NHS
Greater Glasgow and Clyde

NHS Greater Glasgow and Clyde	Paper No. 24/66
Meeting:	NHS Board Meeting
Meeting Date:	25 June 2024
Title:	The Summary Healthcare Associated Infection Reporting Template (HAIRT) for March and April 2024
Sponsoring Director:	Professor Angela Wallace, Executive Director of Nursing
Report Author:	Mrs Sandra Devine, Director of Infection Prevention and Control

1. Purpose

The Healthcare Associated Infection Reporting Template (HAIRT) is a mandatory reporting tool for the Board to have oversight of the Healthcare Associated Infections 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 and Clyde (NHSGGC) in March and April 2024.

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

2. Executive Summary

The paper can be summarised as follows:

- Scottish Government Standards on Healthcare Associated Infections Indicators (SGHAII) set for 2019-2024 for SAB, CDI and ECB are presented in this report. Available at: https://www.sehd.scot.nhs.uk/dl/DL(2023)06.pdf
- In the most recently reported National ARHAI Data (Q4-2023) the HCAI SAB rate for NHSGGC was 20.3 which is within the control limits and slightly above the national rate of 19.2. There were 19 healthcare associated SAB reported in March and 32 in April 2024, with the aim being 23 or less per month.
  We continue to support improvement locally to reduce rates via the Infection Prevention and Control Quality Improvement Network (IPCQIN) and local SAB Groups.
- In the most recently reported National ARHAI Data (Q4-2023) the HCAI ECB rate for NHSGGC was 31.3 which is within the control limits and below the national rate of

34.7. There were 60 healthcare associated ECB in March and 47 in April 2024. Aim is 38 or less per month.

- In the most recently reported National ARHAI Data (Q4-2023) the HCAI CDI rate for NHSGGC was 12.1 which is within the control limits and below the national rate of 14.3. There were 17 healthcare associated CDI in March and 29 in April 2024. The aim is 17 or less per month.
- The following link is the ARHAI report for the period of October to December 2023. This report includes information on GGC and NHS Scotland's performance for Quarterly epidemiological data on Clostridioides difficile infection, Escherichia coli bacteraemia, Staphylococcus aureus bacteraemia and Surgical Site Infections in Scotland. **Quarterly epidemiological data on Clostridioides difficile infection, Escherichia coli bacteraemia, Staphylococcus aureus bacteraemia and Surgical Site Infection in Scotland. October to December (Q4) 2023 | National Services Scotland (nhs.scot)**.
- National SSI surveillance was paused in 2020 and remains paused for the foreseeable future. Scottish Government plans for an e health solution for IPC surveillance are expected to be implemented no earlier than 2027. Review of the current system of local surveillance is therefore ongoing.
- Clinical Risk Assessment (CRA) compliance was **90%** for CPE and **87%** for MRSA in the last validated reporting quarter (Q1 -2024). The standard is 90%. In Q1 NHS Scotland reported compliance of **78%** and **79%** respectively. GGC will continue to work towards achieving 90% for both.
- The Board's cleaning compliance and Estates compliance are ≥ 95% for March and April 2024.
- The seventh issue of the Infection Prevention and Control Quality Improvement Network (IPCQIN) newsletter was issued in May 2024. This ensures shared learning across the organisation on the improvements implemented thus far by the network.
- The IPC Annual Report 2022/23 has been included as Appendix 1, which demonstrates the activity and work undertaken by the IPC team during this period.

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 Scottish Government Standards on Healthcare Associated Infections and Indicators 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**   **Positive** impact
- **Better Care**   **Positive** impact
- **Better Value**   **Positive** impact

- **Better Workplace**   <u>**Positive**</u> **impact**
- **Equality and Diversity**   <u>**Neutral**</u> **impact**
- **Environment**   <u>**Positive**</u> **impact**

6. Engagement and Communications

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

- Partnerships Infection Control Support Group (PICSG)
- Acute Infection Control Committee (AICC)
- Board Infection Control Committee (BICC)

7. Governance Route

The HAIRT Report 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)

The full paper is then shared with the Board Clinical Governance Forum for information and a summary (this paper) is presented at the NHS Board for assurance.

8. Date Prepared and Issued

Date the paper was written: 10/06/2024
Date issued to NHS Board on: 18/06/2024

Healthcare Associated Infection Summary – March and April 2024

The HAIRT Report is the national mandatory reporting tool and is presented every three months 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 the Scottish Government Standards on Healthcare Associated Infections and Indicators. Other available indicators are included for assurance.

Performance at a glance relates only to the 2 months reported.

	March 2024	April 2024	Status toward SGHAII (based on trajectory to March 2024)
Healthcare Associated *Staphylococcus aureus* bacteraemia (SAB)	19	32	Aim is 23 per month
Healthcare Associated *Clostridioides difficile* infection (CDI)	17	29	Aim is 17 per month
Healthcare Associated *Escherichia coli* bacteraemia (ECB)	60	47	Aim is 38 per month
Hand Hygiene	97	95	
National Cleaning compliance (Board wide)	95	95	
National Estates compliance (Board wide)	97	97	

Healthcare Associated Infection (HCAI) Surveillance

NHSGGC has systems in place to monitor key targets and areas for delivery. An electronic HCAI surveillance system allows early detection and indication of areas of concern or deteriorating performance.

Staphylococcus aureus bacteraemia (SAB)

	March 2024	**April 2024**
Total	29	43
***Healthcare**	**19**	**32**
Community	10	11

Monthly Aim for Healthcare Associated Infections is 23 patient cases.

Healthcare associated *S. aureus* bacteraemia total for the rolling year May 2023 to April 2024 = 305.

HCAI yearly aim is **280.**

***Healthcare associated are the cases which are included in the SG reduction target.**

Comments

- The number of overall SAB cases was below the established mean in March but above the mean in April 2024, however, it remains within control limits. Sector SAB groups continue to meet to reduce the burden of SAB and share learning via the Infection Prevention and Control Quality Improvement Network.
- In the most recently reported National ARHAI Data (Q4-2023) the HCAI SAB rate for NHSGGC was 20.3 which is within the control limits and slightly above the national rate of 19.2.
- 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 the quarterly SAB and ECB reports. Data is also shared with the Acute Clinical Governance Group. This data is used to drive improvement in the local SAB groups.
- Information for all acute hospital cases is available in real time on the MicroStrategy IPC dashboard.

ARHAI Validated Q4 (October to December 2023) funnel plot – HCAI SAB cases
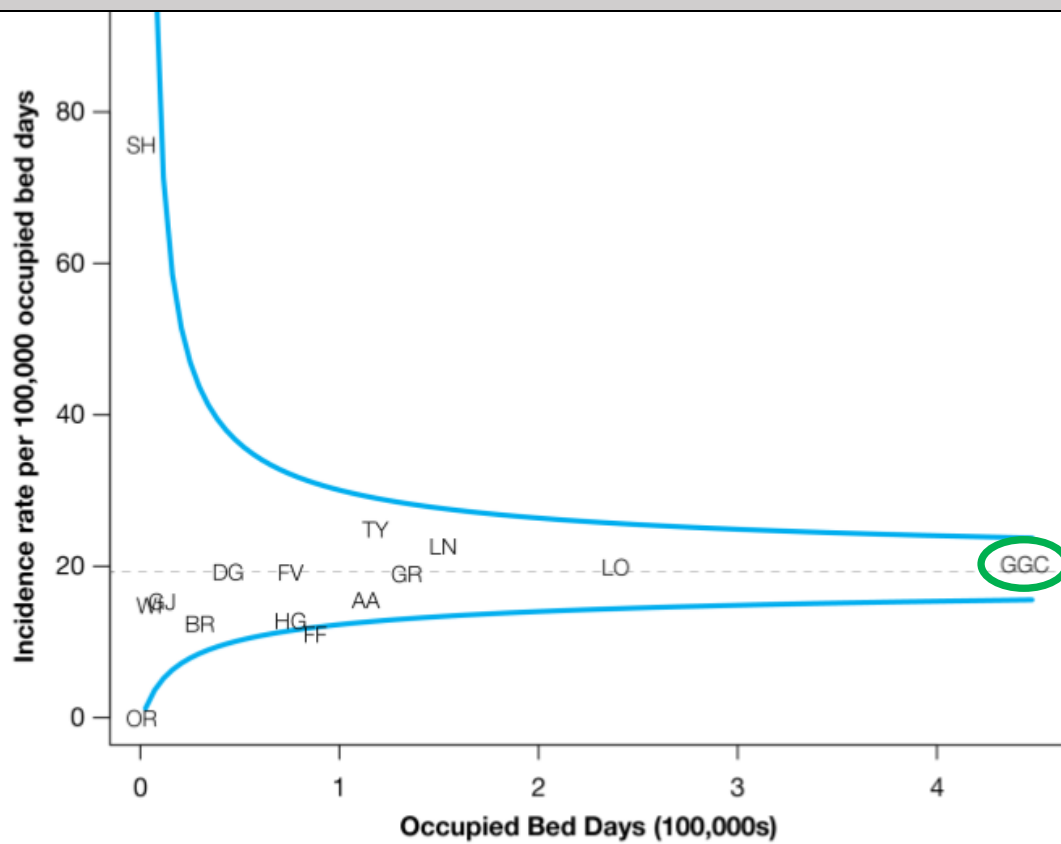
Rate: **20.3** per 100,000 OBDs.

NHSGGC rate is within the control limits for this quarter and above the national rate of 19.2.

E.coli bacteraemia (ECB)

	March 2024	April 2024
Total	93	84
Healthcare*	**60**	**47**
Community	33	37

Monthly Aim for Healthcare Associated Infections is 38 patient cases.

Healthcare associated *E. coli* bacteraemia total for the rolling year May 2023 to April 2024 = 622.

HCAI yearly aim is **452.**

*Healthcare associated are the cases which are included in the SG reduction target.

Comments:
- There has been an increase in the overall ECB cases in March 2024 but numbers decreased again in April 2024 and are now below the established mean. Teams across GGC continue to monitor and implement improvements, including promoting good urinary catheter care and the use of the urinary catheter care passport and toolbox talk.
- In the most recently reported National ARHAI Data (Q4-2023) the HCAI ECB rate for NHSGGC was 31.3 which is within the control limits and below the national rate of 34.7.
- Enhanced surveillance of ECB continues and is prospectively available to view by clinicians on Microstrategy; teams across GGC continue to monitor and implement improvements.
- Ward level data of entry point of bacteraemia is available via MicroStrategy. This provides real time information to clinical staff 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)

ARHAI Validated Q4 (October to December 2023) funnel plot – HCAI ECB cases
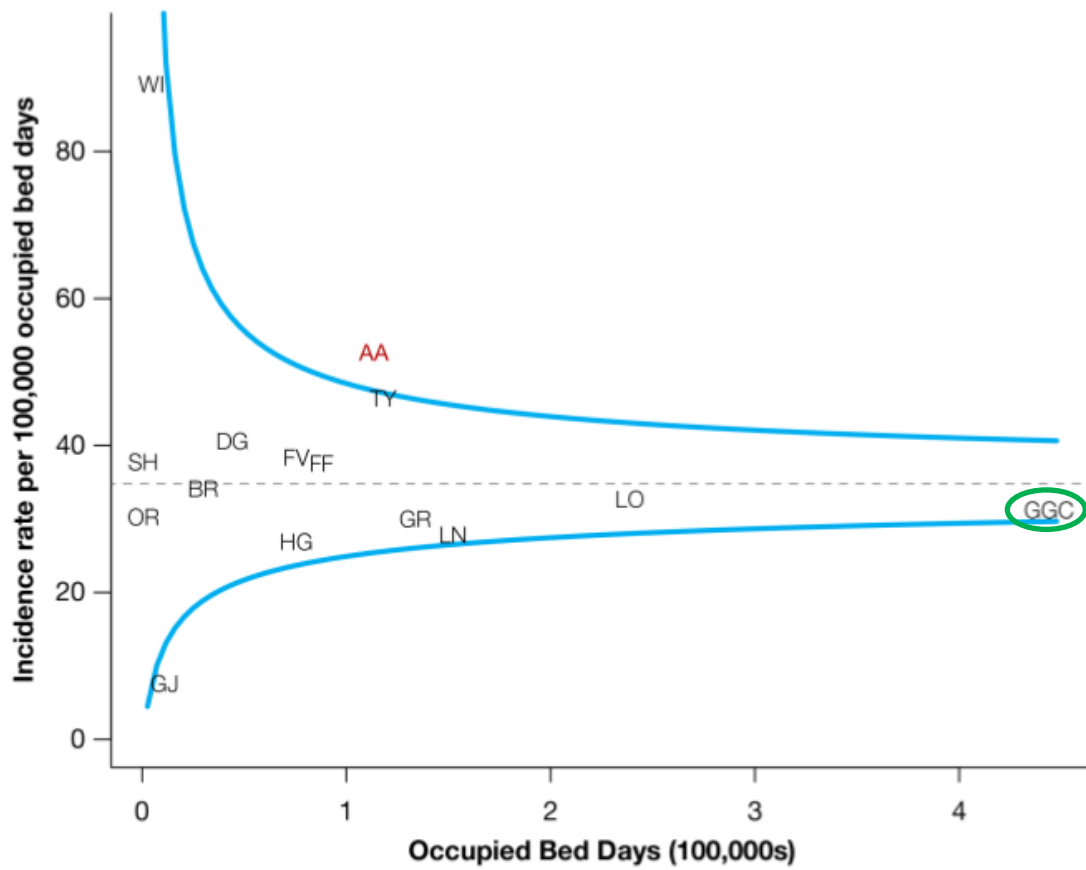
Rate: **31.3** per 100,000 OBDs.

NHSGGC rate is within the control limits for this quarter and below the national rate of 34.7.

Clostridioides difficile infection (CDI)

	March 2024	**April 2024**
Total	24	34
Healthcare*	**17**	**29**
Community	7	5

Monthly aim for Healthcare Associated Infection is 17.

Healthcare associated *Clostridioides difficile* total for the rolling year May 2023 to April 2024 = 250.

HCAI yearly aim is **204.**

*Healthcare associated are the cases which are included in the SG reduction target.

Comments:
- In the most recently reported National ARHAI Data (Q4-2023) the HCAI CDI rate for NHSGGC was 12.1 which is within the control limits and below the national rate of 14.3.
- Information on all Acute hospital cases is available on Micro-Strategy.

ARHAI Validated Q4 (October to December 2023) funnel plot – HCAI CDI cases
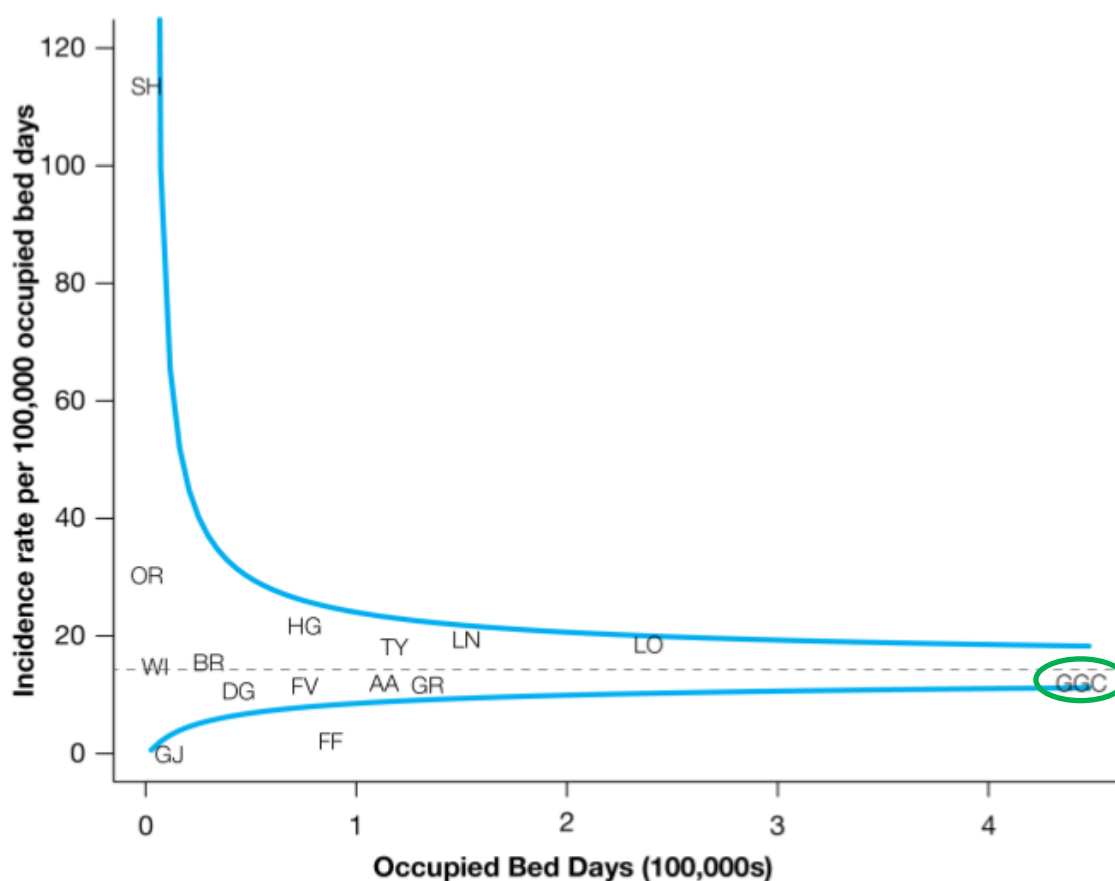
Rate: **12.1** per 100,000 OBDs.

HCAI standard aim met.

NHSGGC rate is below the NHS Scotland national rate of 14.3, and within the control limits for this quarter.

Methicillin 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 was one death in March 2024 and one in April 2024, where hospital acquired *Clostridioides difficile* was recorded on the patient's death certificate.

There were zero deaths in March 2024 and April 2024 where hospital acquired MRSA was recorded on the death certificate.

NHS GGC Hand Hygiene Monitoring Compliance (%)
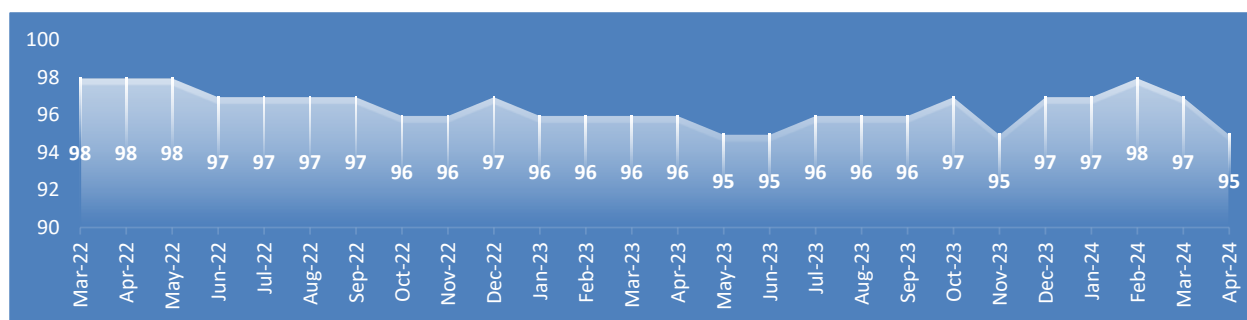
In NHSGGC there is a dedicated Hand Hygiene Coordinator. This colleague supports education, innovation, and audit of practice across all areas. Every month each individual clinical area undertakes a hand hygiene audit and the results of these audits are entered into the Care Assurance and Improvement Resource (CAIR) dashboard. This data is reviewed by the coordinator and a series of assurance audits are undertaken in areas with reported high and low compliance. Any areas requiring improvement are identified and supported.

Estate and Cleaning Compliance (per hospital)

The data is collected through audit by the Domestic Services Team using the Domestic Monitoring National Tool. 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.

Cleaning compliance:		
Hospital site	**March 2024 %**	**April 2024 %**
Glasgow Royal Infirmary	94	94
Gartnavel General Hospital	95	95
Inverclyde Royal Hospital	94	94
Queen Elizabeth University Hospital	94	94
Royal Alexandra Hospital	94	94
Royal Hospital for Children	95	95
Vale of Leven Hospital	95	96
NHSGGC Total	**95**	**95**

Estates compliance:		
Hospital site	**March 2024 %**	**April 2024 %**

Glasgow Royal Infirmary	90	89
Gartnavel General Hospital	98	99
Inverclyde Royal Hospital	93	93
Queen Elizabeth University Hospital	98	98
Royal Alexandra Hospital	97	96
Royal Hospital for Children	99	98
Vale of Leven Hospital	98	98
NHSGGC Total	**97**	**97**

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 IPCQIN continue to meet on a bi-monthly basis, with the last meeting taking place on 14th May 2024.

The work plan has been agreed upon and is a standing agenda item going forward to support monitoring and assurance of workstream actions and progress. Workstreams will take a turn of having a 'spotlight' section on the agenda going forward to update the workplan.

The three main work streams continue to progress and provide flash reports to the group. The seventh issue of the newsletter was published in May 2024.

The network continues to use the Sharepoint site to support programme and document control, with live monitoring of actions.

The next IPCQIN meeting is scheduled for the 9th July 2024.

Outbreaks or Incidents in March and April 2024

Outbreaks / Incidents

Outbreaks and incidents across NHSGGC are identified primarily through ICNet (surveillance software package), information from microbiology colleagues or clinical area. ICNet automatically identifies clusters of infections of specific organisms based on the requirements in appendix 13 of the National Infection Prevention and 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 to assess the impact of the outbreak or incident. The tool is a risk assessment and allows the IMT to rate the outbreak/incident as RED, AMBER, or GREEN.

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

HIIAT

> ARHAI are informed of all incidents and they onward report to the Scottish Government Health and Social Care Directorate (SGHSCD) on any incidents/outbreaks that are assessed as amber or red.
>
> HIIAT GREEN – reported 4 in March and 3 in April 2024.
> HIIAT AMBER - reported 5 in March and 3 in April 2024.
> HIIAT RED – reported 5 in March and 2 in April 2024.
>
> (COVID-19 incidents are now included in the above totals but not reported as individual incident summaries)

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

QEUH/GGH, Multiple Wards, Norovirus and COVID – initial HIIAT assessment – AMBER

8 wards were closed due to either suspected/confirmed Norovirus or COVID. 7 of the wards closed were Medicine for the Elderly and 1 ward was Cardiology. 23 patients were confirmed positive.

An IMT was held on 26th March 2024 and the HIIAT was assessed as AMBER on 27th March 2024 and then as GREEN on 11th April 2024.

A separate ORT was created for the ward in GGH, and the IMT oversaw the multiple ward closures across the two sites. Wards closed due to COVID were reported through a separate ORT.

All wards closed were 6 bedded shared bays. Single room provision to isolate symptomatic cases is challenging on this site. Contact screening was carried out on contacts of COVID positive patients.

Control measures were implemented and the ARHAI Outbreak Checklist was in place throughout. The ward was reviewed daily by the IPCT and twice daily cleaning of the ward was undertaken. Essential visiting only was advised. The ward was reopened following a terminal clean and curtain change.

The incident was closed on the 11th April 2024.

Greater Glasgow and Clyde COVID-19 Incidents:

During March and April 2024, there were **14** outbreaks of COVID-19 which scored either AMBER (7) or RED (7). 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.

All incidents and outbreaks are reported to ARHAI regardless of the assessment.

Site	GGH	GRI	QEUH	VoL
COVID-19 (RED HIIAT)	1	4	1	1

The following tables provide a breakdown of the AMBER or RED COVID ward closures in March and April 2024.

March 2024							
Sector	Hospital	Ward	Date Closed	Date reopened	Number of days closed	Cases	HIIAT Status

North	GRI	29	12/03/24	27/03/24	15	11	RED
North	GRI	33	13/03/24	27/03/24	14	12	RED
North	GRI	4	14/03/24	23/03/24	9	2	AMBER
North	GRI	11	20/03/24	06/04/24	17	11	RED
North	Lightburn	2 (side B only)	22/03/24	29/03/24	7	1	AMBER
North	GRI	35	25/03/24	05/04/24	11	3	AMBER
South	GGH	6A	17/03/24	02/04/24	16	18	RED
South	QEUH	6C	25/03/24	03/04/24	9	10	RED
South	QEUH	57	25/03/24	09/04/24	15	14	AMBER
Total	**9**				**133**	**82**	

April 2024							
Sector	**Hospital**	**Ward**	**Date Closed**	**Date reopened**	**Number of days closed**	**Cases**	**HIIAT Status**
Clyde	RAH	27	15/04/24	27/04/24	12	19	AMBER
Clyde	VOL	Lomond	16/04/24	24/04/24	8	10	RED
Clyde	RAH	27	30/04/24	09/05/24	9	2	AMBER
North	GRI	17/31	17/04/24	30/04/24	13	5	AMBER
North	GRI	3	25/04/24	06/05/24	11	10	RED
Total	**5**				**53**	**46**	

Healthcare Environment Inspectorate (HEI)

3 HIS inspections were carried out in April 2024.

The inspections were focused on the Safe Delivery of Care and took place over the 8th and 9th of April 2024. QEUH A&E and GRI A&E were inspected in isolation. RAH received a full inspection. All visits were unannounced. The reports on these inspections are not available as yet.

All HEI reports and action plans for previous inspections can be viewed by clicking on the link below:
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.   The decision to screen depends on the outcome of a clinical risk assessment performed on all admissions. On a quarterly basis we assess compliance of completing this risk assessment to provide assurance of effective screening and this is reported nationally. The national

expectation of compliance is **90%** (black dashed line)**.** National data for Q4 has been validated and included. The 90% compliance standard for Q4 has not been achieved.
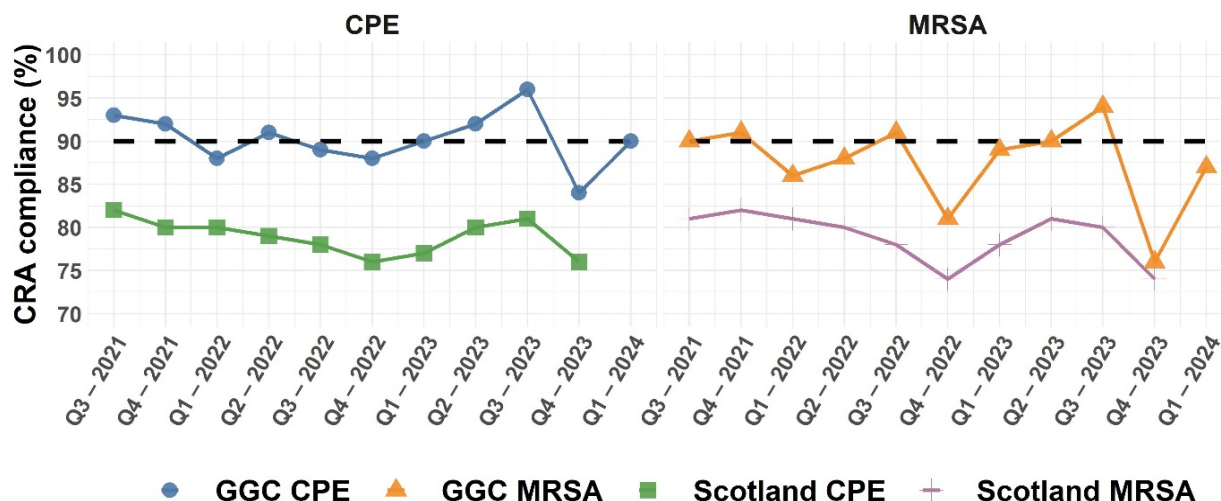
Last validated quarter		NHSGGC **90%** compliance rate for CPE screening	Scotland 78%
January - March 2024		NHSGGC **87%** compliance rate for MRSA screening	Scotland 79%

We continue to support clinical staff to implement this screening programme and work is currently underway with eHealth to incorporate this information electronically into the patient admission eRecord. The IPCT continue to focus on local education and feedback to ensure our position regarding compliance with this standard.

A

Contents

Welcome

The COVID -19 pandemic has brought into sharp focus the practice of Infection Prevention and Control (IPC), the principles of which are delivered by frontline clinical teams supported by the Infection Prevention and Control Team (IPCT) throughout NHS Greater Glasgow and Clyde (GGC). Perhaps as a result, this is now a time of significant change with regards to IPC.

The introduction of NHS Assure, the refreshed Scottish Government Targets on Healthcare Associated Infection, Antimicrobial Resistance Policy Requirements as per DL (2023)06, the updated Healthcare Improvement Scotland's Healthcare Associated Infection Standards, the Scottish Government Infection Prevention and Control Workforce Strategy, followed closely in June 2023 by the Scottish Government's two year strategic plan setting out the expectation in terms of the expanding sphere of influence of IPC, will all require actions, systems and processes to support implementation. Actions to achieve these challenges will be captured in the IPC Programme and Work Plan, and scrutiny of this progress with agreed actions will be visible throughout the IPCT and the wider NHS Board's governance structures. This work will also be supported by the Infection Prevention and Control Quality Improvement Network (IPCQIN).

The composition of the IPCT has changed significantly this year and we are happy to report the appointment of new Lead IPC Nurses, a HAI SCRIBE Nurse, Clinical and Healthcare Scientists and a Surveillance Operations Manager. We are also advertising for 3 IPC Healthcare Support Workers. Most of these are new roles and we hope that this diversity of roles will ensure that we are a service fit for the future and able to further support clinical teams to implement evidence-based IPC practices in order to enhance patient safety in a diverse organisation. We also hope to add to the IPC evidence base by having a clear focus on research and innovation within GGC.

Our performance this year against the Scottish Government Standards on Healthcare Associated Infections has never been better (please see the table below), despite GGC delivering care to some of the most complex patients in the West of Scotland. The prevention and control of infection is delivered by frontline clinical staff with IPCT support and we would like to acknowledge that and celebrate this success.

April 2022 to March 2023 (rolling year)

| Year end Q1-2023	GGC rate per 100,000 OBDs	SCOTLAND rate per 100,000 OBDs	STATUS for year end
CDI	13.0	13.6	Below national rate
ECB	33.7	35.7	Below national rate
SAB	18.2	18.2	Same as national rate

The number of patients with C. diff in GGC is lower than in the rest of Scotland. C. diff causes life threatening gastrointestinal infections especially in the elderly. This is a distressing and debilitating infection associated with antibiotics. Preventing this infection promotes patient safety and wellbeing.

The number of patients with ECB in NHSGGC is lower than in the rest of Scotland. It is the most common type bloodstream infection in the UK and is closely associated with how we manage urinary catheters. Catheters can cause urinary infections and this bacteria can travel into the patients bloodstream. ECB can also cause the infections associated with SABs. As with SAB prevention will save lives.

The number of patients with SAB in NHSGGC is the same as the rest of Scotland even though our population is more vulnerable. 30% of patients who have a SAB have passed away 30 days after their infection has been identified. SAB travels through the bloodstream and causes infections in the heart, prosthetic joints, vascular devices. Preventing this infection saves lives.
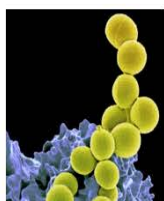
We hope you find the information within this IPC Annual Report informative and are assured that the IPCT will continue to strive to provide the best service possible.

Sandra Devine

Director Infection Prevention & Control NHS Greater Glasgow and Clyde

Introducing our Team

Our Vision

To promote a safer environment for patients, staff and service users in all areas of health and social care within NHS Greater Glasgow and Clyde, and that no person is harmed by a preventable infection.

Our Team Values

The IPCT provides a comprehensive and innovative infection prevention and control service for all healthcare workers, patients, residents and visitors within NHSGGC Acute and Community Services including Care Homes.

The Senior Management Team includes a Director of Infection Prevention and Control (DIPC), Lead Infection Control Doctor (LICD) and an Associate Nurse Director for Infection Prevention and Control (ANDIPC). The team is supported by an IPC Nurse Consultant (NCIPC) and dedicated business and administrative support.

The Infection Prevention and Control Service in NHSGGC has a local Infection Prevention and Control Team (IPCT) in each sector:

- Clyde
- North
- South (Adults)
- South (Paediatrics); and
- Health and Social Care Partnerships (HSCPs)

The local IPCTs consist of an IPC Doctor, Lead IPC Nurse, a combination of Senior Infection Control Nurses and Infection Control Nurses, and an administrator (in certain Sectors). The IPCTs cover all hospital sites, and provide a service to mental health in-patient sites and directly managed community NHS services.

The IPCT is supported by a dedicated Surveillance Team led by a Surveillance Operations Manager, comprised of an Advanced Healthcare Scientist, Surveillance Nurses, a Senior Data Manager, a Data Manager, a Data Assistant and a Surveillance Assistant. All members of the team have appropriate skills and experience to carry out their day-to-day duties and a range of functions which support business continuity and adherence to the National Infection Prevention and Control Standards.

The primary role of the IPCT is the prevention of healthcare-associated infections (HCAI). Patients are often more vulnerable to infection, therefore, any contact they have with the healthcare environment has the potential to cause harm to the individual.

The key functions of the department are:

- Policy and guideline provision
- Education
- Surveillance
- Outbreak and incident management

- Audit
- IPC advice to healthcare workers
- Provision of IPC advice to patients, parents and visitors

Performance at a Glance - April 2022 to March 2023:

CDI - Below NHS Scotland rate

ECB - Below NHS Scotland rate

274 HAI SCRIBEs

22,637 Infection Control Learn Pro Modules were completed

Managed 372 Ward Closures

90 Audits of Wards PVC and CVC practice

39,491 Patient Referrals

SAB - Same as NHS Scotland rate
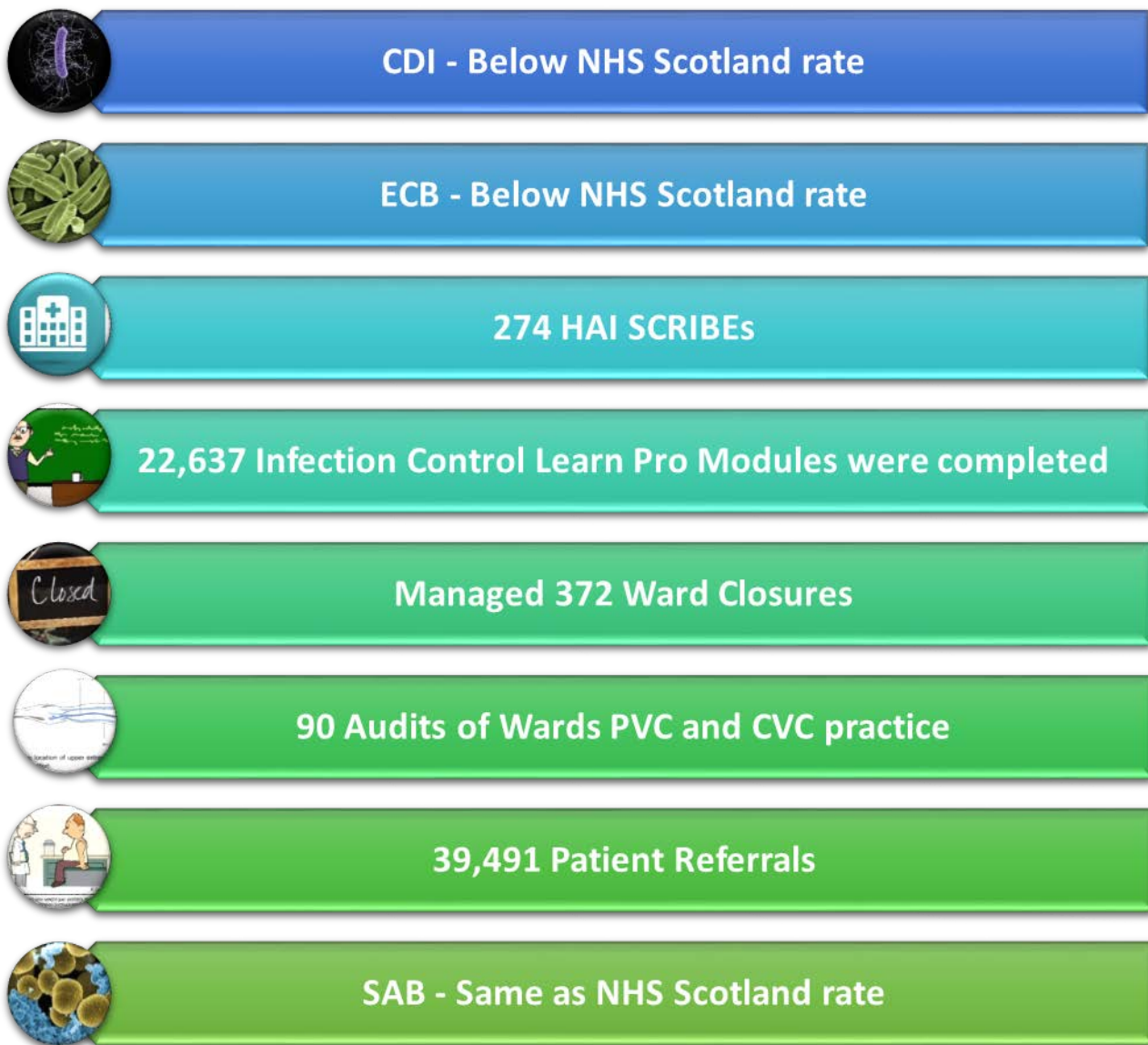
The IPCT provides highly specialised advice to the Board's Senior Management Team (SMT) on compliance with national mandatory requirements, standards and best practice, and takes the lead in supporting the implementation of these throughout the organisation on a Board and Sector level.

The department advises operational staff on the implementation of both national and NHS GGC

IPC Policies and Procedures. The service is provided to all clinical and non-clinical disciplines within the organisation.

The IPC department:

- Provides IPC education to pre and post registration courses at higher and further education establishments.

- Delivers up-to-date education and training in a variety of modes, including mandatory online, face-to-face local and MS Teams education sessions. Other formats also include local posters and stands for drop-in learning opportunities.

- Produces an annual programme presented and approved by the Board Infection Control Committee (BICC) and updates to the programme are presented at each bi-monthly meeting.

The specific roles and responsibilities for IPCT can be found in the Infection Prevention and Control Assurance and Accountability Framework:

https://www.nhsggc.org.uk/your-health/infection-prevention-and-control/ipct-assurance-and-accountability-framework/

IPC as a highly performing Team

All members of the IPCT are encouraged to undertake training opportunities relevant to their current and future roles. Within the last year, members of the team have been involved in building their skills in relation to the built environment and undertaking the course on Engineering Aspects of Infection Control sponsored by the Healthcare Infection Society and the European Certificate of Infection Control.

> **IPCT has evolved to meet the challenges of the recovery and expanding remit post pandemic**

The close working relationships with clinical services, which were cemented during COVID-19, have been maintained and enable effective and efficient response to incidents and outbreaks as well as maintenance of a high standard of IPC precautions during daily practice.

The IPCT have maintained the twice weekly Team meetings, allowing close to real time discussion of new and emerging issues, and providing a forum for discussion and action of nationally distributed documents. The culture at these meetings is one where constructive

challenge is encouraged and all viewpoints listened to.

We are very proud that the work of IPCT has been recognised by NHS GGC. The LNIPC in Clyde was nominated as Leader of the Year in the GGC Staff Awards (Clyde), and her team was also commended as Team of the Year.

The GGC IPCT continue to refine our experience in managing large, prolonged and complex outbreaks and are very cognisant of the benefits of close working relationships with the clinical and antimicrobial stewardship teams in order to effectively bring these incidents under control. The IPCT are grateful for the support of an experienced and excellent administration team as accurate record keeping of decisions, actions and documents is vital for recording the management of these incidents.

The GGC IPCT are active participants in national groups such as the IPCN Network, the ICM Network and the SMVN IPCD Sub-Group. These forums are useful for shared learning and for feedback to national organisations on the real world implementability of national guidance.

IPCT are National Influencers

Infection Prevention and Control Organisational Structure

```
                         ┌─────────────────────┐
                         │   Chief Executive   │
                         └──────────┬──────────┘
                         ┌──────────┴──────────┐
                         │ Executive Nurse     │
                         │ Director/HAI Exec   │
                         │ Lead                │
                         └──────────┬──────────┘
   ┌──────────────────┐  ┌──────────┴───────────────────────────┐
   │ Lead Infection   │  │ Director of Infection Prevention &    │
   │ Control Doctor   │──│ Control                               │
   └───────┬──────────┘  └──────────────────────────────────────┘
```
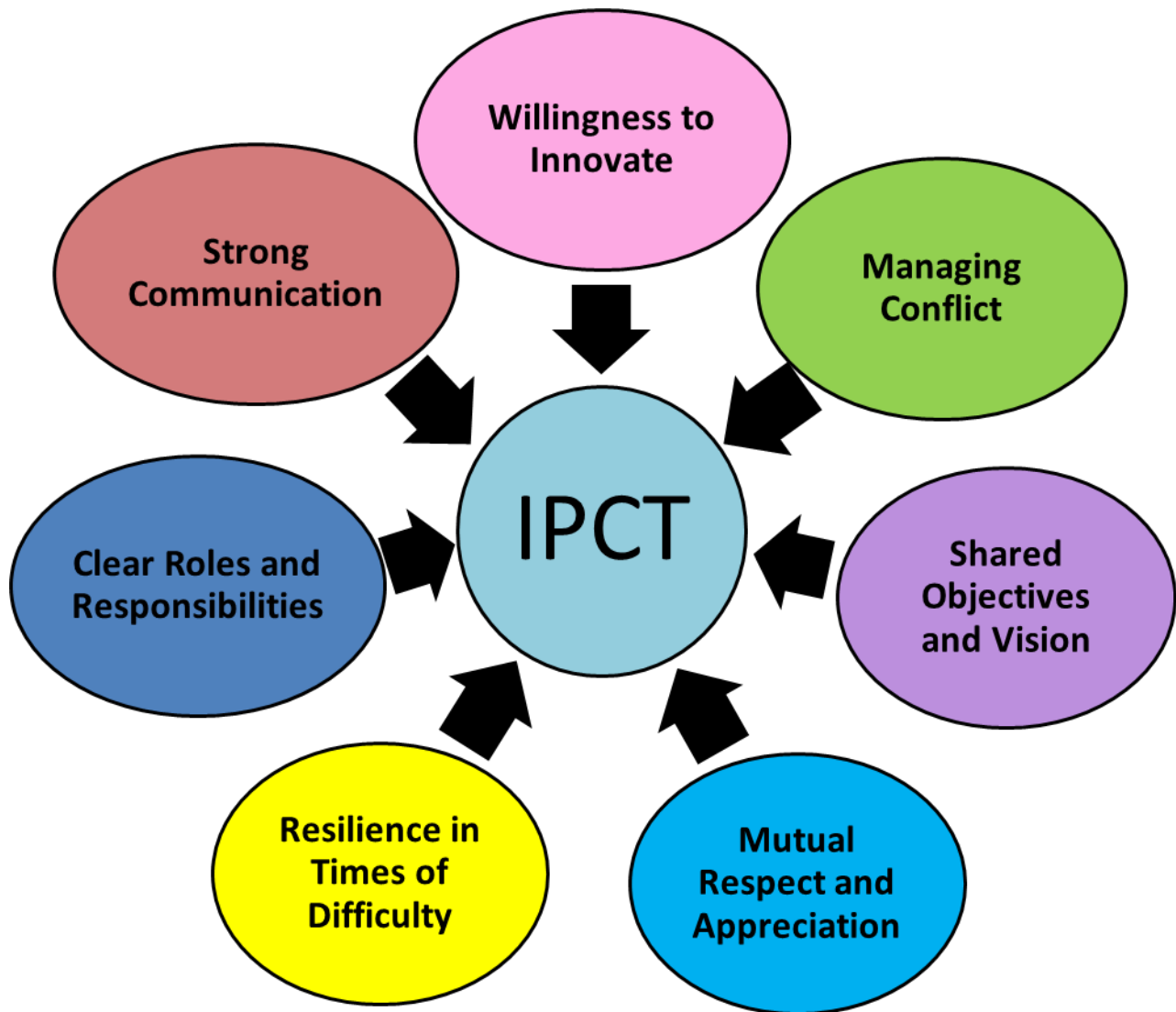
Chief Executive		
Executive Nurse Director/HAI Exec Lead		
Lead Infection Control Doctor	Director of Infection Prevention & Control	
Deputy Infection Control Doctor	Infection Control Doctors	
	Associate Nurse Director (IPC)	Nurse Consultant
Surveillance Operations Manager	Lead IPC Nurse – South Glasgow Adults	Lead IPC Nurse - South Glasgow Paediatrics
	Lead IPC Nurse - Health & Social Care Partnerships	Lead IPC Nurse - Clyde
	Lead IPC Nurse - North	
Healthcare Scientist	Advanced Healthcare Scientist	
Hand Hygiene Co-ordinator	Senior Nurse HAI Scribe	Business Manager

IPCT – Core to success is:

Policies and Guidelines

The Board intranet site contains an IPCT webpage hosting a comprehensive set of policies, guidelines, aide memoires, etc. as well as linked policies from other specialties e.g. Estates.

The IPCT webpage is where service users, their visitors and anyone providing support can easily access up-to-date National Guidance and information on infections and the current IPC measures in place.

Checklist on this site ensures that Healthcare Workers have the core information they require to manage patients with infections

Following an extremely challenging year, the IPCT have kept up to date with changes to national and local COVID-19 procedures through regular contact with Antimicrobial Resistance and Healthcare Associated Infection Scotland (ARHAI), which allowed the IPCT to produce time-specific guidance to control infections.

The IPCT are now reviewing all guidance documents along with all information stored on the webpage to ensure that all the guidance that is available is current. Policies requiring updates during the year are included in the work plan, and although there has been some slippage during the past 2 years due to pandemic, there is a plan in place to address this, with all policies having been reviewed by the end of this financial year.

Following the 2022 "What Matters to You" campaign, all Patient Information Leaflets are available as a link on the ward iPad. This was to ensure that information leaflets are easily accessible to all patients. Staff are now able to increase font size or brightness for patients with visual impairment; this will also reduce paper waste.

IPCT strive to put patients at the centre of all that we do

HEI Steering Group/Corporate Inspections

The HEI Steering Group and corporate inspection process is recommencing this year. The remit of the group and inspections is to provide assurance to the Board, services and service users that the Healthcare Environment is safe and free from avoidable risks in the Built Environment. The group consisting of IPCT representatives, Chief Nurses, Deputy Medical Director, Estates and Facilities Senior Management Team will meet bi-monthly and/or following each corporate inspection. Reports from HEI inspections in NHS GGC and all other Health Boards will be reviewed and tabled for discussion at each Steering Group meeting for shared learning and improvement. Inspections will be undertaken bi-monthly with a team of corporate inspectors, including; Facilities, Nursing, Estates, IPCT and Senior Management as a minimum.

> **Learning from HIS Inspections are shared and lessons embedded where appropriate.**

The group will report into the NHS GGC Infection Prevention and Control Built Environment Group (ICBEG).   Each inspection will be unannounced at one chosen hospital site and will incorporate no less than 3 ward/department visits. Findings will be fed back to the next Corporate HEI Steering Group for action. The inspection will utilise an inspection tool / aide memoire with feedback immediately at point of inspection to nurse/person in charge. Findings will be summarised into an action plan for the ward in question to take forward.

Case Reviews

Since 2019, following every positive blood culture with Gram-negative bacteria obtained from a child under the care of the Haemato-oncology service at the Royal Hospital for Children (RHC), a case review is carried out in conjunction with the child's clinician, to determine (if possible) the cause of the bacteraemia. The tool was designed specifically to determine if there were any risk factors leading up to the blood culture, for example procedures undertaken, indwelling devices, environmental risks or patient factors. The completed tool is sent to clinicians and senior management for review. The tool has since been adapted by the IPCT for both Neonatal Intensive Care Unit (NICU) and Paediatric Intensive Care Unit (PICU), and the same process is now followed for all three high-risk areas within the Children's Hospital. A report detailing case reviews is sent to the Women & Children Director and members of the Case Note Recommendations Group, monthly for review, and a meeting convened to discuss if required.

Education

Due to the restrictions imposed during the pandemic, in particular social distancing, delivery of education by the Infection Prevention & Control Team (IPCT) was challenging. The IPCT sought to ensure that all staff were provided with educational materials in formats that did not require them to attend face to face sessions or meet in large groups. During the peaks of the pandemic, much of the training was delivered as a result of an incident or outbreak.

> **We aim to deliver education in ways that support the needs of clinical teams**

Short education sessions at ward level, using materials such as "Question of the Week" and "Spot the Mistake" posters and toolbox talks enabled the IPCT to deliver education to ward/department teams and they worked together to drive quality improvement and reduce IPC risks.

The Statutory mandatory training module "Standard Infection Control Precautions" is a core training requirement for all staff via Learn-Pro. This has recently been updated to reflect the post-pandemic guidance. From April 2022 to March 2023, 18,625 staff members undertook this Learn-Pro module, including 10,258 Nursing & Midwifery staff, 1,779 Medical staff, 1,951 Administration staff and 1,353 Allied Health Professional (AHP) staff.

Due to the frequent changes to the National Guidance on the prevention and management of COVID-19, the IPCT ensured that there were regular updates for staff to reflect these changes while also developing new local guidance based on the National policies.

In addition to staff being directed to the National Infection Prevention & Control Manual, a comprehensive IPC Portal is available containing guidance documents, care checklists and aide memoires. The IPCT is responsible for the ongoing maintenance and review of the IPC Portal.

Many staff have voiced their views in relation to education and would like to go "back to basics", so this is what the IPCT have planned going forward. Moving to a period of post-pandemic recovery has allowed IPC education projects to restart.

The IPCT has re-established the IPC Education Group to develop new education material including narrated educational videos comprising of Standard Infection Control Precautions (SICPs) and Transmission Based Precautions (TBPs). These were initially developed for the Care Home setting and will be rolled out to Acute and Mental Health.

COVID – Turning innovation and learning into practice, to promote recovery
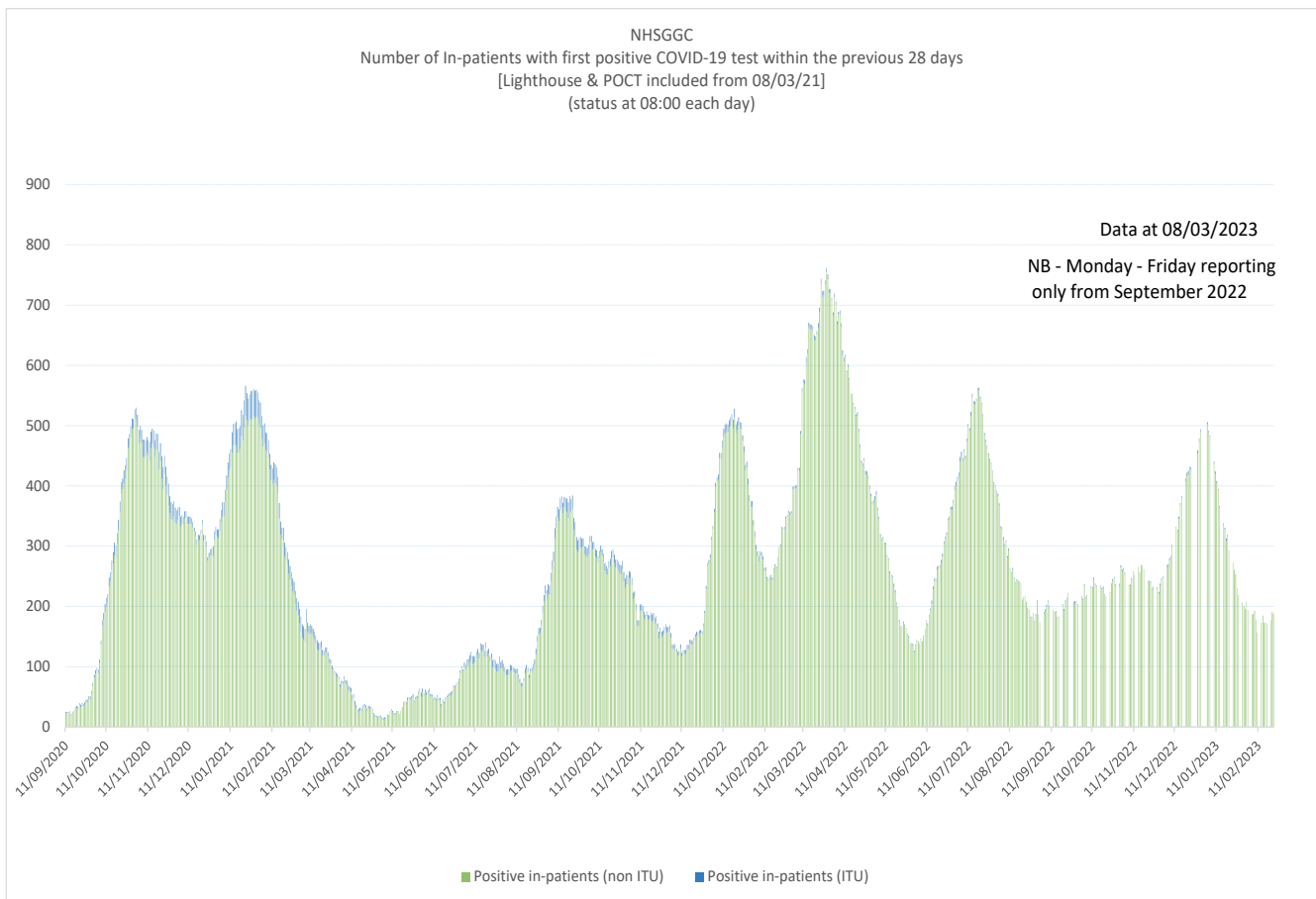
Peaks of COVID-19 community prevalence continue to pose a significant challenge for the clinical services and particularly medicine, care of the elderly and mental health, resulting in bed pressures and ward closures. Significant pressures were also experienced by the IPCT. Over the period of this report there have been 318 wards closed due to COVID-19 clusters. The national guidance for COVID-19 has now largely been removed with a return to SICPs and Transmission Based Precautions (TBPs). Despite this, the threat of COVID-19 has not gone away, and Sector IPC Teams have worked closely with the clinical services through these transitions in guidance and what this means for different specialities.

318 outbreaks of COVID were managed this year by IPCT

The Sector IPC Teams have and continued to gain experience with clusters and outbreaks, allowing an informed assessment of risks and enabling the teams to work with the clinical services to balance the risks of COVID-19 and COVID-19 harms, including safely opening wards as early as possible. COVID-19 clusters continue to be reported to ARHAI with lessons learned, which helps to inform the national approach.

The IC Data Team have supported the clinical services through the provision of daily and weekly reports on numbers of new inpatient cases and nosocomial cases, providing valuable intelligence for planning of services (please refer to the table below as an example). The significant reduction in community testing now means that hospitals are one of the barometers of COVID-19 prevalence.

NHSGGC
Number of In-patients with first positive COVID-19 test within the previous 28 days
[Lighthouse & POCT included from 08/03/21]
(status at 08:00 each day)

Data at 08/03/2023

NB - Monday - Friday reporting
only from September 2022

Positive in-patients (non ITU) Positive in-patients (ITU)

As the NHS recovers from the pandemic, it will be important to build on the lessons we have learned during this time. Some services to patients will have been understandably affected by our need to respond to the pandemic but now as services are optimised and innovations proposed to increase access for patients, it will be necessary to review how the IPCT functions to support service delivery. New technologies will contribute to this new way of working, for example, the ability to work remotely and provide digital consultations/referral advice if appropriate. This may also support recruitment and retention of this highly skilled workforce.

During the pandemic the use of new communication technologies ensured that the team were able to meet frequently to review rapidly changing guidance and agree solutions. This was effective not only in achieving results but in ensuring the team felt supported in decision making and the organisation benefited from our collective expertise and experience. This is an area we intend to build on going forward.

Infection Prevention and Control Quality Improvement Network (IPCQIN)

Network's Vision:

As an Improvement Network, we influence and support our staff, patients and carers to continuously improve person centred infection prevention and control practices, ensuring a safe and effective care experience.

NHS Scotland Quality Strategy ambitions state "**there will be no avoidable harm to people from the healthcare they receive.**" Healthcare associated infection is estimated to affect 4.5% of all patients who receive care. One of NHS Greater Glasgow and Clyde's quality ambitions is to strive for excellence in the reduction of preventable infections. The NHSGGC Pursuit of Healthcare Excellence Quality Strategy (2019/2023) is a framework that outlines how we intend to continuously improve the quality of care to our patients, carers and communities over the next five years. The Quality Strategy Group has agreed that IPC is one of three key strategic priorities within NHSGGC, therefore, the Infection Prevention and Control Quality Improvement Network (IPCQIN) is being taken forward as a programme of the Quality Strategy Work-plan, thus providing the structure, methodology and expertise required.

To support and deliver on the IPCQIN Operational Group's objectives, three workstreams have been established:

1. Person Centred Care - Infection Prevention and Control Work Stream

The group is focused on effectively engaging with patients, carers and the public in the planning and delivery of services and to be able to demonstrate that we are listening and learning from people who use and work within NHSGGC services.

With the support of the Patient Experience and Public Involvement Team (PEPI) and the Person Centred Health and Care Team (PCHC), recruitment is underway to invite people with lived experience to join the network.

> **Only by listening to patients can we determine what matters to them in preventing avoidable infections**

All Patient Information Leaflets (PILs) are now available as an icon on ward iPads. In addition to this, IPCNs now ensure that patient isolation periods are shared with ward staff, including any

changes to this to ensure that all patients are fully informed. Ward and department staff have been asked to let IPCNs know of any PILs that are not available but that they would find beneficial.

In June 2022, we engaged with staff and patients to find out what matters to them when receiving information during isolation, to assess relevance and understanding of the information shared. All adult patients who were interviewed were isolated due to either being COVID-19 positive or being nursed in a closed ward. The results were used to identify any gaps and form actions for improvement.

2. Reducing Infections Associated with the Use of Invasive Access Devices Workstream

The workstream is focused on increasing awareness of SAB prevention across GGC across all professional groups and to identify barriers to good SAB prevention practices. There are currently four well-established SAB Groups that feed into this workstream in the North, South, Clyde and Regional Services Sectors. The work of the SAB Groups informs this workstream and ensures that there is a seamless approach across all sectors with minimal variation. Data is now available on the Micro-Strategy site for all IPC access device sub groups.

SAB Groups

These groups have undertaken various initiatives to improve awareness of SAB prevention, for example:

- Engaging with clinical staff across sites to raise awareness.
- Undertaking investigations of unknown SABs to identify the source and learn lessons.
- North Sector developing educational opportunities such as SAB Toolbox Talk and SAB boards which provide information to clinical and nursing staff at ward level on SAB reduction. The goal is that, if successful this initiative will be rolled out across the sector and potentially applied across the board as a quality improvement tool to support SAB reduction.

SAB Groups deliver the improvements in our National rates

- Completed two extensive QI projects following device related SABs. They have also been

focusing on improving PVC bundle compliance to reduce the number of PVC SABs.

- SAB prevention and management is now a routine component of induction and/or ongoing training across the frontline nursing teams within the Regional Services.

3. Standard Infection Control Precautions (SICPs) Workstream

The focus of the SICPs workstream is to improve all acute and mental health areas' compliance with all standard infection prevention and control precautions.

Recommendations following the Scottish Government Oversight Board and case note review (2020) were that NHS GGC develop a quality management system for application of SICPs which supports the delivery of high-quality care. This approach should be multi-disciplinary, organisation-wide and supported by a culture of continuous supported improvement. It was also recommended that IPC audit measures must be linked to individual actions with evidence of improvement through re-audit using methods that can demonstrate compliance that is sustainable. Data collection tools should be utilised by not only the IPC teams but also Senior Charge Nurses and departmental managers to reduce health care associated risk. Processes must be available to support innovation to achieve this. Following an SBAR (June 2021) presented to the NHS GGC IPC committees, work commenced on developing a new SICPs audit tool which is now hosted on Care Assurance and Improvement Resource (CAIR).

The new SICPS Audit Tool went live on the CAIR dashboard on 1 November 2022 and the Infection Prevention and Control Team (IPCT) commenced Quality Assurance (QA) audits in February 2023. The SICPS Audit Tool for Mental Health in-patients services was launched in February 2023 with baseline audits being undertaken in March 2023 and IPCT QA commencing in April 2023. Education has been provided on the SICPs audit tool to the Acute Senior Nurses Group and a presentation was provided to the Mental Health IPC Support Group.

Other Improvement Work:

- 23 of the IPCNs have completed the Scottish Improvement Foundation Skills Programme (SIFS) to support quality improvement.

- The HSCP IPCT together with the Care Home Collaborative developed an education resource aligned to the sector specific Care Home Infection Prevention & Control Manual. The resource, a short 18 minute video, is based on the ten elements of standard infection control precautions (SICPs). To coincide with World Hand Hygiene Day on 5 May 2023, two

short video clips were developed by the workstream. All videos are available on the resource section of the Care Home Collaborative webpage. A poster developed by the work stream to promote the resource was issued directly to care home managers. Social media platforms were also used to promote the resources with a series of tweets issued to coincide with the launch of the video. https://vimeo.com/175206023, https://vimeo.com/175206023

- South Sector IPCT have been supporting the South Sector Lunch and Learn sessions, currently focusing on loose stools, outbreak management and hand hygiene.

- The 3 IPCTs who cover neonatal wards have liaised to identify common themes of the week for their respective NICU units to ensure that the themes are aligned for continuous improvement of IPC practice.

Surveillance

NHS GGC uses an electronic patient management system ICNET, which links information from hospital systems (e.g. laboratories, theatres and Trackcare) and ensures that results are received in real time (every 15 minutes) by the teams who in turn can act upon this promptly. A full record of the patient's diagnosis and management is included in the system, which facilitates documentation audit. This system also supports the mandatory surgical site infection surveillance programme. Direct links to microbiology and theatre systems make surgical site surveillance of less complex surgical procedures e.g. cataract surgery, possible with minimal workforce. The system allows the IPCT to view the records of any patient referred via this system in any hospital across the board.

> **Surveillance allows us to identify problems quickly and implement improvements promptly**

The following is a list of the surgical procedures where active surveillance is undertaken by the IPCT in NHS GGC. The procedures in bold are in addition to the mandatory programmes that we are required to collect data on:

Caesarean section

Hip arthroplasty

Large bowel surgery

Major vascular surgery

Knee arthroplasty

**Repair of neck of femur**

Cranial surgery

Spinal surgery (Institute of Neurological Sciences (INS) only)

Free flap surgery in oral and maxillofacial (OMFS) surgery procedures

IPC GGC Performance (National Programmes)

Overall cases

Figure 1 shows total cases of **Clostridium difficile** infection (CDI), **Staphylococcus aureus** bacteraemia (SAB) and **Escherichia coli** (ECB) bacteraemia from 1st April 2021 to 31st March 2022, and from 1st April 2022 to 31st March 2023, based on **ARHAI definitions**.

- **220** cases of healthcare associated **Clostridium difficile** infection in 2022 – 2023 compared to **213** cases in 2021 – 2022.

- **320** cases of healthcare associated **Staphylococcus aureus** bacteraemia in 2022 – 2023 compared to **318** cases in 2021 – 2022.

- **589** cases of healthcare associated **Escherichia coli** bacteraemia in 2022 – 2023 compared to **535** cases in 2021 – 2022.
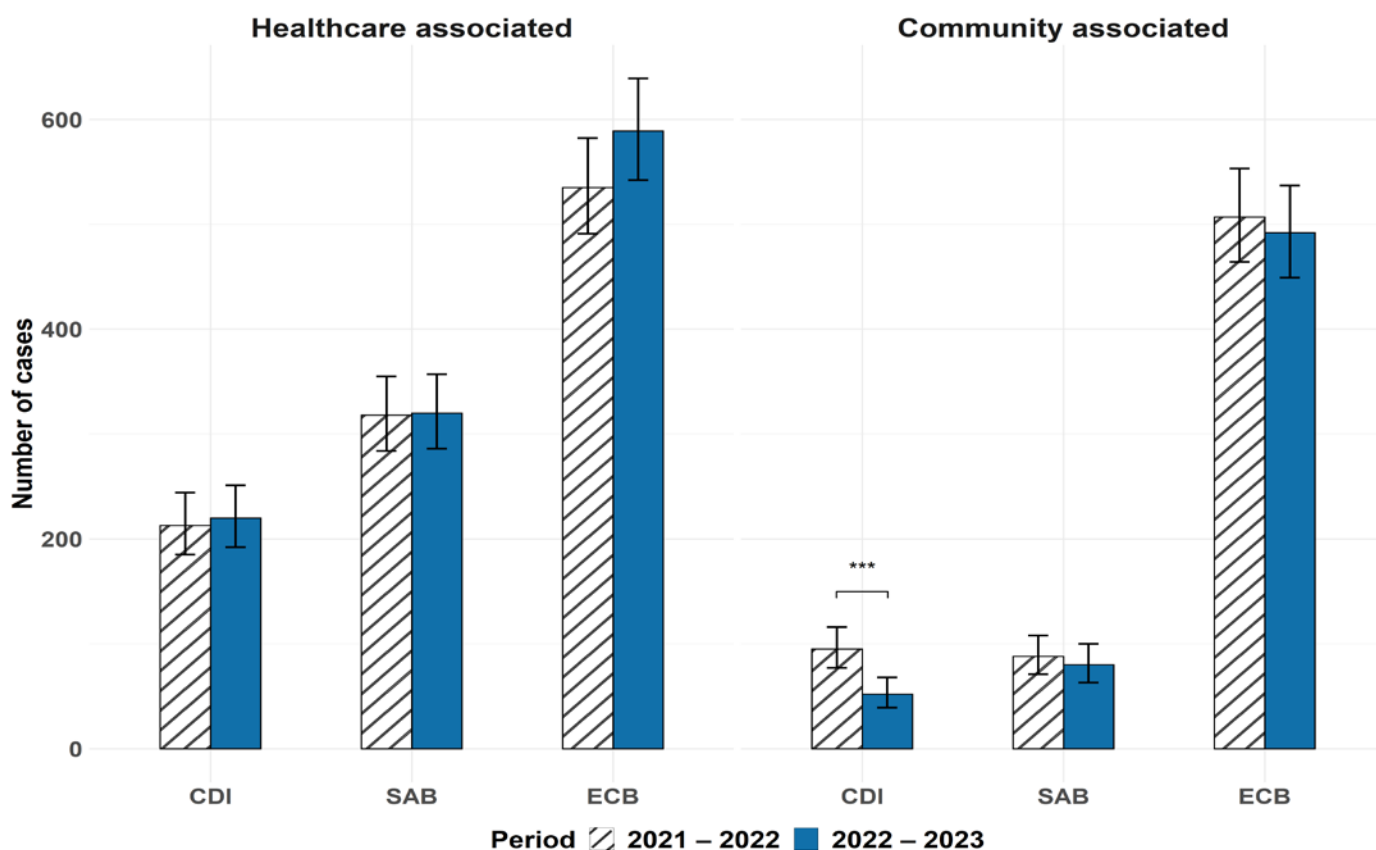
Figure 1 Comparison of the total healthcare associated and community cases for *Clostridium difficile* infection (CDI), and *Staphylococcus aureus* (SAB) and *Escherichia coli* (ECB) bacteraemia. Bars show the total cases in period 2021 – 2022 (black stripes) compared to the 2022 – 2023 (solid blue) period for each organism with significant (p-value < 0.001) comparisons indicated by three asterisks (***). 95% confidence intervals (error bars) and p-values were estimated using exact Poisson tests. For CDI and SAB healthcare associated infections, cases remain similar in both periods, whereas ECB increased slightly in the 2022 – 2023 period. Community associated cases seemed to decrease for all three organisms and are significantly lower for CDI.

Annual and monthly incidence rates in the NHS Greater Glasgow and Clyde

Incidence rates were estimated for hospitals (mainly acute) with available occupied bed days' data.

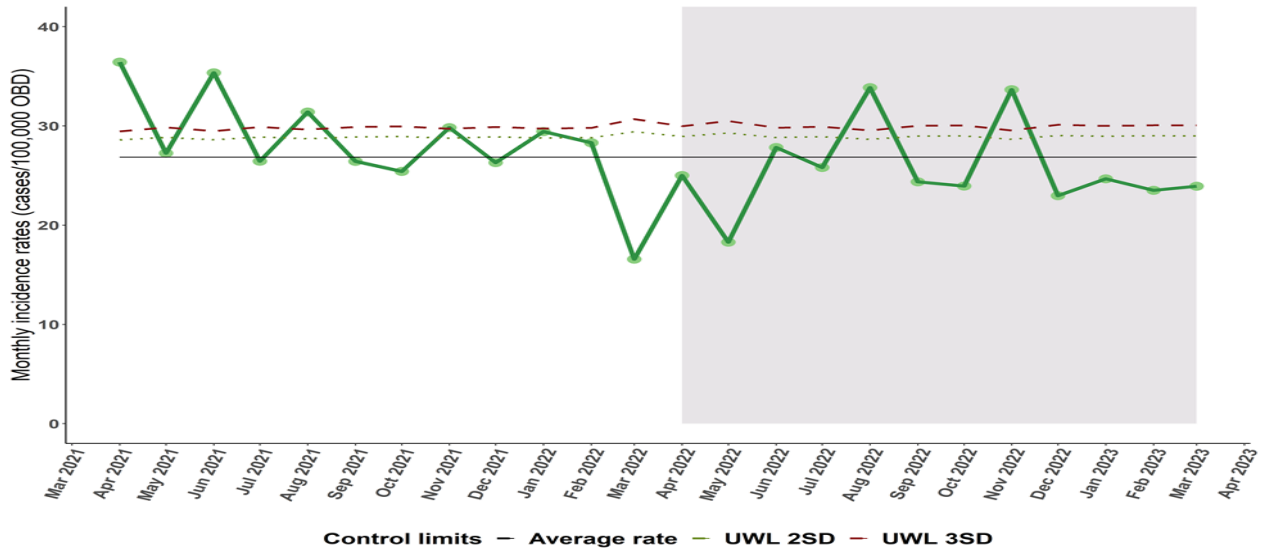### *Clostridium difficile* infection

The 2022 – 2023 incidence rate was **17.7** per 100,000 occupied bed days compared to **18.2** in the 2021 – 2022 period.
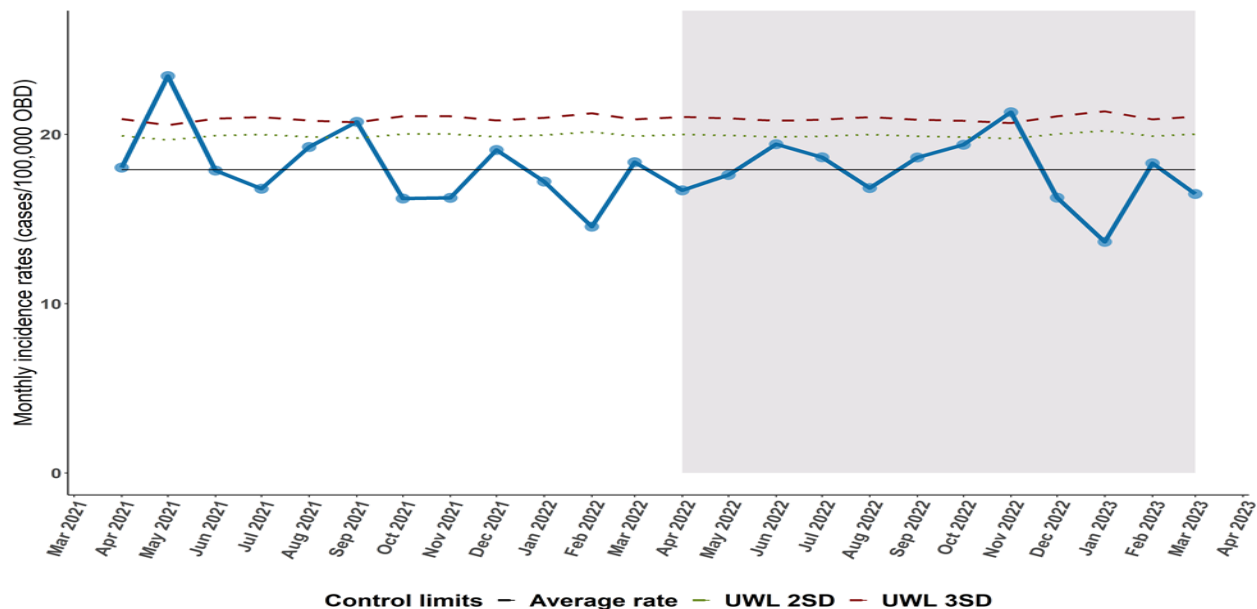
Figure 2 Monthly Greater Glasgow and Clyde *Clostridium difficile* infection incidence rates (cases per 100,000 occupied bed days (OBD)). Monthly *Clostridium difficile* infection incidence rates fluctuate around the average rate (17.9), estimated from April 2021 to March 2023, except for May 2021 and November 2022 in which incidence rise beyond a 3 standard deviation (SD) upper control limit (UCL – red dashed line). Notice most incidence rates between April 2022 and March 2023 (grey background) are below a 2 SD upper warning limit (UWL - green dotted line) or average rate (black solid line). SPC U-chart control limits (UCL 3SD and UWL 2SD) were estimated accounting for the period average rate as a baseline.

Staphylococcus aureus bacteraemia

The 2022 – 2023 incidence rate was **25.7** per 100,000 occupied bed days compared to **28.1** in 2021 – 2022 period.

Figure 3 Monthly Greater Glasgow and Clyde *Staphylococcus aureus* bacteraemia incidence rates (cases per 100,000 occupied bed days (OBD)). Monthly *Staphylococcus aureus* bacteraemia incidence rates fluctuate around the average rate (26.9) estimated from April 2021 to March 2023. Most incidence rates between April 2022 and March 2023 (grey background) are below/around the average rate (black solid line) with two exceptions in August and November 2022.

Escherichia coli bacteraemia

The 2022 – 2023 incidence rate was 44.8 per 100,000 occupied bed days compared to 43.1 in 2021 – 2022 period.
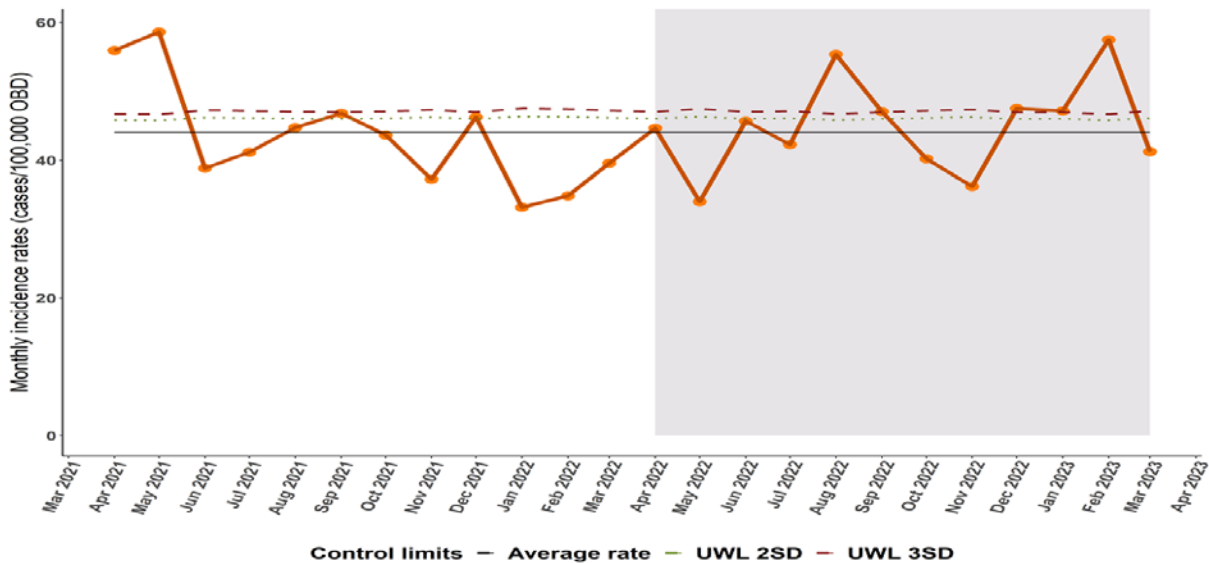
Figure 4 Monthly Greater Glasgow and Clyde *Escherichia coli* bacteraemia incidence rates (cases per 100,000 occupied bed days (OBD)). Monthly *Escherichia coli* bacteraemia incidence rates fluctuate around the average rate (44.1) estimated from April 2021 to March 2023. Although most incidence rates between April 2022 and March 2023 (grey background) are below a 2 SD UWL (green dotted line) or average rate (black solid line), there was an increase in August 2022, and between December 2022 and February 2023.

Enhanced Surveillance

Staphylococcus aureus bacteraemia

2.8% (9/320) of *S. aureus* bacteraemia were MRSA cases in the period 2022 – 2023 compared to **6%** (19/318) MRSA cases in 2021 – 2022.

In 2022 – 2023, **30.9%** of all 320 *S. aureus* cases had a proven or probable entry point via IVAD, **26.6%** (85/320) were unknown, and **17.8%** (57/320) were skin and soft tissue related infections. The top sources are highlighted as green bars with several other sources at smaller proportion in grey.
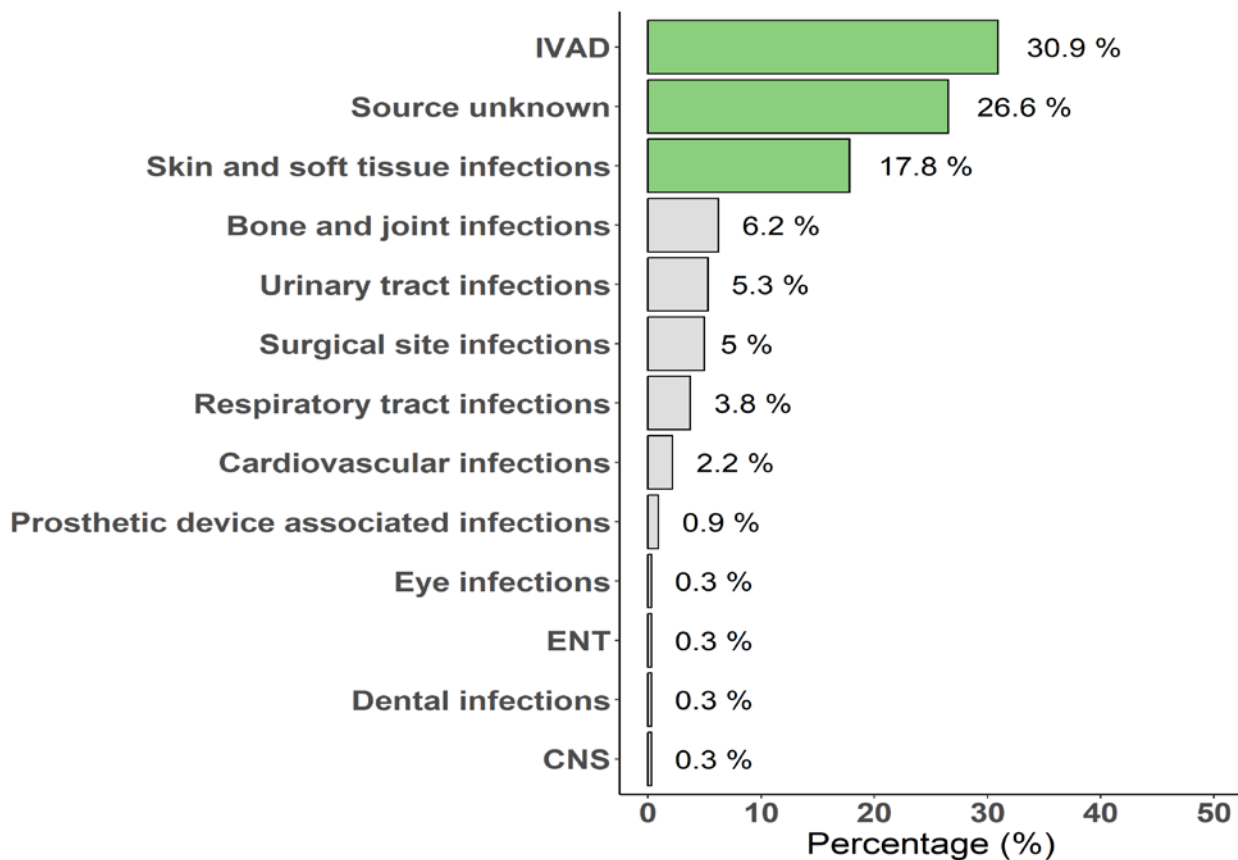
Escherichia coli bacteraemia

In 2022 – 2023, **33.4%** (197/589) _E. coli_ bacteraemia cases were related to urinary tract infection, **20.7%** (122/589) were due to gastrointestinal tract infection, **18.7%** (110/589) were due to invasive devices other than IVAD, and **18.0%** (106/589) were unknown. The top sources are highlighted as orange bars with several other sources at smaller proportion in grey.
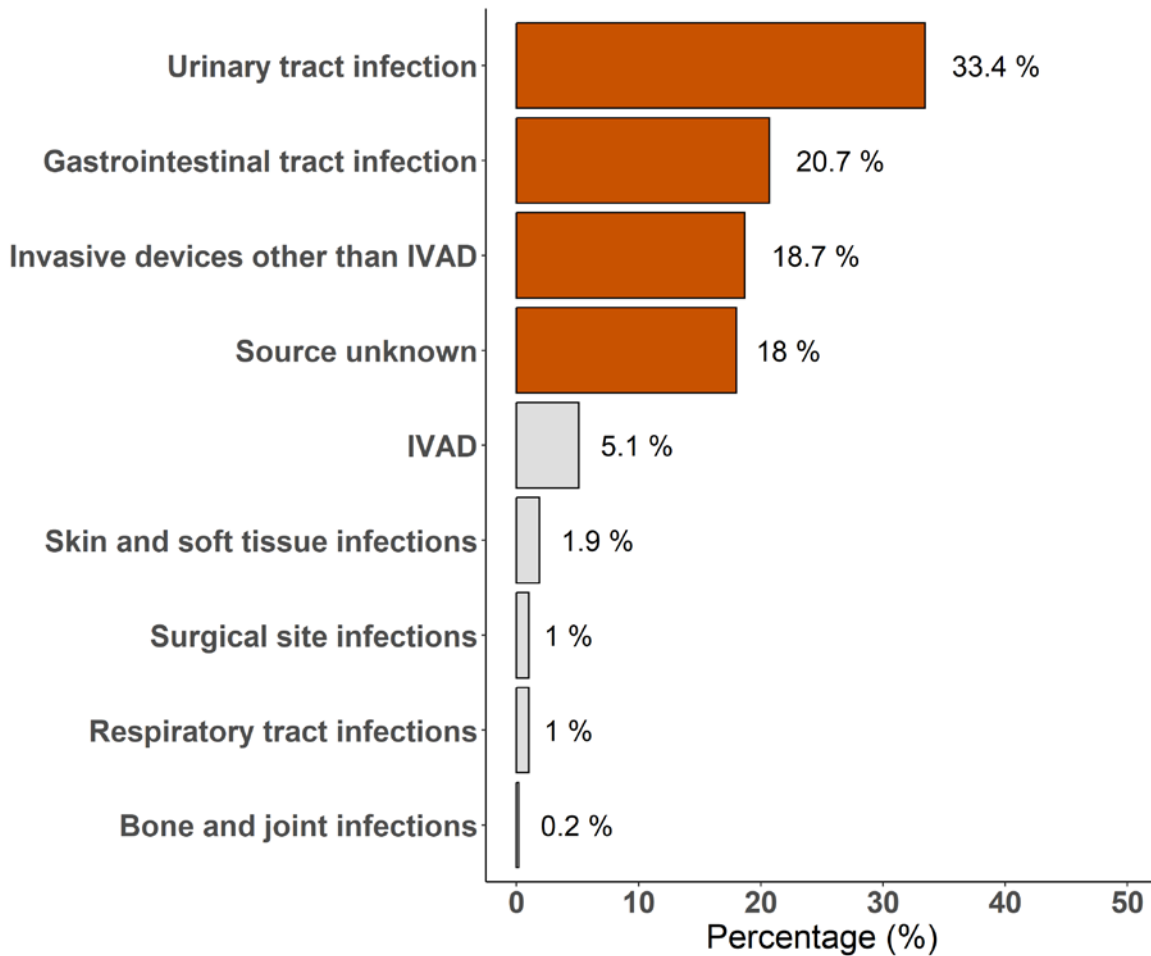
Workforce and Succession Planning

In line with the IPC Workforce Strategy, the Infection Prevention & Control Teams Transformational Plan is almost complete following the successful appointments of Surveillance Operations Manager, Healthcare Scientist, Advanced Healthcare Scientist and an HAI SCRIBE Nurse who will develop a system to ensure that the HAI SCRIBE processes are standardised and consistent.

> **Diversifying roles will ensure we have a team fit for the future**

Following approval of the job description, we hope to employ three IPC Healthcare Support Workers (HCSW) at Band 3 to the team. The HCSW role is new to the IPCT and so a 3-month induction programme is being developed by a Short Life Working Group to introduce and develop the successful candidates to the role. This was achieved within the existing resource allocation.

Research

Ensuring practice is in line with the best available evidence underpins every interaction with the IPCT. While research is not the primary focus of the IPCT, the significant learning to be gained from a Health Board as large as GGC cannot be underestimated. Teams are working on sharing lessons learned from outbreaks of resistant *E. faecium* and MRSA in specialist areas, as well as undertaking evidence reviews of current procedures to ensure these remain in line with best available evidence.

The addition of a Healthcare Scientist post and more recently an advanced healthcare scientist to the team have also opened exciting new opportunities for primary research within NHS GGC and as part of wider consortia. In the next few years, these posts will allow the IPCT to realise its full potential as a centre for generating high-quality evidence to guide IPC practice. Examples of projects carried out or initiated in 2022-2023 include:

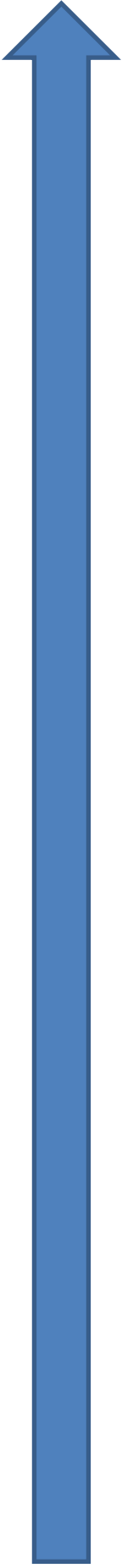> **IPCT in GGC aspire to lead the way in terms of research and innovation**

- Antimicrobial resistance gene and pathogen burden in sinks in UK hospitals and

associations with healthcare-associated infections, sink design and sink usage: a multi-centre prospective sampling study (The "SinkBug" Project). This consortium project is funded by the National Infection Teams Collaborative for Audit and Research and led by the University of Oxford and UKHSA. It aimed to carry out a UK-wide survey of hospital sink drains to determine their microbial content and the prevalence of AMR genes, looking for associations with sink design, water chemistry and IPC interventions. In total, 29 hospitals from across the UK were sampled, including three in GGC. Analysis of samples is ongoing, with results expected towards the end of 2023.

- Impacts of introducing continuous chlorine dioxide dosing on the microbiomes of hospital water systems. This internal project is being carried out by members of the GGC IPCT, with the aim of determining the impact of retrofitting local chlorine dioxide dosing systems on the hospital water microbiome. These systems are being installed at several sites in GGC, which presents a unique opportunity to measure their impacts in real-world settings. Data from this project will provide essential information for the numerous teams who operate largely behind the scenes to ensure patient safety - facilities and estates, IPC, capital planning - as well as those who are responsible for developing national guidance (notably NHS Scotland Assure and ARHAI Scotland).

Governance

Escalation	Reports Issued
NHS Board	• NHS Board Meeting – Summary Healthcare Associated Infection Reporting Template (HAIRT) • NHS Board Care & Clinical Governance Forum – HAIRT & Minutes of BICC. • CEO and Board Medical and Nurse Directors, Service Directors, EICM – Weekly IPC Report and daily update norovirus and influenza (seasonal). • Board Infection Control Committee – HAIRT, ASC Summary, minutes of Acute ICC and Partnerships IPSG, Quarterly and Yearly National reports (ARHAI) Implementation plan progress report, hot debriefs and outbreak and incident reports and reports from the sub groups.
Division Acute & HSCP	• Partnership IC Support Group (PICSG) – HAIRT, Monthly Reports, Quarterly and Yearly National reports (ARHAI) Implementation plan progress report, hot debriefs and outbreak and incident reports. • Health & Social Care Partnerships (HSCP) Integrated Joint Boards (IJB) CGC – HAIRT, Partnerships Monthly Report, Minutes of the PICSG, Partnership IPC Work Plan • Acute IC Committee (AICC) – HAIRT, SAB Reports, IPC Sector Report, Quarterly and Yearly National reports (ARHAI) Implementation plan progress report, hot debriefs and outbreak and incident reports, reports from the sub groups. • Acute Services Clinical Governance Group (ASCGG) – Activity report, includes incidents and outbreaks, audit, KPI results, educational update. • Antimicrobial Utilisation Committee (AUC) – data on request and HAIRT.
Sector and Health and Social Care Partnerships	• Sector Directors and PICSG – Sector / Partnership Monthly Activity Reports. • Chief Nurse / Chief of Medicine – Sector Surgical Site Infection (SSI) Reports and SAB Reports. • Chief Nurses / Professional Nurse Advisors. • Results of PVC/CVC Audits in response to cases of SABs associated with IV access devices.
Point of Care (Ward & Departments)	• SCN - Statistical Process Control Charts (SPCC) – issued monthly • Hand Hygiene Audits – undertaken by SCN – monthly – aggregated into HAIRT. • SICPs Assurance Audits (IPCT) • Standard IPC Precautions Audit (Lead by SCN) • SSI Reports to clinicians • CVC & PVC audit reports.

Membership of National Groups

- Scottish Surveillance of Healthcare Associated Infection Priority Programme Board (SOHNAPP).

- Decontamination Collaborative Programme Board.

- Data & Intelligence Priority Programme Oversight and Advisory Group, NHS Education for Scotland.

- NHS Education for Scotland (NES) ARHAI Education Oversight and Advisory Group.

- Scottish Microbiology and Virology Network Infection Prevention and Control Doctors Subgroup.

- Scottish Microbiology and Virology Network Steering Group.

- Antimicrobial Resistance Hospital Acquired Infection Scotland National Policies Guidance and Evidence Working Group.

Next Steps

The Scottish Hospitals Inquiry will begin to review evidence during this time and it will be important to capture themes, and where possible, demonstrate that we have taken prompt action to address any issues identified, which in turn will help mitigate against any possible recommendations. It will be essential at this time to reach out to external and internal colleagues to help to build confidence in the services provided in the Queen Elizabeth University Hospital (QEUH) and the Royal Hospital for Children (RHC). Learning from HIS inspections and interactions with NHS Assure and performing well against the SG targets will provide assurance. Linking the work of the IPCQIN and the visibility of performance data both locally and Board wide via the IPC Dashboard will also support this ambition.

The next step of our Workforce Plan is the recruitment of IPC Support Workers to support the local IPC teams. The workforce plan supports the principles outlined in the Scottish Government IPC Workforce Strategic Plan[1].

As the NHS remobilises and services are optimised, e.g. theatre capacity, diagnostics and National Treatment Centres, it may be necessary to review how the IPCT functions to support

---

[1] extension://elhekieabhbkpmcefcoobjddigjcaadp/https://www.sehd.scot.nhs.uk/publications/infection-prevention-workforce-strategic-plan.pdf

service delivery. New technologies may assist in this transformation.

NHS GGC Board Strategic Objectives 2024-2027:

1. Minimise the risk of HCAI to patients and aspire to prevent all avoidable infections. This work will be supported by the IPCQIN. Better Care

2. Support the judicious use of antimicrobials throughout the organisation. Better Care

3. Review the surveillance of HCAI including exploring different types and ways to communicate data effectively in order to supply frontline clinical teams with contemporaneous and meaningful data. Better Health/Better Care

4. Continue to develop the IPC Workforce to ensure that GGC attracts and retains the IPCT workforce:

   - Plan
   - Attract
   - Train
   - Employ
   - Nurture

   To ensure a Better workplace.

5. Explore opportunities to participate in research and quality improvement; specifically continue to support and lead the work of the Infection Prevention and Control Quality Improvement Network. This work will underpin practice and improve the patients' experience of health and social care. Better Care

6. Explore innovative and engaging methodologies to deliver IPC Education. This will enable staff to deliver high quality infection prevention and control. Better Workplace.

7. Ensure GGC meets Scottish Government Standards on Healthcare Associated Infections Indicators (SGHAII) and mandatory surveillance requirements. Better Care

8. Enhance patient and public involvement in IPC in order to improve patient experience of health and social care. Better Care

9. Ensue that the HIS IPC Standards are embedded and that a process to review local implementation and monitoring is in place to maintain a safe environment for our patients and staff. Better Care/Better Workplace.
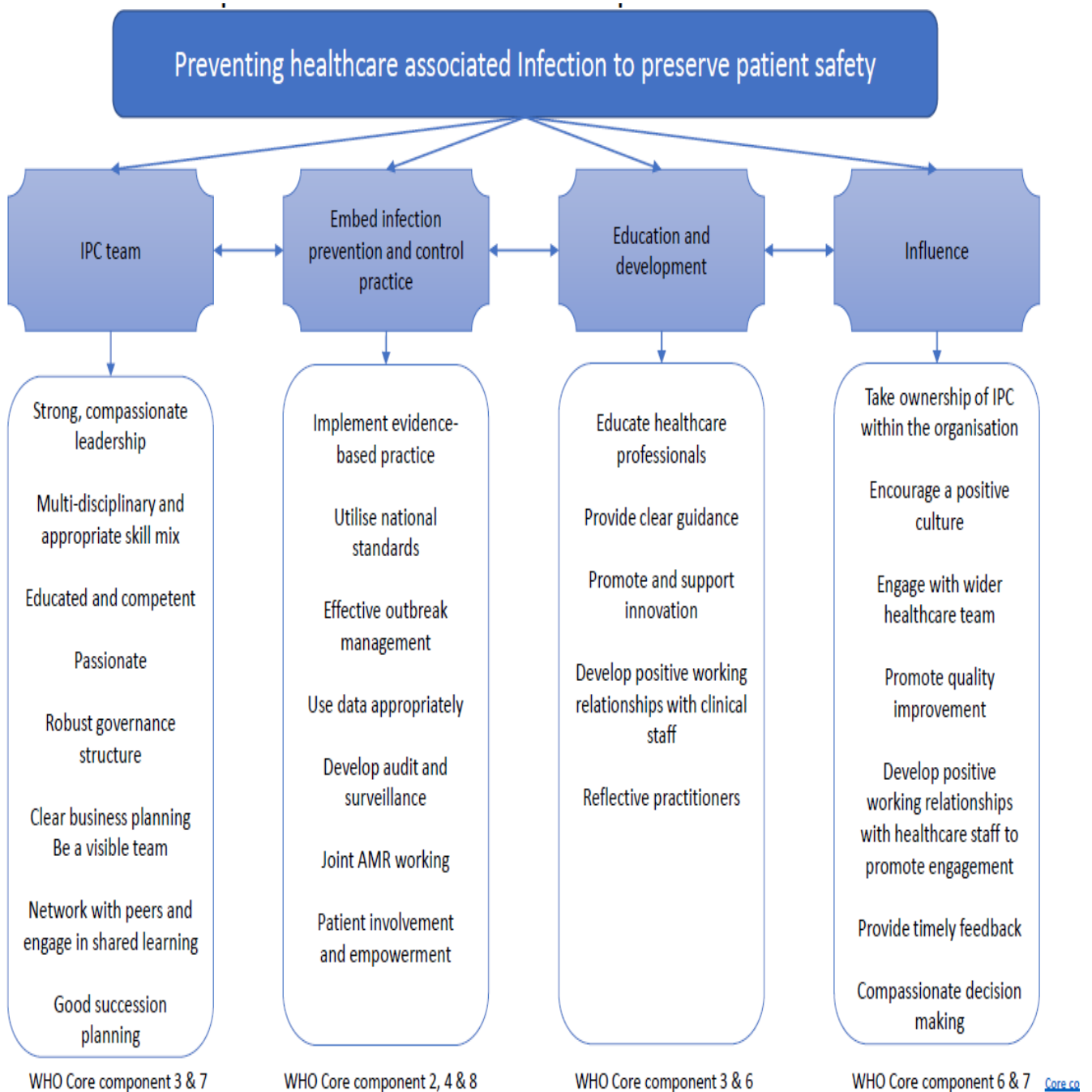
Proposed GGC IPC 5 Year Strategy - WHO 2019[2]

The WHO 2019 guidelines on the minimum core components of IPC programmes form a key part of WHO strategies to prevent current and future threats, strengthen health service resilience and help combat AMR. They are intended also to support countries in the development of their own national protocols for IPC and AMR action plans and to support health care facilities as they develop or strengthen their own approaches to IPC. There are 8 components, and the Conceptual Framework of Priorities for Optimal IPC Service has been developed by NHS England. We hope to use both to formulate an IPC Strategy for NHS Greater Glasgow and Clyde over the coming months. This will ensure that we articulate the strategic direction of IPC for the medium term (2-5 years) supported by the IPC programme and work plan. The clear focus of this strategy will be to plan the steps IPCT in GGC need to consider to achieve the WHO core components below, not as a minimum but to demonstrate innovation, research and expert practice linked to these.

Core component 1	Infection prevention and control programmes
Core component 2	Infection prevention and control guidelines
Core component 3	Infection prevention and control education and training
Core component 4	Health care-associated infection surveillance
Core component 5	Multimodal strategies
Core component 6	Monitoring, audit and feedback of IPC practices
Core component 7	Workload, staffing and bed occupancy at the facility level
Core component 8	Built environment, materials and equipment for IPC at the facility level

---

[2] WHO 2019 9789241516945-eng.pdf
It is the intention of the IPCT to build on the work of the Scottish Government and WHO to develop a 5 year strategy for IPC within GGC, ensuring that IPCT service is ready and fully able to successfully address the challenge, which changes in the provision of health and social care, may pose.

Conceptual Framework of Priorities for an Optimal Infection Prevention Service

Preventing healthcare associated Infection to preserve patient safety

IPC team
- Strong, compassionate leadership
- Multi-disciplinary and appropriate skill mix
- Educated and competent
- Passionate
- Robust governance structure
- Clear business planning Be a visible team
- Network with peers and engage in shared learning
- Good succession planning

WHO Core component 3 & 7

Embed infection prevention and control practice
- Implement evidence-based practice
- Utilise national standards
- Effective outbreak management
- Use data appropriately
- Develop audit and surveillance
- Joint AMR working
- Patient involvement and empowerment

WHO Core component 2, 4 & 8

Education and development
- Educate healthcare professionals
- Provide clear guidance
- Promote and support innovation
- Develop positive working relationships with clinical staff
- Reflective practitioners

WHO Core component 3 & 6

Influence
- Take ownership of IPC within the organisation
- Encourage a positive culture
- Engage with wider healthcare team
- Promote quality improvement
- Develop positive working relationships with healthcare staff to promote engagement
- Provide timely feedback
- Compassionate decision making

WHO Core component 6 & 7   Core co

Conclusion

The content of this report details the broad range of IPC activities in place across NHS Greater Glasgow and Clyde.   We hope it clearly demonstrates that preventing and reducing the harm caused by healthcare associated infection has been and remains a clear priority for GGC.   The commitment of teams within GGC working together across services to reduce the incidence of preventable HCAIs and enhancing patient safety we hope is also demonstrated.

The IPCT will continue to work with others to achieve key Board priorities, i.e. the GGC Nursing Quality Strategy, Facing the Future Together and the implications of the implementation of the Health and Care (Staffing) (Scotland) Act 2019.

The World Health Organization (WHO) lists Antimicrobial Resistance (AMR) among the top 10 threats for global health. Reducing the amount of antibiotics used is therefore of vital importance and is a clear priority now and in the future, and the IPCT will support antimicrobial stewardship throughout GGC and beyond.

We will explore opportunities to participate in research and quality improvement, and will specifically continue to support the work of the Infection Prevention and Control Quality Improvement Network.

Our aspirations are to support front line clinical teams to make avoidable healthcare associated infection a never event. Infections can have a significant impact on how patients experience healthcare, and can cause, pain, anxiety and in some instances can have severe or life changing outcomes for the individual. We will endeavour to put people at the centre of all we do and support teams to embed IPC practice into everything they do.

Glossary

AICC	Acute Infection Control Committee
AO/AC	Alert Organism/Alert Condition – any number of organisms or infections that could indicate, or cause, outbreaks of infection in the hospital or community.
ARHAI	Antimicrobial Resistance and Healthcare Associated Infection Group (part of Public Health Scotland)
BICC	Board Infection Control Committee
CAIR	Care Assurance Improvement Resource
CDI	*Clostridioides difficile* infections
CEO	Chief Executive Officer
CNO	Chief Nursing Officer
CPE	Carbapenemase Producing Enterobacteriaceae
CVC	Central Vascular Catheter
DATIX	NHS Incident Management System
ECB	*E. coli* bacteraemias
HAIRT	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).
HCAI	Healthcare Associated Infections
HFS	Health Facilities Scotland

HIIAT	Healthcare Infection Incident Assessment Tool
HIS	Health Improvement Scotland
HPS	Health Protection Scotland
IC Net	Infection Control Net – Surveillance software which links to Microbiology/ Virology, Trakcare (PMS) and Opera (Theatre Management system).
IMT	Incident Management Team
IPCD/M/N	Infection Prevention and Control Doctor / Manager/ Nurse
IPCQIN	Infection Prevention and Control Quality Improvement Network
IPCT	Infection Prevention and Control Team
KPI	Key Performance Indicator
MDT	Multidisciplinary Team
MRSA	Meticillin Resistant *Staphylococcus aureus*. A S*taphylococcus aureus* resistant to first line antibiotics; most commonly known as hospital acquired organism
MSSA	Meticillin Sensitive Staphylococcus Aureus
NIPCM	National Infection Prevention and Control Manual
PAG	Problem Assessment Group
PDSA	Plan, Do, Study, Act – a quality improvement methodology
PHPU	Public Health Protection Unit
PICSG	Partnership Infection Control Support Group
PVC	Peripheral Vascular Catheter

SICPs	Standard Infection Control Precautions
SAB	*Staphylococcus aureus* bacteraemias
SMT	Senior Management Team
SOP	Standard Operating Procedure
UUC	Urethral Urinary Catheter
WHO	World Health Organisation
SMVN IPCD Sub-Group	Scottish Microbiology and Virology Network Infection Prevention and Control Doctors Sub Group