

NHSGGC COVER PAPER

NHS Greater Glasgow and Clyde	Paper No. 21/30
Meeting:	NHSGGC Board Meeting
Meeting Date:	29 June 2021
Title:	The Healthcare Associated Infection Reporting Template (HAIRT)
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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 March and April 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. Actions to address HCAI SAB reduction are included in the report.
- CDI remain within normal control limits for the period of the report.
- ECB remain within normal control limits.
- 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.
- An update on the proposed IPC Quality Improvement Network - Better, Safe, Clean and Clinical Environment has been included for information.

- COVID-19 activity continued during March and April 2021. The IPCT continue to review every case and are currently assisting with 'Test and Protect' as directed by the Public Health Protection Unit. IPCT are also working closely with colleagues in H & S and Occupational Health to ensure national guidance is supported in practice.
- The IPCT are also participating in the review of nursing homes as directed by the Board Nurse Director. A recruitment process for IPC nursing support for care homes is complete and the team commenced post on the 4 May 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: 17 June 2021

Date issued to Board Members: 23 June 2021

Note:

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

Healthcare Associated Infection Summary – March/April 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 month reported and should be viewed in the context of the overall trend in the following pages.

	Mar 21	Apr 21	Status toward AOP target (based on trajectory to March 2022)
Healthcare Associated <i>Staphylococcus aureus</i> bacteraemia (SAB)	15	30	Below aim in March and above aim in April (23)
Healthcare Associated <i>Clostridioides difficile</i> infection (CDI)	21	19	Above aim in March and April (17)
Healthcare Associated <i>Escherichia coli</i> bacteraemia (ECB)	40	52	Above aim in March and April (38)
Hospital acquired IV access device associated SAB	5	11	
Hand Hygiene	98%	97%	
National Cleaning compliance (Board wide)	96%	95%	
National Estates compliance (Board wide)	97%	96%	

Key infection control challenges (relating to performance)

- SAB, CDI and ECB case numbers remain within control limits this month.
- Surgical Site Infection Surveillance was paused nationally (CNO letter 25 March 2020). Local SSI surveillance commenced on 1 June 2020 in is reported directly to clinical teams.

***Staphylococcus aureus* bacteraemia (SAB)**

	Mar 21	Apr 21	HCAI Aim	Healthcare associated <i>S. aureus</i> bacteraemia total for a rolling year: April 2020 to March 2021= 216 and May 2020 to April 2021 = 288. HCAI yearly aim is 280. *Hospital and Healthcare are the cases which are included in the SG reduction target (n=15) in March and (n=30) in April 2021.
Hospital	12*	20*	23	
Healthcare	3*	10*		
Community	15	12		
Total cases	30	42		
Comment:				

- The number of SAB cases has been variable but within expected limits since April 2019. This includes HAI and HCAI.
- Overall SAB numbers have been stable since April 2019, however the aim is to drive down rates over time. There has been an increase in cases in April 2021 but this increase can still be considered to be natural variation.
- Increased number of community cases in March and decreased numbers in April 2021.
- In addition to the nationally set targets, infections from an Intra-vascular access device caused by *S. aureus* are investigated fully and reported. IV access device cases decreased in March, following a month on month increase from November 2020 but increased again in April 2021.
- 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. No data on source of SAB was collected in April 2020 but recommenced in May 2020 and has continued since for the vast majority of cases.
- There were 5 hospital acquired IV Access Device associated SAB cases in March and 11 in April 2021. Ward audits of device care plan undertaken by the IPCT and results were fed back to nursing team. Common themes were the failure to complete the care plan and consequently the care bundle, however this does not mean care was suboptimal completion of documentation to demonstrate care was incomplete.

***Escherichia coli* bacteraemia (ECB)**

	Mar 21	Apr 21	HCAI Aim
Hospital	23*	24*	38
Healthcare	17*	28*	
Community	35	49	
Total cases	75	101	

**Healthcare associated *E. coli* bacteraemia total for a rolling year:
April 2020 to March 2021 = 548 and
May 2020 to April 2021 = 569
HCAI yearly aim is 452.**

* Hospital and Healthcare are the cases which are included in the SG reduction target (n=40) in March and (n=52) in April

Comment:

- Sustained improvement is indicated over time (since April 2019). There had been an increase in cases in April 2021 but still below the control limit.
- Urinary catheters were associated with 18% in March and 25% in April 2021 of all healthcare associated cases.
- 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 work streams in the improvement collaborative and it is anticipated that this work will support local improvement plans to reduce infections due to urinary catheters.

***Clostridioides difficile* infection (CDI)**

	Mar 21	Apr 21	HCAI Aim
Hospital	17*	9*	17
Healthcare	4*	8*	
Indeterminate onset	0*	2*	

**Healthcare associated *Clostridioides difficile* total for a rolling year:
April 2020 to March 2021 = 216 and
May 2020 to April 2021 = 220
HCAI yearly aim is 204.**

Community	9	10	
Total cases	30	29	

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

Comments:

Case numbers remain within control limits. Sustained improvement is indicated over time.

Hospital acquired cases and actions

- All patients are reviewed by the IPCT and advice is given regarding antimicrobial prescribing, isolation and transmission based precautions.
- The IPCNs visit the patient and discuss the infection and what this means for them.
- Any ward with two 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. There was one cluster in GRI ward 4 in March 2021 – different Ribotypes, therefore cases were not due to cross infection. There were no clusters/triggers in April and all cases were antibiotic associated.
- Each ward receives an updated CDI SPC each month.

Surgical Site Infection Surveillance (SSIS)

March and April 2021 procedures - SSI surveillance was temporarily paused in April and May 2020 due to COVID-19 response. Local surveillance recommenced on 1 June 2020. Surveillance is currently ongoing for January and February procedures. Rates are returned to local clinical teams for action if any is required.

A healthcare infection data exceedance is defined as a greater than expected rate of infection compared with the usual background rate for the place and time where the incident has occurred.

For SSI surveillance longitudinal data is used to create Statistical Process Control (SPC) Charts for each procedure category and hospital site included in the surveillance programme.

Mandatory National surveillance procedures as reported to ARHAI

- **Caesarean-section:** In March 2021, there were 10 SSIs detected to day 10 and 2 further SSIs detected on readmission to hospital up to day 30 following surgery. This is considered an increase in incidents. In April there have been only 2 SSIs to date, which is within expected limits for this procedure category. Local reviews will be carried out to identify if there are any amenable areas for quality improvement.
- **Hip Arthroplasty:** case numbers remain within control limits. Elective surgery paused in April 2020.
- **Large Bowel Surgery:** case numbers remain within control limits.
- **Major Vascular:** Case numbers remain within control limits although slightly higher in April 2021.

Voluntary surveillance procedures - GGC

- **Knee Arthroplasty:** case numbers remain within control limits. Elective surgery paused in April 2020.
- **Repair of NOF:** case numbers remain within control limits.
- **Cranial Surgery:** In March 2021, there were 6 SSIs detected to 30 day readmission for cranial surgery performed at INS. This is considered an increased incidence. An IMT was held on 07/05/2021 and details will be included in incidents/outbreaks section of the May HAIRT report.
- **Spinal Surgery - INS only:** case numbers remain within control limits.
- **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 readmission) for 19 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, NHS GGC 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 (HIATs)”.

Benchmarking has been completed and GGC has met with colleagues from ARHAI, HEI and neighbouring boards to review all processes. A SBAR is being prepared with recommendations and submitted to the relevant clinical governance groups for review/approval. We anticipate that this process will be complete by the end of June 2021.

Methicillin resistant *Staphylococcus aureus* (MRSA) & *Clostridioides difficile* recorded deaths

There were two deaths in March 2021 and one in April 2021 where hospital acquired *Clostridioides difficile* was recorded on the death certificate, all were antibiotic associated and not due to cross transmission. A Datix for each case was raised and the clinical team were asked to complete a clinical review for each case. There were no deaths in March or April 2021 due to hospital acquired MRSA.

**Hand Hygiene Monitoring Compliance
NHSGGC Board**

	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21
Board Total	99	99	98	98	97	98	98	97	98	98	98	98	97

Better Safe, Clean and Clinical Environment Quality Improvement Network Proposal -Update

Meetings of the Steering and Operational Groups continue. A core brief was issued inviting clinical colleagues from across GGC to participate in this collaborative. QI training has commenced and offered to those who wish to participate in the collaborative and dates have been issued to those who have expressed interest. A ‘critical friend’ from a neighbouring

board has been recruited. TOR, driver diagram, communication strategy and vision statement have been developed and agreed. Workstreams have been determined:

- What matters to patients re Health Care Associated Infections
- Quality Improvement Capacity and Capability Building
- Consistent application of CIPCS to reduce transmission
- Reduction in Healthcare Associated Bacteraemia Infections

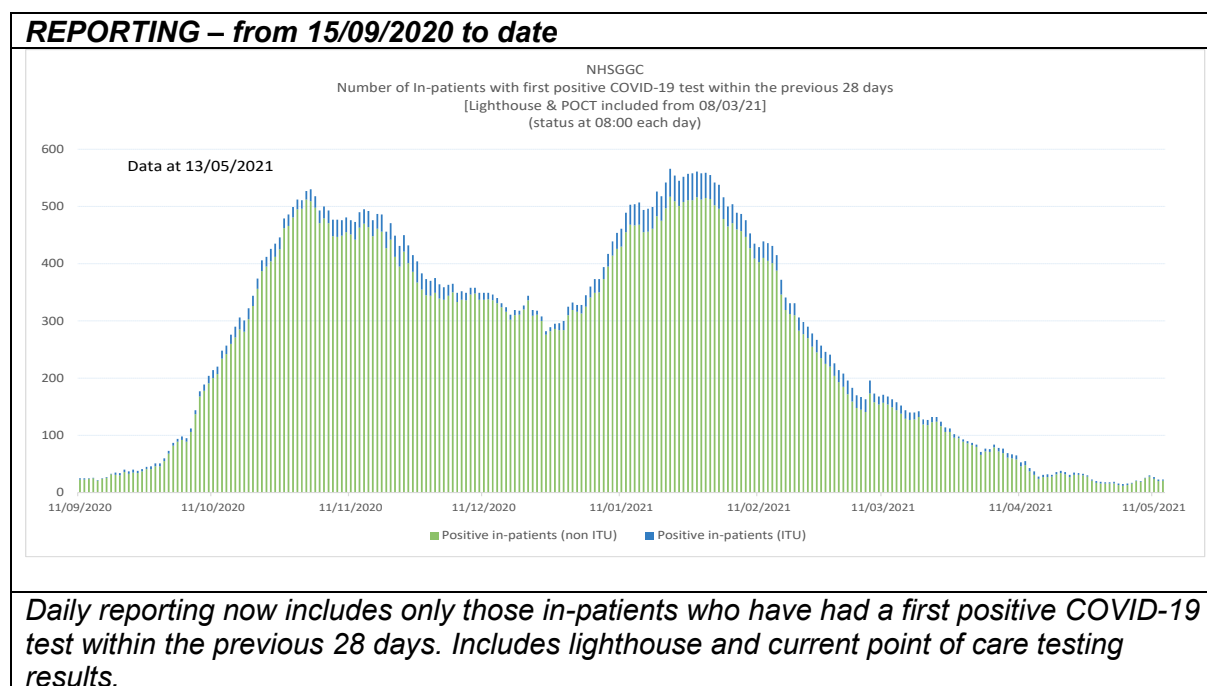
The workstream leads have been identified and will be expected to provide update flash reports to the Operational Group.

COVID-19 update

NHS Scotland is now experiencing a second bi-modal wave of COVID-19. To date in NHSGGC there have been over 69,000 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 8th March 2021, GGC Lighthouse positive test results are fully integrated into ICNet. 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 14 ward closures due to COVID-19 in March 2021.

Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sept-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
Ward Closures	16	5	1	0	1	9	44	37	35	49	34	14	3
Bed Days Lost	1270	184	35	0	38	310	3583	3992	3665	4938	4122	1103	16

Estate and Cleaning Compliance

The data is collected through audit by the Domestic Services Team using the Domestic Monitoring National Tool, and areas chosen within each hospital is randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 80% then a re-audit is scheduled. The results of these findings are shared with Serco/Estates for repair. Similar to the cleaning audit, scores below 80% triggers a re-audit. All results have been above target within this reporting period.

Incidents/Outbreaks

Incidence and outbreaks across NHSGGC are identified primarily through ICNet, microbiology or from the ward. The identification of outbreaks is determined following discussion with the microbiologist. In the event of a declared outbreak, 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.

All outbreaks/incidents are notified to ARHAI and Scottish Government.

Healthcare Infection Incident Assessment Tool (HIIAT)

The HIIAT is a tool used by boards to assess the impact of an incident or outbreak. The tool is a risk assessment and allows boards to rate the incident/outbreak as a RED, AMBER, or GREEN. The tool also directs boards whether to inform ARHAI/SGHD of the incident (if AMBER or RED), release a media statement etc.

HIIAT GREEN - 4

HIIAT AMBER - 2

HIIAT RED - 0

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

Healthcare Environment Inspectorate (HEI)

There were no HEI inspections in March or April 2021.

Multi-drug resistant organism screening (no update since last report)

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 Methicillin resistant *Staphylococcus aureus* (MRSA). Assessment to screen depends on a clinical risk assessment performed on all admissions to indicate whether the

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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% and GGC have met this target.

Last validated quarter Oct - Dec 2020		NHSGGC 86% compliance rate for CPE screening	Scotland 79%
		NHSGGC 86% compliance rate for MRSA screening	Scotland 82%
Current quarter Jan – March 2021		NHSGGC 91% compliance rate for CPE screening	Scotland tbc
		NHSGGC 90% compliance rate for MRSA screening	Scotland tbc

APPENDIX - 1**Healthcare Associated Infection Reporting Guidance,
Glossary, Definitions and Infection Control Targets****Purpose:**

This paper can be referred to when reading the HAIRT Reports, it covers any Scottish Government guidance and aims relating to Infection Prevention and Control (IPC), list of abbreviations and definitions for some of the medical terms or infection types mentioned in the HAIRT reports. It also includes some systems and process that have been put in place by IPC to reduce the harm from infections and prevent them from happening.

Glossary of abbreviations

Following feedback from stakeholders, below is a list of abbreviations used within this report:

- HAI** Hospital acquired infection (not present or incubating on admission to hospital and arising \geq 48 hours after admission). Please note this excludes COVID-19 cases (hospital onset currently thought to be $>$ 14 days)
- HCAI** Healthcare associated infection
- SAB** *Staphylococcus aureus* bacteraemia
- IVAD** Intravenous/intravascular access device
- CDI** *Clostridioides difficile* infection
- AOP** Annual Operational Plan
- NES** NHS Education for Scotland
- IPCT** Infection Prevention & Control Team
- HEI** Healthcare Environment Inspectorate
- SSI** Surgical Site Infection
- SICPs** Standard Infection Control Precautions
- PVC** Peripheral Venous Catheter
- CVC** Central Venous Catheter
- PICC** Peripherally Inserted Central Catheter

Definitions used for *S. aureus* and *E.coli* bacteraemias**Definition of a bacteraemia**

Bacteraemia is the presence of bacteria in the blood. Blood is normally a sterile environment, so the detection of bacteria in the blood (most commonly accomplished by blood cultures) is always abnormal. It is distinct from sepsis, which is the host response to the bacteria. Bacteria can enter the bloodstream as a severe complication of infection (like pneumonia, meningitis, urinary tract infections etc), during surgery, or due to invasive devices such as PVCs, Hickman lines, urinary catheters etc. Transient bacteraemias can result after dental procedures or even brushing of teeth although this poses little or no threat to the person in normal situations.

Bacteraemia can have several important health consequences. The immune response to the bacteria can cause sepsis and septic shock which has a high mortality rate. Bacteria can also spread via the blood to other parts of the body (haematogenous spread), causing infections away from the original site of infection, such as endocarditis (infection of the heart valves) or osteomyelitis (infection of the bones). Treatment for bacteraemia is with antibiotics for many weeks in some circumstances however cases such as *Staphylococcus aureus* bacteraemia, usually 14 days of antibiotic therapy is required.

Origin Definitions for Bacteraemia Surveillance

<https://www.ARHA1.scot.nhs.uk/web-resources-container/protocol-for-national-enhanced-surveillance-of-bacteraemia>

<p>Healthcare Associated Infection</p>	<p>Hospital Acquired Infection</p> <p>Positive blood culture obtained from a patient who has been hospitalised for ≥48 hours. If the patient was transferred from another hospital, the duration of in-patient stay is calculated from the date of the first hospital admission.</p> <p>If the patient was a neonate / baby who has never left hospital since being born.</p> <p>OR</p> <p>The patient was discharged from hospital in the 48 hours prior to the positive blood culture being taken.</p> <p>OR</p> <p>A patient who receives regular haemodialysis as an out-patient.</p> <p>OR</p> <p>Contaminant if the blood aspirated in hospital.</p> <p>OR</p> <p>If infection source / entry point is surgical site infection (SSI). <i>[This will be attributed to hospital of surgical procedure]</i></p>
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	<p>Healthcare Associated Infection</p> <p>Positive blood culture obtained from a patient within 48 hours of admission to hospital and fulfils one or more of the following criteria:</p> <p>Was hospitalised overnight in the 30 days prior to the positive blood culture being taken. OR Resides in a nursing, long-term care facility or residential home. OR IV, or intra-articular medication in the 30 days prior to the positive blood culture being taken, but excluding IV illicit drug use. OR Had the use of a registered medical device in the 30 days prior to the positive blood culture being taken, e.g. intermittent self-catheterisation or percutaneous endoscopic gastrostomy (PEG) tube with or without the direct involvement of a healthcare worker (excludes haemodialysis lines see HAI). OR Underwent any medical procedure which broke mucous or skin barrier, i.e. biopsies or dental extraction in the 30 days prior to the positive blood culture being taken. OR Underwent care for a medical condition by a healthcare worker in the community which involved contact with non-intact skin, mucous membranes or the use of an invasive device in the 30 days prior to the positive blood culture being taken, e.g. podiatry or dressing of chronic ulcers, catheter change or insertion.</p>
<p>Community Acquired Infection</p>	<p>Positive blood culture obtained from a patient within 48 hours of admission to hospital who does not fulfil any of the criteria for healthcare associated bloodstream infection.</p>

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. The IPCT undertake formal ward audits in addition to regular weekly ward visits by the IPC Nurse; infection investigation is also a significant function within the team as part of the AOP target reporting. This activity provides robust intelligence of how infection prevention is maintained across all areas and is reported on a monthly basis to all appropriate stakeholders.

***Staphylococcus aureus* bacteraemia (SAB)**

All blood cultures that grow bacteria are reported nationally and it was found that *S. aureus* became the most common bacteria isolated from blood culture. As *S. aureus* is an organism that is found commonly on skin, it was assumed (nationally) that bacteraemias occurred because of the presence of a device such as a peripheral vascular catheter (PVC), and as such a national reduction strategy was initiated and became part of the then HEAT targets in 2006. The target was a national reduction rather than a board-specific reduction however the latest target set for 2019-2022 is Board-specific, based on current infection rates.

NHSGGC's Approach to SAB Prevention and Reduction

All *S. aureus* bacteraemia are monitored and reported by the IPCT. Investigations to the cause of infection consist of examining the patients notes, microbiology, biochemistry and haematology reports to identify potential causes of the infection; from this, in most cases, a provisional cause is identified however if necessary, this is discussed further with the clinical team responsible for the management of the patient to assist further with the investigation. Any issues identified during the investigations, such as incomplete bundle* etc, is highlighted at this time and where appropriate a DATIX report is generated. Once a conclusion has been agreed, the information is discussed with the Infection Control Doctor and outcomes agreed. This information is part of mandatory reporting and is submitted to ARHA quarterly.

*Care "bundles" are simple sets of evidence-based practices that when implemented collectively, improve the reliability of their delivery and improve patient outcomes. There are several care bundles in use within GGC, i.e. PVC, CVC, SSI and Urinary Catheter Care (UCC). Compliance with these bundles are monitored via the IPC audit IPCAT and if there is an incident or outbreak.

Information on patients with SABs and any follow-up actions are reported to the Directorate/Division in two ways; in their monthly summary reports, and quarterly in a SAB specific report. A monthly GGC acute operating division report is also produced and circulated and this is presented as a summary at the Acute Clinical Governance Committee. All SABs associated with an IV access device are followed-up by an audit of PVC/CVC practice in the ward or clinical area of origin, and the results are returned to the Chief Nurse for the Sector/Directorate. The analysis of the data and subsequent SAB reports enables the IPCT to identify trends in particular sources of infections such as Hickman line infections etc, and it also enables us to identify areas requiring further support. The data also influences the elements contained in the IPCT annual work plan.

A SAB and ECB Reduction Group continues to meet to progress activities to reduce avoidable SABs and ECB. This is a multi-disciplinary group and includes clinicians and nurse specialists from across NHSGGC.

IV Access Device (IVAD) Associated SABs

In addition to the nationally set targets, infections from an Intra-vascular access device caused by *S. aureus* are investigated fully and reported.

Healthcare Associated Infection Standards – local reduction aims

- *S. aureus* bacteraemia – reduction of 10% from 2019 to 2022

Local quarterly reduction aim charts have been produced for GGC as a whole and for the five Acute Sectors

	2018/19 Rate (base line) per 100,000 total bed days	No of HCAI cases (per annum)	Reduction %	Date for reduction	Target HCAI rate per 100,000 total bed days	Target HCAI cases per annum	Target HCAI cases per month
SAB	19.3	324	10	2022	17.4	280	23

Sector/Directorate local reduction aims

	Patient cases	Aim per month	Status
Clyde Sector	7	5	Above aim
North Glasgow Sector	8	6	Above aim
Regional Services	5	4	Above aim
South Glasgow Sector	9	7	Above aim
Women's & Children	0	1	Below aim
Health & Social Care Partnerships	1	n/a	n/a
GGC Total	30	23	Above aim

Sector/Directorate reports are issued for action by sector/directorate teams.

***Escherichia coli* bacteraemia (ECB)**

NHSGGC's Approach to ECB Prevention and Reduction

E. coli is one of the most predominant organism of the gut flora, and for the last several years the incidence of *E. coli* isolated from blood cultures, i.e. causing sepsis, has increased to the point that it is the most frequently isolated organism in the UK. As a result of this, the HAI Policy Unit has now included *E. coli* as part of the AOP targets. The most common cause of *E. coli* bacteraemia (ECB) is from complications arising from urinary tract infections (UTIs), hepato-biliary infections (gall bladder infections) and infections associated with urinary catheters. Daily case totals for all three HCAI standards are reported to the IPC senior management team to provide a prospective update on the current situation within the Board.

Healthcare Associated Infection Standards – local reduction aims *C. difficile*
– reduction of 10% from 2019 to 2022

	2018/19 Rate (base line) per 100,000 total bed days	No of HCAI cases (per annum)	Reduction %	Date for reduction	Target HCAI rate per 100,000 total bed days	Target HCAI cases per annum	Target HCAI cases per month
CD I	19.0	318	10	2022	17.1	204	17

Sector/Directorate local reduction aims

	Patient cases	Aim per month	Status
Clyde Sector	6	4	Above aim
North Glasgow Sector	4	5	Below aim
Regional Services	1	2	Below aim
South Glasgow Sector	4	5	Below aim
Women's & Children	0	1	Below aim
GGC Total (excludes GP cases)	15*	17	Below aim

*Four GP cases were healthcare associated. Clyde sector are currently reviewing all their cases to identify any learning or issues that may have resulted in the higher than expected number of cases this month.

Surgical Site Infection Surveillance (SSIS)

Surgical site infection surveillance is the monitoring and detection of infections associated with a surgical procedure. In GGC the procedures included are hip arthroplasty, Caesarean-section, major vascular surgery and large bowel surgery. These are all mandatory procedure categories for national reporting. In addition, the IPCT undertake surveillance on knee arthroplasty, repair of fractured neck of femur and in the Institute of Neurological Sciences (QEUH campus), spinal and cranial surgery. The IPCT monitor patients for 30 days post surgery and for those procedures with implants, up to 90 days post surgery including any microbiological investigations from the ward for potential infections and also hospital re-admissions relating to their surgery. Any mandatory procedure category infection associated with a surgical procedure is reported nationally to enable board to board comparison. GGC infection rates are comparable to national infection rates.

NHSGGC's Approach to SSI Prevention and Reduction – Bar Graph

Surgical site infection criteria is determined using the European Centre for Disease Control (ECDC) definitions. Any infection identified is investigated fully and information gathered including the patients' weight, duration of surgery, grade of surgeon, prophylactic antibiotics given, theatre room, elective or emergency, primary theatre dressing etc. can provide additional intelligence in reduction strategies. The IPCT closely monitor infection rates, and any increased incidence of SSIs are reported to management and clinical teams, and IMTs are held.

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

The National Records of Scotland monitor and report on a variety of deaths 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>

COVID-19

A national review was undertaken and a revised reporting format as described in the document below was adopted from 15 September 2020.



HSCA - COVID-19 -
hospital inpatients c

This document is attached as Annex A.

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>

Below is an extract from ARHAI Scotland's Report on the incidence of COVID 19 in Scotland – Validated data up until 25 April 2021

Table 1: Number of COVID-19 cases, by onset status and NHS board: specimen dates up to 25 April 2021.^{1,2,3}

NHS board	Total COVID-19 cases (n)	Non-hospital onset (n)	Indeterminate hospital onset cases (n)	Probable hospital onset cases (n)	Definite hospital onset cases (n)	Non-hospital onset (%)	Indeterminate hospital onset cases (%)	Probable hospital onset cases (%)	Definite hospital onset cases (%)
Ayrshire & Arran	16,887	772	121	227	388	4.6%	0.7%	1.3%	2.3%
Borders	2,865	134	12	17	50	4.7%	0.4%	0.6%	1.7%
Dumfries & Galloway	4,163	198	16	7	7	4.8%	0.4%	0.2%	0.2%
Fife	11,291	463	32	33	253	4.1%	0.3%	0.3%	2.2%
Forth Valley	12,595	511	78	77	173	4.1%	0.6%	0.6%	1.4%
Golden Jubilee	23	12	5	3	3	-	-	-	-
Grampian	14,907	385	48	56	179	2.6%	0.3%	0.4%	1.2%
Greater Glasgow & Clyde	70,331	3,050	472	565	1,328	4.3%	0.7%	0.8%	1.9%
Highland	4,992	137	12	8	28	2.7%	0.2%	0.2%	0.6%
Lanarkshire	40,692	1,211	201	270	490	3.0%	0.5%	0.7%	1.2%
Lothian	31,390	1,163	170	286	567	3.7%	0.5%	0.9%	1.8%
Orkney	69	4	0	0	0	5.8%	0.0%	0.0%	0.0%
Shetland	234	13	0	0	0	5.6%	0.0%	0.0%	0.0%
Tayside	14,698	610	110	128	263	4.2%	0.7%	0.9%	1.8%
Western Isles	292	12	1	4	3	4.1%	0.3%	1.4%	1.0%
Scotland	225,429	8,675	1,278	1,681	3,732	3.8%	0.6%	0.7%	1.7%

1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) data and Rapid Admission Preliminary Inpatient Data (RAPID) data or local admission data.
2. NHS Golden Jubilee has been excluded from the proportions data since data for this board will not be comparable with others due to no "community onset" cases assigned to that board.
3. The data used has not been adjusted for different patient groups and size of NHS board.

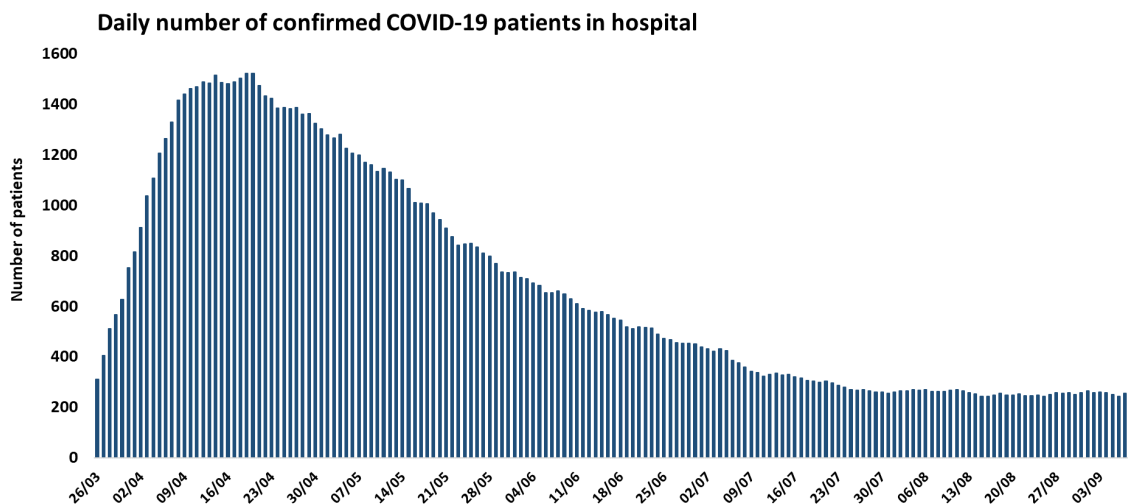
Counting people in hospital with COVID-19

We are changing the way we count people in hospital with confirmed COVID-19 as of 15 September 2020. The new figures are lower than the previous published management information and we have a break in the time series. This blog explains why and how.

Current situation

Every day since mid-March, the Scottish Government has been collecting data on the number of confirmed COVID-19 patients in hospital from across NHS Scotland. This data collection was set up quickly to meet an immediate need to understand the impact this new illness was having on our NHS hospitals. It was important to take a pragmatic approach to this in order to avoid any additional work for hospital staff, so while an approach was defined, local areas adopted the best way to extract this from their information systems.

The measure showed a rapid increase in the number of confirmed COVID-19 patients in hospital to over 1,500 in mid-April, reflecting the situation at the time. However, the measure stabilised at around 250 into July and August. Data published daily on coronavirus.data.gov.uk shows that on 26 August, for example, there were 442 COVID-19 patients reported in hospitals in England, 48 in Wales and 17 in Northern Ireland, compared to 249 in Scotland.



In addition, [data from Public Health Scotland](#) shows that the numbers of new hospital admissions where COVID-19 was confirmed were relatively low through July and August. In early July, [additional information on hospital onset cases](#) became available, and it was apparent that there were different types of inpatients being included in the figures provided each day by NHS boards, including who have tested positive for COVID-19 at some point but are no longer being treated for COVID-19.

Investigation

On 26 August, we carried out a snapshot clinical audit to find out more about the relative contribution to the numbers of these different categories of patients (see box). In addition to using the available administrative information, this work involved clinicians in order to fully understand the status of current inpatients. The audit confirmed that the majority of COVID-19 inpatients reported in the daily published statistics were in hospital for an ongoing condition following a resolved COVID-19 infection unrelated to COVID-19. The majority of these were in the two largest Health Boards (Greater Glasgow & Clyde and Lothian), while some other Boards had previously

adapted their own definitions to only include current cases, for example Fife did this in June resulting in a decrease in their figures.

Audit findings

The audit of inpatients identified 384 patients in hospital at 1am on 26 August across Scotland who had previously tested positive for COVID-19.

The majority of these patients (87%) were in hospital for a condition unrelated to COVID-19:

- 45% were hospital onset cases who were no longer being isolated or treated for COVID-19;
- 25% had recovered from COVID-19, been discharged and then readmitted for an unrelated condition;
- 9% had a previous positive COVID-19 test in the community, and were admitted for an unrelated reason;
- 8% had been admitted for COVID-19, had recovered but were still in hospital for other reasons.

The audit showed that 8% of patients were either receiving treatment for COVID-19, were in rehabilitation after their treatment for COVID-19 was completed, or were in hospital for COVID-19 related complications. (5% of patients could not be classified into the above categories.)

What's changing?

In order to make sure we are not counting people who are no longer being treated for COVID-19, we are introducing standard time periods after testing positive for hospital inpatients to remain included in the figures. Only patients who first test positive in their current hospital admission (or in the 2 weeks before admission) will be included. And they will stop being counted after 28 days in hospital (or after testing positive if that is later).

Because this is essentially a statistical rather than clinical definition, there will potentially be some patients who are still in hospital and ICU because of COVID-19 who will no longer be counted after 28 days. But overall, by making sure we are excluding those inpatients with a previous positive COVID-19 test who are now in hospital and ICU for unrelated reasons, the information will be more representative of the current situation in hospitals and more sensitive to any changes caused by new cases. We will keep this under review.

Comparing the initial data, it's clear to see the impact of the change. The total number of confirmed COVID-19 inpatients under the previous definition was 262 on Tuesday 15th September while the new definition included 48 patients. Of these, 7 were in ICU on the old basis, and 6 under the new definition. We will no longer collect the data on the original basis.

Defining the measures in this way means that the data can be extracted from local information systems without requiring clinical input. This is a pragmatic solution that will ensure we are better placed to capture the impact of the evolution of the pandemic.