

NHS Ayrshire & Arran



Meeting: Ayrshire and Arran NHS Board

Meeting date: Tuesday 2 December 2024

Title: Healthcare Associated Infection Report

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1. Purpose

This is presented to the Board for:

- Discussion

This paper relates to:

- Annual Operational Plan

This aligns to the following NHSScotland quality ambition(s):

- Safe

2. Report summary

2.1 Situation

This paper provides Board members with the current position against the National Healthcare Associated Infection (HCAI) Standards and reflects national HAI performance data for Quarter 1 2024-25 for discussion and assurance. Confirmation is awaited from ARHAI Scotland regarding the 2024-25 standards and therefore the targets detailed within this paper refer to 2023-24.

2.2 Background

On 28 February 2023, the [DL\(2023\)06 Further Update on Standards on HCA Infections and Indicators on Antibiotic Use and Changes to Hospital Onset COVID- 19 Reporting](#), was released. This set out infection reduction targets for another year.

The following quarterly data covers the time-period April to June 2024.

2.3 Assessment

HCAI Standards

Aligns to National IPC Standards (2022)	
Standard 4	Assurance and Monitoring Systems

Clostridioides difficile (CDI) Standard

The CDI target is a reduction of 10% in the national rate of HCA CDI for the year ending March 2024, with 2018-19 used as the baseline.

Infection	Baseline Rate 2018-19 (per 100,000 Total Occupied Bed Days (TOBDs))	2023-24 Target (per 100,000 TOBDs)	Annual Rate Year Ending June 2024 (per 100,000 TOBDs)	Quarterly Rate April - June 2024 (per 100,000 TOBDs)	Scottish Quarterly Rate April - June 2024 (per 100,000 TOBDs)
<i>Clostridioides difficile</i> Infection	14.5	13.0	16.9 (78 cases) Increase from 14.9 (70 cases) year-end June 2023	22.0 (25 cases) Increase from 15.6 (18 cases) previous quarter	17.4 (264 cases)

The Board's verified HCA CDI rate for April – June 2024 (**Figure 1**).

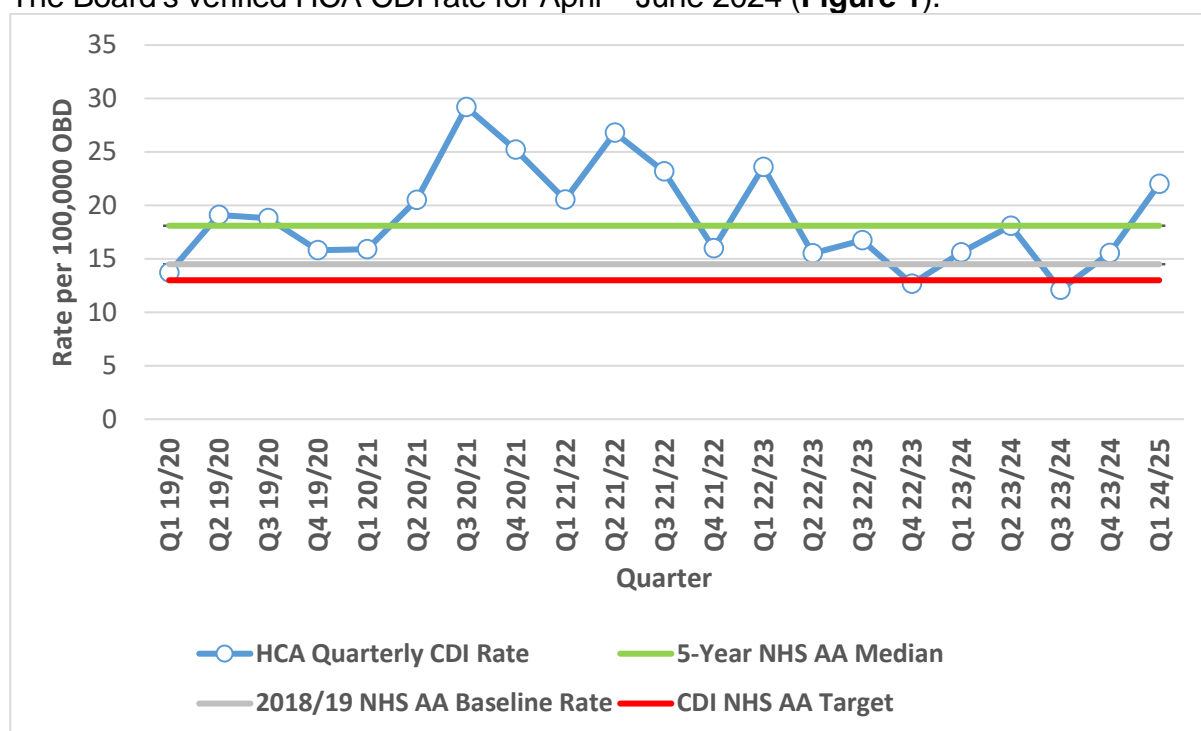


Figure 1 – Quarterly HCA CDI Rate (ARHAI data)

Figure 2 provides the Board's position in comparison to the rest of Scotland. NHS Ayrshire & Arran's (NHSAA) rate of 22.0 is within the 95% confidence interval upper limit and is above the Scottish rate of 17.4 and NHS AA's target rate of 13.0.

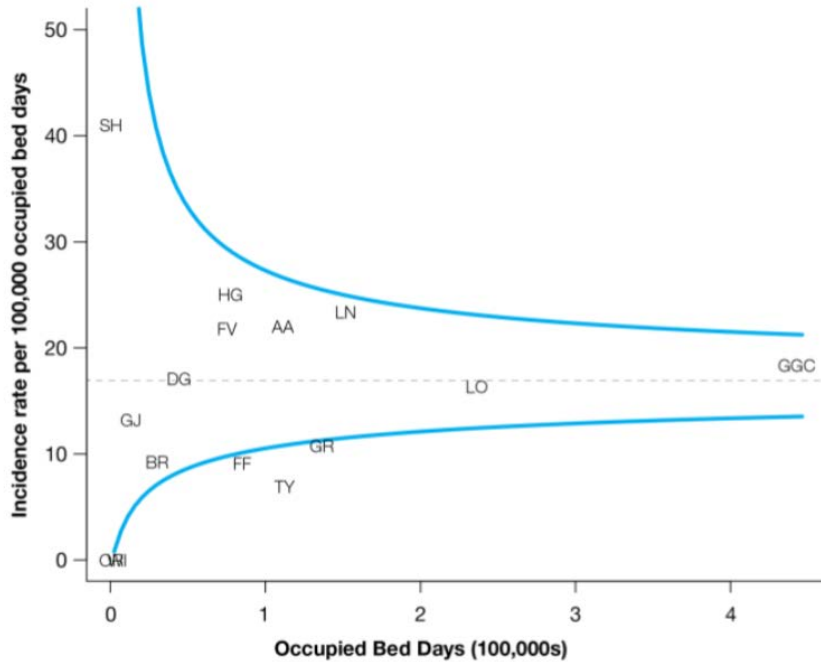


Figure 2 – Funnel plot of CDI incidence rates (per 100,000 TOBD) for healthcare associated infection cases for all NHS Boards in Scotland April – June 2024

The verified rolling annual rate for year ending June 2024 was 16.9. This compares with a year ending rate of 14.9 for June 2023 (**Figure 3**).

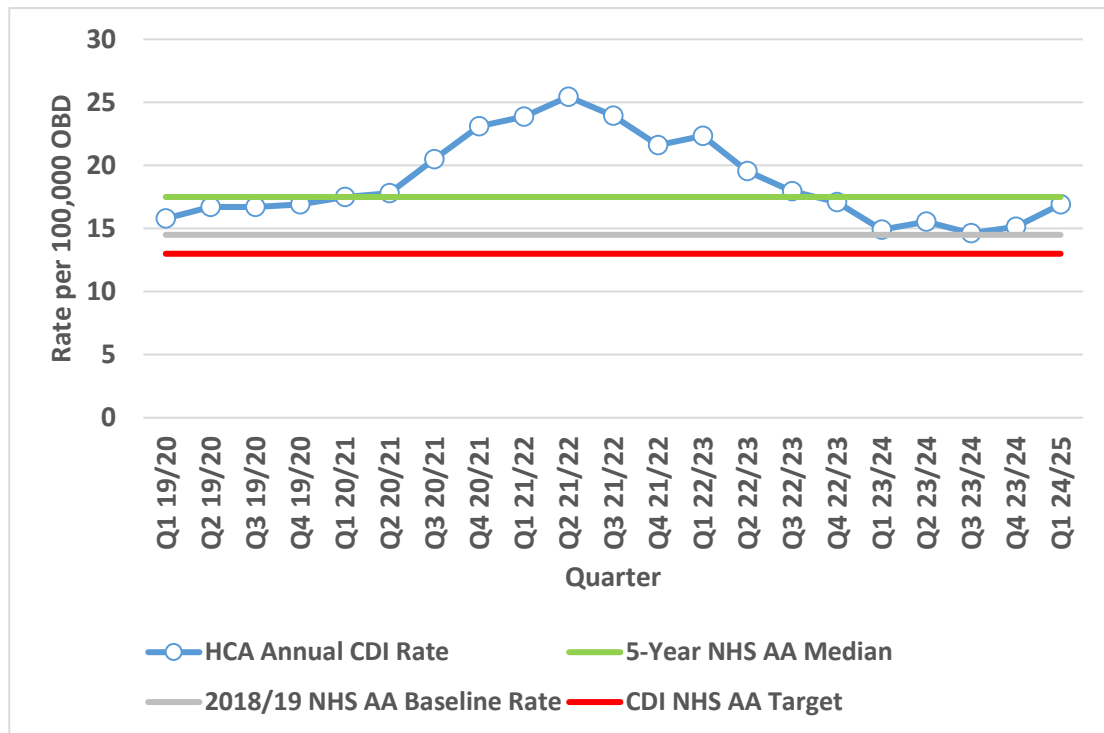


Figure 3 – Rolling Annual HCA CDI Rate vs National Standard

Staphylococcus aureus Bacteraemia (SAB) Standard

The SAB standard is a reduction of 10% in the national rate of HCA SABs by year end March 2024, with 2018-19 used as the baseline.

Infection	Baseline Rate 2018-19 (per 100,000 Total Occupied Bed Days (TOBDs))	2023-24 Target (per 100,000 TOBDs)	Annual Rate Year Ending June 2024 (per 100,000 TOBDs)	Quarterly Rate April - June 2024 (per 100,000 TOBDs)	Scottish Quarterly Rate April - June 2024 (per 100,000 TOBDs)
<i>Staphylococcus aureus</i> bacteraemia	13.8	12.4	17.6 (81 cases) Decrease from 19.8 (93 cases) year-end June 2023	17.6 (20 cases) Increase from 17.3 (20 cases) previous quarter	17.3 (270 cases)

The Board's verified HCA SAB rate for April – June 2024 (**Figure 4**).

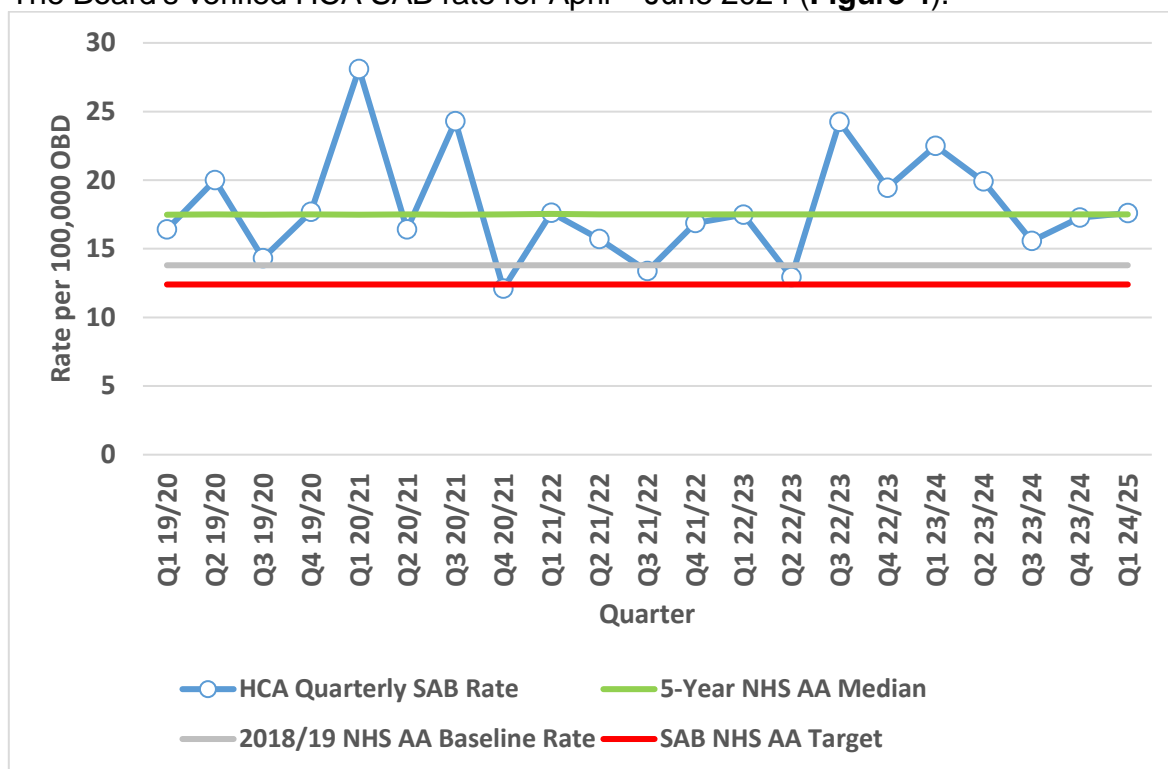


Figure 4 – SABs Quarterly HCA Rate

Figure 5 provides the Board's position in comparison to the rest of Scotland. NHSAA's rate of 17.6 is within the 95% confidence interval upper limit and is above the Scottish rate 17.3 and NHS AA's target rate of 12.4.

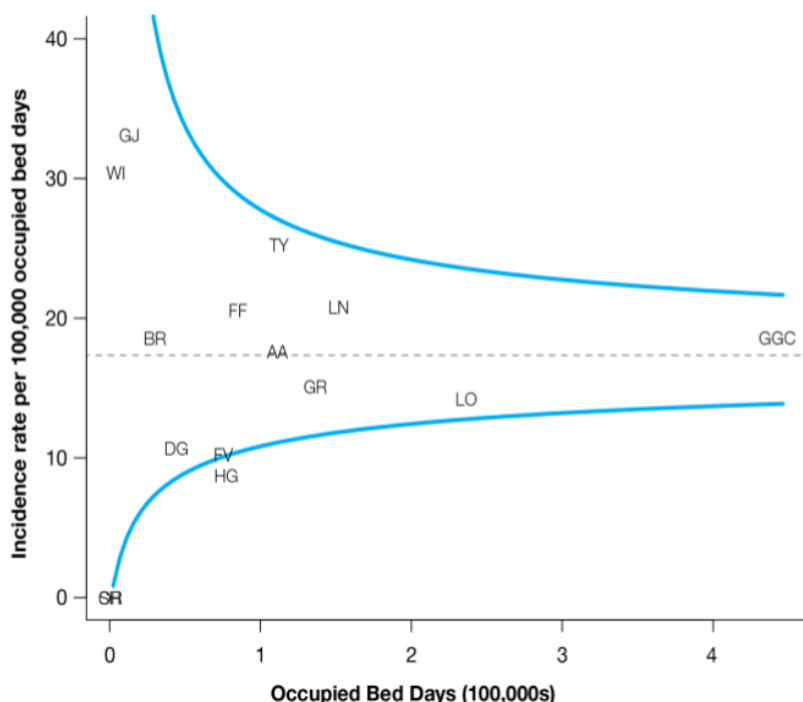


Figure 5 – Funnel plot of SAB incidence rates (per 100,000 TOBD) for healthcare associated infection cases for all NHS Boards in Scotland in April – June 2024

The Board's verified rolling annual rate was 17.6 for year ending June 2024. This is a decrease in comparison to a year ending rate of 19.8 June 2023 (**Figure 6**).

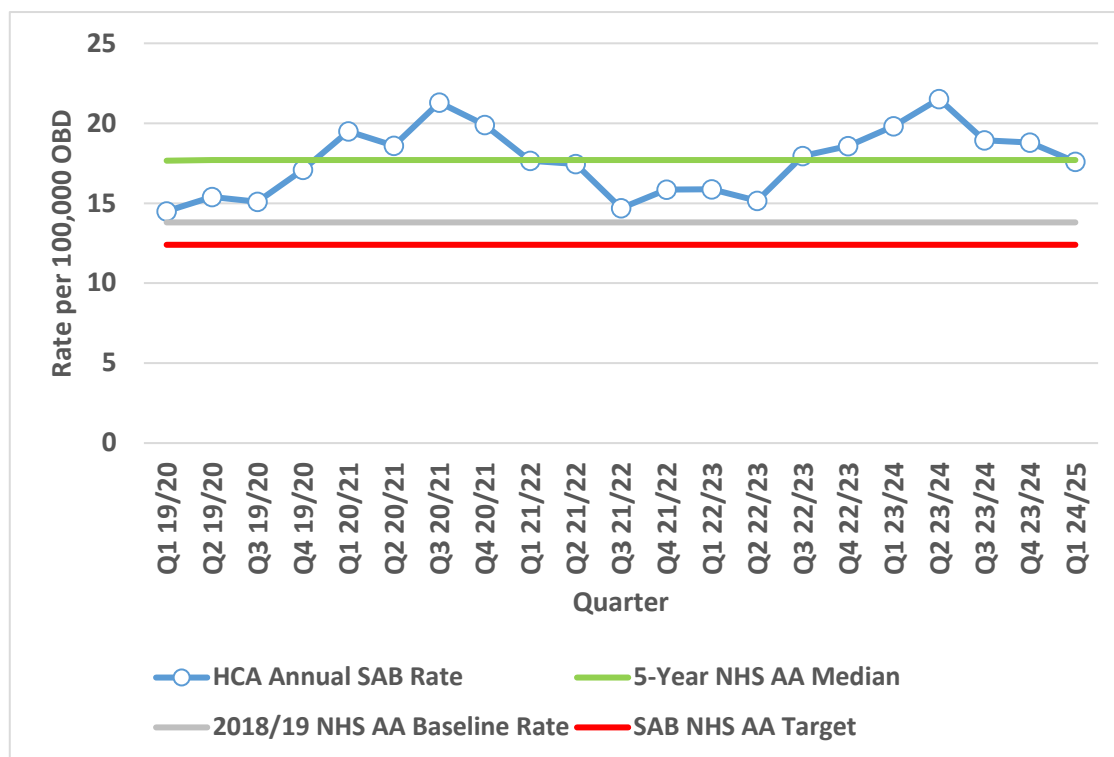


Figure 6 - Rolling Annual HCA SAB rate vs National Standard

A plan to improve the NHSAA community acquired SAB rates was agreed and submitted to ARHAI Scotland and was presented to the Prevention and Control of Infection Committee (PCOIC) in January 2024. The improvement plan was created following an exception report from ARHAI Scotland, highlighting the Board was a high outlier for our rate of community-acquired SAB in July – September 2023. This action plan has been overseen by the PCOIC and a completed improvement plan was presented to the July committee for sign off.

Escherichia coli Bacteraemia (ECB) Standard

The ECB standard is a reduction of 25% in the national rate of HCA ECBs by year end March 2024, with 2018-19 used as the baseline.

Infection	Baseline Rate 2018-19 (per 100,000 Total Occupied Bed Days (TOBDs))	2023-24 Target (per 100,000 TOBDs)	Annual Rate Year Ending June 2024 (per 100,000 TOBDs)	Quarterly Rate April - June 2024 (per 100,000 TOBDs)	Scottish Quarterly Rate April - June 2024 (per 100,000 TOBDs)
E coli bacteraemia	45.7	34.3	46.3 (213 cases) Increase from 36.4 (171 cases) year-end June 2023	48.5 (55 cases) Increase from 42.3 (49 cases) previous quarter	39.4 (614 cases)

The Board's verified HCA ECB rate for April – June 2024 (**Figure 7**).

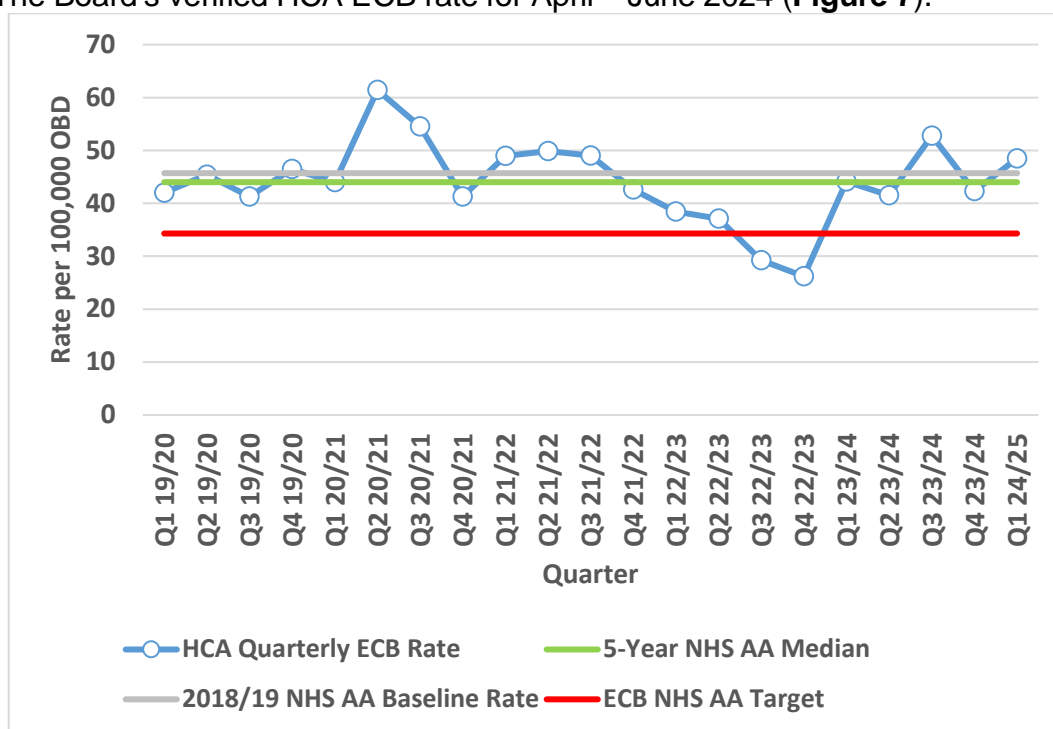


Figure 7 – Quarterly Healthcare Associated ECB Rate

Figure 8 provides the Board's position in comparison to the rest of Scotland. NHSAA's rate of 48.5 is within the 95% confidence interval upper limit but is above the Scottish rate 39.4 and NHS AA's target rate of 34.3.

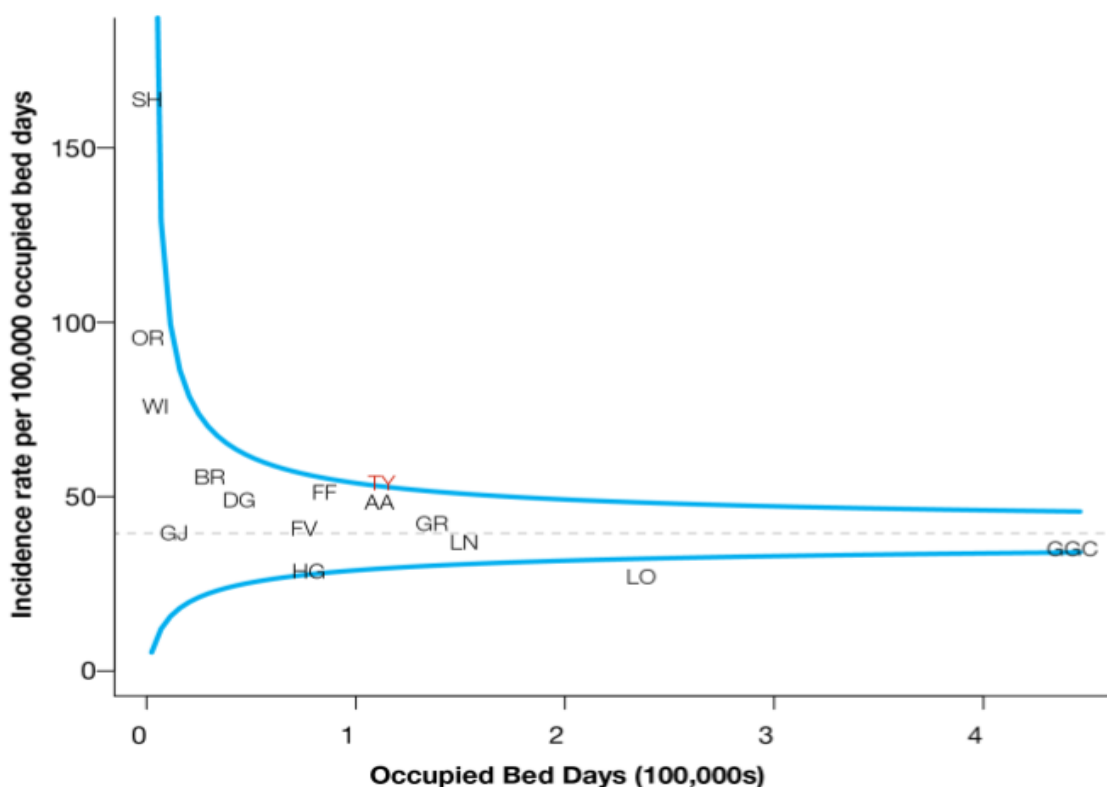


Figure 8 – Funnel plot of ECB incidence rates (per 100,000 TOBD) for healthcare associated infection cases for all NHS Boards in Scotland April – June 2024

In order to improve patient safety by reducing these infection rates, an ECB Improvement Group was established earlier this year to diagnose the reasons for such high rates of infections and; identify and implement actions to reduce harm. The group meet monthly and report to the Prevention and Control of Infection Committee (PCOIC).

Community Associated ECB Rate

There are currently no targets for community associated ECB.

Quarter	Apr – Jun 23	Jul – Sept 23	Oct – Dec 24	Jan – Mar 24	Apr – Jun 24
No of ECB	48	53	42	44	61
Rate (per 100,000 population)				48.4	67.1

Figure 9 – Number of ECBs per quarter for 2023/24 & 2024/25.

Figure 10 provides the Board's position in comparison to the rest of Scotland. NHSAA's rate of 67.1 is not within the 95% confidence interval upper limit and is above the Scottish rate 36.2.

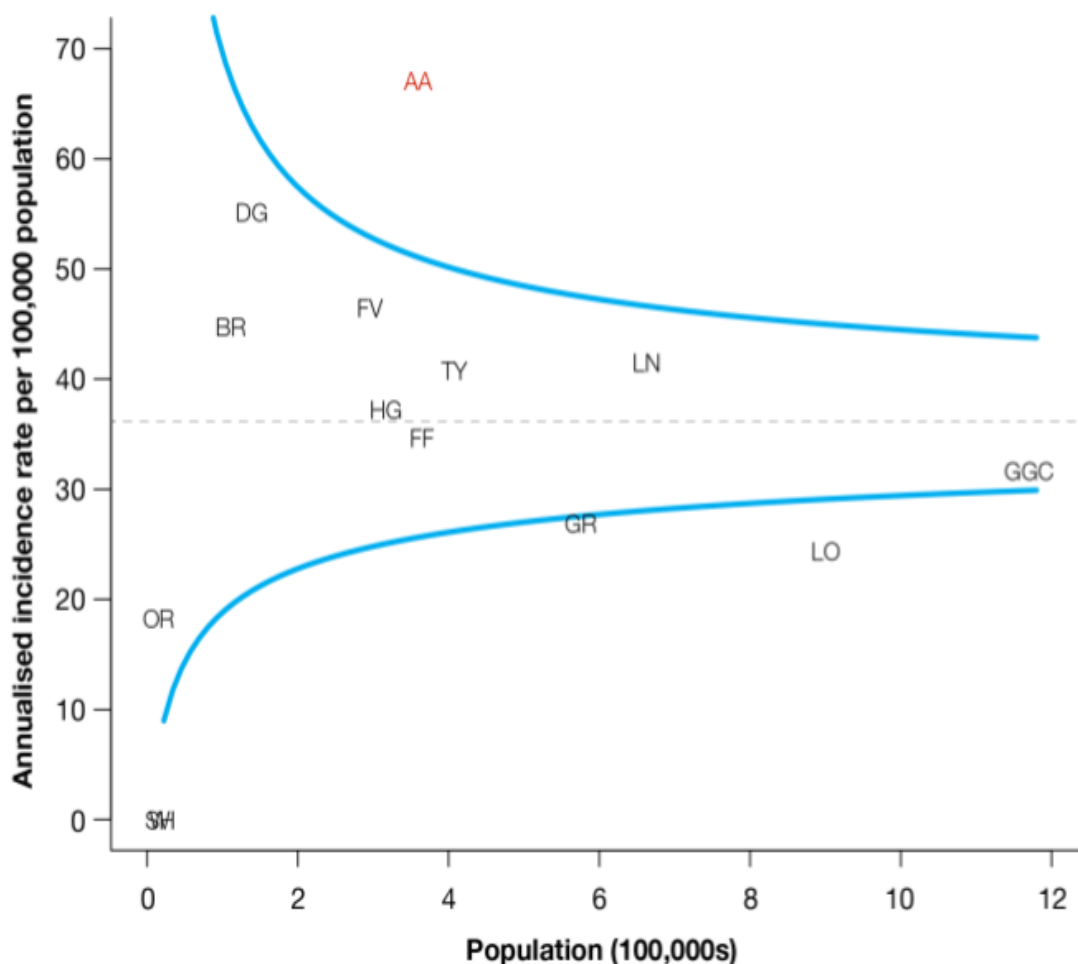


Figure 10 – Funnel plot of ECB incidence rates (per 100,000 population) for community associated infection cases for all NHS Boards in Scotland April – June 2024

Standard Infection Control Precautions (SICPs)

Aligns to National IPC Standards (2022)	
Standard 2	Education and Training
Standard 4	Assurance and monitoring systems
Standard 6	Infection prevention and control policies, procedures and guidance
Standard 8	The Built Environment

The Infection Prevention and Control Team (IPCT) undertakes independent monitoring of Standard Infection Control Precautions (SICPs) in accordance with a planned audit programme, as part of an agreed monitoring framework. The framework sets out the roles and responsibilities of staff within acute and non-acute hospitals for audit, as well as the IPCT.

Hand Hygiene

For audits performed by the IPCT, compliance ranged from 88-93% across the different staff groups (**Figure 11**) with an overall compliance of 93% in Quarter 1. This compares to an overall compliance of 96% for audits performed by ward staff. The national standard to be achieved is 95%.

Month	Apr – Jun 2023	July – Sep 2023	Oct – Dec 2023	Jan – Mar 2024	Apr – Jun 2024
IPCT Score	90%	88%	88%	91%	93%
Ward Score	97%	96%	96%	96%	96%

Figure 11 – SICPs Monitoring Framework

These results are reviewed by the PCOIC, with actions agreed as needed to support clinical improvement. There is also an increased leadership focus in relation to hand hygiene, including focus on compliance with bare below the elbow.

Estates and Cleaning Compliance

Aligns to National IPC Standards (2022)	
Standard 6	Infection prevention and control policies, procedures and guidance
Standard 7	Clean and safe care of equipment
Standard 8	The built environment

Figure 12 presents data on compliance with the requirements set out in the NHS Scotland National Cleaning Services Specification (NCSS).

The NCSS sets out the requirements for minimum frequency and methods of cleaning carried out by Domestic staff. It sets out the same requirements for Estates staff when cleaning the Estates fabric.

The minimum national standard of cleanliness to be achieved is 90%. The Health Board met the national standard for both Domestic Service and Estates.

	NHS Ayrshire & Arran	Scotland
Domestic Services	95.4%	95.2%
Estates Services	96.9%	96.4%

Figure 12 – Estates and Cleaning Compliance April - June 2024

A robust audit programme structured in line with national requirements is in place: 469 domestic audits were carried out during the period April - June 2024. (**Figure 13**)

At the end of an audit, if the area falls below 90%, a re-audit is carried out. This is undertaken within 21 days if the score is between 70-90% and within 7 days if the score is below 70%.

Sector	Audits Scheduled	Audits Undertaken	Re-audit of areas below 90%	Domestic score	Estates score
East	284	243	2	95.86%	99.17%
North	94	73	1	94.24%	96.34%
South	193	153	7	95.40%	96.82%
Total	571	469	10	95.46%	96.92%

Figure 13 – Domestic Audits April - June 2024

Hand Hygiene Products

In early May 2024 the National procurement were alerted that our current hand care provider, GoJo have closed their European Production centre in France and have made their staff redundant. NHS Ayrshire & Arran had therefore been advised by National Procurement to replace all GoJo products Board wide.

The main supplier across all other NHS Boards is the National Procurement Framework supplier, Diversey. This company have proactively supported both National Procurement and NHS Ayrshire & Arran to review and cross match GoJo products and calculate new demand levels. The Professional lead for Domestic Services/Head of Clinical Support Services, South and the Head of Procurement reviewed the alternative products in conjunction with the Prevention and Control of Infection Team and it was agreed that moving to Diversey would have the least impact and plans to change supplier were implemented.

A SLWG with representation from Acute, HSCPs, IPCT, Occupational health, Estates, Health and Safety and Staff Side was set up to provide regular updates and discuss and agree an implementation plan to replace over 6,000 dispensers board wide.

A contractor was appointed in June 2024 to install hand hygiene dispensers and the first phase of the programme started at University Hospital Crosshouse (UHC). This phase is now complete and over 2500 dispensers have been installed at UHC. The second phase of the programme was installation at University Hospital Ayr which commenced in August 2024 and to date, 750 dispensers have been installed. Work remains ongoing with phase two of the programme.

Infection Outbreaks and Incidents

Aligns to National IPC Standards (2022)	
Standard 2	Education and training
Standard 4	Assurance and monitoring systems
Standard 6	Infection prevention and control policies, procedures and guidance
Standard 7	Clean and safe care equipment

Healthcare Infection Incident Assessment Tool (HIIAT)

The ARHAI Healthcare Infection Incident Assessment Tool (HIIAT) is a tool used by NHS Boards to assess the impact of an outbreak or incident. The tool is a risk assessment allowing Boards to rate each outbreak/incident as **RED**, **AMBER** or **GREEN**.

In the event of an outbreak or incident, a Problem Assessment Group (PAG) or Incident Management Team (IMT) meeting is convened, and actions are implemented to control further transmission of infection. All outbreaks/incidents are reported to ARHAI who then report to the Scottish Government Health and Social Care Directorate (SGHSCD).

The most common reason for an outbreak being reported as a Red HIIAT is if there is a patient death associated with the outbreak, where the infection is a possible contributory factor and is recorded on the death certificate.

HIIAT Red	HIIAT Amber	HIIAT Green
0	1	20

Figure 14 – Number of incidents reported to ARHAI (including COVID19) July – September 2024

Outbreaks of COVID continue to occur across Scotland, and within NHSAA. In quarter 2 2024-25, the Board dealt with 22 COVID outbreaks. Each has been dealt with in line with guidance in place at the time and reported as required to ARHAI via the national outbreak reporting system. **Figure 15** provides information on the number of COVID and other respiratory outbreaks from July to September 2024.

Month	October – December 2023	January – March 2024	April – June 2024	July – Sept 2024
COVID	42	18	25	22
Influenza	4	5	1	0
RSV	2	0	0	0
Mixed	1	0	0	0
Other	1	0	0	0
Total	50	23	26	22

Figure 15 – Respiratory Outbreak Activity – October 2023 to September 2024

Figure 16 provides information on the number of non-respiratory outbreaks and incidents which have occurred during Quarter 2, 2024-25 along with examples of key learning.

Non-respiratory Outbreaks/Incidents	Examples of Key Learning & Actions
Total of 2 outbreaks/incidents, caused by different organisms	<ul style="list-style-type: none"> ▪ Highlighted the importance of obtaining microbiology samples to confirm diagnosis. ▪ Good communication from ward to IPCT prevented inappropriate patient transfer to other wards before the outbreak was declared over ▪ Clinical staff ensured all symptomatic patients had appropriate samples obtained and three were sent to virology to confirm causative organism. ▪ Learning in relation to management of ventilation systems in clinical environments.

Figure 16 – Non-respiratory outbreaks and incidents

PCOIC has reviewed a summary of learning from each outbreak and it should be noted that a number of the actions arising have been rolled out Board-wide to all relevant areas, in order to ensure shared learning and maximum improvement in patient safety.

2.3.7 Communication, involvement, engagement and consultation

This is a standing report to the Board.

2.3.8 Route to the meeting

This has been previously considered by the following groups as part of its development. The groups have either supported the content, or their feedback has informed the development of the content presented in this report.

- Prevention and Control of Infection Committee, 26 September 2024
- Healthcare Governance Committee, 4 November 2024

2.4 Recommendation

For discussion. Board members are asked to:

1. Scrutinise the current Board position in relation to national HCAI Standards, note the exception reports received, and the work in progress to further reduce infections.
2. Note the HIIAT reports made to ARHAI Scotland, the summary of learning in relation to outbreaks of infection, and the continuing challenge to patient safety posed by COVID-19.
3. Confirm the report provides suitable assurance in relation to the HCAI Standards and request further assurance if necessary.