

NHS Greater Glasgow & Clyde	Paper No. 20/07
Meeting:	NHSGGC Board Meeting
Date of Meeting:	Tuesday 25 <sup>th</sup> February 2020
Purpose of Paper:	For Noting
Classification:	Board Official
Sponsoring Director:	Professor Marion Bain, Director of Infection Prevention and Control

**Healthcare Associated Infection Reporting Template (HAIRT)** 

**Recommendation:** For noting.

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

#### **Key Issues to be considered:**

Validated Health Protection Scotland (HPS) data : Quarter 3 2019 (July-September)								
			Associated 000 bed days	Community Associated Rate per 100 000 population				
		GGC	National	GGC	National			
S. aureus bacteraemia	110 cases	22.3	17.5	5.7	7.4			
C. difficile in age 15+	77 cases	14.2	13.5	6.1	5.5			
E.coli bacteraemia	304 cases	41.3	40.3	44.6	44.2			

Table 1: NHSGGC and national comparison rates for 01/07/2019-30/09/2019

- 110 validated *Staphylococcus aureus* bacteraemia (SAB) cases were reported for July to September 2019 with a Healthcare Associated rate of 22.3 cases per 100,000 bed days (n=93). This is above the national rate and marginally above the 95% confidence interval of 22.0 cases per 100,000 bed days in national funnel plot analysis for the reporting quarter. An exception report has been completed by the board and returned to Health Protection Scotland.
- 77 validated *Clostridioides difficile* (CDI) cases in ages 15 and over were reported for July to September 2019 with a Healthcare Associated rate of 14.2 cases per 100,000 bed days (n=59). This is a reduction in CDI cases upon the previous reporting quarter and within expected confidence intervals.

#### **BOARD OFFICIAL**

- **304** validated *Escherichia coli* (E. coli) bacteraemia (ECB) were reported for July to September 2019 with a Healthcare Associated rate of 41.3 cases per 100,000 bed days (n=172). This is within expected confidence intervals. This HAIRT contains further information on the mandatory enhanced surveillance programme for ECB.
- In the last completed quarter (October–December 2019) Multi-Drug Resistant Organism (MDRO) Screening Clinical Risk Assessment uptake which includes MRSA Screening and CPE Screening has been ≥ 90% in NHSGGC. This meets the 90% national compliance requirements for MRSA screening.

#### **Any Patient Safety / Patient Experience Issues:**

Royal Hospital for Children. Increase incidence of gram negative cultures in patients in the Paediatric Intensive Care Unit (PICU)

The National Support Framework was invoked by Scottish Government on the 10 January 2020.

HPS will prepare a 'healthcare infection situational needs assessment'. This will be shared with NHSGG&C and SG. Recommendations from this assessment will be reviewed by GGC when received. In addition, the Director of Infection Prevention and Control has commissioned a review group which includes representatives from Health Protection Scotland.

Information requested by HPS has been forwarded and suggested actions have been implemented. IMT process is in place and all cases as per the agreed definition are being reviewed. Action plans will be reviewed by the Board Infection Control Committee and the Board Clinical Governance Committee. Implications for wider learning in the adult setting will also be considered.

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.

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**Tel No:** 0141 451 6750 **Date:** 25/02/2020

#### **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.

#### **National Definitions/Denominators**

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

- 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.

# October 2019: Updated Healthcare Associated Infection (HCAI) standards and antibiotic use indicators for Scotland

The CNO issued an update on the standards and indicators for HCAI for Scotland on 10<sup>th</sup> October 2019.

#### **HCAI** standards

Baseline data from 2018/19 will be used for the reduction target for **healthcare associated** cases of:

- E.coli bacteraemia initial reduction of 25% by 2021/22
- S.aureus bacteraemia reduction of 10% from 2019 to 2022
- C.difficile reduction of 10% from 2019 to 2022

The Infection Prevention & Control Team have devised local reduction aims for each acute sector based on the new standards and these will be included in existing Sector and Directorate monthly reports for discussion at local clinical governance meetings.

#### Antibiotic use indicators

- **1**. A 10% reduction of antibiotic use in Primary Care (excluding dental) by 2022, using 2015/16 data as the baseline (items/1000/day).
- **2.** Use of intravenous antibiotics in secondary care defined as DDD / 1000 population / day will be no higher in 2022 than it was in 2018.
- **3**. Use of WHO Access antibiotics (NHSE list) ≥60% of total antibiotic use in Acute hospitals by 2022.

The NHSGGC Antimicrobial Utilisation Committee and Antimicrobial Management Team will provide updates on progress in each indicator in subsequent HAIRT editions.

#### Staphylococcus aureus

#### Staphylococcus aureus Bacteraemia (SAB) Surveillance and Actions

# Quarter 3: 2019 (July-September) Surveillance

For the last published reporting quarter (July-September 2019) NHSGGC reported a total of **110** validated SAB cases. These are further classified as healthcare associated (n=93) or community infections (n=17).

**93** healthcare associated cases were reported for the quarter providing a rate of 22.3 per 100,000 occupied bed days (Figure 1). This is above the national rate of 17.5.

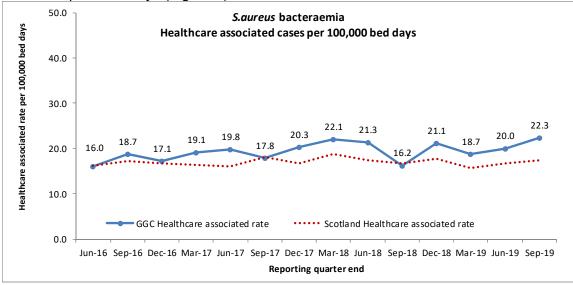
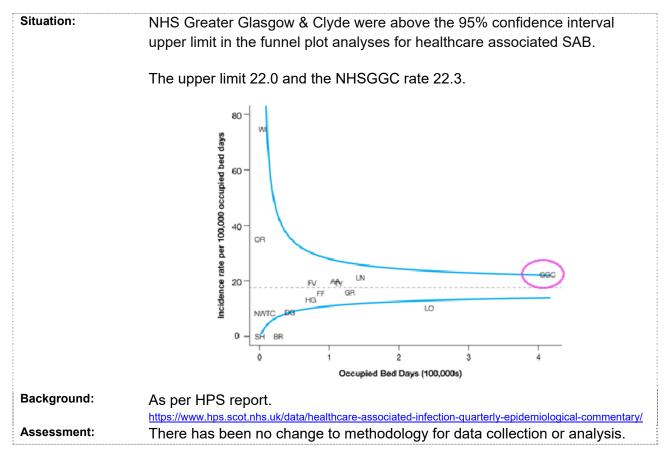


Figure 1: Healthcare associated SAB comparison by quarter for NHSGGC and Scotland.

NHSGGC were marginally above the 95% upper confidence interval of 22.0 cases per 100,000 bed days in national funnel plot analysis for the reporting quarter. Details of the exception report completed by the board and returned to HPS are as follows:



#### **BOARD OFFICIAL**

Data is collected by sector IPC Nurses and validated by the IPC surveillance and data team. Mandatory enhanced surveillance data set is completed as per HPS protocol.

Review of entry point for healthcare associated cases is displayed below:

Source/entry point of HCAI SAB	Number of cases
IVAD	28
Skin/soft tissue	19
Source not identified	15
Respiratory infection	8
Injection site in PWID	3
Urinary catheter	3
Urinary tract infection	3
Contaminant	2
Nephrostomy	2
Related to minor surgery procedure	2
Sacroiliitis	1
Infected DVT	1
Septic arthritis	1
Endocarditis	1
Surgical site infection	1
Osteomyelitis	1
Discitis	1
Parotitis	1
Total	93

Intravenous access devices (IVAD) are accountable for 30% of the HCAI SABs reported in Q3, 2019.

A skin or soft tissue source accounts for one in five HCAI SABs.

It should also be noted that two of the "Injection site in PWID" HCAI SAB cases required reporting in this category as the blood culture specimen was aspirated more than 48 hours after patient admission to hospital. In both cases, the source of SAB was present on admission and was locally reported as community acquired.

#### Recommendations

Local surveillance of Q4, 2019 indicates that there has been a reduction in the number of reported HCAI SAB cases with a total of 69 HCAI cases reported at time of SBAR compilation. This is a **26% reduction** in case numbers from the previous quarter.

There has also been a reduction in the number of HCAI cases related to an IVAD (n=15). This is almost half of the cases reported in Q3. Local quality improvement work continues within NHSGGC Acute hospitals to ensure that reduction in HCAI SABs caused by these devices is sustained. One such action is the application of a Chlorhexidine impregnated dressing on every patient with a central venous catheter inserted by the NHSGGC Vascular Access Service. This is considered best practice for assisting the development of bloodstream infections and not just those caused by *S.aureus*.

Skin/soft tissue sources are more challenging in which to implement reduction strategies, however this should remain a focus for improvement and will be highlighted again in conjunction with Tissue Viability colleagues, to all clinical teams across NHSGC.

Community associated infections are 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, and are not users of registered medical devices such as urinary catheters. These cases are therefore less amenable to reduction measures within GGC Acute hospitals. The rate of community associated infections in NHSGGC was 5.7 which was **below** the NHS Scotland rate of 7.4. It should be noted that the process for reviewing all cases in NHSGGC is rigorous and includes all available sources of data.

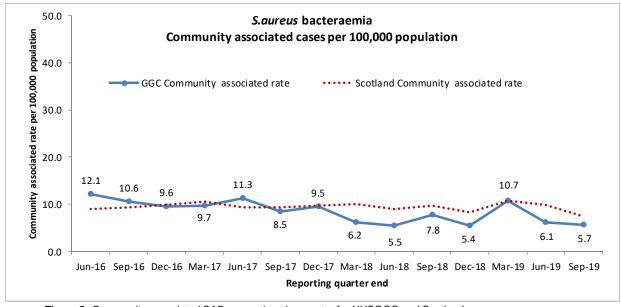


Figure 2: Community associated SAB comparison by quarter for NHSGGC and Scotland

#### Quarter 4: 2019 (October - December) NHSGGC Surveillance

Local surveillance has shown a **13% decrease** upon the previous quarter in the number of SAB cases with a total of 96 cases. 69 cases were healthcare associated and 27 were community associated. Local surveillance of Q4, 2019 indicates that there has been a reduction in the number of reported HCAI SAB cases with a total of 69 HCAI cases reported at time of reporting. This is a **26% reduction** in case numbers from the previous quarter

#### **SAB Actions Update**

The NHSGGC SAB group continues to meet and work to reduce the amount of avoidable healthcare associated cases is ongoing.

• The NHSGGC Vascular Access Service is a department dedicated to inserting central lines in patients who required long term intravenous medications, e.g. antibiotics, chemotherapy or intravenous nutrition. From December 2019, a Chlorhexidine Gluconate impregnated dressing is now applied following insertion of a Central Venous Catheter. This dressing can remain in place for up to seven days before being changed on a weekly basis thereafter for the duration of the device, or as advised by the clinical team. This additional step may help to prevent infections associated with these types of lines.

This may provide increased patient comfort and offer some protection in reducing bloodstream infections, and not only those caused by *S.aureus*, associated with the entry site. The use of this type of dressing is also included as a consideration in the HPS Key Recommendation "Preventing infections when inserting and maintaining a CVC"

 PVC insertion pack has been approved for use and will be available shortly in all clinical areas in GGC.

- A strategy to reduce HCAI SABs due to skin and soft tissue infections is being developed and led by the Nurse consultant, IPC. This will be approved and supported by the NHSGGC SAB Group. When complete, this strategy will be implemented and use surveillance data to measure impact over a 12-month period.
- Clinical areas that have had two SABs in a four week period which have been caused by an IVAD, will have weekly ward audits (for four consecutive weeks) of care plan documentation undertaken by the local IPCT. These will be prospectively fed back to the clinical team and an improvement strategy jointly developed for implementation and future monitoring by the clinical team. This will be followed by a programme of audit to provide assurance that improvement is implemented and sustained.

# Multi-Drug Resistant Organism (MDRO) Screening Clinical Risk Assessment uptake. (Includes MRSA Screening and CPE Screening).

#### MRSA (Meticillin Resistant Staphylococcus aureus)

Mandatory Clinical Risk Assessment (CRA) compliance for GGC in Q3 (October - December 2019) is **90%.** This is an improvement on recent reporting quarters and meets the required 90% for national reporting requirements. The IPCT will continue to target education in individual areas that do not meet the target. In addition, compliance with the assessment this CRA and the CPE CRA have been included as criteria in the updated Infection Prevention & Control Audit Tool (IPCAT).

MRSA screening CRA uptake	<b>2018-19 Q4</b> (Jan-Mar)	<b>2019-20 Q1</b> (Apr-Jun)	<b>2019-20</b> <b>Q2</b> (Jul-Sep)	<b>2019-20</b> <b>Q3</b> (Oct-Dec)
Greater Glasgow & Clyde	69%	92%	87%	90%
Scotland	83%	89%	88%	88%

Table 2: Quarterly screening compliance- MRSA National Data Source: MDRO Admission Screening Team January 2020.

#### **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.

Table 3 below shows the CRA compliance rate since national reporting was implemented. Improvement in compliance has been sustained in Q3. Although CPE screening is mandatory, there is no national target set for compliance.

CPE screening - CRA uptake	<b>2018-19 Q4</b> (Jan-Mar)	<b>2019-20 Q1</b> (Apr-Jun)	<b>2019-20 Q2</b> (Jul-Sep)	<b>2019-20 Q3</b> (Oct-Dec)	
Greater Glasgow & Clyde	78%	94%	92%	95%	
Scotland	81%	86%	86%	85%	

Table 3: Quarterly screening compliance - CPE National Data Source: MDRO Admission Screening Team January 2020..

#### Clostridioides difficile (CDI)

#### Quarter 3: 2019 (July-September) Surveillance

77 validated cases were reported in the last published quarter (July-September). This is less than the previous reporting quarter and also the **lowest** quarter 3 in the past four years. 59 cases were healthcare associated and this provided a rate of 14.2 cases per 100,000 bed days (Figure 3). The rate for NHS Scotland was 13.5.

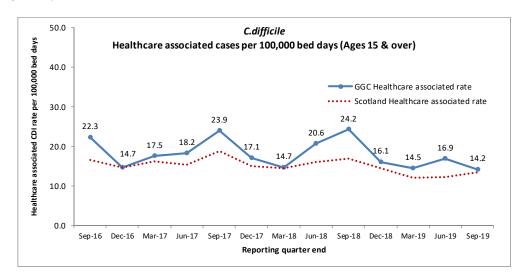


Figure 3: Healthcare associated CDI rates comparison by quarter for NHSGGC and Scotland.

18 community associated CDI cases were reported for the quarter with a rate of 6.1 per 100,000 population (Figure 4). The rate for NHS Scotland was 5.5.

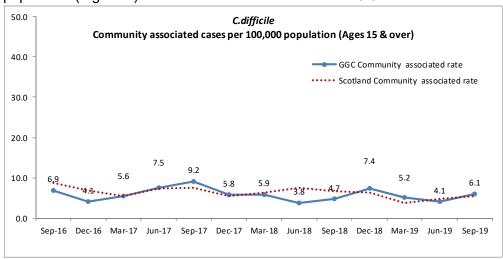


Figure 4: Community associated CDI comparison by quarter for NHSGGC and Scotland.

#### Quarter 4: 2019 (October - December) NHSGGC Surveillance

Local surveillance for this quarter has shown a very slight increase of 4 cases upon the previous quarter with 81 cases in total. 68 are healthcare associated and 13 are community associated. This would appear to be normal variation for healthcare associated cases for this quarter in recent years (Table 4.)

Year – Quarter 4 (October-December)	Number of Healthcare Associated CDI
2015	112
2016	65
2017	74
2018	67
2019	68

Table 4: Quarter 4 healthcare associated C.difficile cases. Please note 2019 data has not been validated by HPS.

#### Escherichia coli (E. coli) bacteraemia

As described on the HPS website, *Escherichia coli* (*E. coli*) is a bacterium that forms part of the normal gut flora that helps human digestion. Although most types of *E. coli* live harmlessly in your gut, some types can make you unwell.

When it gets into your blood stream, *E. coli* can cause a bacteraemia. This can be as a result of an infection such as:

- urinary tract
- surgery
- •inappropriate use of medical devices

However, on occasions, the source of the bacteraemia isn't known.

*E. coli* is currently the most common cause of bacteraemia in Scotland. As a result, the Scottish Government Health and Social Care Directorate (SGHSCD) requested an in-depth analysis of the epidemiology of *E. coli* bacteraemia.

#### Quarter 3: 2019 (July-September) Surveillance

**304** validated cases were reported in the last published quarter (July-September).172 cases were healthcare associated and this provided a rate of 41.3 cases per 100,000 bed days. The rate for NHS Scotland was 40.3. 132 community associated cases were reported for the quarter with a rate of 44.6 per 100,000 population. The rate for NHS Scotland was 44.2.

NHSGGC was within 95% confidence intervals for HCAI and community cases and was also not above normal variation on trend analysis from 2016 to date.

#### Quarter 4: 2019 (October - December) NHSGGC Surveillance

Local surveillance for the most recent quarter indicates a 13% **reduction** in the number of healthcare associated cases (n=150) and a slight increase community associated cases (n=139).

#### **Antibiotic use indicators**

The NHSGGC Antimicrobial Utilisation Committee and Antimicrobial Management Team have provided the current status with each of the three indicators included in the CNO letter issued in October 2019.

1. A 10% reduction of antibiotic use in Primary Care (excluding dental) by 2022, using 2015/16 data as the baseline (items/1000/day).

	2015/16 (Baseline)	2022 TARGET	2016/17	2017/18	2018/19	YTD April/Oct
Primary care total antibiotic use (excluding dental) (items/1000/day)	2.02	1.82	1.98	1.95	1.82	1.73

 Use of intravenous antibiotics in secondary care defined as DDD / 1000 population / day will be no higher in 2022 than it was in 2018.

	2018 (Baseline)	2022 TARGET	2019 Q1	2019 Q2	2019 Q3	2019 Q4
Secondary care IV antibiotic use (DDDs/1000/day)	1.37	1.37	1.33	1.23	1.36	1.35

3. Use of WHO Access antibiotics (NHSE list) ≥60% of total antibiotic use in Acute hospitals by 2022.

	2018 (Baseline)	2022 TARGET (%)	2019 Q1	2019 Q2	2019 Q3	2019 Q4
Use of WHO Access Antibiotics in Acute Hospitals (% of Total Antibiotics)	59.8	60	61.2	60.6	63.3	61.9
NORTH	62.3	60	62.9	62.1	65.7	63.1
SOUTH	59.9	60	60.3	58.8	62.4	61.6
CLYDE	62.3	60	63.9	63.2	68.4	65.2
W+C	47.6	60	49.7	52.2	46.5	46.8
REGIONAL	54.8	60	54.5	55.9	57	55.6

#### **OUTBREAKS / EXCEPTIONS**

(Reported are those that are assessed as AMBER or RED using the HPS Hospital Infection Incident Assessment Tool (HIIAT))

Institute for Neurological Sciences (INS), QEUH Campus, Increase in Surgical Site Infections (SSI) in Spinal Surgery. Initially HIIAT assessed as RED this was subsequently HIIAT assessed as GREEN on the 17<sup>th</sup> January 2020.

Two further cases of SSI in this group of patients was reported, one at the beginning of November and one in December. This is well within what would be expected in this group of patients. This incident is now closed.

# Royal Hospital for Children. Increase incidence of gram negative cultures in patients in the Paediatric Intensive Care Unit (PICU)

Initially, the incident included cases of Serratia marcesens, Pseudomonas aeruginosa and Acinetobacter from 1<sup>st</sup> August 2010. This was extended in December to include all gram negative (GN) organisms. The case definition, as of 5 February 2020, is any patient in PICU who has a positive GN isolate from a blood culture or bronchoalveolar lavage (BAL) as defined by Scottish Government and Health Protection Scotland.

Thus far the incident has included:

Klebsiella pneumonae (2) Pseudomonas aeruginosa (3) Acinetobacter nosocomialis (6) Serratia marcescens (3) Burkholderia cenocepacia (1)

HIIAT assessed as Amber 27/01/2020. There have been no new cases since 25 January 2020.

#### **Control Measures**

- Hand hygiene education for both staff and parents.
- All drains to have weekly dosing with Hysan.
- HPS support is being provided.
- Statistical process control charts have been developed to support trigger process.
- Patients are isolated where possible.
- Weekly safe patient environment audits taking place.

- Continue to monitor for all new cases and undertake a RCA for each.
- Sampling of the environment will continue until there is 4 weeks of results.

The National Support Framework was invoked by Scottish Government on the 10 January 2020.

HPS will prepare a 'healthcare infection situational needs assessment'. This will be shared with NHSGG&C and SG. Recommendations from this assessment will be reviewed by GGC when received. In addition, the Director of Infection Prevention and Control has commissioned a review group which includes representatives from Health Protection Scotland. This group will review hypothesis, investigations, trend data and new scientific evidence to base actions upon. All requests for information have been acted upon and HPS are reviewing these documents.

QEUH Campus. Langlands Building. Two cases of Hospital Acquired C. diff Infection in a two week period. C. diff infection was noted on both patients death certificate. HIIAT assessed as RED on the 17 January then GREEN on the 20 January. Confirmed as two different ribotypes so not due to cross infection and therefore not linked.

#### Actions

- Health Protection Scotland Trigger tool implemented and completed.
- Hand hygiene audit.
- Standard Infection Control Precaution (SICPS) audit.
- Review of antimicrobial prescribing.
- Twice daily cleans with a chlorine based detergent was ongoing at the time (winter clean regime) and all rooms the patients were located in were terminally cleaned.
- Education sessions to raise awareness about this infection have been delivered.

#### **Norovirus**

There were 11 wards closed in 5 hospitals due to Norovirus activity November and December 2019.

Month	Jan -19	Feb -19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug -19	Sep-19	Oct-19	Nov-19	Dec-19
Ward Closures	1	7	3	5	2	3	2	0	0	4	6	5
Bed Days Lost	7	42	106	188	49	49	11	0	0	46	76	85

Table 5: NHSGGC Ward closures due to suspected / confirmed Norovirus

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

### **Healthcare Environment Inspectorate (HEI)**

There was an unannounced inspection of wards and departments in QEUH Campus from the 19-21 November 2019. The report on this visit will be published on the 13 February 2020.

HEI reports and action plans can be viewed by clicking on the link below.

http://www.healthcareimprovementscotland.org/our work/inspecting and regulating care/nhs hospitals and services/hei inspections/all hei reports.aspx

#### Other HAI Related Activity

#### Surgical Site Infection (SSI) Surveillance

All NHS Boards are required to undertake in-patient and 30-day re-admission surveillance (excluding caesarean section which is 10 day post discharge surveillance) as per DL (2019) 23. Available at: https://www.sehd.scot.nhs.uk/dl/DL(2019)23.pdf

# Quarter 3: 2019 (July-September)

For the last published reporting quarter the SSI rate for caesarean-section remained lower than the national dataset SSI rate and also below national 95% confidence interval (Table 6).

There were four hip arthroplasty SSI reported for the quarter with an SSI rate of 1.1%. This is above the national SSI rate of 0.8%, however within 95% confidence intervals.

Category of Procedure	Operations	Infections	NHSGGC SSI rate (%)	NHSGGC 95% CI	National Dataset SSI rate (%)	National 95% CI
Caesarean section	1367	3	0.2	0.1,0.6	1.1	0.8,1.5
Hip arthroplasty	348	4	1.1	0.4,2.9	8.0	0.5,1.3

Table 6: SSI rates for Caesarean section (in-patient and PDS to day-10), Hip arthroplasty (in-patient and re-admission to day-30), NHSGGC

#### Quarter 4: 2019 (October -December) NHSGGC Surveillance

Local surveillance (readmission to day 30 post-op) is ongoing for the quarter. Current status is displayed in Table 7.

Quarter 4 -19 (October- December) : Local SSI Surveillance (status at 06/01/2020)									
	Category of Procedure	Operations	Infections	NHSGGC SSI Rate (%)					
	Caesarean section	1306	6	0.5					
Mandatory	Hip arthroplasty	319	4	1.3					
(reported to HPS)	Large Bowel Surgery	244	3	1.2					
	Major Vascular Surgery	213	2	0.9					
Voluntary	Knee arthroplasty	311	2	0.6					
Voluntary	Repair of neck of femur	473	4	0.8					
Additional	Cranial Surgery	187	2	1.1					
INS,QEUH only	Spinal Surgery*	178	8	4.5					

Table 7: Local SSI Surveillance. Procedures undertaken 01/10/19 - 31/12/19 (In-patient and 30 day readmission; C-section inpatient and PDS to day 10)

<u>Statistical Process Control Charts</u>
Statistical Process Control Charts (SPCs) continue to remain within normal control limits in all sites.

#### **Cleaning and the Healthcare Environment**

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

<sup>\*</sup>see outbreaks/exceptions section of this report.

#### **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 *C. 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 HPS and 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 is 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 <u>more than</u> 48 hours after admission and **healthcare associated** in which the patient has a positive sample taken from <u>within</u> 48 hours of admission and the patient has also had healthcare interaction in the previous 30 days for SAB or 12 weeks for *C. 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:

https://www.hps.scot.nhs.uk/a-to-z-of-topics/clostridioides-difficile-infection/

#### Staphylococcus aureus Bacteraemia

https://www.hps.scot.nhs.uk/a-to-z-of-topics/staphylococcus-aureus-bacteraemia-surveillance/

#### **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/

#### **NHS GREATER GLASGOW & CLYDE**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	31	24	25	29	31	25	38	28	24	18	27	24
Community Associated	14	16	5	7	7	4	8	11	4	8	10	9
Total	45	40	30	36	38	29	46	39	28	26	37	33

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	20	18	18	16	30	23	19	17	19	35	16	17
Community Associated	10	6	7	8	2	5	9	9	7	5	7	1
Total	30	24	25	24	32	28	28	26	26	40	23	18

# Hand Hygiene Monitoring Compliance (%)

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019		Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Board Total	97	97	97	97	97	97	97	97	98	97	96	98

# Cleaning Compliance (%)

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019					Dec 2019
Board Total	95.1	94.8	95.2	95.3	94.3	95.0	94.9	93.7	94.1	94.5	94.9	94.9

	Jan 2019		Mar 2019	Apr 2019	May 2019			_	•	Oct 2019		Dec 2019
Board Total	98.7	97.9	98.0	96.9	97.3	97.2	96.3	96.1	96.5	96.3	96.7	97.0

#### **GLASGOW ROYAL INFIRMARY / PRINCESS ROYAL MATERNITY**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	9	7	3	7	8	8	6	7	10	6	8	10
Community Associated	6	5	-	1	3	1	2	4	1	2	1	3
Total	15	12	3	8	11	9	8	11	11	8	9	13

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	4	5	8	4	8	7	6	6	5	7	1	3
Community Associated	1	2	-	3	-	-	-	1	1	-	-	-
Total	5	7	8	7	8	7	6	7	6	7	1	3

# **Hand Hygiene Monitoring Compliance (%)**

	Jan 2019	Feb 2019		Apr 2019	May 2019		Jul 2019	_	Sep 2019		Nov 2019	
Board Total	96	97	97	97	95	96	97	98	98	98	97	98

# Cleaning Compliance (%)

							Jul 2019					Dec 2019
Board Total	95.6	95.6	95.0	95.2	95.3	95.3	95.5	95.0	94.7	95.1	95.2	95.3

							Jul 2019					Dec 2019
Board Total	99.5	99.2	98.7	97.9	96.9	95.7	92.0	90.8	90.0	89.5	90.8	91.8

#### **ROYAL ALEXANDRA HOSPITAL**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	5	4	7	4	7	3	3	7	2	3	2	4
Community Associated	4	4	1	1	2	1	3	2	1	4	1	1
Total	9	8	8	5	9	4	6	9	3	7	3	5

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	7	5	2	-	7	3	3	-	2	6	2	2
Community Associated	-	2	-	1	-	1	-	-	1	2	4	1
Total	7	7	2	1	7	4	3	0	3	8	6	3

# Hand Hygiene Monitoring Compliance (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Board Total	97	97	97	96	98	98	96	96	99	96	96	99

# Cleaning Compliance (%)

	Jan 2019		Mar 2019									
Board Total	95.7	94.7	94.7	93.3	95.0	95.5	95.5	95.1	94.1	95.0	94.5	93.1

							Jul 2019					
Board Total	96.2	93.4	93.5	93.6	98.0	96.5	94.6	94.6	93.0	94.1	95.7	95.3

#### **INVERCLYDE ROYAL HOSPITAL**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	2	1	-	3	3	1	3	-	-	1	2	2
Community Associated	2	-	ı	1	ı	-	-	2	ı	ı	2	1
Total	4	1	0	4	3	1	3	2	0	1	4	3

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	2	2	-	3	2	1	-	2	2	3	1	1
Community Associated	-	-	1	-	-	-	-	-	-	1	-	-
Total	2	2	1	3	2	1	0	2	2	4	1	1

# Hand Hygiene Monitoring Compliance (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Board Total	99	98	98	98	99	99	98	98	97	99	99	98

# Cleaning Compliance (%)

							Jul 2019			Oct 2019		Dec 2019
Board Total	95.6	94.7	93.6	94.9	95.2	95.1	95.3	94.6	93.8	94.4	94.9	94.6

				•	•		Jul 2019				Nov 2019	
Board Total	96.6	95.4	95.2	96.5	96.6	96.9	96.9	94.2	93.9	94.4	94.3	94.6

#### **VALE OF LEVEN HOSPITAL**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	1	-	-	-	-	3	4	1	1	-		-
Community Associated	-	-	-	1	-	-	-	-	-	-	1	-
Total	1	0	0	1	0	3	4	1	1	0	1	0

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	-	ı	ı	ı	-	ı	ı	ı	1	-	ı	-
Community Associated	-	-	-	-	-	-	1	-	-	-	-	-
Total	0	0	0	0	0	0	1	0	1	0	0	0

# Hand Hygiene Monitoring Compliance (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Board Total	99	98	100	99	100	99	99	98	98	98	97	98

# Cleaning Compliance (%)

							Jul 2019					Dec 2019
Board Total	97.6	97.9	97.3	97.2	97.2	97.5	97.4	97.4	97.5	97.8	97.6	97.5

							Jul 2019					Dec 2019
Board Total	99.6	99.3	98.5	98.7	99.1	99.3	99.2	99.1	98.6	99.0	97.4	97.7

#### **GARTNAVEL GENERAL HOSPITAL**

#### **REPORT CARD**

Figures combined for Gartnavel General Hospital, Beatson WoSCC and NHS Centre for Integrative Care.

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	1	1	2	1	2	2	1	2	3	-	1	-
Community Associated	-	-	-	-	-	-	-	1	-	-	-	-
Total	1	1	2	1	2	2	1	3	3	0	1	0

# Clostridioides difficile infection monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	1	1	ı	ı	1	1	1	ı	1	5	1	3
Community Associated	1	-	1	ı	-	-	-	-			ı	-
Total	2	1	1	0	1	1	1	0	1	5	1	3

# Hand Hygiene Monitoring Compliance (%)

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	- 3				Sep 2019		Nov 2019	Dec 2019
Board Total	96	97	95	99	97	97	96	98	98	97	96	98

#### Cleaning Compliance (%)

	Jan 2019	Feb 2019	_	•	•		Jul 2019	_	•		Nov 2019	
Board Total	96.1	96.1	96.7	96.1	95.4	95.6	95.4	95.6	95.9	95.8	95.9	96.1

							Jul 2019					
Board Total	99.5	99.1	99.1	99.0	98.6	98.5	98.5	98.4	98.8	99.1	98.5	99.5

#### QUEEN ELIZABETH UNIVERSITY HOSPITAL

#### REPORT CARD

#### Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	13	8	10	5	10	6	17	10	6	8	10	6
Community Associated	1	5	4	3	1	1	2	2	1	1	2	4
Total	14	13	14	8	11	7	19	12	7	9	12	10

# Clostridioides difficile infection monthly case numbers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Healthcare Associated	4	4	7	8	11	7	6	8	6	9	7	5
Community Associated	2	-	1	3	-	-	4	3	4	2	2	ı
Total	6	4	8	11	11	7	10	11	10	11	9	5

#### Hand Hygiene Monitoring Compliance (%)

	Jan 2019	Feb 2019		Apr 2019		Jun 2019		Aug 2019		Oct 2019		Dec 2019
Board Total	96	96	96	97	96	96	96	96	96	97	94	97

#### Cleaning Compliance (%) QEUH only

	Jan 2019			•	•		Jul 2019	_	Sep 2019			Dec 2019
Board Total	94.3	93.1	93.7	92.9	93.2	93.2	93.2	93.5	94.4	94.3	94.1	94.1

#### Cleaning Compliance (%) Langlands building only

							Jul 2019					Dec 2019
Board Total	88.7	88.7	N/A	N/A	85.5	90.7	93.1	77.7	81.6	100	91.4	91.3

Scores not available for March & April 2019

Following further NHS GGC scrutiny, the external service provider responsible for Domestic Services within Langlands Building is taking remedial action to ensure that the appropriate level of service improvement is taken to achieve satisfactory standards of cleanliness which fully complies with the quality framework set out within the NHS Scotland National Cleaning Services Specification. NHSGGC have instigated contractual remediation action on the contractor and SPV.

	Jan 2019				•		Jul 2019	•	•			
Board Total	99.3	97.7	97.9	93.8	94.8	96.3	96.2	96.1	98.1	98.0	96.7	94.9

#### **ROYAL HOSPITAL FOR CHILDREN**

#### **REPORT CARD**

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	ı	2	2	6	ı	1	4	1	1	0	2	2
Community Associated	1	2	1	-	1	1	1	-	1	1	3	-
Total	1	4	2	6	1	2	5	1	2	1	5	2

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

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	-	-	-	-	-	-	-	-	-	-	-	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	0	0	0	0	0	0	0	0	0	0

1

# Hand Hygiene Monitoring Compliance (%)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Board Total	96	95	98	98	96	97	98	98	97	97	97	99

# Cleaning Compliance (%)

	Jan 2019						Jul 2019					Dec 2019
Board Total	94.5	94.1	93.7	95.2	93.8	94.5	94.2	93.8	94.6	94.5	94.4	94.2

							Jul 2019					
Board Total	97.8	97.3	98.5	95.1	94.4	95.2	94.6	95.4	94.7	96.2	95.6	96.7

# 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 (Closed 03 March 2019)
- New Victoria Hospital
- Orchard View (Inverclyde Royal Hospital campus)
- Stobhill Hospital

# Staphylococcus aureus bacteraemia monthly case numbers

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	-	1	1	3	1	1	-	-	1	-	2	-
Community Associated	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	1	3	1	1	0	0	1	0	0	0

#### Clostridioides difficile infection monthly case numbers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Healthcare Associated	-	1	ı	-	ı	-	ı	ı	1	ı	1	1
Community Associated	-	ı	ı	-	1	-	1	ı	ı	ı	ı	1
Total	0	1	0	0	0	0	0	0	1	0	1	1

#### **BOARD OFFICIAL**

# **NHS GREATER GLASGOW & CLYDE**

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

	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Healthcare Associated	2	-	1	1	1	4	3	1	1	5	3	2
Community Associated	6	2	4	1	2	4	4	5	1	-	1	-
Total	8	2	5	2	3	8	7	6	2	5	4	2

#### **BOARD OFFICIAL**

# GLOSSARY (updated August 2019)

Alert organism	Any of a number of organisms or infections that could indicate, or cause, outbreaks of infection in the hospital
Alert organism alert condition	
Bacteraemia	or community.  Infection in the blood. Also known as Blood Stream Infection (BSI).
CDI	Clostridioides difficile Infection. Also referred to as C. diff is a Gram-positive spore-forming anaerobic bacterium. C.difficile 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.
CNO	
CNO	Chief Nursing Officer
CPE	Carbapenemase-producing <i>Enterobacteriaceae</i> . A type of Gram-negative bacteria that are extremely resistant to antibiotics.
CRA	Clinical Risk Assessment
CVC	Central Venous 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. <a href="http://www.scotland.gov.uk/Publications/2004/05/19315/36624">http://www.scotland.gov.uk/Publications/2004/05/19315/36624</a>
HAI	Originally used to mean hospital acquired infection, the official 'Scottish Government' term is now <b>Healthcare Associated Infection</b> . 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. <b>Please note</b> that for <i>S.aureus</i> Bacteraemia surveillance – HAI refers to 'hospital acquired cases as per HPS National reporting requirements.  See <a href="https://hpspubsrepo.blob.core.windows.net/hps-website/nss/1964/documents/1">https://hpspubsrepo.blob.core.windows.net/hps-website/nss/1964/documents/1</a> esab-protocol-2016-04-v1.0.pdf
HCAI	Healthcare Associated Infection (for CDI and SAB classification)
HCW	Healthcare Worker
HDL	Health Department Letter
HEAT Target	Health Efficiency and Access to Treatment. Targets set by the Scottish Government.
HEPA Target	High-Efficiency Particulate Air. An efficiency standard of air filter. Filters meeting the HEPA standard must satisfy certain levels of efficiency.
HFS	Health Facilities Scotland
HH	Hand Hygiene
HIIAT	Hospital Infection Incident Assessment Tool
HIIORT	Healthcare Infection Incident and Outbreak Reporting Template
HPS	Health Protection Scotland
HSCP	Health & Social Care Partnerships
IPCN /T/D/M	Infection Prevention & Control Nurse / Team / Doctor / Manager
IVAD	Intravenous 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
MAR	My Admission Record is the acute inpatient nursing admission document
MDRO	Multi Drug Resistant Organism
MRSA	Meticillin resistant Staphylococcus aureus. A Staphylococcus aureus resistant to first line antibiotics; most commonly known as a hospital acquired organism.
MSSA	Meticillin Sensitive Staphylococcus aureus
NHSN	National Healthcare Safety Network – risk factor score for determining risk of SSI after surgery.
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 Venous Catheter
RSV	Respiratory Syncytial Virus. A contagious respiratory infection.
SAB	Staphylococcus aureus Bacteraemia
SBAR	Situation, Background, Assessment, Recommendation. A standardised template used facilitate prompt and appropriate communication
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 inherent
VINL	resistant to Vancomycin but can also acquire (and transfer resistance) to other organisms. Has cause outbreaks reported in the literature in a variety of high-risk settings, e.g. renal or bone marrow transplant units
	,