

Agenda Item 9

Healthcare Associated Infection - Winter Performance Report



Title/Subject: Healthcare Associated Infection - Winter Performance Report

Meeting: Falkirk IJB Clinical and Care Governance Committee

Date: 28 February 2020

Submitted By: Lead Nurse, Infection Prevention and Control

Action: For Noting

1. INTRODUCTION

- 1.1 The purpose of this report to provide an over sight of all Healthcare Associated Infection (HAI) related activity across Falkirk Community Hospital and Bo'ness Community Hospitals from October 2019 – December 2019. Included in the report are details of all Staph aureus-bacteraemias *Clostridioides difficile* Infections, *Escherichia coli* bacteraemia and Device Associated Bacteraemias for these areas with a brief summary of the investigations that have been carried out. The report contains more graphs to enable the reader to have a more comprehensive and clearer understanding of the data.

2. RECOMMENDATION

The Clinical and Care Governance Committee is asked to

- 2.1. note the content of the report.

3. BACKGROUND

- 3.1 NHS Forth Valley recognises the importance of the prevention and control of infections. The Board supports the principle that infections should be prevented wherever possible or, where this is not possible, minimised to an irreducible level and that effective systematic arrangements for the surveillance, prevention and control of infection are provided within the Board.
- 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 Protection and Control Team, 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 Health Protection Scotland (HPS).



4. NHSFV INFECTION PREVENTION AND CONTROL PERFORMANCE

4.1. New HAI AOP targets for 2019-2022

On the 10 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.

4.2. This target is different from our previous targets and includes the reduction in hospital and healthcare acquired infections and does not include community acquired infections (*note, community acquired infections are included in this report. The data will be adjusted in next and subsequent reports*).

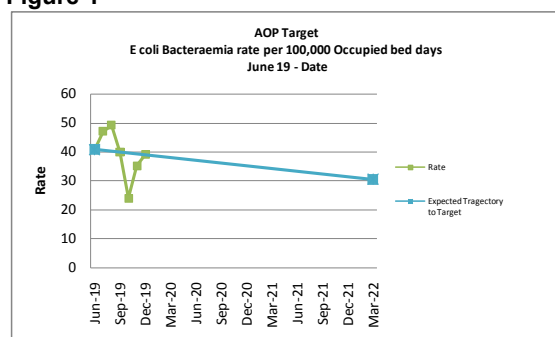
4.3. Hospital and healthcare acquired infections are now classified as healthcare infections as it is perceived nationally that all hospital and healthcare infections are all reducible. For continuity, we will continue to report separately hospital and healthcare infections to maintain our quality and transparency in our data, however, the total number of infections will reflect on what we report nationally and in line with our set targets. In addition to SABs and CDIs targets, *Escherichia coli* bacteraemia (ECB) is now included in our targets.

4.4. The data is currently being reformatted to address these targets and will be included in future reports. Please see table and figures below for our new targets:

Table 1

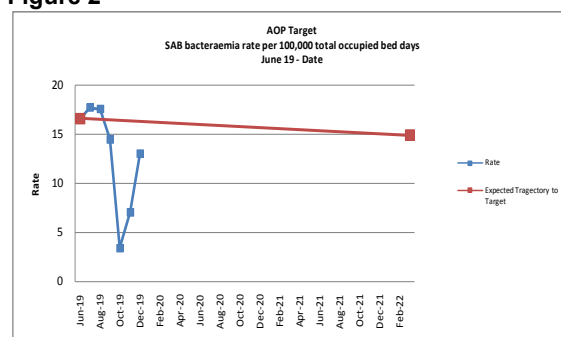
	2018/19 Rate (base line) per 100,000 total bed days	No of cases (each year)	Reduction %	Date for reduction	Target rate per 100,000 total bed days	Target cases each year
ECB	40.8	135	25	2022	30.6	101
SAB	16.6	55	10	2022	14.9	50
CDI	11.4	38	10	2022	10.3	34

Figure 1



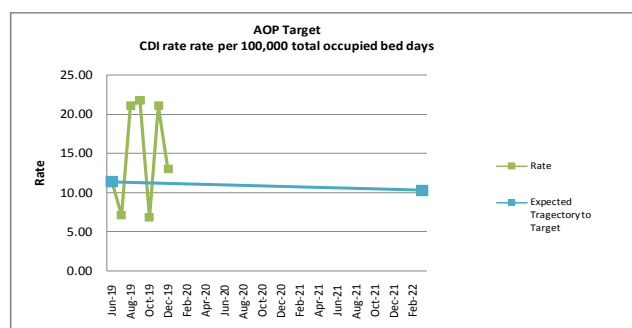
Comments: Reduction is on trajectory. No concerns to raise

Figure 2



Comments: Reduction is on trajectory. No concerns to raise

Figure 3



Comments: Reduction above trajectory. See narrative.

October - December 2019

Target	RAG Status
ECB	↓
SAB	↓
CDI	↓

Comments

CDI rate is currently above trajectory and to achieve expected trajectory NHSFV should not exceed a maximum of three CDI infections per month. All CDIs this quarter were attributed to antimicrobial therapy. Data is shared with the Antimicrobial Management Group to look at ways to reduce these infections and will be discussed at the next meeting.

4.5. 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.

4.6. 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.

4.7. 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.

Table 2

October - December 2019

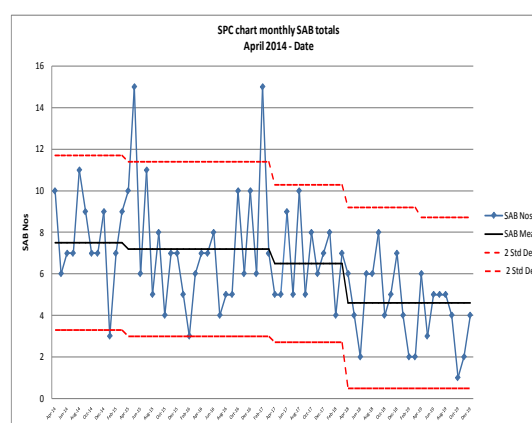
	Oct-Dec	Jul - Sept
Hospital	4	6
Healthcare	3	7
Nursing Home	0	0
Quarterly Total	7	13

Table 3

Staph aureus bacteraemia NHS FV total
April 19 to date = 35

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

Figure 4

**Comments:**

Case numbers remain within control limits, no concerns to raise.

4.8. 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.

4.9. 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.

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

Table 4

October - December 2019

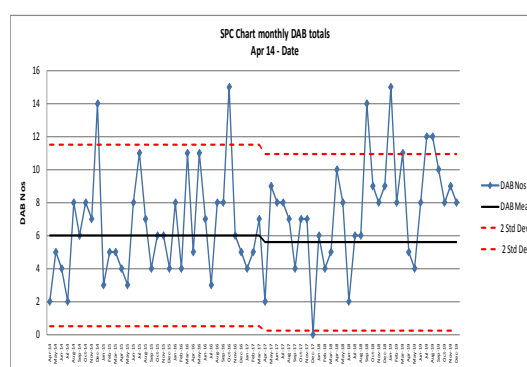
	Oct – Dec	July - Sept
Hospital	10	15
Healthcare	15	16
Nursing Home	0	3
Quarterly Total	25	34

Table 5

Device associated bacteraemia NHSFV total - April 19 to date = 73

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

Figure 5

**Comments:**

Case numbers remain within control limits, no concerns to raise.

4.11. **Escherichia coli Bacteraemia (ECB) NHS Forth Valley's approach to ECB prevention and reduction**

E coli is one of the most predominant organism of the gut flora and for the last several years the incidence of Ecoli 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 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.

- 4.12. In NHS FV, 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.

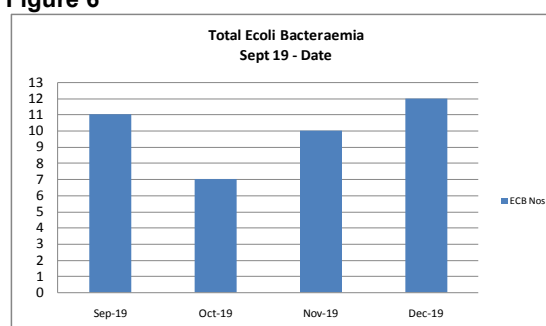
Table 6

October - December 2019

	Oct – Dec	July - Sept
Hospital	5	*
Healthcare	18	*
Nursing Home	1	*
Quarterly Total	24	38

*Surveillance started in Oct. Total for July – Sept taken from national data

Figure 6



Comments: SPC charts will be reported as soon as sufficient data points are available.

Table 7

E coli bacteraemia infection NHSFV total
Sept 19 to date = 40

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

4.13. Clostridioides difficile Infections (CDIs) 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.

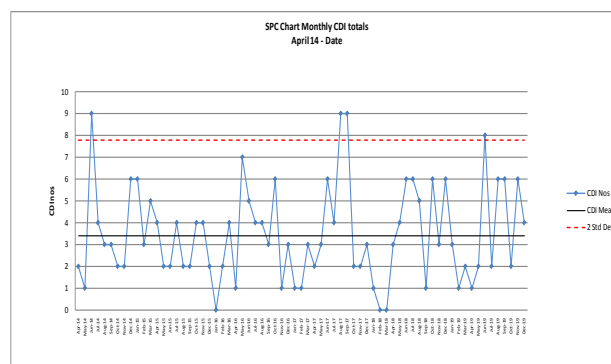
Table 8
October - December 2019

	Oct-Dec	July - Sept
Hospital	5	4
Healthcare	7	10
Nursing Home	0	0
Quarter Total	12	14

Table 9
CDI infection NHSFV total
April 19 to date =37

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

Figure 7



Comments:

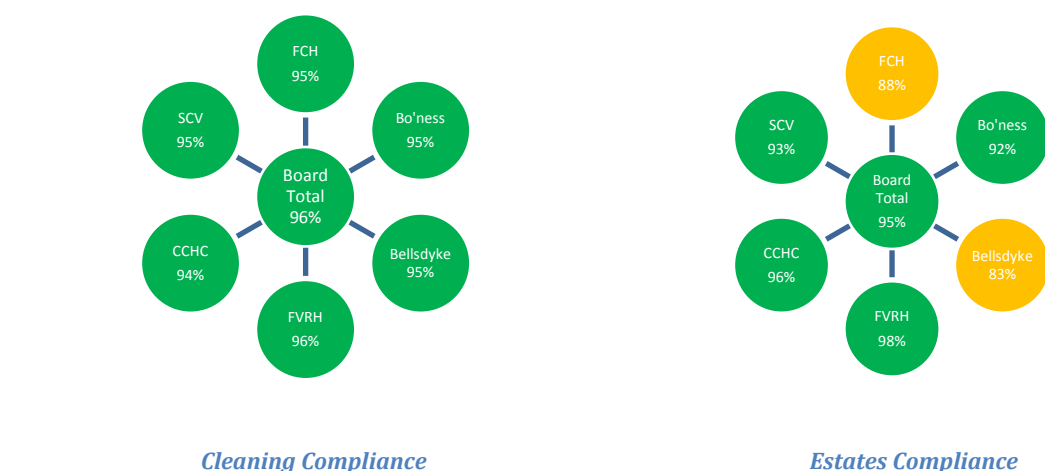
Case numbers remain within control limits, no concerns to raise.

4.14. 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. For this quarter the scores for both areas of compliance have been above 80%.

Figure 8



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

4.15. 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 Health Protection Scotland and Scottish Government (see below for further details).

Table 10

Month	Type of outbreak	Ward	No of patients affected	Summary of outbreak
December	Norovirus	Unit 4 FCH	4	Sporadic episodes of norovirus over a 10 day period. The ward remained open to admissions during this time.
October	No outbreaks/incidents this month			
September	No outbreaks/incidents this month			

4.16. Influenza Season

The influenza season in Scotland started at the end of November. So far the season has been quieter than in previous years as outlined in chart below with fewer patients testing positive for flu. As is outlined in table below there have been no influenza cases in Falkirk Community Hospital or Bo'ness Hospital.

Figure 9

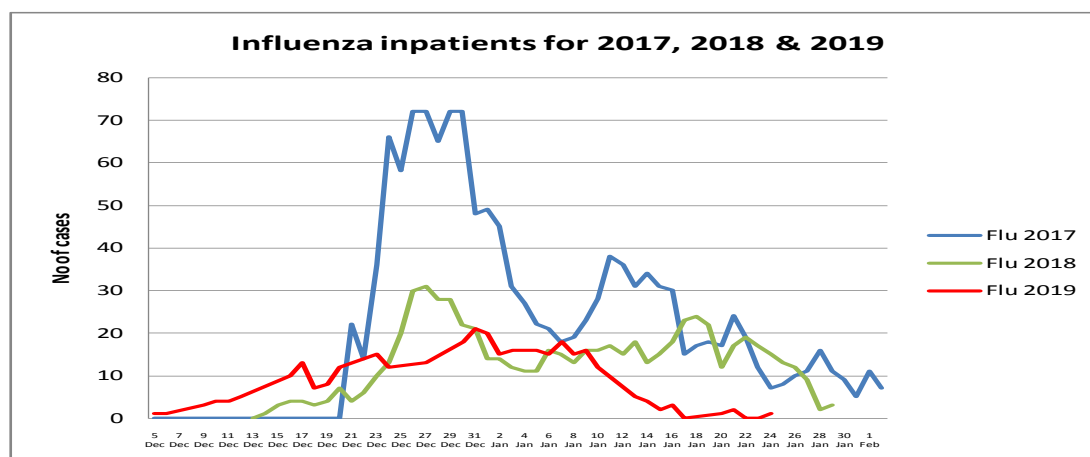


Table 11

Hospital	No of Influenza cases
Falkirk Community Hospital	0
Bo'ness Community Hospital	0

5. CONCLUSIONS

This report to CCGC is part of the monthly and quarterly reporting through NHS FV governance structures.

Resource Implications

There is no resource implication arising from the attached 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

There are no equalities impacts arising from the report.

Submitted by:

Submitted by: Deputy Nurse Director, NHS Forth Valley

Author – Trisha Miller, Lead Nurse, Infection Prevention & Control Nurse

Date: 10.02.2020