

NHS Greater Glasgow and Clyde	Paper No. 21/44
Meeting:	NHSGGC Board Meeting
Meeting Date:	17 August 2021
Title:	The Healthcare Associated Infection Report for May and June 2021
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Report Author:	Mrs Sandra Devine, Interim Infection Control Prevention and Control Manager and

1. Purpose

The purpose of the attached paper is to: The Healthcare Associated Infection Reporting Template (HAIRT) is a mandatory reporting tool for the Board to have oversight of the Healthcare Associated targets (*Staphylococcus aureus* bacteraemias (SAB), *Clostridioides difficile* infections (CDI), *E. coli* bacteraemias (ECB), incidents and outbreaks and all other HCAI activities across NHS Greater Glasgow & Clyde (NHSGGC) over the period of May and June 2021.

The HAIRT will now be presented as a bi monthly report and the IPCT would welcome any comments on this new format. The full HAIRT will now be considered by the Clinical and Care Governance committee on an ongoing basis.

2. Executive Summary

The paper can be summarised as follows:

- AOP targets set for 2019-2022 for SAB, CDI and ECB are presented in this report.
- Board SAB rate remains within limits. There were 25 healthcare associated SAB in May 2021 and 30 in June 2021. Aim is 23 or less per month. Actions to address HCAI SAB reduction are included in the report.
- CDI remain within normal control limits for the period of the report. There were 21 healthcare associated CDI in May 2021 and 19 in June 2021. Aim is 17 or less per month. There were two triggers in June 2021, RAH Ward 6 and Langlands Unit Ward 53, QEUH campus. Samples were sent to the reference laboratory and the typing confirmed that they were different types in both triggers and therefore not due to cross infection. All other cases were antibiotic associated.
- ECB remain within normal control limits. There were 58 healthcare associated ECB in May 2021 and 40 in June 2021. Aim is 38 or less per month.

- Surgical Site Infection (SSI) surveillance paused nationally from April 2020 to date as part of the COVID-19 response however GGC continues with local SSI surveillance programme.
- Both the Infection Prevention and Control (IPC) Quality Improvement Network Steering Group and the Operational Group now meet routinely and the main four workstreams that support and deliver the objectives of the Operational Group have been established and have made progress.
- The IPCT Audit Programme Benchmarking process has been completed and GGC has met with colleagues from ARHAI, Healthcare Environment Inspectorate (HEI) and neighbouring boards to review all processes. An SBAR has been submitted into the infection control clinical governance groups with recommendations, however, we continue to await final comments from ARHAI but we anticipate that the final position will be agreed in August 2021.
- COVID-19 activity continued during May and June 2021. IPCT are working closely with colleagues in Health and Safety, PHPU and Occupational Health to ensure national guidance is supported in practice. To date in NHSGGC there have been over 76,000 confirmed positive cases however many people do not require admission to our hospitals. There was a slight increase in ward closures; 8 in May and 6 in June compared to the previous period where 14 wards were closed in March but only 3 wards were closed in April 2021.

3. Recommendations

The NHS Board is asked to consider the following recommendations:

- Note 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 Infection.
- Note contribution of the IPCT to GGC response to COVID-19.

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 | <u>Positive</u> impact |
| • Better Care | <u>Positive</u> impact |
| • Better Value | <u>Positive</u> impact |
| • Better Workplace | <u>Neutral</u> impact |
| • Equality & Diversity | <u>Neutral</u> 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 Team. Comments were also taken into consideration from the below groups when reviewing the content and format following presentation:

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

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

8. Date Prepared & Issued

Date the paper was written: 20/07/2021

Date issued to Board Members on: 10/08/21

Note:

*Please refer to **Appendix -1:** Health Care Associated Infection Reporting Guidance, Glossary, Definitions and Targets.*

Healthcare Associated Infection Summary – May and June 2021

The HAIRT Report is the national mandatory reporting tool and is presented bi-monthly to the NHS Board. This is a requirement by the Scottish Government HAI Task Force 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 two months reported and should be viewed in the

	May 2021	Jun 2021	Status toward AOP target (based on trajectory to Mar 2022)
Healthcare Associated <i>Staphylococcus aureus</i> bacteraemia (SAB)	25	30	Above aim (23/ month)
Healthcare Associated <i>Clostridioides difficile</i> infection (CDI)	21	19	Above aim (17/ month)
Healthcare Associated <i>Escherichia coli</i> bacteraemia (ECB)	58	40	Above aim (38/ month)
Hospital acquired IV access device (IVAD) associated SAB	2	7	
Hand Hygiene	97%	97%	
National Cleaning compliance (Board wide)	95%	95%	
National Estates compliance (Board wide)	95%	97%	

context of the overall trend in the following pages.

Key infection control challenges (relating to performance)**Staphylococcus aureus bacteraemia**

- There were 25 healthcare associated SAB in May 2021 and 30 in June 2021. Aim is 23 or less per month.

Clostridioides difficile infection

- There were 21 healthcare associated CDI in May 2021 and 19 in June 2021. Aim is 17 or less per month.

Escherichia coli bacteraemia

- There were 58 healthcare associated ECB in May 2021 and 40 in June 2021. Aim is 38 or less per month

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

Surgical Site Infection Surveillance

- Surveillance paused nationally (CNO letter 25 March 2020)

Local SSI surveillance recommenced 1 June 2020 and is reported directly to clinical teams.

Staphylococcus aureus bacteraemia (SAB)

	May 2021	Jun 2021
Total	33	35
Hospital *	8	21
Healthcare*	17	9
Community	8	5

Healthcare associated *S. aureus* bacteraemia total for a rolling year: July 2020 to June 2021 = 292.
HCAI yearly aim is 280.

*Hospital and Healthcare are the cases which are included in the Scottish Government (SG) reduction target (n=25) in May and (n=30) in July 2021.

HCAI Aim for Hospital and Healthcare is 23.

Comment:

- Number of SAB cases has been variable but within expected limits since August 2019.
- Evidence of sustained improvement over time, however, there has been an increase in March 2021 but this increase can still be considered to be natural variation.
- Community cases have shown a reduction since March 2021.
- Enhanced surveillance has not been undertaken on some cases due to IPC COVID response requirements. ARHAI currently only require origin of infection for SAB and ECB.
- Enhanced bacteraemia surveillance temporarily switched to light methodology as directed by SG because of the acknowledged increased workload of IPCTs responding to the challenges of COVID-19.
- In addition to the nationally set targets, infections from an IVAD caused by *S. aureus* are investigated fully and reported.
- 7 hospital acquired cases in June 2021. Ward audits of device care plans are being undertaken by the IPCT and results fed back to nursing team at time of audit. Common themes were the failure to complete the care plan and consequently the care bundle.

E.coli bacteraemia (ECB)

	May 2021	Jun 2021
Total	97	90
Hospital *	33	18
Healthcare*	25	22
Community	39	50

Healthcare associated *E. coli* bacteraemia total: July 2020 to June 2021 = 573.
HCAI yearly aim is 452.

*Hospital and Healthcare are the cases included in the SG reduction target (n=58) in May and (n=40) in June 2021.

HCAI Aim for Hospital and Healthcare is 38.

Comment:

- There remains some variability in monthly community onset cases.
- Urinary catheters were associated with 26% of all healthcare associated cases in the past two months (May and June 2021).
- The IPC Nurse Consultant is currently undertaking a review of measures to reduce avoidable harm in cases associated with invasive devices including urinary catheters. Device associated infection is one of the workstreams in the improvement collaborative and it is anticipated that this work will support local improvement plans to reduce infections due to urinary catheters.

<i>Clostridioides difficile</i> infection (CDI)		
	May 2021	Jun 2021
Total	28	28
Hospital *	15	9
Healthcare*	2	10
Indeterminate*	4	0
Community	7	9

Healthcare associated *Clostridioides difficile* total: July 2020 to June 2021 = 231.
HCAI yearly aim is 204.

* Hospital, Healthcare and Indeterminate are the cases which are included in the SG reduction target (n=21) in May and (n=19) in June 2021.

HCAI for Hospital and Healthcare and Indeterminate onset is 17.

Comment:

- There has been an increase in monthly case numbers since March 2021, however within control limits.
- There has been an increase in HCAI cases in the past four months however this is plateauing.
- Community acquired cases have also had a slight increase in 2021 to date but remain.

Hospital acquired cases and action Taken:

- All patients are reviewed by the IPCT and advice is given regarding antimicrobial prescribing, isolation and transmission based precautions.
- The IPCNs visit patients and discuss the infection and what this means for them.
- Any ward with 2 cases of HAI in two weeks is automatically visited daily and the SCN is assisted with the completion of the ARHAI Trigger Tool.
- Any clusters (2) are sent to the Reference Lab for testing.
- Each ward receives an updated CDI Statistical Process Control (SPC) chart each month.
- There was two trigger in June 2021, RAH Ward 6 and Langlands Unit Ward 53, QEUH campus. Samples were sent to the reference laboratory and the typing confirmed that they were different types in both triggers and therefore not due to cross infection. All other cases were antibiotic associated.

MicroStrategy and ICNet – prospective tailored data provision on SAB, CDI and ECB: May 2021
<p>IPC have been working collaboratively with eHealth colleagues to incorporate several measures into the MicroStrategy dashboard. These went live in May 2021.</p> <p>This will enable staff to quickly view prospective information on SAB, CDI and ECB from ward 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 hospital performance in real-time and also easily interpret detailed information with data graphics.</p> <p>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 to monitor improvement in the reduction of HCAI cases in NHSGCC.</p> <p>This will allow senior charge nurses 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.</p> <p>Acute Directors, the Chief Operating Officer and Chief Executive will also be able to view this information via the suite of reporting tools.</p> <p>Work is ongoing to capture SSI surveillance information on the platform which will also provide</p>

prospective data provision on existing surgical procedures to the respective surgical clinicians.

Surgical Site Infection (SSI) Surveillance

May and June 2021 procedures

SSI surveillance was temporarily paused in April and May 2020 due to COVID-19 response. Local surveillance recommenced 1 June 2020. Please note, graphs are for SSIs detected as in-patient and up to 30 day re-admission only (excluding Caesarean-section – which is 10 days post discharge surveillance). Surveillance is currently ongoing for June 2021 procedures. Prospective information on SSIs detected is returned to local clinical teams for action if any is required.

Mandatory National Surveillance Procedures as reported on ARHAI:

- Case numbers remain within control limits for **Caesarean Section, Hip Arthroplasty, Large Bowel Surgery and Major Vascular**.

Voluntary Surveillance Procedures – GGC

- Case numbers remain within control limits for **Knee Arthroplasty, Repair of NOF, Cranial Surgery and Spinal Surgery – INS only**.
- **Free Flap – OMFS Surgery:** SSI surveillance of free flap donor sites, e.g. arm or leg for major maxillofacial reconstructive surgery has been undertaken at the QEUH site since November 2016. There have been zero SSI detected (to day 30 re-admission) for 20 consecutive months in this innovative surveillance programme.

IPCAT – Audit Programme

The SG Oversight Board made the following recommendation, “With the support of ARHAI Scotland and Healthcare Improvement Scotland, NHSGGC should undertake a wide-ranging programme to benchmark key IPC processes. Particular attention should be given to the approach to IPC audits, surveillance and the use of Healthcare Infection Incident Assessment Tools (HIIATs)”.

Benchmarking has been completed and GGC has met with colleagues from ARHAI, Healthcare Environment Inspectorate (HEI) and neighbouring boards to review all processes. An SBAR has been submitted into the infection control clinical governance groups with recommendations, however, we continue to await final comments from ARHAI but we anticipate that the final position will be agreed in August 2021.

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

There was one death in May 2021 where hospital acquired *Clostridioides difficile* was recorded on the death certificate. A Datix was raised and the clinical team was asked to complete a clinical review. There were no deaths in June 2021 due to hospital acquired *Clostridioides difficile*.

There were no deaths in May or June 2021 where hospital acquired MRSA was recorded on the death certificate

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

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woodwork etc. The results of these findings are shared with Serco/Estates for repair. Similar to the cleaning audit, scores below 80% triggers a re-audit.

In May 2021 the Cleaning compliance for GGC was 95.2% and the Estates compliance 95.1%. In June 2021 the Cleaning compliance remained at the same level however the Estates compliance increased to 96.7%.

Hand Hygiene Monitoring Compliance

NHSGGC Board

	July 2020	Aug 2020	Sept 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021
Board Total	98	97	98	98	97	98	98	98	98	97	97	97

Infection Prevention and Control Quality Improvement Network (IPCQIN) Update

The aim of the IPCQIN is that by April 2022, The IPCQI will create the organisational conditions to facilitate and support the reduction of preventable infections associated with healthcare delivery. The Steering Group and the Operational Group now meet routinely and the main four workstreams that support and deliver the objectives of the Operational Group have been established and have made progress.

The key results to date are:

- Communication strategy includes mission/vision statement, logo and branding specific to the work of the Network.
- Data SAB/ECB now available on the Microstrategy site for all Infection Control access device sub groups.
- Driver Diagram for Operational Group has been finalised.
- Flash reports have been established for all workstream groups and presented at the Steering Group.

COVID-19 - Update

NHS Scotland is now experiencing a third wave of COVID-19. To date in NHSGGC there have been over 76,000 confirmed positive cases however many people do not require admission to our hospitals.

As well as the IPCNs providing advice and expertise to the local clinical teams, the IPCT monitor all COVID-19 positive cases to assist with the provision of overall case numbers, ITU admissions and deaths.

The bar graph displays the number of in-patients across all GGC hospitals who are positive for COVID-19. In blue are the number of people in intensive care areas.

During the summer months the number of new cases decreased, and the methodology of counting in-patient cases was no longer viable for the reporting of recent onset of first positive COVID cases.

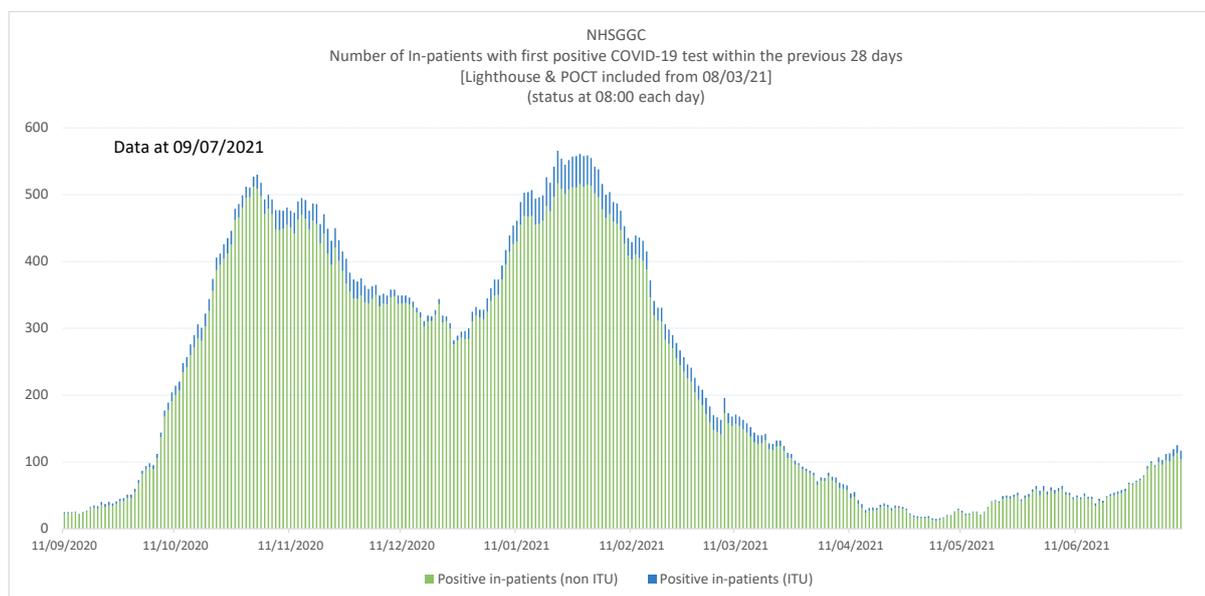
From 8 March 2021, NHSGGC Lighthouse positive test results are fully integrated into ICNet® (infection control clinical surveillance software system). This allows visibility of people who have had a positive result out with our hospital if they are subsequently admitted.

Ward closures due to COVID-19

There were 8 ward closures due to COVID-19 in May 2021, and 6 for June 2021.

Month	Jul-20	Aug-20	Sept-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
Ward Closures	0	1	9	44	37	35	49	34	14	3	8	6
Bed Days Lost	0	38	310	3583	3992	3665	4938	4122	1103	16	670	307

REPORTING – from 15/09/2020 to date



Daily reporting includes only those in-patients who have had a first positive COVID-19 test within the previous 28 days. Includes Lighthouse and current point of care testing results.

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 declared outbreak a Problem Assessment Group (PAG) or 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 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.

All incidents regardless of assessment are reported to ARHAI.

All incidents are reported to the Antimicrobial Resistance & Healthcare Associated Infection (ARHAI) group and a summary of the numbers reported in Greater Glasgow and Clyde are included in the Scottish

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Government Healthcare Associated Infection Reporting Template (HAIRT) a link to the reports for NHS Greater Glasgow and Clyde is below:

<https://www.nhsggc.org.uk/your-health/infection-prevention-and-control/reports-and-publications/hairt-reports-hairt/>

All outbreaks are notified to ARHAI and Scottish Government

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.

HIIAT **GREEN** - 2 reported for May, 1 for June

HIIAT **AMBER** - 5 reported for May, 0 for June

HIIAT **RED** - 0 reported for May, 1 for June

(COVID-19 incidents are now included in the above totals)

Healthcare Environment Inspectorate (HEI)

There have been no unannounced or announced visits.

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 91% compliance rate for CPE screening	Scotland 82%
Jan-Mar 2021		NHSGGC 90% compliance rate for MRSA screening	Scotland 83%
Current quarter		NHSGGC 91% compliance rate for CPE screening	Scotland tbc
Apr-Jun 2021		NHSGGC 90% compliance rate for MRSA screening	Scotland tbc