

NHS Ayrshire & Arran



Meeting: Ayrshire and Arran NHS Board

Meeting date: Monday 2 June 2025

Title: Healthcare Associated Infection Report

Responsible Director: Jennifer Wilson, Nurse Director

Report Author: Jincy Jerry, Director, Infection Prevention and Control

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 3 2024-25 for discussion and assurance.

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 October to December 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 December 2024 (per 100,000 TOBDs)	Quarterly Rate October - December 2024 (per 100,000 TOBDs)
<i>Clostridioides difficile</i> Infection	14.5	13.0	19.2 (88 cases) Increase from 14.4 (67 cases) year- end December 2023	19.3 (22 cases) Decrease from 20 (23 cases) previous quarter

The Board's verified HCA CDI rate for October - December 2024 (**Figure 1**).

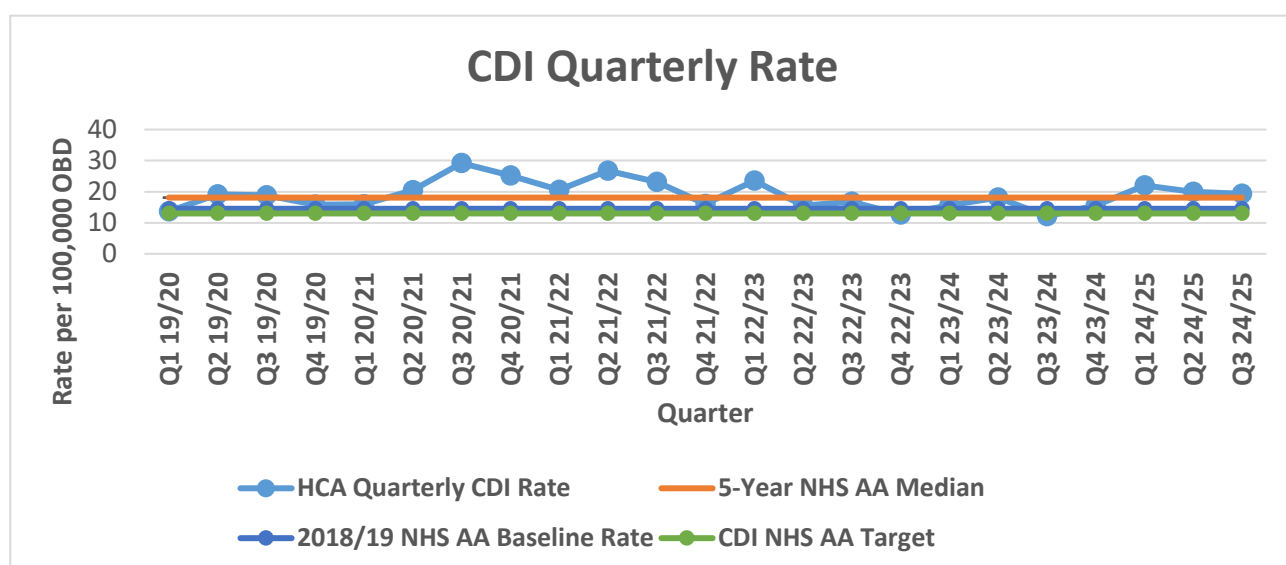


Figure 1 – Quarterly HCA CDI Rate (ARHAI data)

Figure 2 provides the Board's position in comparison to the rest of Scotland. NHS AA's rate of 19.3 is within the 95% confidence interval upper limit and is above the Scottish rate of 18.0 (per 100,000 TOBDs) and the NHS AA's target rate of 13.0 (per 100,000 TOBDs)

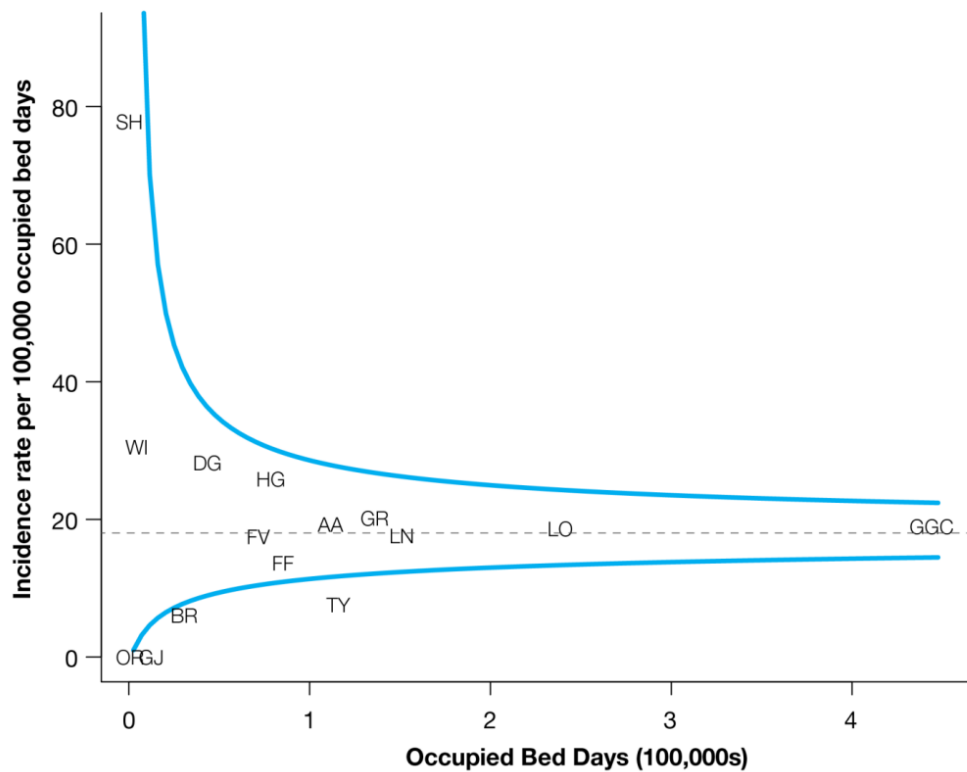


Figure 2 – Funnel plot of CDI incidence rates (per 100,000 TOCB) in healthcare associated infection cases for all NHS boards in Scotland October - December 2024

The verified rolling annual rate for year ending December 2024 was 19.2. This compares with a year ending rate of 14.4 for December 2023 (**Figure 3**).

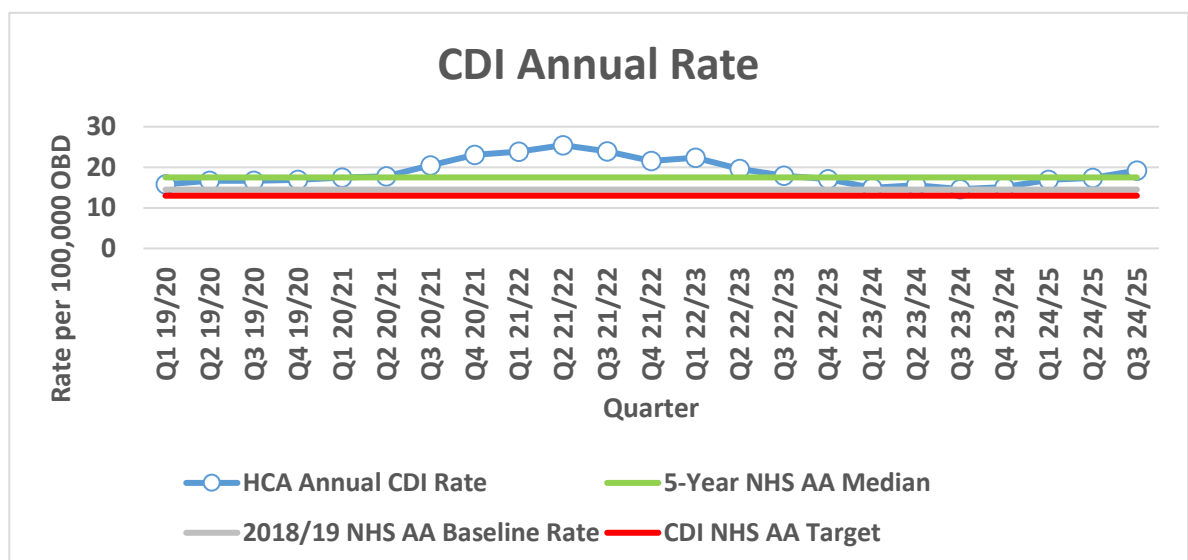


Figure 3 – Rolling Annual HCA CDI Rate vs National Standard

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 December 2024 (per 100,000 TOBDs)	Quarterly Rate October – December 2024 (per 100,000 TOBDs)
<i>Staphylococcus aureus</i> bacteraemia	13.8	12.4	23.8 (109 cases) increase from 19.3 (90 cases) previous year	27.2 (31 cases) Decrease from 33.0 (38 cases) previous quarter

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

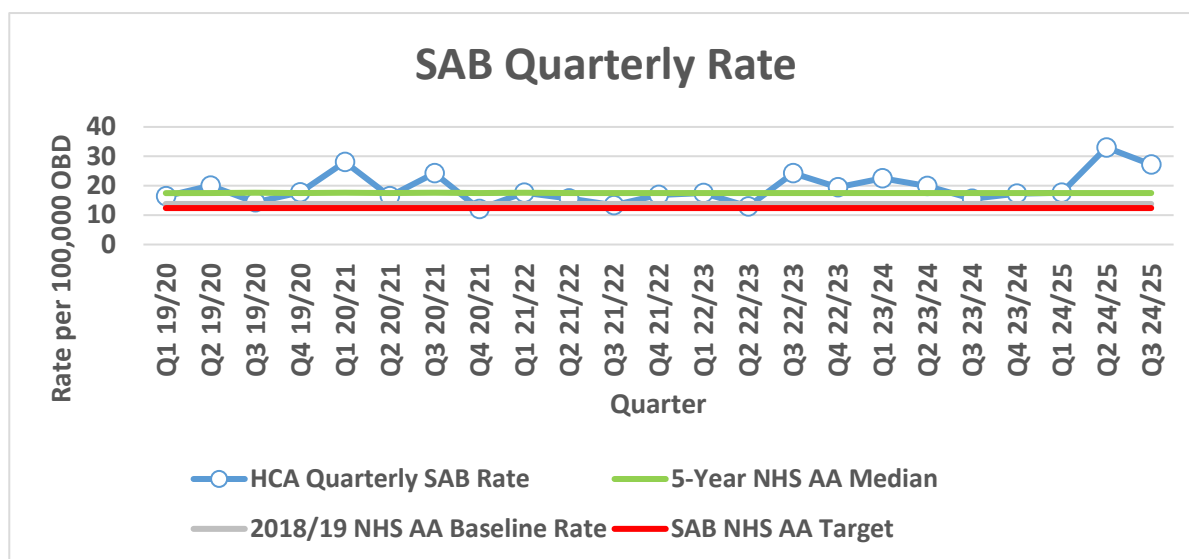


Figure 4 – SABs Quarterly HCA Rate

Figure 5 provides the Board's position in comparison to the rest of Scotland. NHS AA's rate of 27.2 (per 100,000 TOBDs) was below the 95% confidence interval upper limit and above the Scottish rate of 18.4 (per 100,000 TOBDs).

There were 31 HCA SAB cases this quarter (decrease from 38 cases from the previous quarter). The SAB action plan approved by the Prevention and Control of Infection Committee (PCOIC) in January 2024 continued to progress through Q3 and Q4

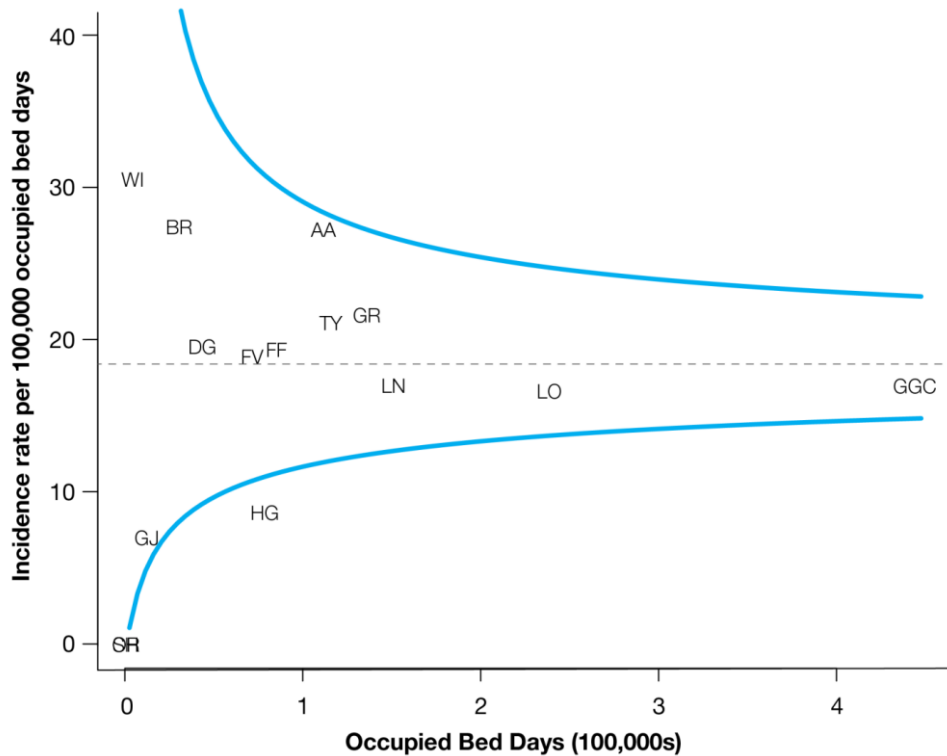


Figure 5 – Funnel plot of SAB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in October - December 2024

The Board's verified rolling annual rate was 23.8 (per 100,000 TOBDs) for year ending December 2024. This is in comparison to a year ending rate of 19.3 (per 100,000 TOBDs) December 2023 (**Figure 6**).

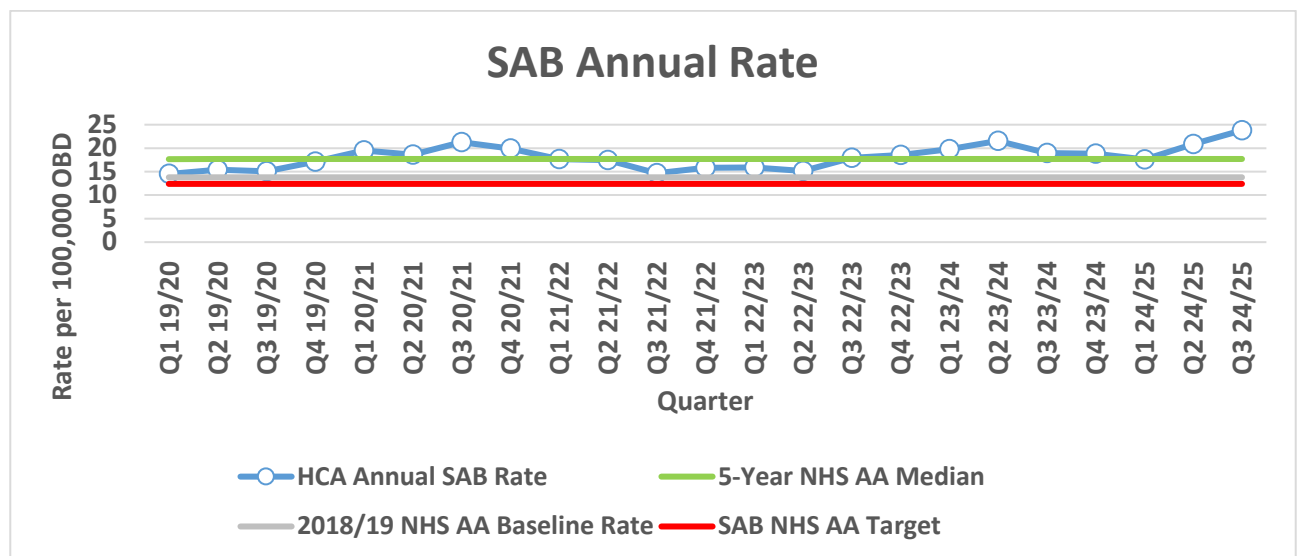


Figure 6 - Rolling Annual HCA SAB rate vs NHS AA SAB Target

Community Associated SAB

For the year ending December 2024, NHSA AA had a community SAB rate of 12.6 (per 100,000 population) compared to a rate of 17.5 (per 100,000 population) for the previous year.

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 December 2024 (per 100,000 TOBDs)	Quarterly Rate October – December 2024 (per 100,000 TOBDs)
E coli bacteraemia	45.7	34.3	43.2 (198 cases) compared to 41.7 (194 cases) year-end December 2023	43.1 (49 cases) Compared to 39.1 (45 cases) previous quarter

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

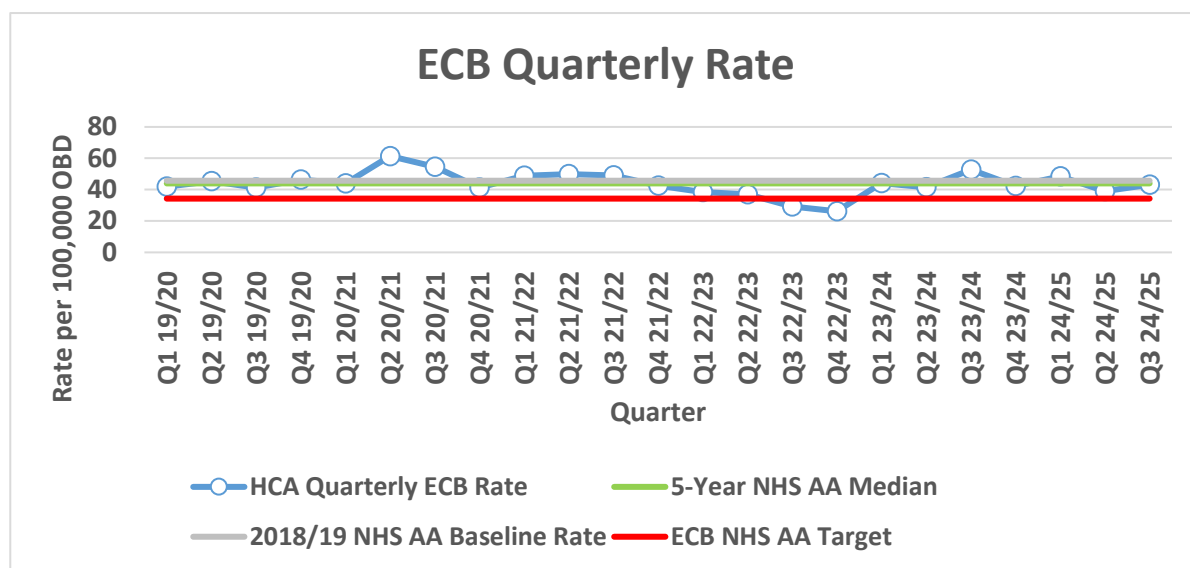


Figure 7 – Quarterly Healthcare Associated ECB Rate

Figure 8 provides the Board's position in comparison to the rest of Scotland. NHS AA's rate of 43.1 is below the 95% confidence interval upper limit but above the Scottish rate of 36.9 and the NHS AA's target rate of 34.3

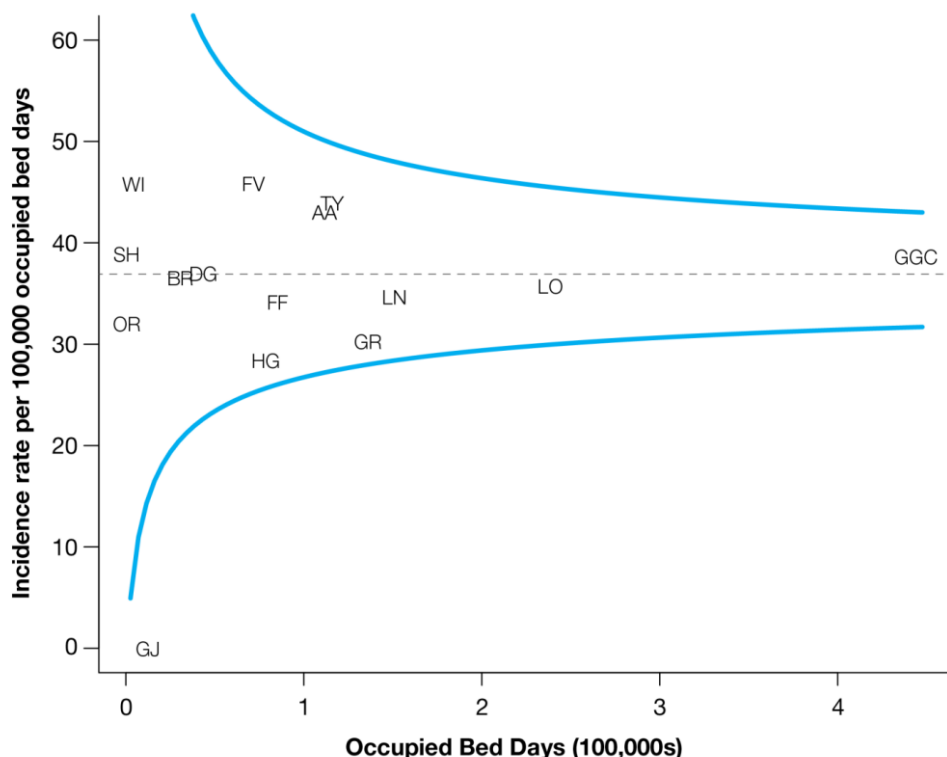


Figure 8 – Funnel plot of ECB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS Boards in Scotland in October - December 2024

Community Associated ECB Rate

There are currently no targets for community associated ECB.

Quarter	Oct – Dec 22	Jan – Mar 23	Apr – Jun 23	Jul – Sep 23	Oct – Dec 23	Jan – Mar 24	Apr – Jun 24	Jul – Sept 24	Oct – Dec 24
No of ECB	51	46	48	53	42	44	61	53	54
Rate (per 100,000 population)	54.9	50.6	52.2	57.0	45.6	48.4	67.0	57.6	58.7

Number of ECBs per quarter for the years 2022/23, 2023/24 and 2024/25

Figure 9 provides the Board's position in comparison to the rest of Scotland. NHSAA's rate of 58.7 is above the 95% confidence interval upper limit and the Scottish rate of 35.8.

NHS Ayrshire & Arran has a very high rate of community associated E. coli Bacteraemia compared to others in Scotland. 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).

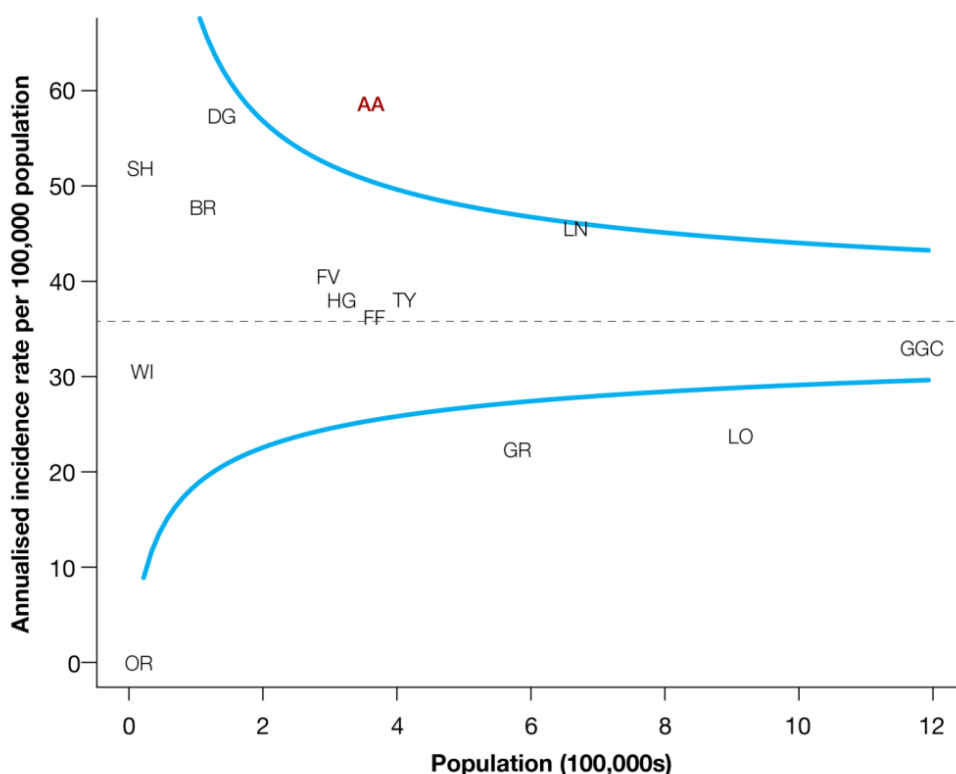


Figure 9 – Funnel plot of ECB incidence rates (per 100,000 TOBD) in community associated infection cases for all NHS boards in Scotland in October - December 2024

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 50-100% across the different staff groups (**Figure 11**) with an overall compliance of 83% in Quarter 4. This compares to an overall compliance of 98% for audits performed by ward staff. The national standard to be achieved is 95%.

Month	Jan – Mar 2024	Apr – Jun 2024	July – Sep 2024	Oct – Dec 2024	Jan – Mar 2025
IPCT Score	91%	93%	92%	93%	83%
Ward Score	94%	96%	90%	96%	98%

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	95.50%	95.2%
Estates Services	96.52%	96.4%

Figure 12 – Estates and Cleaning Compliance January – March 2025

A robust audit programme structured in line with national requirements is in place: 426 domestic audits were carried out during the period January – March 2025. **(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	284	0	95.91%	95.58%
North	94	58	1	94.33%	97.07%
South	193	134	2	95.31%	97.90%
Total	571	426	3	95.50%	96.52%

Figure 13 – Domestic Audits January – March 2025

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
1	3	17

**Figure 14 – Number of incidents reported to ARHAI (including COVID19)
January – March 2025**

Outbreaks of COVID continue to occur across Scotland, and within NHSAA. In quarter 4 2024-25, the Board dealt with 7 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 January – March 2025.

Month	April – June 2024	July – Sept 2024	October – December 2024	January – March 2025
COVID	25	22	15	7
Influenza	1	0	11	7
RSV	0	0	6	3
Mixed	0	0	1	0
Other	0	0	0	0
Total	26	22	33	17

Figure 15 – Respiratory Outbreak Activity – April 2024 to March 2025

Figure 16 provides information on the number of non-respiratory outbreaks and incidents which have occurred during Quarter 4, 2024-25 along with examples of key learning.

Non-respiratory Outbreaks/Incidents	Examples of Key Learning & Actions
Mixed Environmental Pathogens – (ICU, Closed 08/02/2025)	<ul style="list-style-type: none"> ▪ Enhanced cleaning within the ward. ▪ Review of water safety practices and flushing regimes ▪ Review of water sample results ▪ SICPs audits ▪ Environmental audit highlighted areas for improvement, particularly around storage of stock and patient care equipment.
ESBL (<i>Klebsiella pneumoniae</i> – Biggart Hospital, ongoing)	<ul style="list-style-type: none"> ▪ Enhanced cleaning within both wards. ▪ SICPs monitoring and audits carried out ▪ Typing of samples to confirm outbreak

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, 9th April 2025
- Healthcare Governance Committee, 28th April 2025

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.