Sept 2022	Oct-Dec2022
Cleaning	95	95	96	95
Estates	94	95	92	93

	Colour	Description
	Green	compliance level 90% and above - Compliant
	Amber	compliance level between 70% and 90% - Partially compliant
	Red	compliance level below 70% - Non-compliant

7.1. Falkirk Community & Bo'ness Hospital Estate and Cleaning Scores

Both cleaning and estate scores remained consistent over the last quarter, there was a slight decrease in the estate scores for Bo'ness Community Hospital. Results from the monthly audits which provide the above scores are discussed at the Estates Compliance Group to look at ways to improve the scores.

8. Incidence/Outbreaks

Incidence and outbreaks across NHSFV are identified primarily through ICNet, microbiology or from the ward. ICNet is the IPCT data management system that automatically identifies clusters of infections and specific organisms such as MRSA, admission of patients with known infections etc to enable timely patient management to prevent any possible spread of infection. The identification of outbreaks is determined following discussion with the Microbiologist. In the event of a declared outbreak a Problem Assessment Group or Incident Management Team meeting is held with staff from the area concerned and actions are implemented to control further infection and transmission.

All outbreaks are notified to ARHAI Scotland and Scottish Government (see below for further details).

8.1. Healthcare Acquired Infection Incident Template (HAIT)

The HAIT is a tool used by boards to assess the impact of an incident or outbreak. The tool is a risk assessment and allows boards to rate the incident/outbreak as a red, amber, or green. The tool also directs boards whether to inform ARHAI Scotland/SG of the incident (if amber or red), release a media statement etc.

- HAIT **Green** None reported this quarter
- HAIT **Amber** None reported this quarter
- HAIT **Red** None reported this quarter

All outbreaks are notified to Health Protection Scotland and Scottish Government.

There were no reported COVID-19 outbreaks for this quarter in either Bo'ness Hospital or Falkirk Community Hospital.