

NHS Greater Glasgow and Clyde	Paper No. 22/93
Meeting:	NHS Board
Meeting Date:	20/12/2022
Title:	The Healthcare Associated Infection Reporting Template (HAIRT) - Position Paper
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1. Purpose

The Healthcare Associated Infection Reporting Template (HAIRT) is a mandatory reporting tool for the Board to have an oversight of the Healthcare Associated targets (*Staphylococcus aureus* bacteraemias (SAB), *Clostridioides difficile* infections (CDI), *E. coli* bacteraemias (ECB), incidents and outbreaks and all other Healthcare Associated Infections' (HCAI) activities across NHS Greater Glasgow & Clyde (NHSGGC) over the month of October 2022.

The full HAIRT will now be considered by the Clinical and Care Governance committee on an ongoing basis with a summary or a position paper being submitted to the NHS Board meeting.

2. Executive Summary

The paper can be summarised as follows:

- Annual Operational Plan (AOP) targets set for 2019-2023 for SAB, CDI and ECB are presented in this report;
 - SAB rates remain within expected limits. There were 24 healthcare associated SAB reported locally in October 2022. Aim is 23 or less per month. We remain within expected limits and continue to support improvement locally to reduce rates via the Infection Prevention and Control Quality Improvement Network (IPCQIN).
 - ECB rates remain within normal control limits. There were 44 healthcare associated ECB in October 2022, the aim is to have less than 39 cases per month.
 - There were 20 healthcare associated CDI this this, which is over the monthly aim of 17 cases or less.
 - Surgical Site Infection (SSI) surveillance remains paused nationally. Local surveillance continues.
 - MRSA and CPE Clinical Risk Assessment (CRA) compliance for July to September 2022 were 91% and 89% respectively. NHS GGC continue to perform well in terms of the overall rate for NHS Scotland for both of these measures.

- Prospective SAB, CDI and ECB data with origin of infection is available to clinical staff via MicroStrategy IPC dashboard. SSI surveillance information is also available. This ensures frontline clinical teams have access to real time data to inform decisions and actions to reduce healthcare associated infections. This dashboard will continue to be developed.
- The Board's cleaning compliance is 95% and Estates compliance is 96% for the month.
- The IPCT continue to support the organisation to manage successive waves of COVID-19.
- The following link is the ARHAI report for the period April to June 2022. This report includes information on GGC and NHS Scotland's performance for Clostridioides difficile infection, Escherichia coli bacteraemia, Staphylococcus aureus bacteraemia and Surgical Site Infection in Scotland (windows.net). The 2023 targets continue to be challenging but the ARHAI report demonstrates that GGC are not outliers in any category presented. Charts within this report, where appropriate, highlight continuous improvement over time. Reduced variability indicate stable systems.
- The fourth issue of the Infection Prevention and Control Quality Improvement Network (IPCQIN) newsletter was issued to staff via Core Brief in October 2022. This ensures shared learning across the organisation on the improvements implemented thus far by the network.
- COVID-19 activity continued during this month. IPCT are working closely with
 colleagues to support the implementation of national guidance in practice. ARHAI
 have updated the publication of COVID-19 data to exclude community onset
 cases and no longer report on hospital admissions by NHS Board. To date, in
 NHSGGC, there have been over 500,000 confirmed positive cases reported.

3. Recommendations

The NHS Board is asked to consider the following recommendations:

- Note the content of the HAIRT report.
- Note the performance in respect of the Annual Operational Plan (AOP) Standards for SAB, CDI and ECB.
- Note the detailed activity in support of the prevention and control of Healthcare Associated Infections.

4. Response Required

This paper is presented for assurance

5. Impact Assessment

The impact of this paper on NHSGGC's corporate aims, approach to equality and diversity and environmental impact are assessed as follows:

Better Health
 Better Care
 Better Value
 Better Workplace
 Equality & Diversity
 Positive impact impact
 Positive impact
 Positive impact
 Neutral impact

• Environment <u>Positive</u> impact

6. Engagement & Communications

The issues addressed in this paper were subject to discussion with the Infection Prevention and Control (IPC) Team and the IPC Surveillance & Data Team. Comments were also taken into consideration from the below groups when reviewing the content and format following presentation:

- Partnerships Infection Control Support Group (PICSG)
- Acute Infection Control Committee (AICC)
- Board Infection Control Committee (BICC)
- Clinical and Care Governance Group.

7. Governance Route

This paper has been previously considered by the following groups as part of its development:

- The Infection Prevention and Control Team (IPCT)
- Partnerships Infection Control Support Group (PICSG)
- Acute Infection Control Committee (AICC)
- Board Infection Control Committee (BICC)
- Clinical and Care Governance Committee

This paper is then shared with the Board Clinical Governance Forum for information once considered by CCGC.

8. Date Prepared & Issued

Date the paper was written: 06/12/2022 Date issued to NHS Board on: 13.12.2022

Healthcare Associated Infection Summary – October 2022

The HAIRT Report is the national mandatory reporting tool and is presented quarterly to the Clinical and Care Governance Committee with a summary report to the NHS Board. This is a Scottish Government requirement and informs NHSGGC of activity and performance against Healthcare Associated Infection Standards and performance measures. This section of the report focuses on NHSGGC Board-wide prevention and control activity and actions.

Performance at a glance relates only to the month reported and should be viewed in the context of the overall trend in the following pages.

	Oct 2022	Status toward AOP target (based on trajectory to Mar 2023)
Healthcare Associated <i>Staphylococcus aureus</i> bacteraemia (SAB)	24	Aim is 23 per month
Healthcare Associated <i>Clostridioides difficile</i> infection (CDI)	20	Aim is 17 per month
Healthcare Associated <i>Escherichia coli</i> bacteraemia (ECB)	44	Aim is 38 per month
Hospital acquired IV access device (IVAD) associated SAB	3	
Healthcare associated urinary catheter associated ECB	6	
Hand Hygiene	96	
National Cleaning compliance (Board wide)	95	
National Estates compliance (Board wide)	96	

Key infection control challenges (relating to performance)

Staphylococcus aureus bacteraemia

• There were 24 healthcare associated SAB in October, Aim is 23 or less per month.

Clostridioides difficile infection

• There were 20 healthcare associated CDI in October. Aim is 17 or less per month.

Escherichia coli bacteraemia

• There were 44 healthcare associated ECB October. Aim is 38 or less per month.

SAB, CDI and ECB case numbers remain within control limits this month.

Surgical Site Infection Surveillance

 Surveillance was paused nationally (CNO letter 25th March 2020) however, NHSGGC continued to sustain SSI surveillance until December 2021, when it was paused locally due to the surveillance nurses being deployed to support the vaccine rollout programme.
 Surveillance recommenced on 1st February 2022.

Healthcare Associated Infection (HCAI) Surveillance

NHSGGC has systems in place to monitor key targets and areas for delivery. The surveillance and HCAI systems and ways of working allow early detection and indication of areas of concern or deteriorating performance.

Staphylococcus aureus bacteraemia (SAB)

	Oct
	2022
Total	27
Hospital *	14
Healthcare*	10
Community	3

HCAI monthly Aim for Hospital and Healthcare is 23 patient cases.

Healthcare associated *S. aureus* bacteraemia total for the rolling year November 2021 to October 2022 = 306

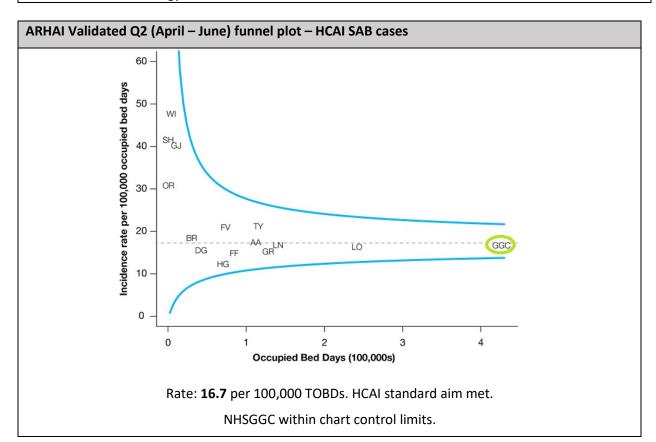
HCAI yearly aim is 280.

*Hospital and Healthcare are the cases which are included in the Scottish Government (SG) reduction target.

All SAB Cases

Comment:

- There was an reduction in SAB cases in September 2022 with 25 cases in total, however this has increased in October by 2 cases.
- The number of Healthcare Associated SAB cases has been variable but within expected limits since 2020. October HCAI cases have returned to within expected limits with 24 cases.
- Community cases have shown a reduction since March 2021. Cases remain within control limits with minimal variation which indicates a stable system.
- 21% of Hospital Acquired SABs were related to an IV access device.
- In addition to the nationally set targets and mandatory surveillance, in GGC infections from an IVAD caused by S. aureus or E.coli are investigated fully and reported in the monthly directorate reports and in the quarterly SAB & ECB report.
- There are now local SAB reduction groups in each of the geographical sectors and Regional Services as part of the IPCQIN.
- Information (including source if known) for all acute hospital cases are available in real time on the MicroStrategy IPC dashboard.



E.coli bacteraemia (ECB)

	Oct 2022
Total	76
Hospital *	18
Healthcare*	26
Community	32

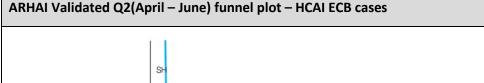
HCAI Aim for Hospital and Healthcare is 38.

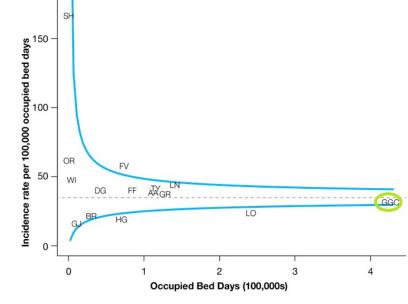
Healthcare associated *E. coli* bacteraemia total for the rolling year November 2021 to October 2022 = 534. HCAI yearly aim is **452**.

*Hospital and Healthcare are the cases included in the SG reduction target.

Comment:

- There has been a decrease in the overall number of ECB cases for this month.
- There was an increase in Healthcare Associated ECB cases in August and a slight reduction in September cases and more redcution in October cases. Enhanced surveillance of ECB continues and is prospectively available to view by clinicians on Microstrategy.
- There has also been a reduction in monthly community onset cases this month.
- Urinary catheters remain a risk factor for ECB, and were associated with **14%** of all healthcare associated cases this month.
- SPC charts for healthcare associated cases related to a urinary catheter are now included in each Acute Sector monthly report.
- Ward level data of entry point of bacteraemia is also available via MicroStrategy. This provides
 real time information to Senior Charge Nurses to assist in the decision to use improvement
 methodology to test interventions that may lead to a reduction in the number of patients with
 this infection.
- The Public Health Scotland Urinary Catheter Care Passport contains guidelines to help minimise
 the risk of developing an infection and is available at: HPS Website Urinary Catheter Care
 Passport (scot.nhs.uk)
- Information (including source if known) for all acute hospital cases are available in real time on the MicroStrategy IPC dashboard.





Rate: **31.6** per 100,000 TOBDs.

NHSGGC within chart control limits.

Clostridioides difficile infection (CDI)

	Oct 2022
Total	22
Hospital *	12
Healthcare*	4
Indeterminate*	4
Community	2

HCAI aim for Hospital and Healthcare and Indeterminate onset is 17.

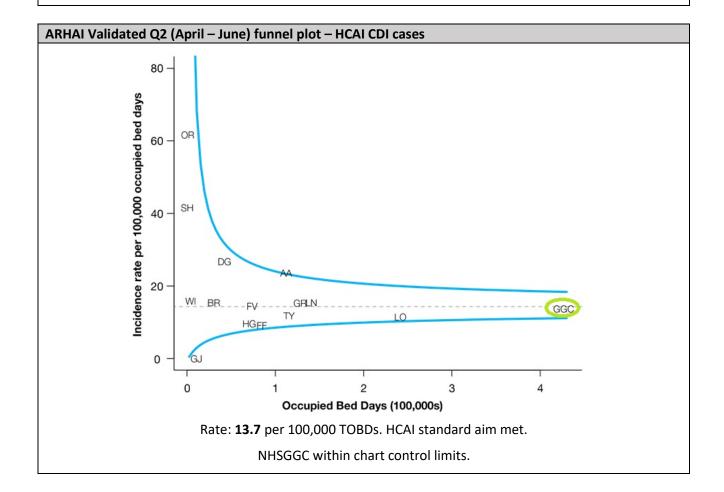
Healthcare associated *Clostridioides difficile* total for the rolling year November 2021 to October 2022 = 200

HCAI yearly aim is 204.

* Hospital, Healthcare & Indeterminate are the cases which are included in the SG reduction target.

Comment:

- There has been a reduction in overall cases from October 2021 to date. The IPCT continues to closely monitor and implement local actions in any area with higher than expected numbers.
- There has also been a reduction in the Healthcare Associated cases and the community cases.
- Information on all Acute hospital cases are available on Micro-Strategy.



Micro-Strategy and ICNet – prospective tailored data provision on SAB, CDI, ECB and SSI Surveillance

IPC have been working collaboratively with eHealth colleagues to incorporate several measures into the MicroStrategy dashboard. These went live in May 2021.

This has enabled staff to quickly view real time information on SAB, CDI and ECB from point of care to Board level. The software platform has the benefits of providing users with the ability to view all key quality indicators in one screen to get a quick overview of performance in real-time and also easily interpret detailed information with data graphics.

Security access for each specific user will allow tailored access to interactive dossiers for each ward area. The system provides functionality to filter reports seamlessly for the users and the capacity to view trends over time in order to monitor improvement in the reduction of HCAI cases in NHSGGC.

This will allow SCNs in the Acute Sector to access their own ward level data on each of the three measures. Lead Nurses, Clinical Service Managers and General Managers will have access to the wards and hospitals included in their remit.

Acute Directors, the Chief Operating Officer and Chief Executive will also be able to view this information via the suite of reporting tools. Surgical Site Infection (SSI) surveillance information was also incorporated into the platform in December 2021.

This provides information and data on surgical procedures included in the SSI programme to the respective surgical clinicians in real time.

Meticillin resistant Staphylococcus aureus (MRSA) and Clostridioides difficile recorded deaths

The National Records of Scotland monitor and report on a variety of death causes recorded on the death certificate. Two organisms are monitored and reported; MRSA and *C. difficile*. Please click on the link for further information:

https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths

There were 3 deaths in October 2022 where hospital acquired *Clostridioides difficile* was recorded in one of the parts of the patient's death certificate. These were all considered to be antibiotic associated and not due to cross infection (all were in different wards and did not cross in time or place). Datix incident reports were raised and the clinical teams were asked to complete clinical reviews.

There were no deaths where hospital acquired MRSA was recorded on a death certificate.

Hand Hygiene Monitoring Compliance

NHSGGC	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct
	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
Board Total	98	97	98	98	98	97	97	97	97	96

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 are randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 80%, a re-audit is scheduled. Estates compliance assesses 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% trigger a re-audit.

Infection Prevention and Control Quality Improvement Network (IPCQIN) Update

The IPCQIN aim is to create the organisational conditions to facilitate and support the reduction of preventable infections associated with healthcare delivery. The Steering Group and the Operational Group continue to meet and the three main work streams are progressing.

The fourth issue of the network's Newsletter was shared with staff in October 2022 and included in the previous report. The fifth addition is scheduled for February 2023.

COVID-19

NHS Scotland is now experiencing its most recent wave of COVID-19. At time of reporting, in NHSGGC there have been over **500,000** confirmed positive cases.

This data is publically available at: <u>Daily COVID-19 Cases in Scotland - Total Cases By Health Board - Scottish Health and Social Care Open Data (nhs.scot)</u>

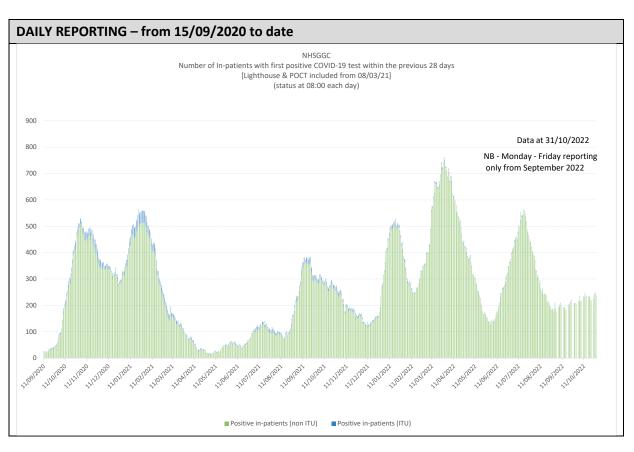
This has continued to be a significant wave in terms of inpatient activity, with an average of 231 inpatients per day over the month of October, however ICU in-patient activity has been very low.

As well as the IPCNs providing advice and expertise to the local clinical teams, the IPCT monitor all COVID-19 positive cases in hospital to assist with both national and local data collection.

The bar graph displays the number of in-patients across all GGC hospitals who tested positive for COVID-19. In blue is the number of people in intensive care areas. Data correct as of 31st October 2022.

Please note there has been significant changes to testing requirements, as per DL(2022)32. Details of these changes be viewed here www.sehd.scot.nhs.uk/dl/DL(2022)32.pdf

Further information on the revisions to testing and reporting are available at: Why we are changing our COVID-19 reporting - Our blog - Public Health Scotland



Reporting includes only those in-patients who have had a first positive COVID-19 test within the previous 28 days. It includes Lighthouse, PCR and selected point of care testing results (Not LFD). Reporting process changed in September 2022 with Monday to Friday (excluding weekends and public holidays).

Public Health Scotland now publish weekly reports on the incidence of COVID-19 in Scotland. These are available at: https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/covid-19-statistical-report/

Further information on Coronavirus (COVID-19) data, intelligence and guidance is available at: https://www.publichealthscotland.scot/our-areas-of-work/sharing-our-data-and-intelligence/coronavirus-covid-19-data-and-guidance

Ward closures due to COVID-19

There were 25 ward closures in October 2022 for COVID-19.

Month	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	July 2022	Aug 2022	Sep 2022	Oct 2022
Ward Closures	65	41	84	47	13	36	36	21	10	25
Bed Days Lost	3262	2087	3576	1582	526	1834	1545	809	620	595

Outbreaks or Incidents in October 2022

Outbreaks / Incidents

Outbreaks and incidents across NHSGGC are identified primarily through ICNet (surveillance software package), microbiology colleagues or from the ward. ICNet automatically identifies clusters of infections of specific organisms based on appendix 13 of the National Infection Prevention & Control Manual (NIPCM) to enable timely patient management to prevent any possible spread of infection. The identification of outbreaks is determined following discussion with the Infection Control Doctor/Microbiologist. In the event of a possible or confirmed outbreak/incident a Problem Assessment Group (PAG) or Incident Management Team (IMT) meeting is held with staff from the area concerned, and actions are implemented to control further infection and transmission.

The ARHAI Healthcare Infection Incident Assessment Tool (HIIAT) is a tool used by the IMT/PAG to assess the impact of the outbreak or incident. The tool is a risk assessment and allows the IMT/PAG to rate the outbreak/incident as RED, AMBER, or GREEN.

All incidents that are HIIAT assessed are reported to the Antimicrobial Resistance & Healthcare Associated Infection (ARHAI) group.

HIIAT

The HIIAT is a tool used by boards to assess the impact of an outbreak or incident. The tool is a risk assessment and allows boards to rate the outbreak/incident as RED, AMBER, or GREEN. ARHAI are informed of all incidents who onward report to the Scottish Government Health and Social Care Directorate (SGHSCD).

HIIAT GREEN - 27 reported in October 2022 HIIAT AMBER - 4 reported in October 2022 HIIAT RED - 3 reported in October 2022

(COVID-19 incidents are now included in the above totals but not reported as incident summaries)

Outbreaks/Incidents (HIIAT assessed as AMBER or RED excluding COVID-19)

Glasgow Royal Infirmary, Intensive Care, ITU West - Environmental Bacteria: Acinetobacter Baumannii

3 cases of HAI MDRO *Acinetobacter baumanii* in ITU West in a 13 day period. The incident was HIIAT assessed as AMBER on 7th October 2022 then GREEN on 11th October 2022. Cases 1 and 2 appeared to be from the same cluster on PFGE analysis. Organism is Carbapenemase producing as well as MDR, Oxa 51 and 23. All three patient cases received board spectrum antibiotics. Prescribing was on advice from microbiology which was appropriate for the patients' underlying conditions. Following investigation and the control measures being in place, the incident was closed on 26th October 2022.

Control Measures/Actions:

- Patients 1 and 3 were isolated in single rooms with TBPs. Due to significant competing demands on the limited number of single rooms in ITU, case 2 was unable to be isolated. TBPs were in place at the bed space and a failure to isolate risk assessment was completed.
- Patient's bed spaces were terminally cleaned on discharge form the unit and terminal clean of ITU
 West was completed on 30th September 2022. Daily second enhanced clean of ITU commenced. Hand
 hygiene education was carried out in the unit and hand hygiene toolbox talk was in use. Corporate
 hand hygiene and dress code message from Sector SMT was issued on 6th October 2022.
- Vents cleaned on 24th October 2022. Drains were cleaned on 14th October 2022.
- SICPs ongoing via safety brief huddles.
- Environmental sampling was carried out and all was negative.
- Hand hygiene audit ITU West 21/09/22 opportunities taken 90%; combined compliance 90%. Hand hygiene audit ITU West 11/10/22 opportunities taken 100%; combined compliance 100%.
- IPCT completed SICPs audit in ITU West on 01/09/22 92%. Action plan completed and no outstanding actions.

Glasgow Royal Infirmary, Medicine - Influenza virus A

2 cases of influenza A (1 community acquired and 1 indeterminate) were identified on 19th October 2022 within a single medical Ward in Glasgow Royal Infirmary, within a 24 hour period. The incident was HIIAT assessed as GREEN on 31st October 2022 then RED on 4th November 2022 due to the death of one of the patients and was then de-escalated to GREEN again and closed on 7th November 2022.

Control Measures/Actions

- Virology screening of all patients was completed. No further cases of influenza detected. Ward closed to admissions at incident reporting and re-opened on 31/10/22.
- Staff PPE used as per National Infection Prevention and Control Manual (NIPCM).
- Contacts of cases requested to wear facemasks as part of incident control management.
- All asymptomatic inpatient contacts were monitored for clinical signs and symptoms of Influenza A.
- Influenza prophylaxis considered for all patients.

As no further cases were identified, the incident was de-escalated and closed.

Greater Glasgow & Clyde COVID-19 Incidents:

During October there were 5 outbreaks of COVID 19 which scored either AMBER (3) or RED (2). As a precautionary principle, during incidents and outbreaks in GGC, if COVID 19 appeared on any part of a patient's death certificate the assessment was considered to be automatically RED. This was in excess of what is in the HIIAT assessment tool in which states that a major impact on patients should be defined as

"Patients require major clinical interventional support as a consequence of the incident and/or Severe/life threatening/rare infection and/or there is associated mortality."

All incidents and outbreak are reported to ARHAI regardless of the assessment. National guidance has been implemented for all incidents and outbreaks as per the NIPCM (COVID 19 Appendix 21 – Pandemic Controls for Acute NHS Settings including Scottish Ambulance Service (SAS) Dental Services).

Sector	GRI	QEUH	GGH	RAH	VoL
COVID-19 (RED HIIAT)	2	0	0	0	0

Healthcare Environment Inspectorate (HEI)

There was an unannounced inspection to QUEH in June 2022. The report has been published with 9 areas of good practice, 2 recommendations and 4 requirements. This was a very positive report and highlights good leadership, communication with patients and relatives, audit and surveillance practices.

In addition there was an unannounced inspection to Inverclyde Royal Hospital on the 18th & 19th of October. The report on this inspection will be published on the 23rd January.

All HEI reports and action plans can be viewed by clicking on the link:

http://www.healthcareimprovementscotland.org/our_work/inspecting_and_regulating_care/nhs_hospitals_and_services/find_nhs_hospitals.aspx

Multi-drug resistant organism screening

As part of the national mandatory requirements, each board is expected to screen specific patients for resistant organisms. These are Carbapenemase producing Enterobacteriaceae (CPE) and MRSA. Assessment to screen depends on a clinical risk assessment performed on all admissions to indicate whether the patient requires to be screened. On a quarterly basis we assess compliance of completing this risk assessment to provide assurance of effective screening and report this nationally. The national expectation of compliance is **90%**.

Last validated quarter	NHSGGC 89% compliance rate for CPE screening	Scotland 78%
Jul-Sep 2022 (Q3)	NHSGGC 91% compliance rate for MRSA screening	Scotland 78%

Data collection for Q4 is currently underway.