NHS Grampian

Healthcare Associated Infection (HAI) Reporting Template (HAIRT)

(Quarterly Report – July 2025)

INFECTION PREVENTION AND CONTROL TEAM

Executive Summary

This quarterly HAIRT report provides an overview of NHS Grampian's performance in relation to healthcare-associated infections (HAIs), measured against national standards and indicators set by the Scottish Government Health Directorates (SGHD). The data covers the period from January to March 2025.

Key findings are summarised below:

1. **The ARHAIS (Antimicrobial Resistance and Healthcare Associated Infection Scotland) Quarterly Epidemiological Data Report (January – March 2025),** published on 1 July 2025, showed the following for NHS Grampian:

a. ***Clostridioides difficile* Infection (CDI)**

- **Healthcare-associated CDI**:
  NHS Grampian recorded a rate of **10.8** per 100,000 occupied bed days, showing a notable improvement from ↓ 20.2 in the previous quarter.
- **Community-associated CDI**:
  The rate was **6.9** per 100,000 population, down from ↓ **10.8 percent** in the previous quarter.

b. ***Escherichia coli* Bacteraemia (ECB)**

- **Healthcare-associated ECB**:
  NHS Grampian reported a rate of **32.4** per 100,000 occupied bed days, a slight increase from ↑ **30.3 Percent** in the previous quarter.
- **Community-associated ECB**:
  The rate decreased to **17.3** per 100,000 population, down from ↓ **22.4** in the previous quarter.

c. ***Staphylococcus aureus* Bacteraemia (SAB)**

- **Healthcare-associated SAB**:
  NHS Grampian recorded a rate of **22.3** per 100,000 occupied bed days, slightly up from ↑ **21.6 percent** in the previous quarter.
- **Community-associated SAB**:
  The rate increased to **13.1** per 100,000 population, compared to ↑ **12.2** in the previous quarter.

2. Meticillin-Resistant *Staphylococcus Aureus* (MRSA) Clinical Risk Assessment (CRA) Screening and Swabbing

- **MRSA CRA screening** compliance for January to March 2025 was **75%**, an improvement from ↑ **65**% in the previous quarter.
  However, this remains below the national average of 81% and below the national target of 90%.

- **MRSA swabbing** compliance for the same period was **63%,** showing a notable improvement from ↑ 33% in the previous quarter.

3. Carbapenemase Producing Enterobacteriaceae (CPE) CRA Screening

- NHS Grampian's **CPE CRA screening compliance** for January to March 2025 was **85%**, up from **64%** in the previous month.
  This is above the national average of 84%, reflecting positive progress in screening practices.

4. Hand Hygiene Compliance Among Staff Groups

During the period January to March 2025, hand hygiene audit compliance scores across NHS Grampian staff groups were as follows:

- **Allied Health Professionals (AHPs)**: 99% (unchanged from previous quarter)
- **Nursing staff**: 99% (↑ from 98%)
- **Medical staff**: 95% (↓ from 96%)
- **Ancillary / Other staff**: 95% (↓ from 97%)

While overall compliance remains high, slight decreases were noted among medical and ancillary staff.

6. Estates and Cleaning Monitoring Compliance

Compliance with Health Facilities Scotland (HFS) targets remained above the national benchmark of 90%:

- **Estates compliance**:
  93% in the current quarter (↔ same from 93% in the previous quarter)
- **Cleaning compliance**:
  93% in the current quarter (↔ same from 93% in the previous quarter)

Both areas continue to meet and exceed the HFS target, showing stable performance in facilities & estates monitoring.

7. Ward Closures Due to Enteric and Respiratory Incidents/Outbreaks

Between January and March 2025, NHS Grampian had the following ward closures:

- **Enteric outbreaks** led to 6 full closures and 3 partial closures.
- **Respiratory outbreaks** resulted in 11 full closures and 14 partial closures.

Table of Contents

1. Introduction

This report presents NHS Grampian's quarterly update on healthcare-associated infections (HAIs), in line with national reporting requirements set by the Healthcare Associated Infection (HAI) Policy Unit within the Scottish Government Health Directorates (SGHD).

1.1 Strategic Context:

It summarises performance against key national standards and indicators, including:

- Updated Healthcare Associated Infections (HCAI) Standards for Scotland
- Updated Antibiotic Use Indicators for Scotland
- National Key Performance Indicators for MRSA CRA screening
- National Key Performance Indicators for CPE CRA screening
- National Health Facilities Scotland (HFS) Environmental Cleaning Target
- National Health Facilities Scotland (HFS) Estates Monitoring Target
- National Zero Tolerance to Hand Hygiene Non-Compliance

1.2 Risk Mitigation:

By noting the contents of this report, the Board acknowledges that surveillance of healthcare-associated infections is ongoing and remains essential for the early identification of risks. However, surveillance alone is not sufficient to fully mitigate these risks. NHS Grampian continues to implement targeted interventions aimed at reducing the incidence of *Staphylococcus aureus* bacteraemia (SAB), *Clostridioides difficile* infection (CDI), and *Escherichia coli* bacteraemia (ECB). Further actions may be required to strengthen infection prevention and control measures, thereby reducing the likelihood of avoidable harm to staff and the people we care for.

1.3 Responsible Executive Director and contact for further information

If you require any further information, please contact:

Responsible Executive Director:

- **June Brown**
- **Executive Nurse Director**
- **june.brown@nhs.scot**

Contact for further information:

- **Grace Johnston**
- **Infection Prevention & Control Manager**
- **grace.johnston@nhs.scot**

2. Analysis and Commentary

This section provides further detail on the findings presented earlier in the report. It highlights areas of strong performance, explains any variations or concerns, and outlines the actions taken or planned to address them. The commentary is based on surveillance data, audit results, and input from the Infection Prevention and Control Team (IPCT), working in collaboration with clinical and operational teams across NHS Grampian. These teams are directly involved in applying infection prevention and control measures in practice, and their work supports the outcomes reported here.

2.1 *Clostridioides (formerly Clostridium) difficile* Infection (CDI) Surveillance

For a definition of this organism and details about surveillance, please see Appendix 1.

2.1.1 Healthcare Associated Cases of CDI

For the period January to March 2025 the rate of healthcare associated cases of CDI in NHS Grampian was 10.8 per 100,000 total occupied bed days. In the previous quarter, the rate for NHS Grampian was 20.2 per 100,000 total occupied bed days.

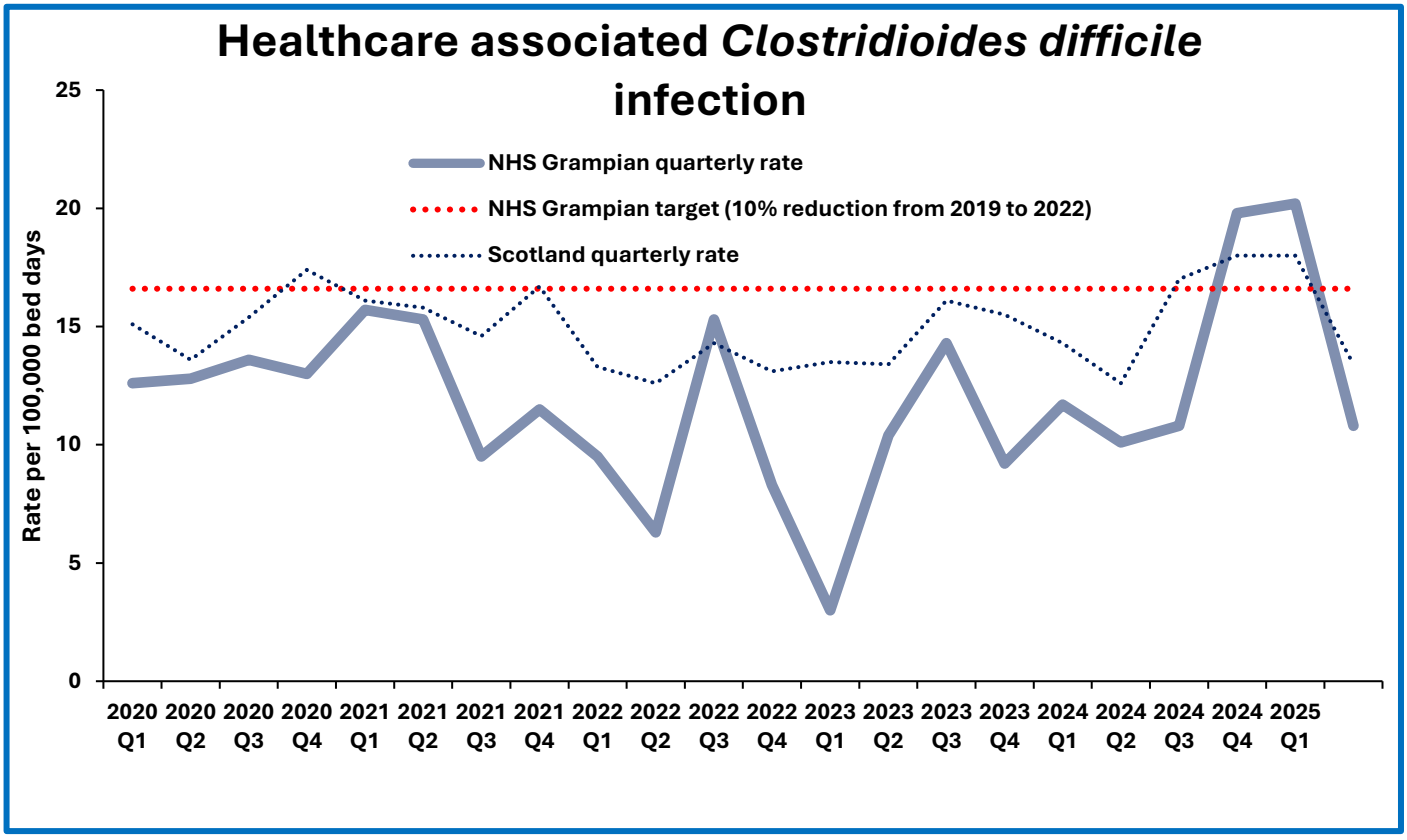


Figure (1a) shows trends in healthcare associated C. difficile infection in NHS Grampain (thick blue line) and Scotland (dotted blue line) over 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of healthcare associated C difficile infection are below average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards. NHS Grampian has met the Scottish Government target for reducing C difficile infection up until 2024 Quarters 3 and 4 (thick blue line is above the straight dotted red line). NHS Grampian Target (10 % reducation from 2019 to 2022) was extended to 2024.

2.1.2 Community Associated Cases of CDI

For the period January to March 2025 the rate of community associated cases of CDI in NHS Grampian was 6.9 per 100,000 population. In the previous quarter, the rate for NHS Grampian was 10.8 per 100,000 population.

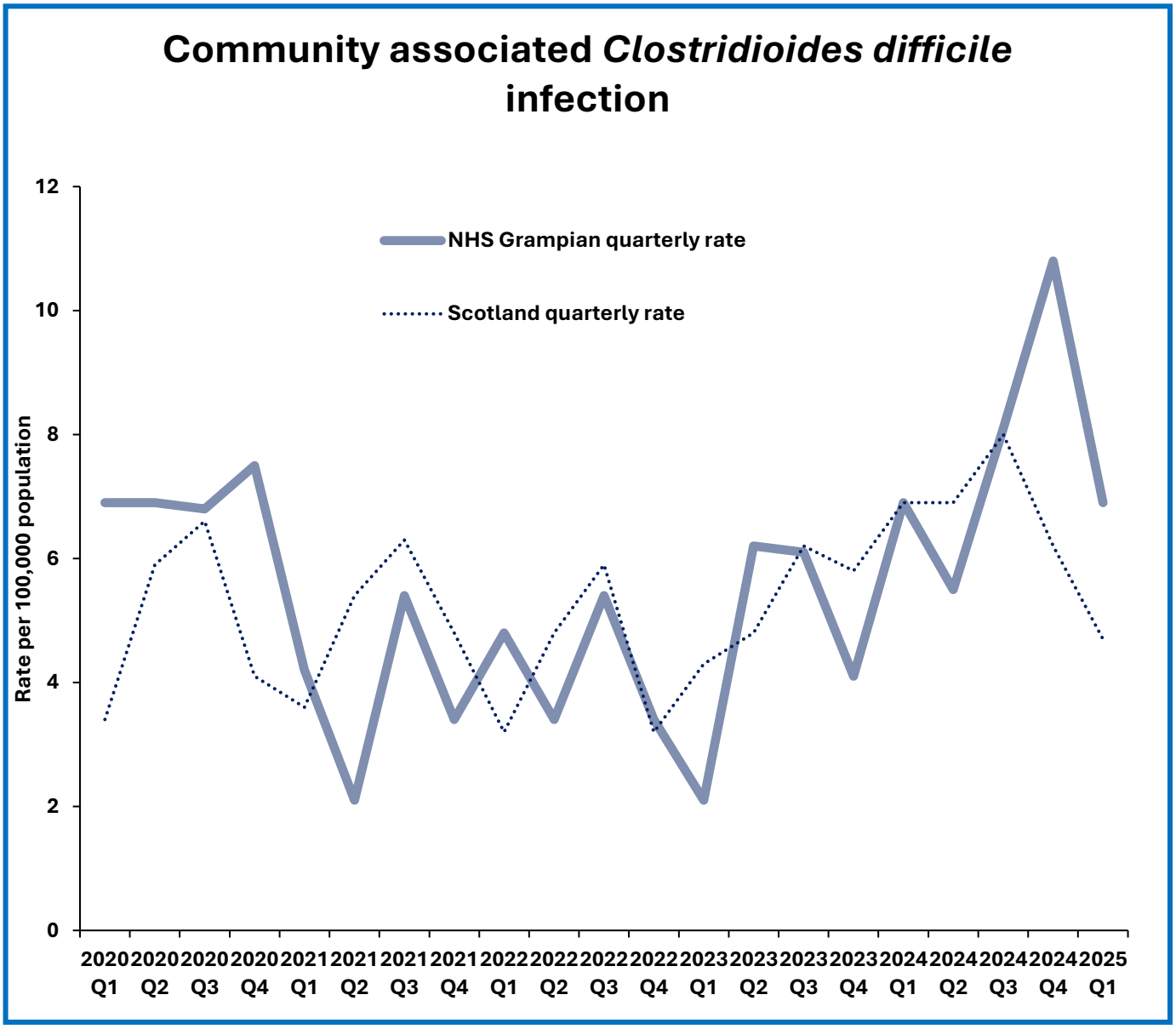


Figure (1b) shows trends in community associated C. difficile infection in NHS Grampain (thick blue line) and Scotland (dotted blue line) over the last 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of community associated C difficile infection are elevated i.e. above average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards.

2.2 *Escherichia coli* Bacteraemia (ECB) Surveillance

For a definition of this organism and details about surveillance, please see Appendix 1.

2.2.1 Healthcare Associated Cases of ECB

In NHS Grampian, the rate of healthcare associated cases of ECB between January and March 2025 was 32.4 per 100,000 total occupied bed days. In the previous quarter the rate in NHS Grampian was 30.3 per 100,000 total occupied bed days.

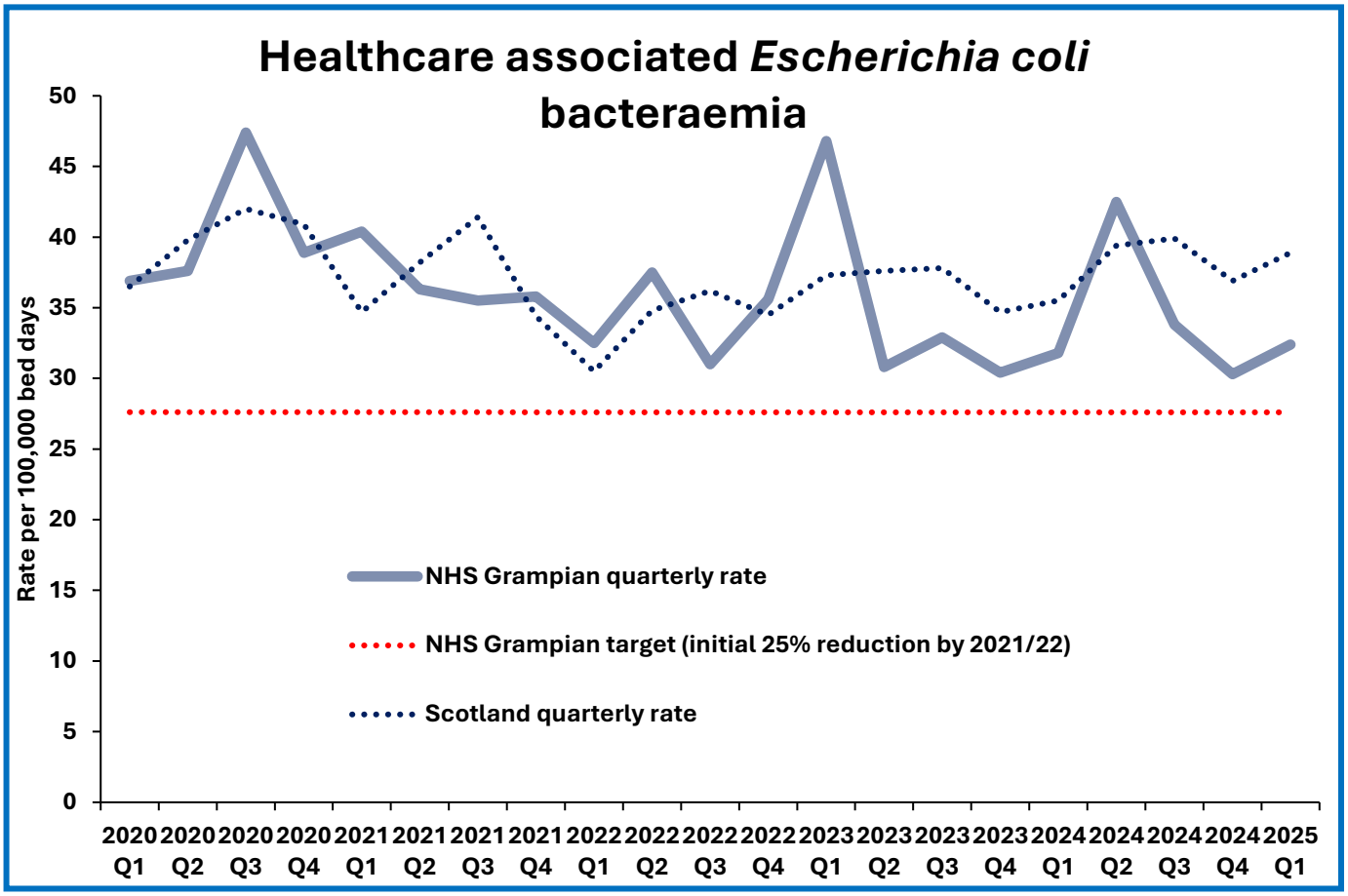


Figure (2a) shows trends in healthcare associated E. coli bacteraemia in NHS Grampain (thick blue line) and Scotland (dotted blue line) over 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of healthcare associated E. coli bacteraemia are below average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards.

NHS Grampian like other Health Boards did not meet the Scottish Government target for reducing E. coli bacteraemia (thick blue line is above the straight dotted red line). The initial reduction has now been deferred and acknowledged to be unachievable due to no underlying scientific rationale for setting the target.

2.2.2 Community Associated Cases of ECB

In NHS Grampian, the rate of community associated cases of ECB between January and March 2025 was 17.3 per 100,000 population. In the previous quarter the rate in NHS Grampian was 22.4 per 100,000 population.

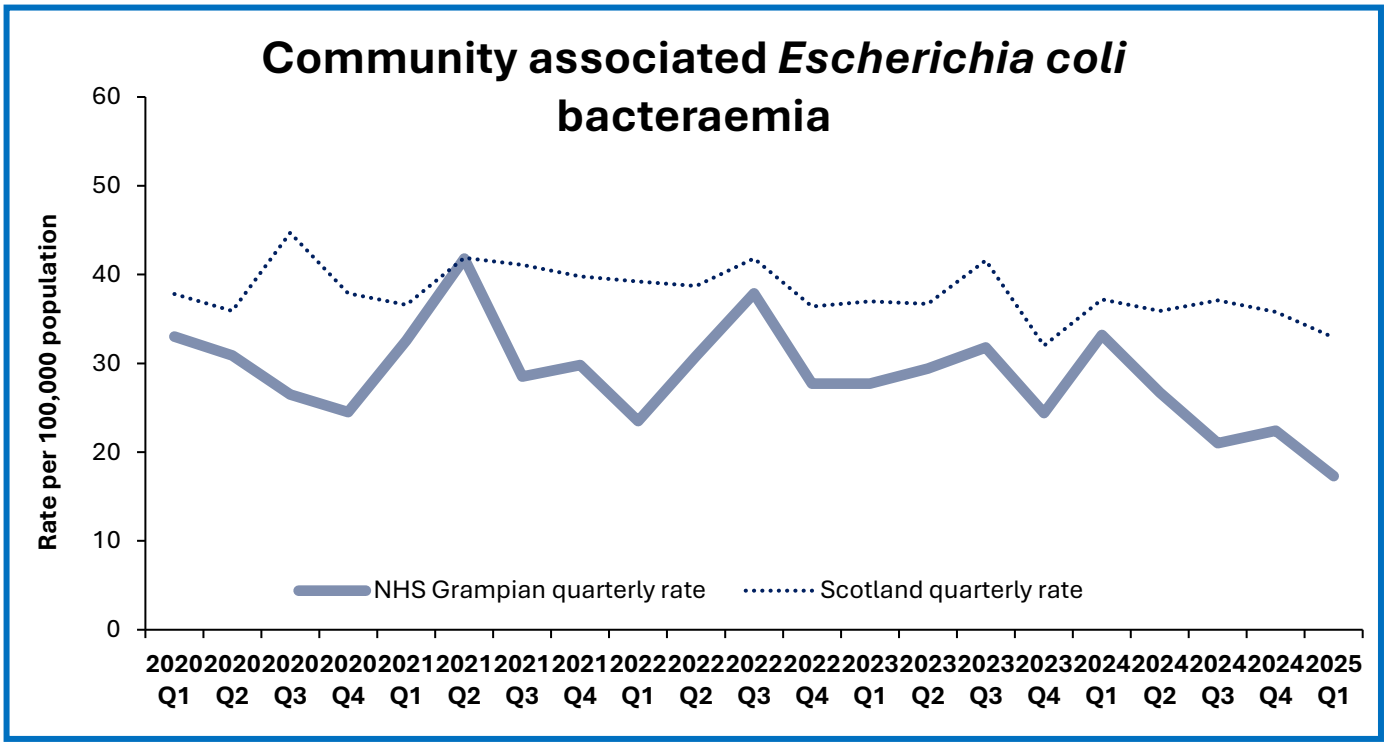


Figure (2b) shows trends in community associated E. coli bacteraemia in NHS Grampian (thick blue line) and Scotland (dotted blue line) over 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of community associated E. coli bacteraemia are below average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards.

2.3 Enhanced *Staphylococcus aureus* Bacteraemia (SAB) Surveillance

For a definition of this organism and details about surveillance, please see Appendix 1.

2.3.1 Healthcare Associated Cases of SAB

Between January and March 2025, the rate of healthcare associated cases of *Staphylococcus aureus* bacteraemia (SAB) in NHS Grampian was 22.3 per 100,000 total occupied bed days. In the previous quarter, the rate was 21.6 per 100,000 total occupied bed days.

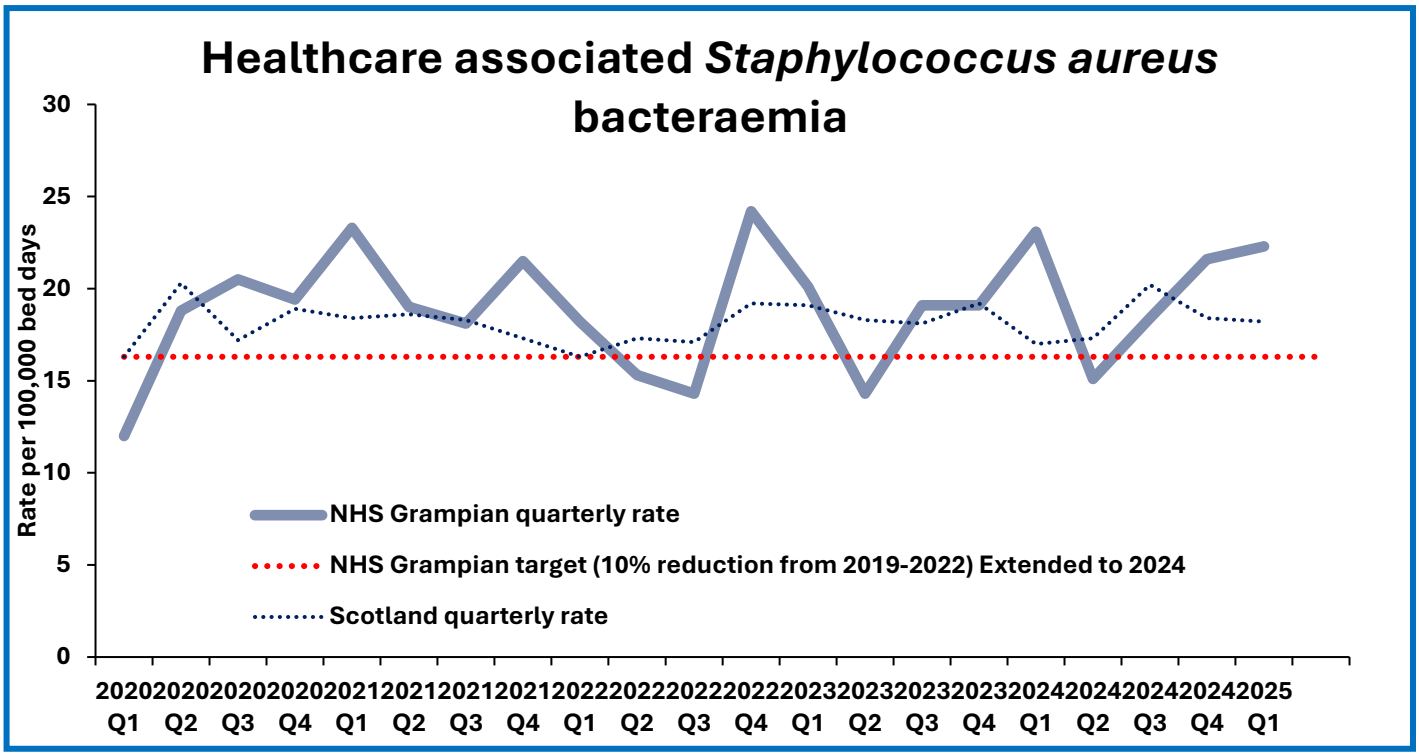


Figure (3a) shows trends in healthcare associated S. aureus bacteraemia in NHS Grampian (thick blue line) and Scotland (dotted blue line) over 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of healthcare associated S. aureus bacteraemia are elevated i.e. above average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards.

Overall NHS Grampian did not meet the Scottish Government target for reducing S. aureus bacteraemia (thick blue line is generally above the straight dotted red line). NHS Grampian Target (10 % reduction from 2019 to 2022) was extended to 2024.

2.3.2 Community Associated Cases of SAB

Between January and March 2025, the rate of community associated cases of SAB in NHS Grampian was 13.1 per 100,000 population. In the previous quarter, the rate was12.2 per 100,000 population.

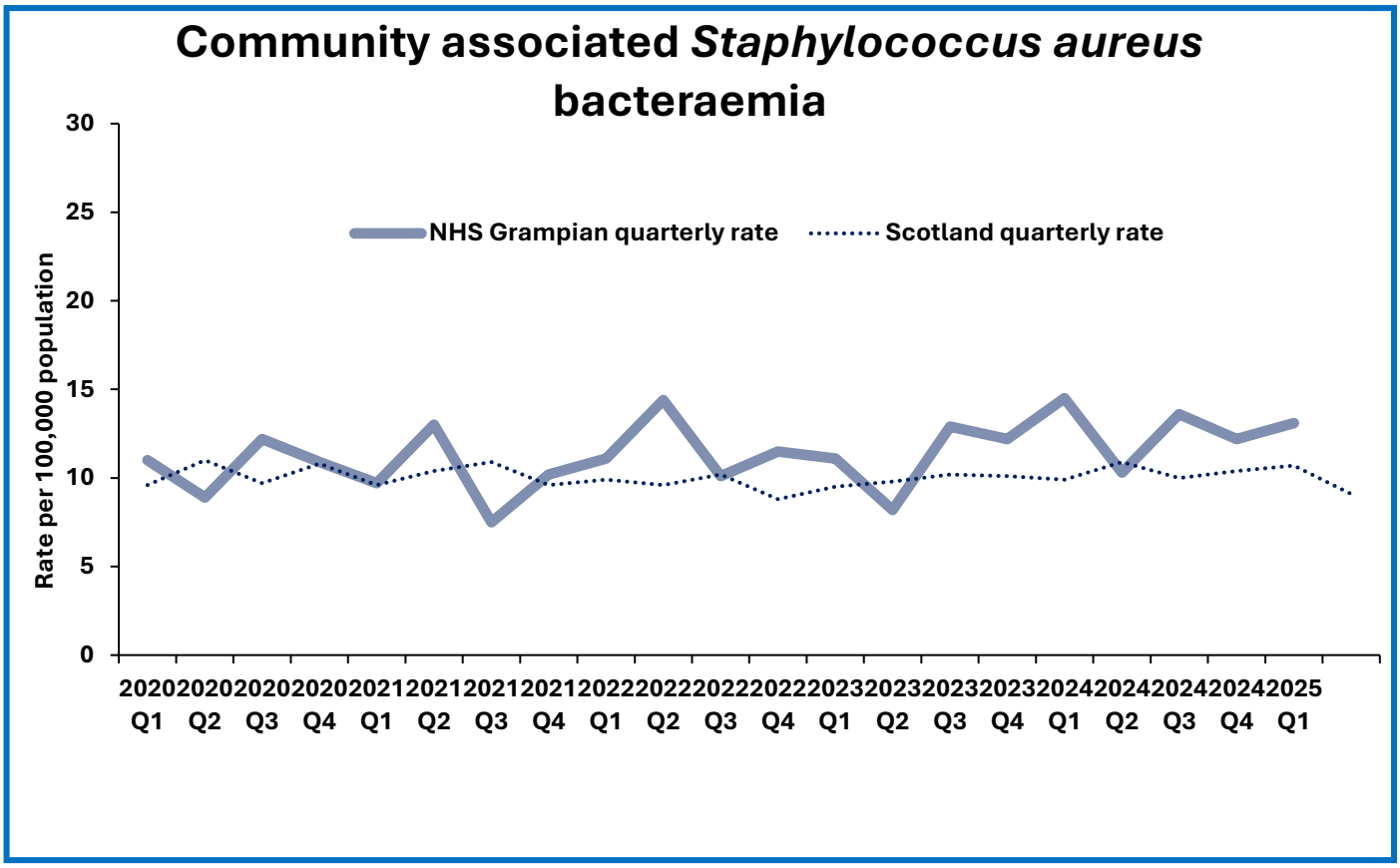


Figure (3b) shows trends in community associated S. aureus bacteraemia infection in NHS Grampian (thick blue line) and Scotland (dotted blue line) over 6 years. In the latest quarterly data (2025 Quarter 1) NHS Grampian rates of community associated S. aureus bacteraemia are elevated i.e. above average (within the statistical limits of variation) compared to the rest of Scotland.

The COVID19 pandemic has impacted other areas of healthcare and caution is advised interpreting data from 2020 Quarter 2 onwards.

2.4. Surgical Site Infection (SSI) Surveillance *

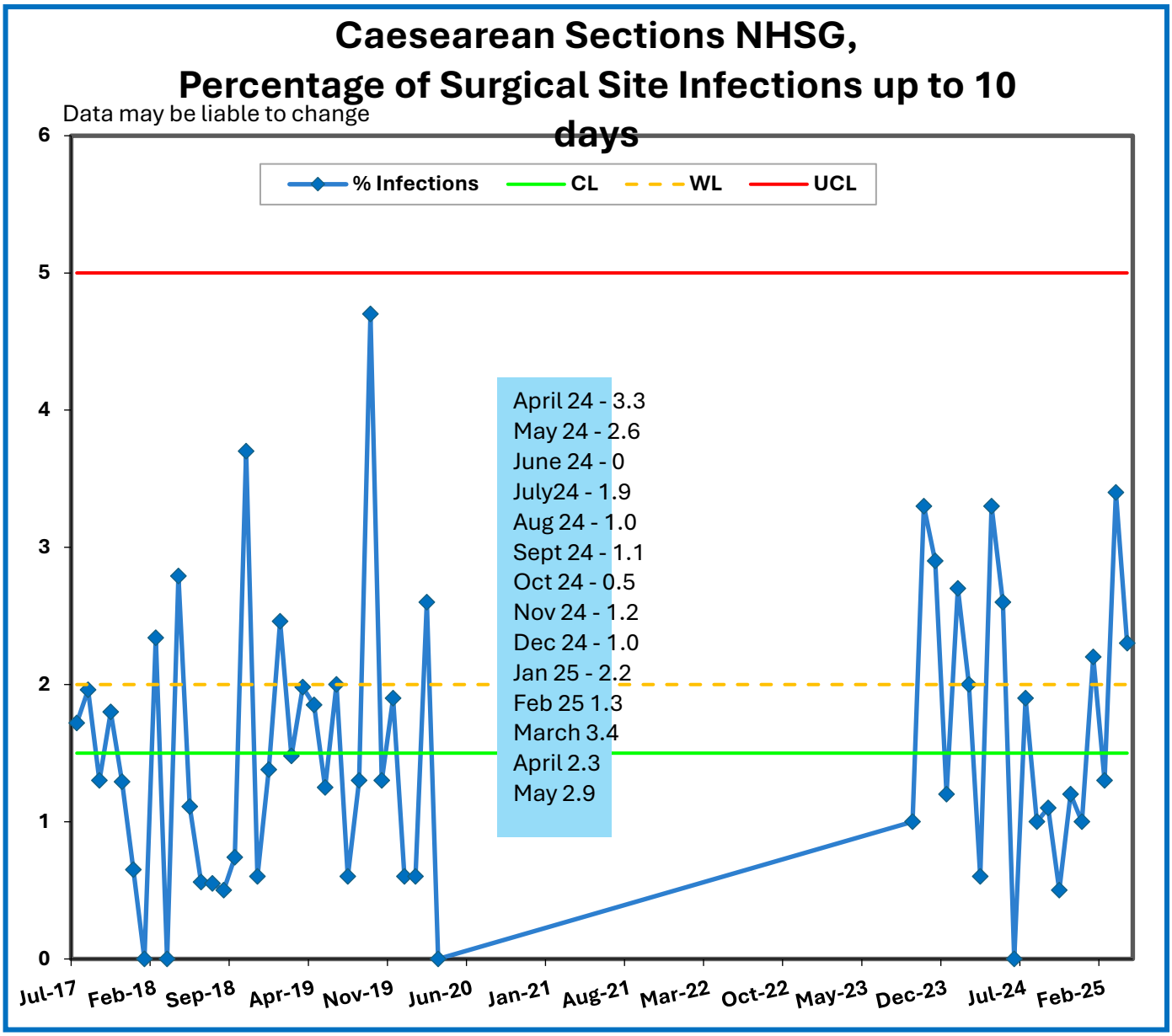
For a definition of this organism and details about surveillance, please see Appendix 1.

2.4.1 Voluntary Surgical Site Infection (SSI) Surveillance: Caesarean Sections

For details about this voluntary surveillance, please see Appendix 1.

The percentage of caesarean sections performed in NHS Grampian that resulted in an SSI (up to ten days post-surgery).

- **Quarter 4: 0.5% in October 2024, 1.2% in November 2024 and 1.0% on December 2024**
- **Quarter 1: 2.2% for January 2025, 1.3% for February 2025, and 3.4% for March 2025**



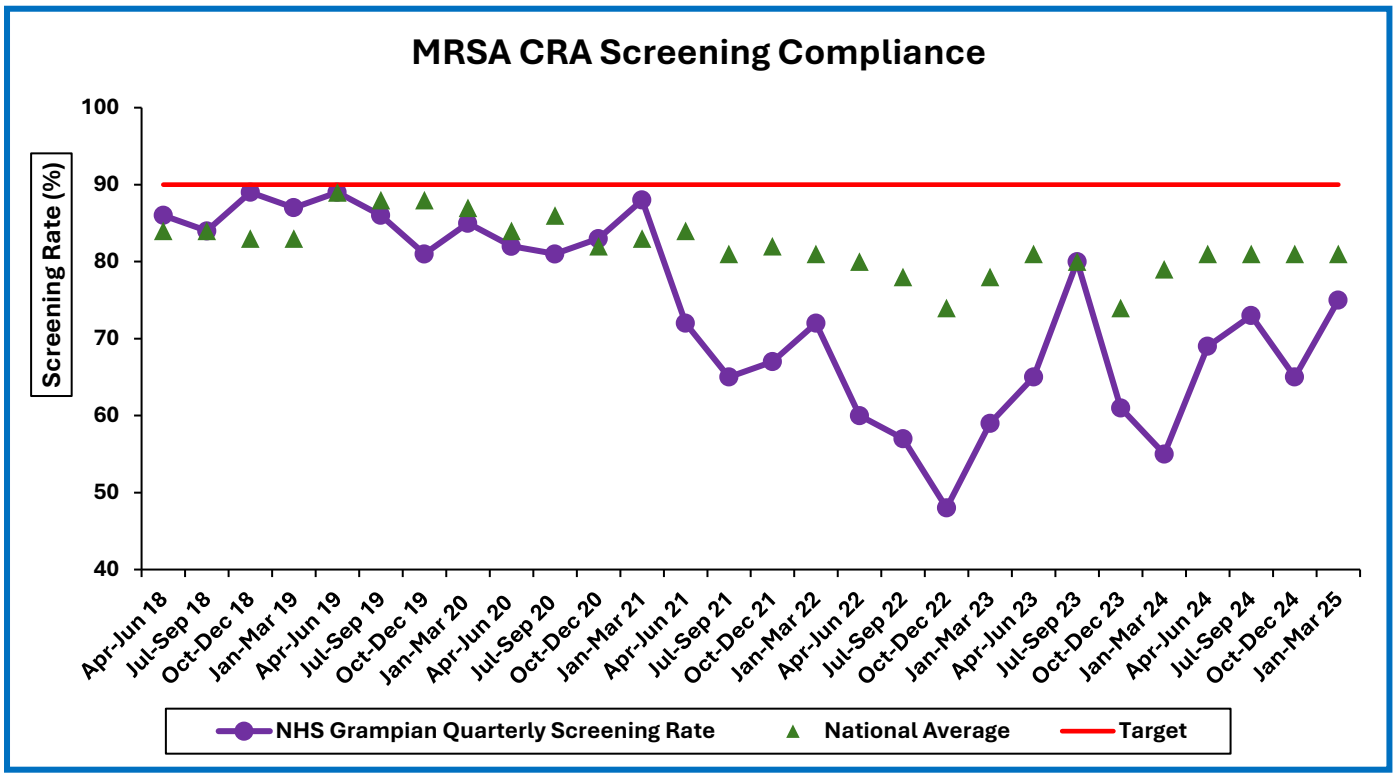
NB: Limit breaches have not been annotated due to there not being enough points of data from the restart in September 2023. These will be added on reaching 25 points of data post September 2023.

National surveillance was paused to support the COVID-19 response and has not yet resumed; this is currently under review by ARHAIS.

2.5 Meticillin-Resistant *Staphylococcus Aureus* (MRSA) Screening

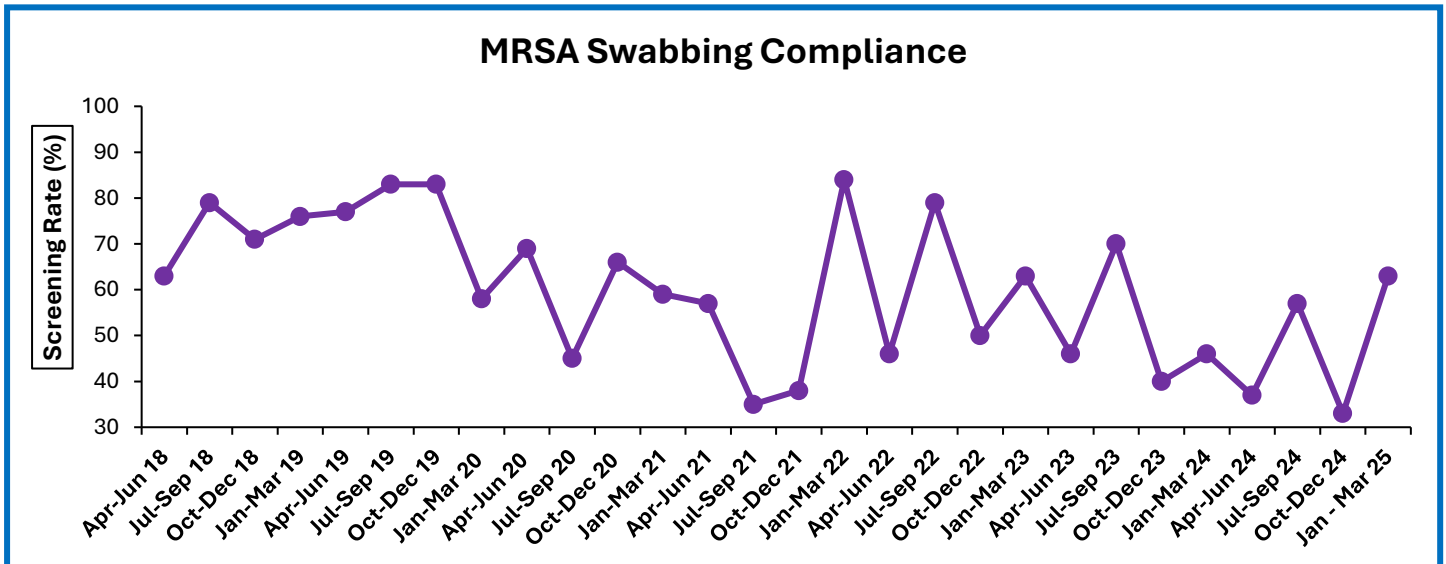
For a definition of this organism and details about surveillance, please see Appendix 1.

NHS Grampian's MRSA CRA screening compliance for January to March 2025 was 75%. This is an increase from the previous quarter (65%) but remains below the national average (81%) and the national target (90%).



The MRSA CRA screening figures are tabled at the NHS Grampian Acute HAI Group meetings, for awareness and so that actions can be taken, where necessary, to improve compliance. It continues to be raised at NHS Grampian governance meetings, and meetings with nursing leadership teams to identify interventions to improve adherence.

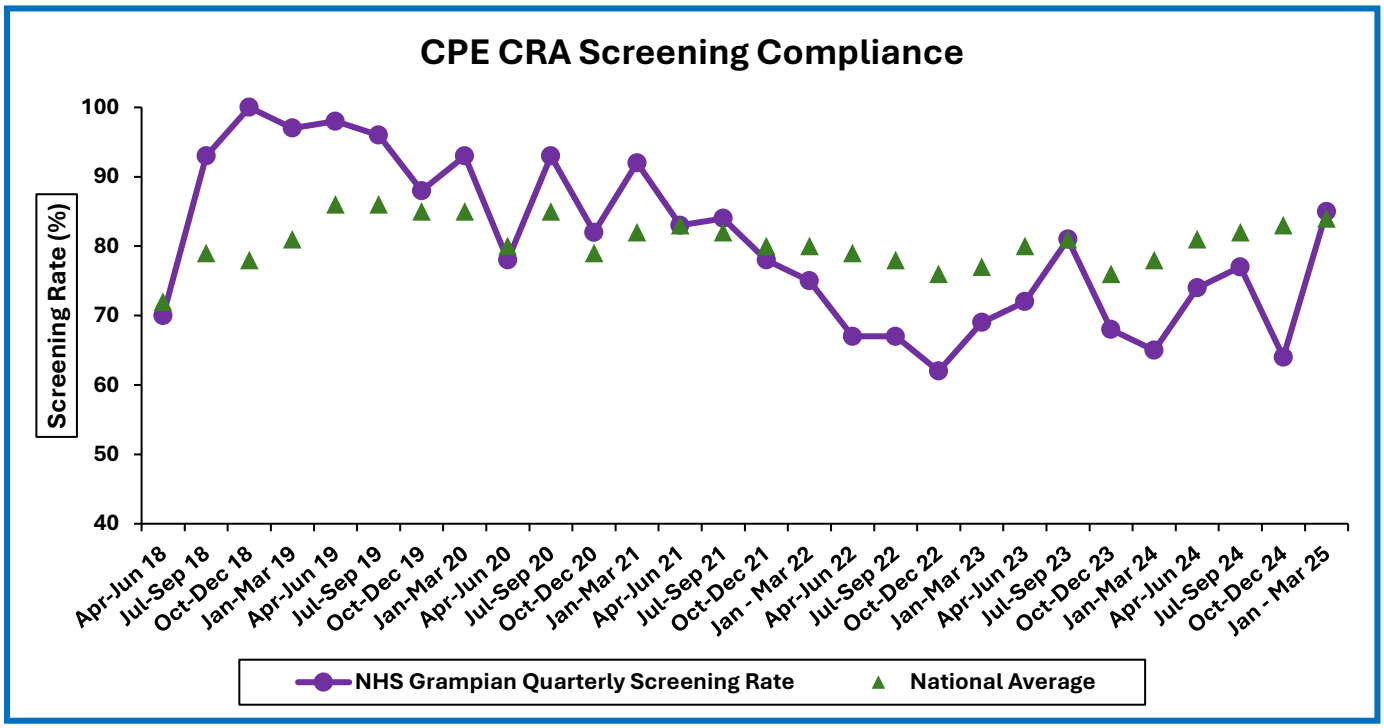
NHS Grampian's MRSA swabbing compliance for January to March 2025 was 63%. This is an Increase from the previous quarter (33%).



2.6 Carbapenemase Producing Enterobacteriaceae (CPE) Screening

For a definition of this organism and details about surveillance, please see Appendix 1.

NHS Grampian's CPE Clinical Risk Assessment (CRA) screening compliance for January to March 2025 was 85%. This is an Increase from the previous month's compliance (64%) and is above the national average (84%).



The CPE CRA screening figures are tabled at the Acute HAI Group meetings, for awareness and so that actions can be taken, where necessary, to improve compliance. It continues to be raised at NHS Grampian governance meetings, and meetings with nursing leadership teams to identify interventions to improve adherence.

2.7 Antibiotic Use Indicators for Scotland (Data source NSS Discovery)

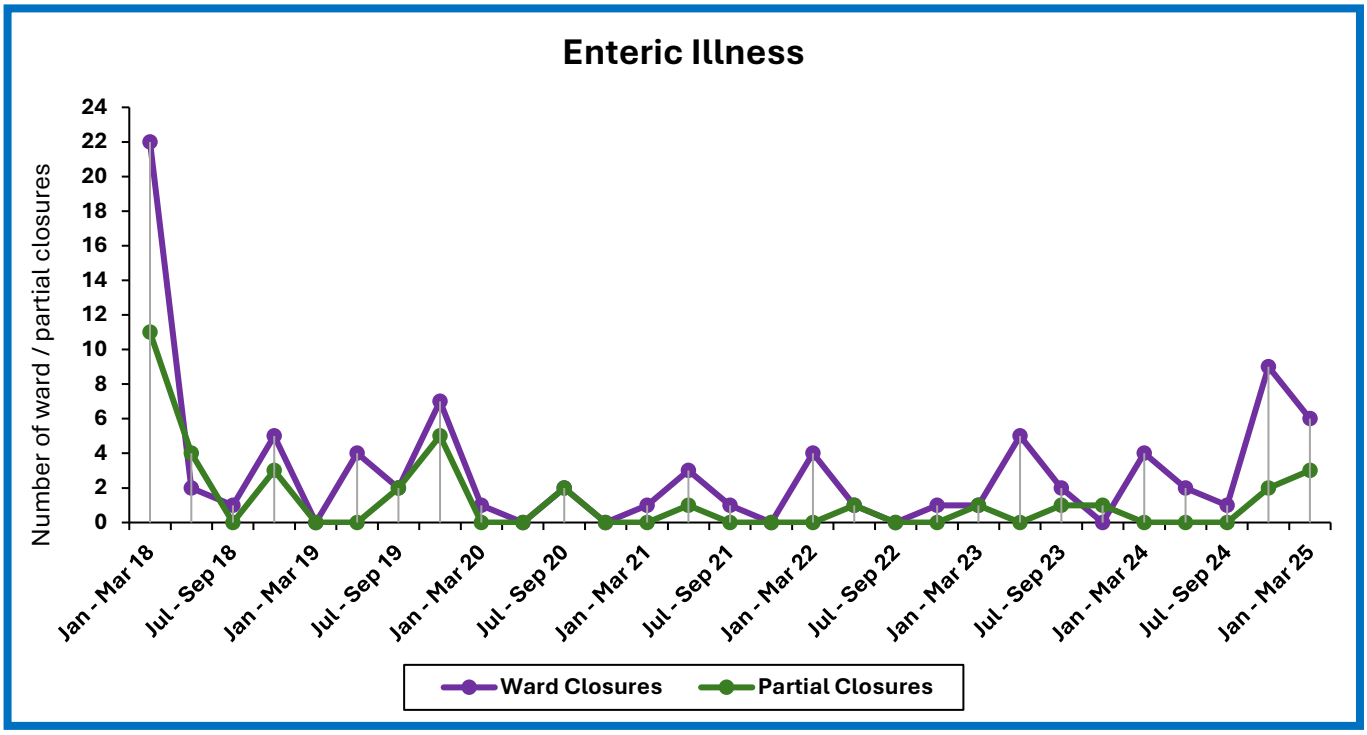
No updated data is currently available from NSS Discovery. Publication of revised indicators is awaited from the Scottish Government.

2.8 Incidents and Outbreaks

For information on incidents and outbreaks, please see Appendix 1.

2.8.1 Enteric Illness

For the period January to March 2025 there were 6 full ward closures and 3 partial closures in NHS Grampian due to enteric illness. During the previous quarter there was 9 ward closure and 2 partial closures due to enteric illness.

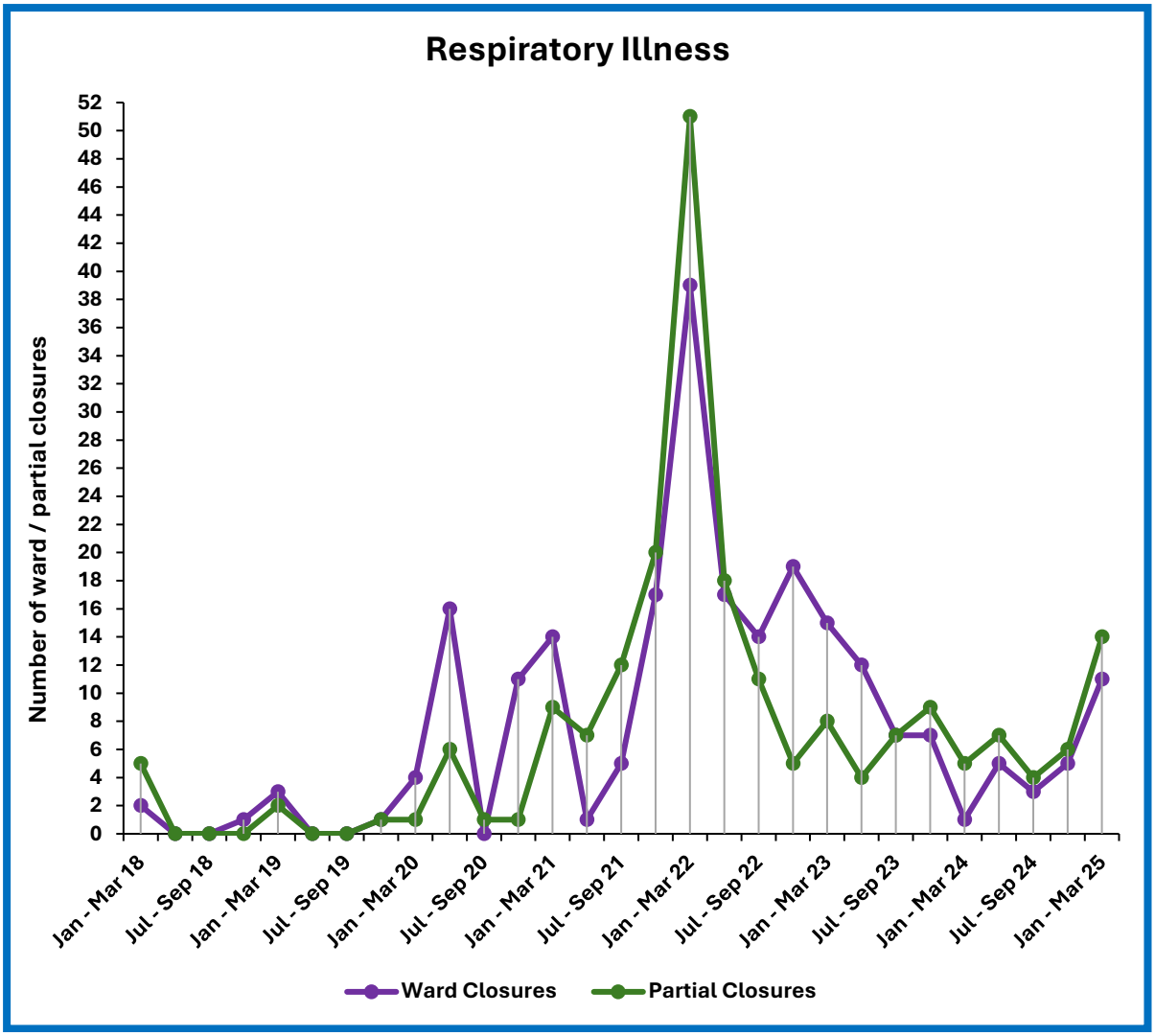


Adding together ward closures and partial closures will illustrate the overall impact.

2.8.2 Respiratory Illness

For information on incidents and outbreaks, please see Appendix 1.

For the period January and March 2025 there were 11 full ward closures and 14 partial closures in NHS Grampian due to respiratory illness (including confirmed or suspected Influenza and COVID-19). During the previous quarter there were 5 ward closures and 6 partial closures due to respiratory illness.



Partial and ward closures figures are combined in the summary page to illustrate the overall impact.

2.9 Preliminary Assessment Group (PAG) and Incident Management Team (IMT) Meetings

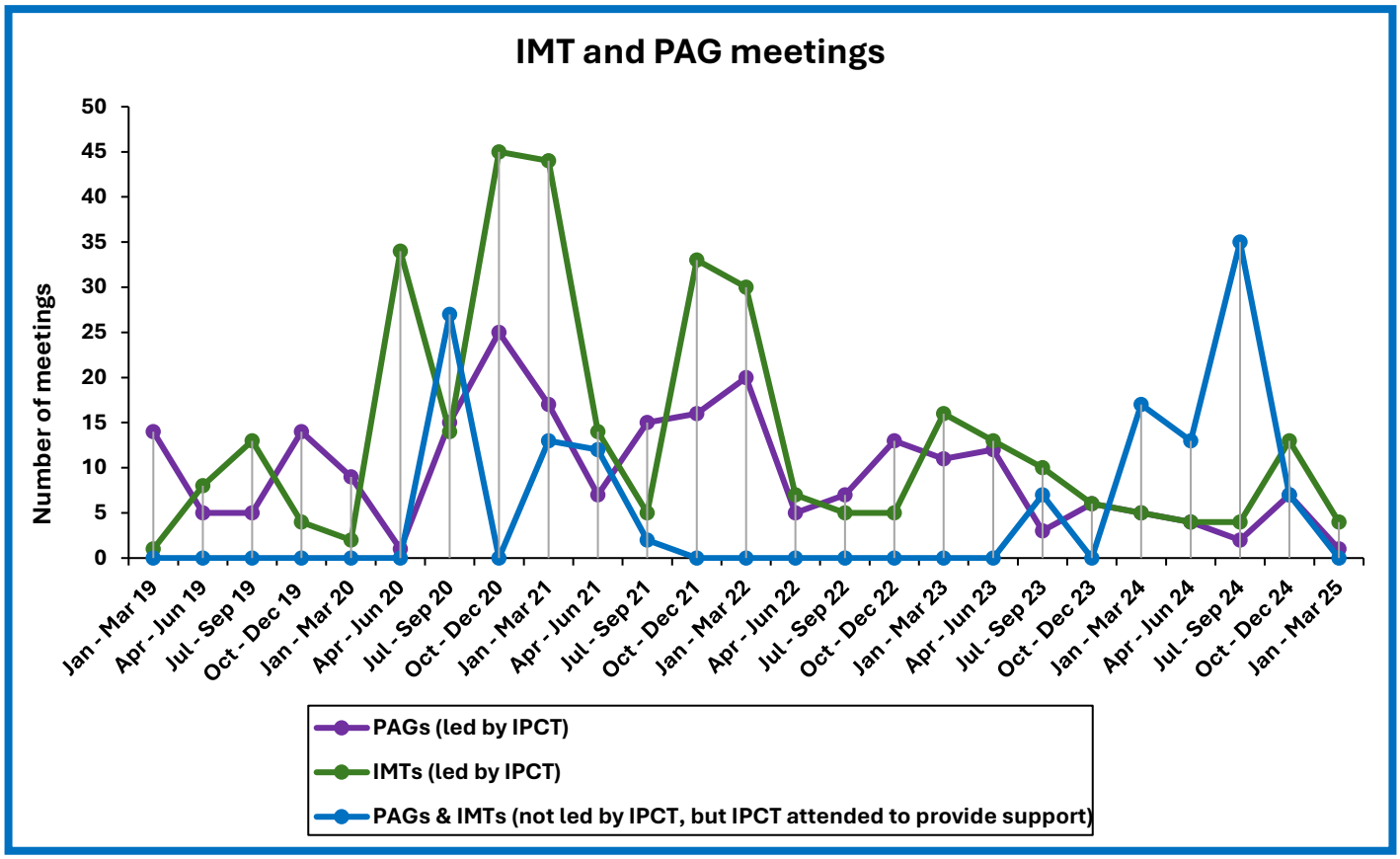
For information on PAG and IMT meetings, please see Appendix 1.

2.9.1 IPC-Led Meetings (January–March 2025)

Meeting Type	Number of Meetings	Reason(s)
PAG	1	Influenza
IMT	4	2 × VRE, 1 × Enterobacter, 1 × Pseudomonas

***Table 1**: Reason for IPC-Led PAG and IMT Meetings*

Between January and March 2025, the Infection Prevention & Control (IPC) Team led one Preliminary Assessment Group (PAG) meeting and four Incident Management Team (IMT) meetings within NHS Grampian. During the same period, the IPC Team did not provide support to any PAG or IMT meetings led by other teams.



2.10 Cleaning and the Healthcare Environment

For information on the monitoring of cleaning and the healthcare environment, please see Appendix 1.

Between January and March 2025, NHS Grampian was, overall, compliant with the required cleanliness standards, as monitored by the Facilities Monitoring Tool. NHS Grampian was, overall, also compliant during the previous quarter.

	January 2025 Domestic	January 2025 Estates	February 2025 Domestic	February 2025 Estates	March 2025 Domestic	March 2025 Estates	Jan - March (Q1) 2025 Domestic	Jan – March (Q1) 2025 Estates
NHS Grampian Overall	**92.35**	**93.50**	**92.75**	**93.30**	**92.95**	**93.40**	**92.68**	**93.40**
Aberdeen Maternity Hospital, RACH & Outlying Areas	90.65	93.95	92.75	94.15	92.65	95.00	92.01	94.37
Aberdeen Royal Infirmary	92.85	94.90	93.65	95.55	93.55	95.75	93.35	95.40
Aberdeenshire North & Moray Community	95.20	91.75	96.10	95.30	94.75	90.10	95.35	92.38
Aberdeenshire South & Aberdeen City	92.20	91.85	91.10	**88.10**	91.05	91.70	91.45	90.55
Dr Gray's Hospital	94.15	90.05	92.95	**88.90**	92.95	**89.65**	93.35	**89.53**
Royal Cornhill Hospital	92.55	92.35	**86.60**	91.65	94.85	93.85	91.33	92.61
Woodend Hospital	90.35	91.40	**87.10**	90.08	91.00	92.55	**89.48**	91.34

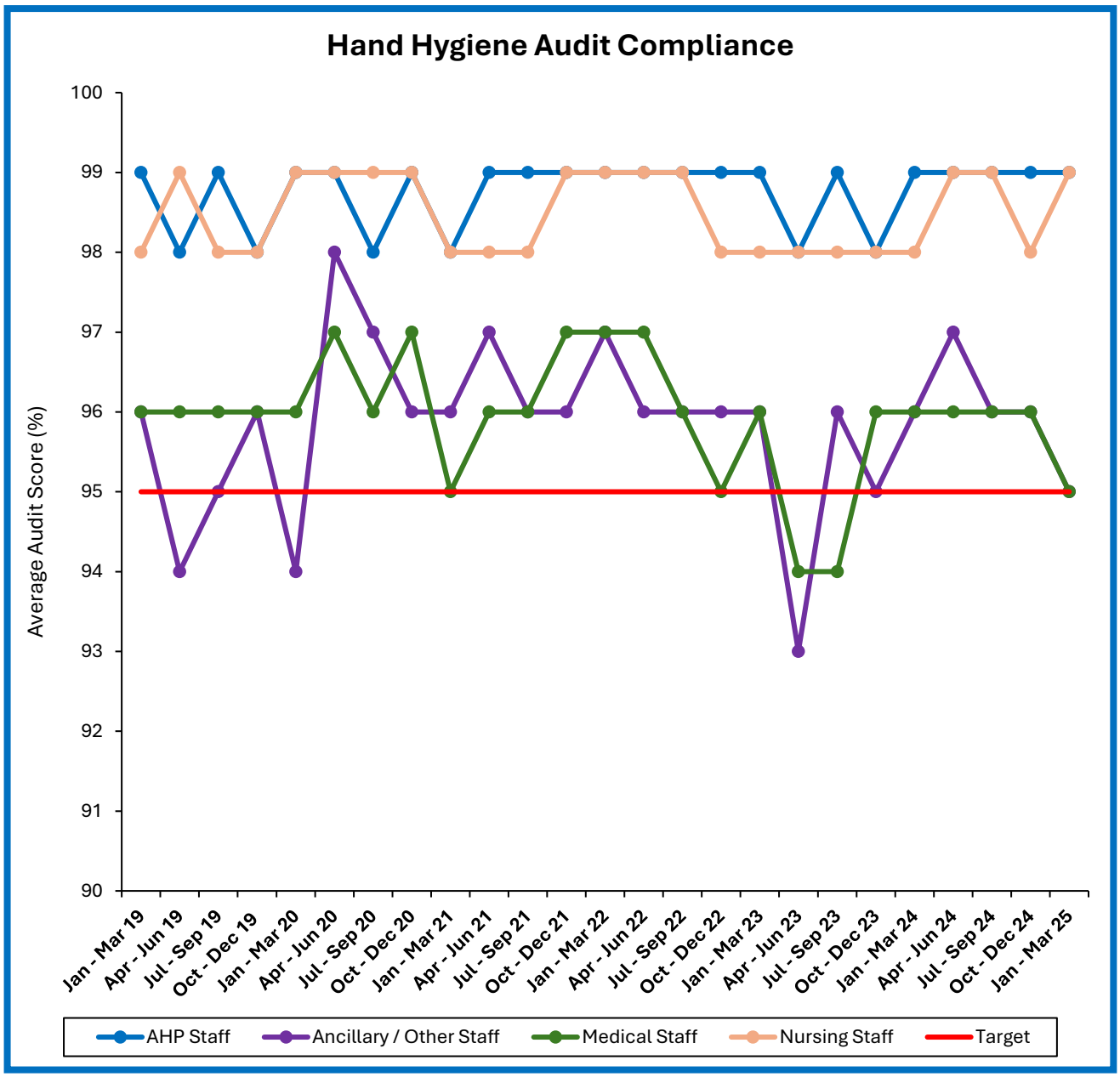
***Table 2**: shows the cleanliness standards, as monitored by the Facilities Monitoring Tool.*

2.11 Hand Hygiene Compliance

For information on hand hygiene audit compliance, please see Appendix 1.

During the period January to March 2025, hand hygiene audit compliance scores across NHS Grampian staff groups were as follows:

- **Allied Health Professionals (AHPs): 99% (unchanged from previous quarter)**
- **Nursing staff: 99% (↑ from 98%)**
- **Medical staff: 95% (↓ from 96%)**
- **Ancillary / Other staff: 95% (↓ from 97%)**


Hand Hygiene Audit Compliance
Average Audit Score (%)
100
99
98
97
96
95
94
93
92
91
90
Jan - Mar 19
Apr - Jun 19
Jul - Sep 19
Oct - Dec 19
Jan - Mar 20
Apr - Jun 20
Jul - Sep 20
Oct - Dec 20
Jan - Mar 21
Apr - Jun 21
Jul - Sep 21
Oct - Dec 21
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Apr - Jun 22
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Oct - Dec 22
Jan - Mar 23
Apr - Jun 23
Jul - Sep 23
Oct - Dec 23
Jan - Mar 24
Apr - Jun 24
Jul - Sep 24
Oct - Dec 24
Jan - Mar 25
AHP Staff
Ancillary / Other Staff
Medical Staff
Nursing Staff
Target

3. References

1. *Scottish Healthcare Associated Infection Strategy 2023 – 2025*. Available at: https://www.gov.scot/publications/scottish-healthcare-associated-infection-hcai-strategy-2023-2025/documents/

2. *Director's letter from the Scottish Government regarding Healthcare Associated Infection (HCAI) and Indicators on Antibiotic Use*. Available at: https://www.publications.scot.nhs.uk/files/dl-2023-06.pdf

3. *NHS Grampian Staff Protocol for the Screening and Placement of Patients with Meticillin-Resistant Staphylococcus aureus (MRSA) within NHS Healthcare Settings (Excluding Care Homes)* – Version 5, September 2022. Available at**:** http://nhsgintranet.grampian.scot.nhs.uk/depts/InfectionPreventionAndControlManual/Documents/NHSG%20Staff%20Protocol%20for%20the%20Screening%20and%20Placement%20of%20Patients%20with%20MRSA%20within%20NHS%20Healthcare%20Settings%20September%202022.pdf

4. *ARHAIS Data & Intelligence for Multi-drug resistant organism admission screening (2021*). Available at:https://www.nss.nhs.scot/antimicrobial-resistance-and-healthcare-associated-infection/data-and-intelligence/multi-drug-resistant-organism-admission-screening/

5. *Director's letter from the Scottish Government regarding policy requirement for Carbapenemase Producing Enterobacteriaceae (CPE) Screening in NHS Boards (2017).* Available at:https://www.sehd.scot.nhs.uk/dl/DL(2017)02.pdf

6. *Health Protection Scotland (2019) National Infection prevention and Control Manual – Chapter 3.* Available at: http://www.nipcm.hps.scot.nhs.uk/chapter-3-healthcare-infection-incidents-outbreaks-and-data-exceedance/

7. *Health Protection Scotland (2022) Healthcare Infection Incident Assessment Tool. Available at:* http://www.nipcm.hps.scot.nhs.uk/appendices/appendix-14-mandatory-nipcm-healthcare-infection-incident-assessment-tool-hiiat/

8. *Management of Public Health Incidents: Guidance on the Role and Responsibilities of NHS Led Incident Management Teams. Available at:* https://hpspubsrepo.blob.core.windows.net/hps-website/nss/1673/documents/1_shpn-12-mphi-21062017.pdf

9. World Health Organisation – Hand Hygiene Technical Manual (2009). Available at: https://www.who.int/publications/i/item/9789241598606

10. CEL 5 (2009) – Zero Tolerance to Non Hand Hygiene Compliance. Available at: https://www.publications.scot.nhs.uk/publication/2848

Appendix 1

Organism definitions, surveillance information, and information on processes

Clostridioides (formerly Clostridium) difficile Infection (CDI) Surveillance

Clostridioides difficile (C.diff) is a spore forming bacterium occurring naturally and harmlessly in the bowel in up to 5% of the population. It can develop into an infection when the balance of the gut flora is disturbed by taking antibiotics and other medications. Age is also a risk factor as the majority of cases can be found in people over 65 years of age. The main symptom of *C.diff* is diarrhoea, which can range from mild to life threatening.

C.diff can be easily spread by released spores landing on surrounding surfaces. It can then be picked up by someone touching these contaminated surfaces and not cleaning their hands properly with running water and liquid soap. Putting contaminated hands near the mouth or eating can then allow the spores to spread to the gut and infect this new person.

It is important to realise that *C.diff* can develop in the community as well as in hospital.

C.diff data for patients aged 15 and above is collected for the mandatory Scottish *Clostridioides difficile* Surveillance programme, and reported to ARHAI Scotland, following a robust investigation of every possible case by the NHS Grampian Infection Prevention and Control Team. Positive samples can be excluded if the patient does not fulfil the surveillance criteria or has another cause for their diarrhoea. The data is then fed back to every ward in NHS Grampian, by way of monthly reports and statistical process control charts. To date the surveillance has been very successful in enabling NHS Grampian to reduce the infection rate, prevent outbreaks and promote patient safety.

In regard to national CDI targets for healthcare associated cases, one of the objectives in the Scottish Healthcare Associated Infection Strategy 2023 – 2025[1] is for ARHAIS Scotland and the Scottish Government to review the current national HAI targets and indicators[2] to ensure that they are relevant and reflective of current context.

Further information on CDI surveillance can be found at:
https://www.nss.nhs.scot/publications/protocol-for-the-scottish-surveillance-programme-for-clostridioides-difficile-infection-user-manual/

Escherichia coli Bacteraemia (ECB) Surveillance

Escherichia coli (E.coli) is a Gram Negative bacterium that forms part of the normal flora in the human gastrointestinal tract and is a common cause of urinary tract and hepatobiliary infections. Serious disease may occur if *E. coli* breaches the body's deference mechanisms and enters the bloodstream (bacteraemia).

It is important to be aware that *E.coli* Bacteraemia can occur in the community as well as in hospital.

In Scotland, mandatory surveillance for ECB commenced in 2016. Each case is robustly investigated by the microbiology and Infection Prevention and Control team. The origin of each positive blood culture is classified as either Healthcare or Community associated, and the source established according to ARHAI Scotland protocols.

In regard to national ECB targets for healthcare associated cases, one of the objectives in the Scottish Healthcare Associated Infection Strategy 2023 – 2025[1] is for ARHAIS Scotland and the Scottish Government to review the current national HAI targets and indicators[2] to ensure that they are relevant and reflective of current context.

Information on the national surveillance programme for *Escherichia coli* infection can be found at: https://www.nss.nhs.scot/antimicrobial-resistance-and-healthcare-associated-infection/data-and-intelligence/escherichia-coli-bacteraemia/

Enhanced *Staphylococcus aureus* Bacteraemia (SAB) Surveillance

Staphylococcus aureus (S. aureus) is a Gram-positive bacterium that colonises the nasal cavity and/or groin in approximately a third of the population. Although colonisation is harmless, serious infection occurs if *S. aureus* breaches the skin barrier and enters the bloodstream, usually by way of a skin break, in the community, e.g. leg ulcer, or by way of a hospital device such as a peripheral venous catheter. This is called a bacteraemia. From there it can migrate to deep sources, e.g. osteomyelitis, joint replacements and infective endocarditis.

In Scotland, mandatory enhanced surveillance for *Staphylococcus aureus* bacteraemia (*SAB*s) commenced in 2014. The origin of each positive blood culture is classified as either Healthcare or Community associated, and the entry point, any deep sources, and whether the cause has been potentially preventable or not, is established at a multi-disciplinary team meeting, according to ARHAI Scotland protocols.

If a healthcare associated case is deemed to have been potentially preventable, it is Datixed by the NHS Grampian surveillance team in order to provide governance and establish a culture of lessons learned, to increase patient safety. All SABs are also fed back to clinical teams by way of an SBAR, monthly reports and statistical process control charts for each area and hospital.

In regard to national SAB targets for healthcare associated cases, one of the objectives in the Scottish Healthcare Associated Infection Strategy 2023 – 2025[1] is for ARHAIS Scotland and the Scottish Government to review the current national HAI targets and indicators[2] to ensure that they are relevant and reflective of current context.

More information on the national surveillance programme for *Staphylococcus aureus* bacteraemias can be found at: https://www.nss.nhs.scot/publications/protocol-for-national-enhanced-surveillance-of-bacteraemia/

Surgical Site Infection (SSI) Surveillance

A Surgical Site Infection (SSI) is an infection that occurs in the 30 days following surgery, and may be superficial, deep or organ/space. It is one of the most common types of HAI in Scotland.

In Scotland, the mandatory Surgical Site Infection (SSI) surveillance programme commenced in 2002, the aim being to monitor trends and outbreaks, and reduce SSI rates by collaboration with surgical colleagues.

The mandatory procedures included in the surveillance are:

- Caesarean Section
- Hip arthroplasty
- Large bowel surgery (planned only)
- Vascular surgery (planned only)

The data is measured against other health boards in Scotland by ARHAI Scotland.

Local monthly data is fed back to clinical teams.

Mandatory SSI surveillance was paused in April 2020, due to the COVID-19 pandemic, and has not restarted at the present time. This is currently under review by ARHAI Scotland.

In regard to national SSI targets for healthcare associated cases, one of the objectives in the Scottish Healthcare Associated Infection Strategy 2023 – 2025[1] is for ARHAIS Scotland and the Scottish Government to review the current national HAI targets and indicators[2] to ensure that they are relevant and reflective of current context.

Information on the national surveillance programme for Surgical Site Infection can be found at: https://www.nss.nhs.scot/antimicrobial-resistance-and-healthcare-associated-infection/data-and-intelligence/surgical-site-infection/

Voluntary SSI surveillance for caesarean sections recommenced in NHS Grampian in September 2023. This was following a request from the obstetric team in Aberdeen Maternity Hospital (AMH), as they required some baseline data for caesarean sections performed in AMH, so that they can compare data when they move to the new Baird Family Hospital once building is complete. Please note that Dr Gray's Hospital stopped performing caesarean sections in August 2018, so has not been included in any SSI surveillance for caesarean sections since that time.

This voluntary data is for local use only and is not sent to ARHAI Scotland.

A Statistical Process Control (SPC) chart is a quality improvement tool which shows continuous real-time data and helps distinguish between natural and unnatural variation, shows when and where there is a need to act, aids communication, and helps show if interventions have been successful. They are used by the Infection Prevention & Control Team to guide where infection control processes might be awry, using alert organisms as indicators. They are intended to help get systems under control and keep them stable, resulting in reduced variation.

- **Centre Line (CL)**
  The centre line should run through the centre of the data and is the average of all the data points. This is where we want the data to be. The data will naturally go up and down around the centre line and is called 'natural variation'. Eight data points in a row above this line indicates an upwards trend.
- **Warning Level (WL)**

Data which reaches or exceeds this level indicates that there may be an issue in that area which should be investigated.

- **Upper Control Limit (UCL)**
  Data which reaches or exceeds this limit is of concern, as it indicates that the chart is out of control in that area. Plans should be made to investigate and instigate corrective practices.

Meticillin-Resistant *Staphylococcus Aureus* (MRSA) Screening

MRSA is a *Staphylococcus aureus (S. aureus)* that is resistant to commonly used antibiotics e.g. flucloxacillin. This makes MRSA infections more difficult and costly to treat, hence every effort must be made to prevent spread[3]. Both MRSA and *S. aureus* are transmitted in the same way and cause the same range of infections. The majority of MRSA positive individuals are colonised. This occurs when an organism lives harmlessly on the body, e.g. skin, with no signs or symptoms of infection. Infection is characterised by inflammation including redness, heat, swelling, pain, loss of function and/or if the organism gains entry or penetrates tissue or sterile sites and causes further disease processes.

Early detection of high-risk patients – using a clinical risk assessment (CRA) based approach – allows early isolation while microbiological samples are tested. This reduces the opportunity for transmission if a patient is colonised or infected. To ensure that CRA based screening is as effective as universal screening, a minimum of 90% compliance with application of the CRA is required for MRSA Screening[4].

More information on the national surveillance programme for MRSA screening can be found at: https://www.hps.scot.nhs.uk/web-resources-container/protocol-for-cra-mrsa-screening-national-rollout-in-scotland/

The results for MRSA swabbing, which commenced during 2018, are not reported nationally. There is no local, or national, target for MRSA swabbing.

Carbapenemase Producing Enterobacteriaceae (CPE) Screening

CPEs are highly resistant bacteria with very few (if any) antimicrobial treatment options. The number of CPE cases in Scotland remains low, however, there has been a 50% increase in cases between 2016 (73) and 2017 (108). The majority of cases were acquired abroad and consequently reduced during the Covid-19 pandemic.

Individuals may be colonised e.g. in the gut requiring no treatment. On the other hand, CPE may cause a range of clinical infections associated with high rates of morbidity and mortality.

CPE screening and data collection commenced on 1st April 2018 at the request of the Scottish Government. All NHS Boards are required to undertake clinical risk assessment (CRA) based screening as per the mandatory requirements of DL (2017) 2[5]. The NHS Grampian target, for compliance with application of the CRA based screening for CPE, is set at 90%.

More information on CPE screening can be found at:

https://www.hps.scot.nhs.uk/resourcedocument.aspx?id=6990

The number of patients in NHS Grampian returning a positive CRA for CPE is predicted to be very low and, as such, swabbing is not required. Therefore there is no CPE swabbing data available for NHS Grampian.

Incidents and Outbreaks

Any ward closures (complete ward closures as well as only partial ward closures) in NHS Grampian due to enteric illness (including confirmed or suspected Norovirus) and due to respiratory illness (including confirmed or suspected Influenza, and confirmed or suspected COVID-19) are included in outbreak reports sent by the Infection Prevention & Control Team to ARHAIS each week day.

For the purpose of this report, if any ward has a partial closure immediately before or after a complete closure (for the same incident), then it has only been included once (as a complete closure).

For the purpose of this report, if a ward has a complete or partial closure that continues into the following quarter, then it has only been included once (in the quarter that the incident began).

Preliminary Assessment Group (PAG) and Incident Management Team (IMT) Meetings

In NHS Grampian the Infection Prevention and Control Team are continually alert for an actual or potential healthcare incident, infection and outbreak or data exceedance. We apply Chapter 3 of the National Infection Prevention and Control Manual[6]. The Healthcare Infection Incident Assessment Tool (HIIAT)[7] guides assessment, communication and escalation of risk within the Health Board, ARHAIS and Scottish Government. Multi-disciplinary meetings to address the infection risk are called Preliminary Assessment Group (PAG) and Incident Management Team (IMT) meetings.

A PAG may be convened to assess and determine if an IMT is required or whether there has been a greater than expected data exceedance, such as non-compliant hand hygiene audits.

An IMT is defined as a multi-disciplinary, multi-agency group with responsibility for investigating and managing an incident[8].

PAG and IMT meetings establish and monitor risk control measures for patient and staff safety, and can be supported by NHS Grampian's Health Protection Team and ARHAIS.

Cleaning and the Healthcare Environment

Information on the domestics and estates audits which are carried out in NHS Grampian hospitals on a monthly basis can be found within the National Facilities Monitoring Framework Manual: https://www.nss.nhs.scot/publications/national-facilities-monitoring-framework-manual-shfn-01-01/ https://www.nss.nhs.scot/publications/national-facilities-monitoring-framework-manual-shfn-01-01/

Hand Hygiene

All wards / depts in NHS Grampian are required to undertake monthly hand hygiene audits, during which twenty observations are made of staff undertaking the "5 moments of Hand Hygiene" (as detailed in the World Health Organisation's Hand Hygiene Technical Manual, 2009[9]). For each observation to be deemed compliant, the opportunity to perform hand hygiene must have been taken **and** the hand hygiene technique must have been performed correctly.

Good hand hygiene practice is central to the control and prevention of HAIs[10]. NHS Grampian has a zero-toleranceapproach to hand hygiene, and, as such, the target compliance score for hand hygiene audits is 95%.

For reporting purposes, staff observed during hand hygiene audits are split into four main groups:

- Medical
- Nursing
- Allied Health Professionals
- Ancillary / Other

For the purpose of this report, the average percentage for each quarter has been rounded up or down to the nearest whole figure.

Further information on the hand hygiene auditing process within NHS Grampian can be found in the NHS Grampian Staff Protocol for Hand Hygiene Auditing: https://nhsgintranet.grampian.scot.nhs.uk/depts/InfectionPreventionAndControlManual/Documents/NHS%20Grampian%20Staff%20Protocol%20for%20Hand%20Hygiene%20Auditing%20v3%20August%202022.pdf