

NHS Greater Glasgow & Clyde

NHS Board Meeting

18 December 2018



Dr Jennifer L Armstrong
Medical Director

Paper No: 18/63

Healthcare Associated Infection Reporting Template (HAIRT)

Recommendation: For noting.

Purpose of Paper: Update on NHSGGC performance against Healthcare Associated Infection standards and performance measures.

Key Issues to be considered:

Validated data for Quarter 3 (July-September) 2018 will be published in early January 2019.

Validated HPS / ISD data : Quarter 2 (April - June) 2018					
		Healthcare Associated Rate per 100 000 bed days		Community Associated Rate per 100 000 population	
		GGC	National	GGC	National
S.aureus Bacteraemia	105 cases	21.3	17.3	5.5	9.1
C.difficile in age 15+	96 cases	18.0	15.7	7.2	7.9

Table 1. NHSGGC and national comparison rates for 01/04/2018 – 30/06/2018

- **105** validated *Staphylococcus aureus* Bacteraemia (SAB) cases were reported for April to June 2018 with a Healthcare Associated rate of 21.3 cases per 100,000 bed days (n=89). This is above the national rate. SABs remain a priority and the SAB group continues to meet on a regular basis. Infection control doctors/microbiologists have established SAB ward rounds with IPCN teams.
- **96** validated *Clostridioides* (formerly *Clostridium*) *difficile* (CDI) cases in ages 15 and over were reported for April to June 2018 with a Healthcare Associated rate of 18.0 cases per 100,000 bed days (n=75). This is above the national rate. There is no evidence of cross transmission.

Any Patient Safety /Patient Experience Issues:

Local surveillance for July-September (Q3) 2018 shows that NHSGGC has reported a lower number of SABs with 91 cases (67 Healthcare associated; 24 Community associated).

Any Financial Implications from this Paper: No

Any Staffing Implications from this Paper: No

Any Equality Implications from this Paper: No

Any Health Inequalities Implications from this Paper: No

Has a Risk Assessment been carried out for this issue? If yes, please detail the outcome:

No

Highlight the Corporate Plan priorities to which your paper relates: Patient Safety and Improving quality, efficiency and effectiveness.

Author: Mr Tom Walsh, Board Infection Control Manager
Tel No: 0141 201 0326
Date: 18/12/18

Healthcare Associated Infection Reporting Template (HAIRT)

Section 1 – Board Wide Issues

This is the bi-monthly publication of the reporting template for submission to the NHS Board as required by the national HAI Action Plan.

Changes to National Definitions/Denominators

This HAIRT presents data based on the revised national definitions of Healthcare Associated and Community Infections. Below is a short summary of the definitions which have been applied to the presented data.

Definitions/Denominators

Reports now have rates split into two:

- Healthcare Associated Infections i.e. *any infections associated with Healthcare (hospital or GP)*. Rates are worked out by number of infections over total occupied bed days (OBDs).
- Community Associated Infections. Rates are calculated as the number of infections per 100,000 population.

Staphylococcus aureus

Staphylococcus aureus Bacteraemia (SAB) Surveillance and Actions

There is no update in this report for validated data for Quarter 3 (July-September) 2018. This will be published in early January 2019.

Quarter 2: 2018 (April-June) Surveillance

For the last published reporting quarter (April-June 2018) NHS Greater Glasgow & Clyde reported a total of **105** validated SAB cases. These are further classified as healthcare associated (n=89) or community infections (n=16).

89 healthcare associated cases were reported for the quarter equating to a rate of 21.3 per 100,000 occupied bed days (Figure 1). This is above the NHS Scotland rate of 17.3, but below the rate reported in the previous quarter. The GGC rate is within expected confidence intervals.

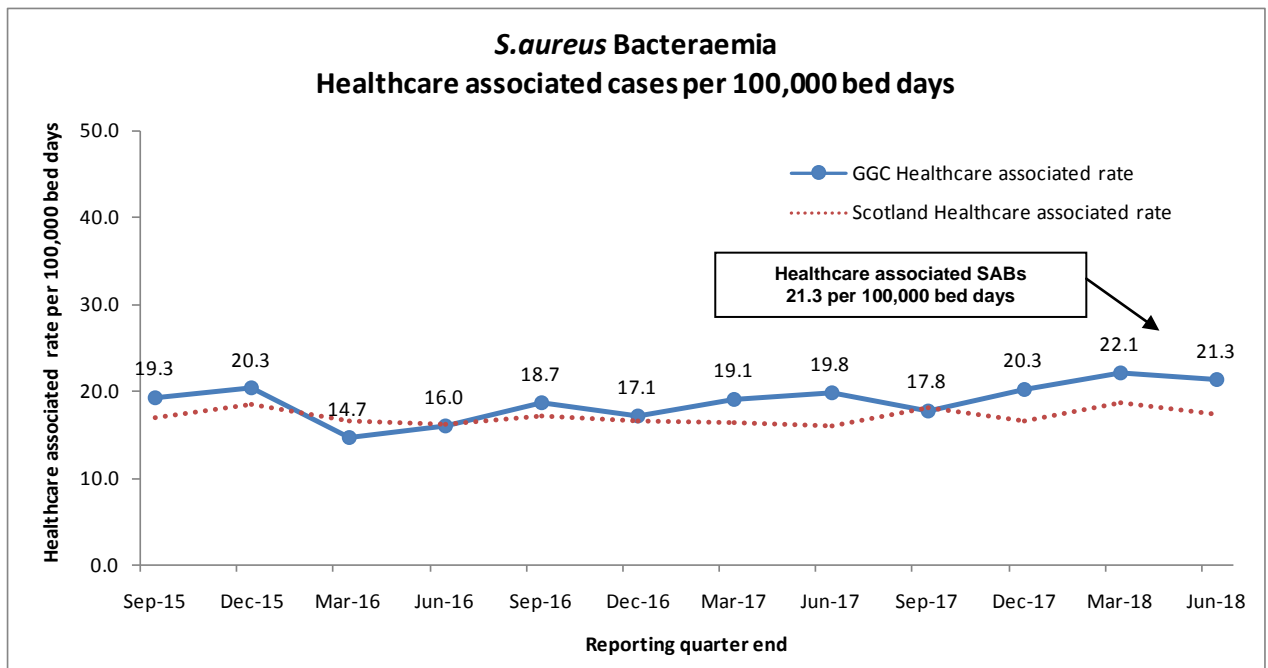


Figure1. Healthcare associated SAB comparison by quarter for NHSGGC and Scotland.

Community associated infections are now reported against a denominator rate per 100,000 population (Figure 2). These cases include SABs in people who have had no healthcare interaction as an in-patient, out-patient or via Health & Social Care Partnerships (HSCP) in the 30 days prior to SAB onset. These cases are therefore less amenable to reduction measures within GGC Acute hospitals. The rate of community associated infections in NHSGGC was 5.5 compared to 9.1 in NHS Scotland.

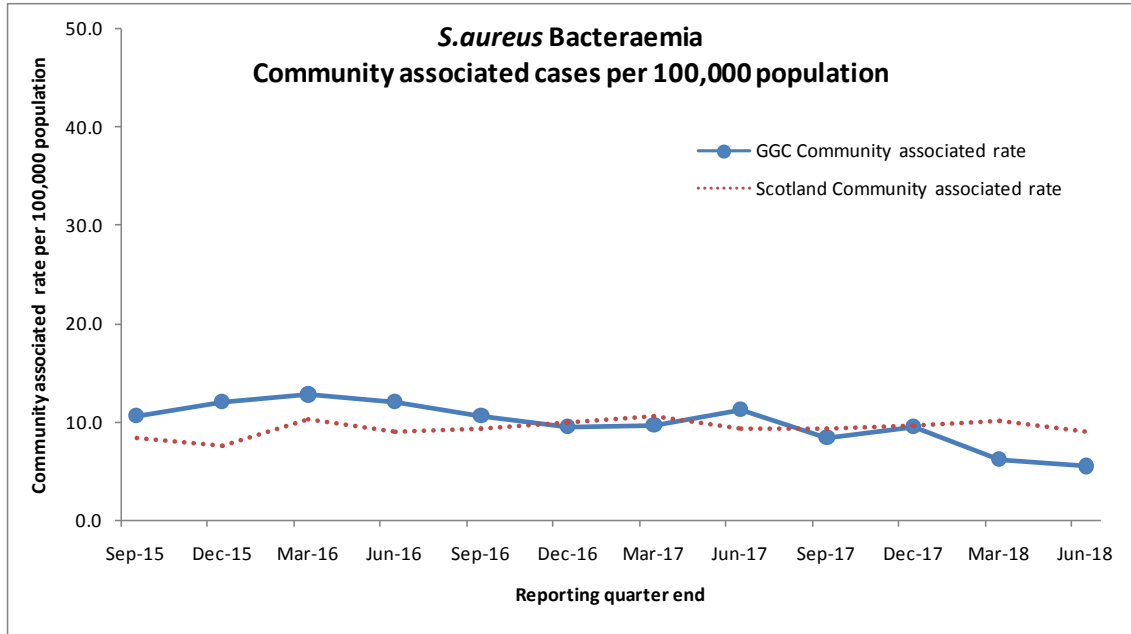


Figure 2. Community associated SAB comparison by quarter for NHSGGC and Scotland.

Quarter 3: 2018 (July-September) NHSGGC Surveillance

Local surveillance reports 91 SAB cases. This is a decrease of 13% upon the previous validated quarter. 67 cases were categorised as Healthcare Associated/Hospital Acquired as shown in Table 2:

HPS reporting category	Origin of SAB	Number of patient cases (Unvalidated and subject to change)
Healthcare Associated	Hospital acquired	43
	Healthcare associated	24
Community	Community	24
	Total	91

Table 2. Origin of SAB – local surveillance data for Q3-18

All SABs are reviewed by the Infection Prevention and Control Team (IPCT) to determine, where possible, the source of the infection. Of the hospital acquired cases (43/91), 42% (n=18) were attributed to an intravenous access device (IVAD). Identified sources are displayed in Figure 3.

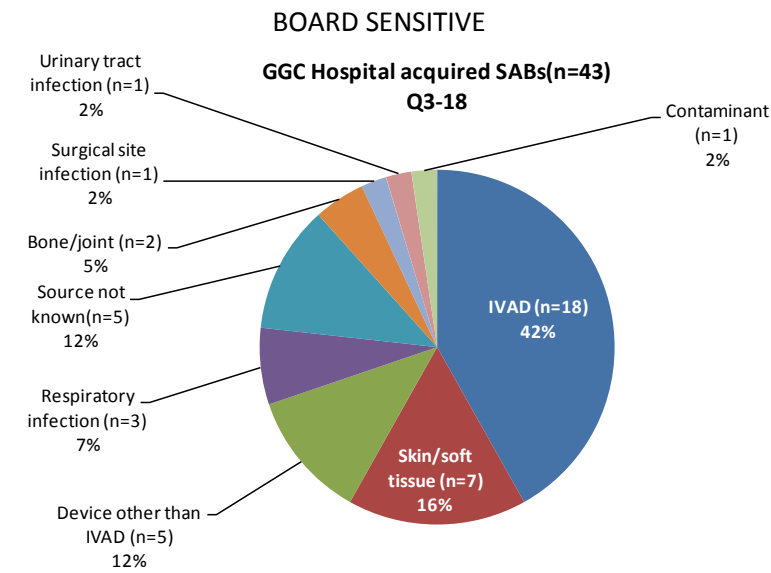


Figure 3. Source of hospital acquired cases

NB:

Source Not Known

Five hospital acquired cases had no identified source of entry.

On many occasions patients present with many potential sources of infection which means that determining a single source can be extremely difficult and in many cases impossible, e.g. patient with a community acquired pneumonia with a pressure ulcer and a CVC in situ; there are multiple routes bacteria could enter this patient's blood stream and often the IPCT are unable to determine a single source.

Quarter 4: 2018 (October - December) NHSGGC Surveillance

67 SAB cases were reported locally for the first two months of the quarter. 57 of these are healthcare associated and 9 are Community associated. Five hospital acquired IVAD cases were reported locally for October 2018 and seven for November.

Figure 4 below displays the number of hospital acquired IVAD related *S.aureus* bacteraemia from January 2016. There has been a reduction in the number of IVAD related cases for July to September 2018 to date with 8 of the previous 12 months figures below the mean, however, there remains some variation in IVAD related cases each month and the IPCT continue to work closely with the local clinical teams in order to see a sustained reduction in avoidable cases.

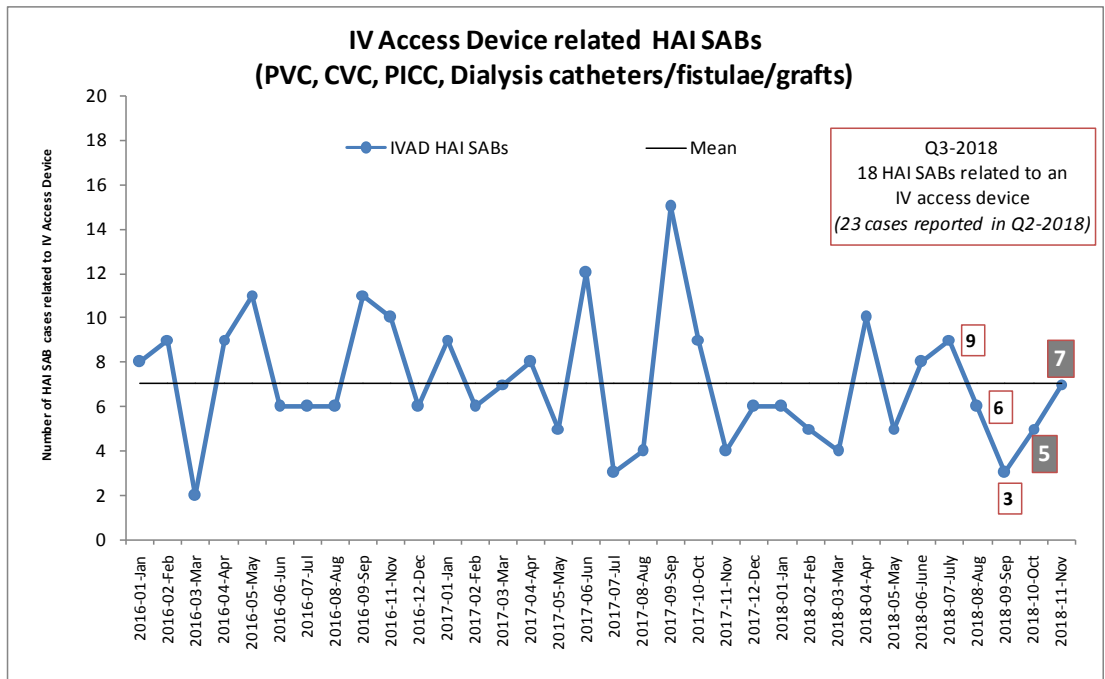


Figure 4. Number of Hospital acquired SABs by month attributed to an IV access device

SAB Actions Update

PVC Care Plan

The PVC care plan has been approved by Chiefs of Nursing and Medicine and is being rolled out to NHSGGC, commencing week beginning 3rd of December. All possible routes of communication will be used to inform staff of this and twitter, facebook and staffnet will all be used in conjunction with traditional methods, i.e. information cascaded via professional groups. It will also be promoted by local IPCTs during their ward visits. A tool box talk has been developed for SCN and managers to use as an aid at safety briefs and huddles etc. This plan now focuses on the removal of the device as soon as possible, rather than the maintenance of it and increases the number of daily checks from once to twice per day.

PVC Packs

PVC procedure packs were reported by NHS Ayrshire and Arran as a key success in their SAB reduction strategy. A procedure pack ensures that all of the necessary equipment is in a single pack and this promotes the safe insertion of PVCs. Representatives from the NHSGGC SAB Group have met with NHSGGC procurement who are currently evaluating if this is something that could be implemented.

SAB Ward Rounds

These have now been established in all sectors.

Multi Drug Resistant Organism (MDRO) Screening CRA uptake Includes MRSA screening and CPE screening

MRSA

Clinical Risk Assessment (CRA) compliance for GGC in Q2 (July-September 2018) has dropped to 72%. Ward compliance rates are returned to the Sector/Directorate Senior Management Teams to identify areas that require support/education in relation to improved screening. This information is contained within the Sector/Directorate IPC Monthly Report which is tabled at the Sector/Directorate governance meetings.

The table below shows the CRA compliance rate over the past four quarters. In response to the drop in Q1 a review of possible causes of this reduction was undertaken and it was identified that a change in the formatting of the nursing admission documentation may have led to this reduction. A memo with information regarding both MRSA and CPE assessment requirements and the issue re formatting was issued to the Chief Nurses in September, they then cascaded this to Lead Nurses and Senior Charge Nurses. The IPCT nursing team also issued this information to all Lead Nurses and Senior Charge Nurses within their sectors. During weekly IPCN update visits this topic was discussed with staff on the wards. It was also raised as a patient safety issue at the Acute Clinical Governance Forum and the Board Nurse Directors meeting of Senior Nurses, Midwives and Allied Health Professionals. A review of the document has taken place and the document has been updated.

Please Note HPS reporting quarters for this programme are different to those used for CDI, SAB and SSI

MRSA screening CRA uptake	2017-18 Q3 (Oct-Dec)	2017-18 Q4 (Jan-Mar)	2018-19 Q1 (Apr-Jun)	2018-19 Q2 (Jul-Sep)
Greater Glasgow & Clyde	89%	92%	84%	72%
Scotland	88%	83%	83%	84%

Table 3. Quarterly screening compliance- MRSA
National Data Source: MDRO Admission Screening Team October 2018

CPE (Carbapenemase-producing Enterobacteriaceae)

Enterobacteriaceae are a family of Gram-negative bacteria (sometimes called coliforms) which are part of the normal range of bacteria found in the gut.

Carbapenemase-Producing Enterobacteriaceae (CPE) are a type of bacteria that are extremely resistant to antibiotics. These bacteria carry a gene for a carbapenemase enzyme that breaks down carbapenem antibiotics. Carbapenems are a class of very broad-spectrum intravenous antibiotics which are used to treat serious infections or conditions where other therapeutic options have failed.

By identifying patients who are colonised with CPE or who have a high risk of colonisation, we can make sure that they receive the most appropriate care and prevent the spread of CPE to others. It is very important to know that someone is colonised with CPE so that if an infection develops, the best antibiotic to treat the infection is identified quickly.

Source HPS <https://www.hps.scot.nhs.uk/guidelines/detail.aspx?id=1661>

Table 4 below shows the CRA compliance rate since national reporting was implemented. As with the low response to MRSA CRA uptake, the review also identified that a change in the formatting of the nursing admission documentation may have led to this reduction. The actions to address are reported in the previous section.

Although CPE screening is mandatory, there is no national target set for compliance. Locally we have recommended that this should be in alignment with the MRSA screening target of 90%.

CPE screening - CRA uptake	2018-19 Q1 (Apr-Jun)	2018-19 Q2 (Jul-Sep)
Greater Glasgow & Clyde	81%	71%
Scotland	72%	79%

Table 4 . Quarterly screening compliance- CPE
National Data Source: MDRO Admission Screening Team October 2018

Clostridioides (formerly Clostridium) difficile**Name change for *Clostridium difficile* to *Clostridioides difficile***

A novel genus *Clostridioides* has been proposed for the bacterium *Clostridium difficile* which means that from this point forward *Clostridium difficile* will now be referred to as *Clostridioides difficile*. There are no implications with regards the natural history of infection, infection prevention and control, or clinical treatment. [HPS, October 2018]

<https://www.sciencedirect.com/science/article/pii/S1075996416300762?via%3Dihub>

There is no update in this report for validated data for Quarter 3 (July-September) 2018. This will be published in early January 2019.

Quarter 2: 2018 (April-June) Surveillance

96 validated cases were reported in the last published quarter (April-June 2018). 75 cases were healthcare associated and this provided a rate of 18.0 cases per 100,000 bed days. The rate for NHS Scotland was 15.7 (Figure 5).

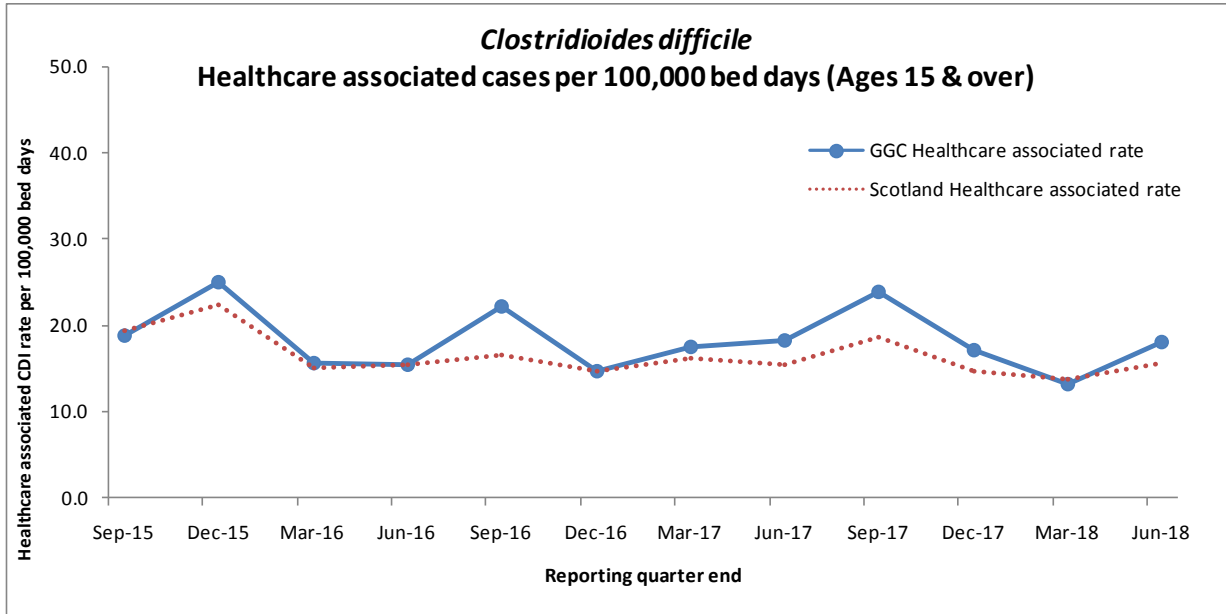


Figure 5. Healthcare associated CDI rates comparison by quarter for NHSGGC and Scotland.

21 community associated CDI cases were reported for the quarter with a rate of 7.2 per 100,000 population (Figure 6). The rate for NHS Scotland was 7.9.

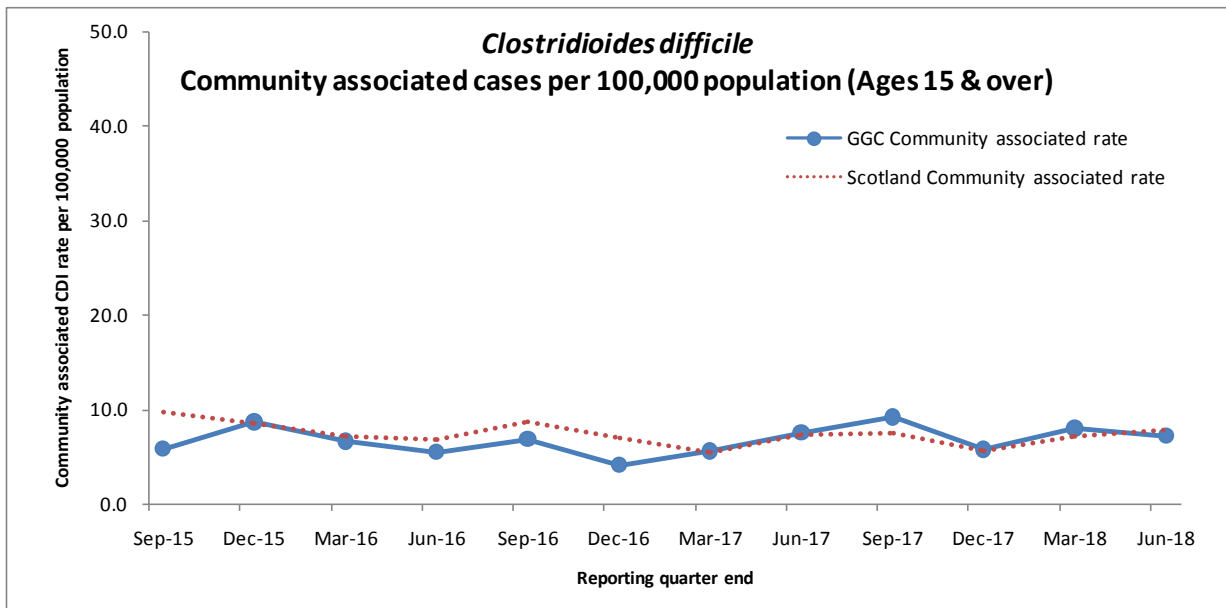


Figure 6. Community associated CDI comparison by quarter for NHSGGC and Scotland.

Quarter 3: 2018 (July-September) NHSGGC Surveillance

Local surveillance confirms an increase in CDI cases for Q3 2018 with 116 cases reported in total (Table 5). 94 cases met the case definition for healthcare associated (total of every category except community).

HPS reporting category	Origin of CDI	Number of patient cases (Unvalidated and subject to change)
Healthcare associated	Hospital acquired (HAI)	54
	Healthcare associated (HCAI)	29
	Indeterminate	11
Community associated	Community associated	22
	Total	116

Table 5. Origin of CDI – local surveillance data for Q3 2018

BOARD SENSITIVE

All cases have been reviewed by the Lead Infection Control Doctor. Across GGC there was only one area with two HAI cases and these were subsequently found to be different ribotypes. Reference laboratory snapshot data has shown several different circulating ribotypes, none were linked in time place or person. It would appear that the increased incidence is due to underlying risk factors, the majority of which are difficult to modify apart from PPI use. Work is ongoing with pharmacy colleagues regarding this issue.

Quarter 4: 2018 (October - December) NHSGGC Surveillance

56 CDI cases were reported locally in the first two months of the current quarter. 35 were Healthcare associated and 21 were Community associated.

OUTBREAKS / EXCEPTIONS

(Reported are those that are assessed as AMBER or RED using the HPS HIIAT tool)

February-November 2018

QEUH and RHC – Bacteria in Water System.

Returned to HIIAT RED on the 13th September 2018. As of 28/09/18 the incident has been HIIAT AMBER. IMT continues to meet weekly.

There have been no cases associated with water since the ward move to the adult hospital.

NHSGGC have taken advice from HPS, HFS and national/international water experts as to appropriate remedial actions.

Within wards 2A/B the following actions have been implemented;

- Introduction of a local continual treatment of the water system in ward 2A/B with Chlorine dioxide has commenced.
- Replacement of all Thermostatic Mixing Taps (TMT's) clinical wash hand basins (CWHB) including modified drain connections and trap arrangements.
- Modifying the hot water flow and return position in relation to the tap.
- Replacement of all local WC cisterns with direct flushing valves.

Installation of a continuous (low level) water treatment chlorine dioxide system commenced 28/11/18 for both QEUH and all of RHC in addition to 2A/B

Point of Use (POU) Filters will remain on outlets until NHSGGC have demonstrated satisfactory Total Viable Counts (TVCs) of bacteria are being maintained. In high risk areas they may remain on a more permanent basis.

During the completion of the extensive water and drainage works the potential for further upgrading of the ventilation system was identified and agreed. This £1.2m project will take 12 months to complete and will deliver the highest standard of ventilation for young patients being treated in this area. Current arrangements for providing expert care for these children in the adult hospital will continue.

October 2018

Glasgow Royal Infirmary (GRI) Carbapenemase-producing Enterobacteriaceae (CPE). HIIAT AMBER on the 18th October 2018. The incident was assessed as GREEN on the 24th October 2018.

BOARD SENSITIVE

Six confirmed cases of CPE were identified by contact screening following exposure to a known positive CPE patient across two medical wards In Glasgow Royal Infirmary All CPE positive patients were isolated with Transmission Based Precautions (TBPs) in place. No patients are giving cause for concern because of the incident. All were colonised none were infected. A review of the positive patients pathways through the hospital was undertaken and contact screening of patients discharged before screening was implemented is underway. In excess of 100 people will be screened in the community and the IPCT are working closely with colleagues in Public Health to inform and support people. Environmental screens of the wards were patients were located were negative. Letters to GP will be issued week beginning 3rd of December and letters to patients will be issued week beginning 10th December 2018.

Glasgow Royal Infirmary (GRI) Meticillin Resistant *S. aureus* (MRSA) and Multi Drug Resistant (MDR) *Pseudomonas aeruginosa*.

HIIAT AMBER 26th October 2018. The incident was assessed as GREEN on the 8th November 2018.

Seven confirmed MRSA cases linked to Burns patients across the Regional Burns Unit and ITU West in Glasgow Royal Infirmary. Two of the patients also had MDR *Pseudomonas aeruginosa* which were attributed to the Burns Unit. None of the patients gave cause for concern because of the incident. An action plan was agreed by the Incident Management Team and Included:

- Education of staff with regards to the implementation of transmission based precautions.
- Initial terminal clean of the ward with subsequent increase in cleaning to twice daily with a chlorine based detergent.
- Ward 45 Hand hygiene audit completed- score 85%. Board Hand Hygiene Coordinator providing additional education sessions and will undertake unannounced audits in coming weeks.
- Ward 45 IPCAT carried out - score 80%
- Terminal clean of ward 45 carried out 28.10.18
- ICU W hand hygiene audit completed - score 90%
- ICU W IPCAT carried out score -88%
- Terminal clean of ICU West carried out 08.11.18
- Environmental screening results for ICU W and ward 45 negative.

Only one MDRO/MRSA inpatient remains in ward 45.

Norovirus

There was 1 ward closed in 1 hospital due to Norovirus activity in September and October 2018.

Month	Nov-17	Dec-17	Jan -18	Feb -18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug -18	Sep-18	Oct-18
Ward Closures	4*	6	0	1	5**	7	9	1	5	0	1	0
Bed Days Lost	34	210	0	7	55	228	334	33	69	0	21	0

Table 6: NHSGGC Ward closures due to suspected/confirmed Norovirus.

* One ward closed in November and remained closed until the start of December 2017.

** One ward closed in March and remained closed until the start of April 2018.

Data on the number of wards closed due to confirmed or suspected Norovirus is available from HPS on a weekly basis: <http://www.hps.scot.nhs.uk/giz/norovirusurveillance.aspx>

Healthcare Environment Inspectorate (HEI)

There was a HEI/HAI inspection of the Royal Alexandra Hospital on the 4-6th December. The report from the visit is currently awaited.

Other HAI Related Activity**Surgical Site Infection (SSI) Surveillance**

All NHS Boards are required to undertake in-patient and 30-day re-admission surveillance as per HDL (2006) 38 and CEL (11) 2009.

There is no update in this report for validated data for Quarter 3 (July-September) 2018. This will be published in early January 2019.

Quarter 2: 2018 (April-June)

Category of Procedure	Operations	Infections	NHSGGC SSI rate (%)	NHSGGC 95% CI	National Dataset SSI rate (%)	National 95% CI
Caesarean section	1259	15	1.2	0.7, 1.9	1.5	1.1,1.8
Hip arthroplasty	381	12	3.1	1.8, 5.4	0.8	0.5,1.3

Table 7. SSI rates for Caesarean section (in-patient and PDS to day-10), Hip arthroplasty (in-patient and re-admission to day-30), NHSGGC

For the last published reporting quarter the SSI rate for caesarean section was lower than the national dataset SSI rate (Table 7).

There was an increase in the number of hip arthroplasty SSIs reported over quarter 2 (n=12). Five cases were at GRI; three cases at IRH; three cases at QEUH and one case at RAH. This was fully investigated and was reported in the September HAIRT. In summary In July an Incident Management team meeting was held in GRI that included members of the IPCT and the local clinical team. A review of all the cases was undertaken. The incident was scored as a RED using the HPS HIIAT assessment tool because two of the patients had also developed a bacteraemia. A report was therefore submitted to Health Protection Scotland on 27th July giving details of the findings of the review and actions planned. The incident was reviewed by the IPCT and Orthopaedic clinical director on 3rd August and at that time it scored HIIAT green as all the patients were either on treatment and recovering or had been discharged home.

The increased incidence of SSI within this procedure category has been highlighted as an exception in the Q2-2018 epidemiological data published by HPS on 2nd October 2018. The IPCT have already undertaken a prospective review of all cases and have completed and returned an action plan to HPS.

Surveillance is ongoing and SSI rates have decreased for the current reporting quarter across all the sites. One suggestion from the GRI IMT was to consider MSSA eradication pre-operation to reduce the amount of MSSA on the skin and therefore reduce the number of MSSA infections. This was a specific recommendation for orthopaedic surgery in the World Health Organisation Surgical Site Infection Prevention Guidelines 2016. Work is ongoing with orthopaedic colleagues to implement an MSSA eradication programme

Quarter 3: 2018 (July-September) NHSGGC Surveillance

Surveillance to 30-day post operative is now complete for the quarter and local data is displayed in Table 8 below.

BOARD SENSITIVE

There has been a very slight increase this quarter in Caesarean section procedure category SSI (1.4 % v. 1.2%) and a marked reduction in the number of hip arthroplasty SSI (0.9%.v. 3.1%).

Large bowel and major vascular surgery became a mandatory requirement for SSI surveillance in April 2017, and as these are new categories of surveillance, comparative data is awaited. However NHSGGC rates below are those in the published literature.

It should be noted that results from any *voluntary surgical procedure surveillance are not included in the national reporting figures or published by HPS therefore **caution should be exercised** when reviewing local SSI rates as there are no available comparators.

Quarter 3 -18 (July-September) : Local SSI Surveillance Status				
	Category of Procedure	Operations	Infections	NHSGGC SSI Rate (%)
Mandatory (reported to HPS)	Caesarean section	1395	19	1.4
	Hip arthroplasty	346	3	0.9
	Large Bowel Surgery	211	12	5.7
	Major Vascular Surgery	182	6	3.3
Voluntary*	Knee arthroplasty	316	2	0.6
	Repair of neck of femur	366	5	1.4
Six month pilot*	Spinal Surgery – Orthopaedics , QEUH	89	0	0.0
Additional INS,QEUH only*	Cranial Surgery	161	1	0.6
	Spinal Surgery	177	5	2.8

Table 8. Local SSI Surveillance. Procedures undertaken 01/07/18 - 30/09/18 (In-patient and 30 day readmission; C-section in-patient and PDS to day 10)

There have been nine SSIs reported up to day 30 post-operatively in hip arthroplasty or repair of neck of femur procedures since April 2018. An action plan to review patient pathways and procedures is ongoing. This action plan includes peer reviews by other sectors and a review of the ventilation systems. The IPCT and local clinical team met on 13th November to review these cases and progress with the action plan and are due to meet again in January 2019. There have been no new cases since September 2018.

Quarter 4: 2018 (October - December) NHSGGC Surveillance

SSI surveillance continues for previously specified procedures. There have been no further Orthopaedic related cases at IRH for October procedures to date. There have been three SSI in repair of fractured neck of femur procedures performed in October. All three patients had additional risk factors which could increase the risk of SSI. A common organism was identified in two cases and typing has been requested. The IPCT and clinical team continue to monitor and there have been no further cases identified to date.

There is no evidence that issues identified in the Central Decontamination Unit had any bearing on the above infections.

Statistical Process Control Charts

Glasgow Royal Infirmary (includes regional wards) breeched its upper control limit for MRSA acquisition in October. This was due to the incident reported in ITU West and the Burns Unit. A summary of the incident and actions taken is listed on page 10 of this document. Statistical Process Control Charts (SPCs) continue to remain within normal control limits in all other sites.

Cleaning and the Healthcare Environment

BOARD SENSITIVE

All areas within NHSGGC scored **GREEN (>90%)** in the most recent report on the National Cleaning Specification.

Healthcare Associated Infection Reporting Template (HAIRT)

Section 2 – Healthcare Associated Infection Report Cards

The following section is a series of 'Report Cards' that provide information for each acute hospital and key non acute hospitals in the Board, on the number of cases of *Staphylococcus aureus* blood stream infections and *Clostridioides difficile* infections, as well as hand hygiene and cleaning compliance. In addition there is a single report card which *Clostridioides difficile* specimens identified from non hospital locations e.g. GPs, hospices, care homes, prisons etc. The information in the report cards is provisional local data and may differ from the national surveillance reports carried out by Health Protection Scotland (HPS) and Health Facilities Scotland (HFS). The national reports are official statistics which undergo rigorous validation which means final national figures may differ from those reported here. However these reports aim to provide more detailed and up-to-date information on healthcare associated infection activities at local level than is possible to provide through the national statistics.

Understanding the Report Cards – Infection Case Numbers

Clostridioides difficile infections (CDI) and *Staphylococcus aureus* bacteraemia (SAB) cases are presented for each hospital, broken down by month.

- **Healthcare associated cases**
For each hospital the total number of cases for each month are included in the report cards. These include those that are considered to be **hospital acquired** i.e. reported as positive from a laboratory report on samples taken more than 48 hours after admission and **healthcare associated** in which the patient has a positive sample taken from within 48 hours of admission and the patient has also had healthcare interaction in the previous 30 days for SAB or 12 weeks for *Clostridioides difficile*.
- **Community associated cases**
For community associated cases, the patient has had no healthcare interaction as specified in the time frame above, however the specimen was obtained from a current hospital in-patient that did not meet the reporting criteria for a healthcare associated case.

More information on these organisms can be found on the HPS website:

Clostridioides difficile:

<http://www.hps.scot.nhs.uk/haiic/sshqip/clostridiumdifficile.aspx?subjectid=79>

Staphylococcus aureus Bacteraemia

<http://www.hps.scot.nhs.uk/haiic/sshqip/mrsabacteraemiasurveillance.aspx?subjectid=D>

Understanding the Report Cards – Hand Hygiene Compliance

Hospitals carry out regular audits of how well their staff are complying with hand hygiene. The Board report card presents the combined percentage of hand hygiene compliance with both opportunity taken and technique used broken down by staff group.

Understanding the Report Cards – Cleaning Compliance

Hospitals strive to keep the care environment as clean as possible. This is monitored through cleaning and estates compliance audits. More information on how hospitals carry out these audits can be found on the HFS website: <http://www.hfs.scot.nhs.uk/online-services/publications/hai/>

NHS GREATER GLASGOW & CLYDE

REPORT CARD

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	25	31	31	29	35	34	24	31	24	21	22	28
Community Associated	8	13	12	3	9	10	5	6	11	9	4	4
Total	33	44	43	32	44	44	29	37	35	30	26	32

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	29	16	26	16	16	24	27	28	26	40	28	17
Community Associated	7	10	12	4	7	5	10	7	6	10	6	11
Total	36	26	38	20	23	29	37	35	32	50	34	28

Hand Hygiene Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	98	98	97	97	97	97	97	97	98	96	97	98

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	95.4	95.8	95.5	95.5	95.5	95.0	95.5	95.4	95.2	95.6	95.4	95.1

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.1	99.5	98.9	99.0	99.0	99.0	99.1	99.0	99.2	98.9	99.1	98.9

GLASGOW ROYAL INFIRMARY / PRINCESS ROYAL MATERNITY

REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	4	7	6	13	9	11	6	11	10	4	4	6
Community Associated	2	3	3	1	4	3	1	2	4	2	1	1
Total	6	10	9	14	13	14	7	13	14	6	5	7

Clostridioides difficile infection monthly case numbers

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	10	6	9	6	5	4	8	8	6	11	6	2
Community Associated	1	3	1	2	2	1	5	1	1	1	2	4
Total	11	9	10	8	7	5	13	9	7	12	8	4

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	95.9	96.0	95.8	95.7	95.7	95.2	95.5	95.5	95.8	95.7	95.5	95.6

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.7	99.9	99.9	99.8	99.7	99.7	99.7	99.7	99.6	99.7	99.6	99.7

ROYAL ALEXANDRA HOSPITAL

REPORT CARD

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	-	3	6	5	4	5	3	2	2	7	4	4
Community Associated	1	3	5	-	1	2	-	1	2	5	-	1
Total	1	6	11	5	5	7	3	3	4	12	4	5

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	2	4	2	4	-	5	3	4	3	9	6	3
Community Associated	-	2	3	-	1	1	1	1	3	1	-	2
Total	2	6	5	4	1	5	4	5	6	10	6	5

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	95.8	95.5	95.9	95.4	95.4	95.7	96.3	94.7	95.9	96.3	95.8	95.8

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	98.3	99.1	99.3	98.2	98.4	99.1	98.3	97.5	97.0	96.1	96.8	96.0

INVERCLYDE ROYAL HOSPITAL

REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	3	1	1	2	3	2	-	2	-	-	1	2
Community Associated	-	1	2	-	-	-	-	-	-	-	1	1
Total	3	2	3	2	3	2	0	2	0	0	2	3

Clostridioides difficile infection monthly case numbers

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	1	1	2	1	1	-	1	2	3	3	1	1
Community Associated	-	2	2	-	-	-	2	-	-	1	-	1
Total	1	3	4	1	1	0	3	2	3	4	1	2

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	95.8	95.0	94.1	95.5	94.3	94.5	95.8	95.1	94.0	95.4	94.5	94.4

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	98.4	98.5	97.5	96.4	96.9	95.3	97.5	96.8	97.3	97.7	96.8	96.2

VALE OF LEVEN HOSPITAL

REPORT CARD

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	-	1	-	-	1	1	-	1	2	-	-	-
Community Associated	-	-	-	-	-	-	1	-	1	-	-	-
Total	0	1	0	0	1	1	1	1	3	0	0	0

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	-	-	-	-	1	2	-	2	-	1	-	1
Community Associated	-	-	1	-	-	-	-	1	-	-	-	-
Total	0	0	1	0	1	2	0	3	0	1	0	1

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	97.8	97.7	97.7	97.6	97.3	97.5	97.8	97.6	97.7	97.7	97.5	97.9

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.7	99.7	99.6	99.7	99.6	99.7	99.7	99.6	99.9	99.7	99.8	99.7

GARTNAVEL GENERAL HOSPITAL**REPORT CARD**

Figures combined for

Gartnavel General Hospital, Beatson WoSCC and Homeopathic Hospital

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	1	4	5	1	6	4	2	1	1	2	-	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	4	5	1	6	4	2	1	1	2	0	0

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	-	1	4	2	4	1	3	2	2	2	-	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	4	2	4	1	3	2	2	2	0	0

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	96.3	96.9	96.2	97.6	96.8	96.0	96.3	96.7	96.4	96.3	96.6	96.1

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.6	99.7	99.4	99.7	99.7	99.5	99.6	99.7	99.8	99.5	99.8	99.3

QUEEN ELIZABETH UNIVERSITY HOSPITAL

REPORT CARD

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	14	13	9	4	10	9	10	12	9	8	10	15
Community Associated	4	6	2	2	4	4	2	3	3	1	1	1
Total	18	19	11	6	14	13	12	15	12	9	11	16

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	5	-	5	3	3	7	7	4	9	11	10	9
Community Associated	2	-	3	2	2	3	-	3	0	4	3	4
Total	7	0	8	5	5	10	7	7	9	15	13	13

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	92.1	94.4	93.0	93.3	92.7	90.6	93.2	93.2	91.2	93.6	93.7	93.4

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.7	99.9	99.8	99.1	99.9	99.9	99.8	99.9	99.8	99.8	99.9	99.9

ROYAL HOSPITAL FOR CHILDREN

REPORT CARD

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	2	1	3	2	1	2	2	1	-	-	1	1
Community Associated	1	-	-	-	-	1	1	-	1	1	1	-
Total	3	1	3	2	1	3	3	1	1	1	2	1

***Clostridioides difficile* infection monthly case numbers (in ages 15 & over only)**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	-	-	-	-	-	-	-	-	-	-	-	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	0	0	0	0	0	0	0	0	0	0

Cleaning Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	92.1	94.4	95.0	95.2	94.6	94.9	94.8	94.6	94.8	95.1	93.9	94.6

Estates Monitoring Compliance (%)

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Board Total	99.7	99.9	99.8	99.4	99.5	99.4	99.5	99.5	99.5	99.3	99.4	98.9

**NHS GREATER GLASGOW & CLYDE
NON-ACUTE HOSPITALS REPORT CARD**

The hospitals covered in this report card include:

- Lightburn Hospital
- Dykebar Hospital
- Gartnavel Royal Hospital
- Leverndale Hospital
- MacKinnon House
- Mearnskirk House
- New Victoria Hospital
- Parkhead Hospital (closed 28 March 2018)
- Orchard View (Inverclyde Royal Hospital campus)
- Stobhill Hospital

***Staphylococcus aureus* bacteraemia monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	1	1	1	2	1	-	1	1	-	-	2	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	1	1	2	1	0	1	1	0	0	2	0

***Clostridioides difficile* infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	3	1	1	-	1	-	-	1	-	1	2	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	1	1	0	1	0	0	1	0	1	2	0

NHS GREATER GLASGOW & CLYDE**Non hospital locations (GP practices, care homes & hospices) report card
Clostridioides difficile infection monthly case numbers**

	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
Healthcare Associated	8	3	3	-	1	5	5	5	3	2	3	1
Community Associated	4	3	2	-	2	-	2	1	2	3	1	2
Total	12	6	5	0	3	5	7	6	5	5	4	3

GLOSSARY

AMT	Antimicrobial Management Team
Alert organism alert condition	Any of a number of organisms or infections that could indicate, or cause, outbreaks of infection in the hospital or community.
Bacteraemia	Infection in the blood. Also known as Blood Stream Infection (BSI).
CDI	<i>Clostridioides difficile</i> Infection. Also referred to as C. diff is a Gram-positive spore-forming anaerobic bacterium. <i>C. difficile</i> is the most common cause of gastro-intestinal infection in hospitals. It causes two conditions; antibiotic associated diarrhoea and the more severe and occasionally life-threatening pseudomembranous colitis. Control of the organism can be problematic due to the formation of spores and difficulty in removing them. Patients who have had antibiotics within the last eight weeks are most at risk of acquisition of the organism.
CEL	Chief Executive Letter issued by Scottish Government Health Directorates (SGHD)
CRA	Clinical Risk Assessment
CVC	Central Vascular Catheter. This also includes those that are peripherally inserted i.e. PICC
Code of Practice	Code of Practice - The NHS Scotland Code of Practice for the Local Management of Hygiene and Healthcare Associated Infection issued 2004 contains the components that must be complied with by all NHS HCWs in Scotland. http://www.scotland.gov.uk/Publications/2004/05/19315/36624
GRO	General Registers Office
HAI	Originally used to mean hospital acquired infection, the official 'Scottish Government' term is now Healthcare Associated Infection . These are considered to be infections that were not incubating prior to contact with a healthcare facility or undergoing a healthcare intervention. It must be noted that HAI infection is not always an avoidable infection. Please note that for <i>S.aureus</i> Bacteraemia surveillance – HAI refers to 'hospital acquired cases as per HPS National reporting requirements. See http://www.documents.hps.scot.nhs.uk/hai/sshaip/guidelines/s-aureus/esab-protocol-v2-2014-11.pdf
HCAI	Healthcare Associated Infection (for CDI and SAB classification)
HCW	Healthcare Worker
HDL	Health Department Letter
HDU	High Dependency Unit
HEAT Target	Health Efficiency and Access to Treatment. Targets set by the Scottish Government.
HFS	Health Facilities Scotland
HH	Hand Hygiene
HIAT	Hospital Infection Incident Assessment Tool
HIORT	Healthcare Infection Incident and Outbreak Reporting Template
HIS	Health Improvement Scotland
HPS	Health Protection Scotland
HSCP	Health & Social Care Partnerships
IPCN /T/D/M	Infection Prevention & Control Nurse / Team / Doctor / Manager
ICP	Infection Control Programme
ICU	Intensive Care Unit
ISD	Information Services Division A division of National Services Scotland, part of NHS Scotland. ISD provides health information, health intelligence, statistical services and advice that support the NHS in progressing quality improvement in health and care, and facilitates robust planning and decision making.
IVAD	Intravenous Vascular Access Device. An invasive device placed into a vein which is used to administer intravenous fluids or medication. Examples are PVC or CVC
KPI	Key Performance Indicator
MDRO	Multi Drug Resistant Organism
MRSA	Meticillin resistant <i>Staphylococcus aureus</i>. A <i>Staphylococcus aureus</i> resistant to first line antibiotics; most commonly known as a hospital acquired organism.
MSSA	Meticillin Sensitive <i>Staphylococcus aureus</i>
OBD	Occupied Bed Days
OPAT	Outpatient Parenteral Antibiotic Therapy
PDS	Post Discharge Surveillance (Caesarean Section procedures only)
PHPU	Public Health Protection Unit
PICC	See CVC
PPI	Proton Pump Inhibitors. A group of medications used to decrease gastric acid production.
PVC	Peripheral Vascular Catheter
RSV	Respiratory Syncytial Virus. A contagious respiratory infection.
SAB	<i>Staphylococcus aureus</i> Bacteraemia
SCN / M	Senior Charge Nurse / Midwife
SICP	Standard Infection Control Precautions
SGHD	Scottish Government Health Directorate
SOP	Standard Operating Procedure
SPC	Statistical Process Control (Charts)
SSI	Surgical Site Infection
VRE	Vancomycin resistant enterococcus - an alert organism. A common organism that can be inherently resistant to Vancomycin but can also acquire (and transfer resistance) to other organisms. Has caused outbreaks reported in the literature in a variety of high-risk settings, e.g. renal or bone marrow transplant units.

BOARD SENSITIVE

Enhanced *S. aureus* Bacteraemia Surveillance Definitions**Hospital Acquired Infection**

Positive blood culture obtained from a patient who has been hospitalised for >48 hours. The patient was discharged from hospital in the 48 hours prior to the positive blood culture being taken. If the patient was a neonate/baby who has never left hospital since being born.

OR

a patient who receives regular haemodialysis as an outpatient.

OR

contaminant if blood aspirated from hospital

Healthcare Associated Infection

Positive blood culture obtained from a patient within 48 hours of admission to hospital and fulfils one or more of the following criteria:

1. Was hospitalised overnight in the 30 days prior to the positive blood culture being taken
OR
2. Resides in a nursing home
OR
3. IV, or intraarticular medication in the 30 days prior to the positive blood culture being taken, but excluding illicit drug use
OR
4. Regular user of a registered medical device
OR
5. Underwent a medical procedure which broke mucous or skin barrier in the 30 days prior to the positive blood cultures being taken
OR
6. 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 30 days prior to the positive blood culture being taken

Community Acquired Infection

Positive blood culture obtained from a patient within 48 hours of admission to hospital who does not fulfil any criteria for healthcare associated bloodstream infection.

HPS Protocol

April 2016, Version 1.0