

# NHS GRAMPIAN

## Healthcare Associated Infection (HAI) Bimonthly Report – May 2018

### Executive Summary

The following HAIRT report contains NHS Grampian's surveillance data and associated infection rates as reported in Health Protection Scotland's Quarterly Epidemiological Data for October to December 2017.

The following information has been reported as:

### Q4

#### **Above National Average:**

- *Clostridium difficile* infection rates - for community
- *E.coli* bacteraemias - for healthcare
- *Staphylococcus aureus* bacteraemias (SABs) - for community

#### **Below National Average:**

- *Clostridium Difficile* infection rates - for healthcare
- *E.coli* bacteraemias - for community
- *Staphylococcus aureus* bacteraemias (SABs) - for healthcare
- *Caesarean Section Surgical Site Infection*
- *Hip Arthroplasty Surgical Site Infection*

### Year Ending December 2017

#### **Above National Average:**

- *Clostridium Difficile* infection rates - for healthcare & community
- Caesarean Section surgical site infections

#### **Below or Equal to National Average:**

- *Staphylococcus aureus* bacteraemias (SABs) - for healthcare & community
- Hip Arthroplasty surgical site infection

**Please note: NHS Grampian have not been reported as an outlier in any category reported above, for this quarter.**

## **Actions:**

**C. Difficile** – There has been an improvement across healthcare and community associated infections in Q4. NHSG is below the national average for healthcare and slightly above for community.

**E Coli Bacteraemias** – there has been a decrease in the number of cases in both healthcare and community for Q4. A meeting to review surveillance data has been arranged and an action plan will be created thereafter.

**Staphylococcus aureus bacteraemias (SABs)** - there has been a significant decrease noted across healthcare for Q4.

**C Sections** – there has been work undertaken to better understand the rise in infection rates within this group and there have been a number of points identified as contributory factors. These factors include an increase in the numbers of C Sections undertaken and an increase in testing. In addition, it has been noted that woman who underwent a C Section and acquired an infection, had a BMI of 30 and above. During Q4 there has been an improvement in the numbers of infections versus procedures undertaken. The IPC team continues to monitor trends on a monthly basis.

**Hip Arthroplasty** – 2 surgical site infections were reported in Q4 out 297 procedures undertaken. Whilst above the national average, the incidence rate remains low comparing data over the last 3 years.

**HFS** - NHS Grampian continues to achieve the required cleanliness standards across all locations as monitored by the Facilities Monitoring Tool. NHSG compliance rate is 94% with a target of 90%.

## 1. Actions Recommended

The Board is requested to note the content of this summary bimonthly HAI Report, as directed by the HAI Policy Unit, Scottish Government Health Directorates.

## 2. Strategic Context

- Local Delivery Plan Standards for 2016/17
  - *Staphylococcus aureus* bacteraemia (SAB) cases are 24 or less per 100,000 acute occupied bed days (AOCD)
  - *Clostridium difficile* infections (CDI) in patients aged 15 and over is 25 cases or less per 100,000 total occupied bed days (TOBD)
- National Key Performance Indicators for MRSA screening
- National Hand Hygiene Compliance Target
- National Health Facilities Scotland (HFS) Environmental Cleaning Target
- National Health Facilities Scotland (HFS) Estates Monitoring Target
- National Hospital Antimicrobial Prescribing Quality Indicators for 2017-18

### 3. Key matters relevant to recommendation

Issue	Group	Target	Period & source	NHS Scot	NHS G	RAG
CDIs	Healthcare Associated Infection	<b>Local Delivery Plan Standards</b>	Oct – Dec 2017, HPS	13.7	13.1	Green
	Community Associated Infection	32 cases per 100,000 TOBD		6.8	7.4	Amber
<i>E coli</i> Bacteraemia	Healthcare Associated Infection	<b>No target</b> (rate per 100,000 bed days)	Oct – Dec 2017, HPS	33.5	35.7	Amber
	Community Associated Infection	<b>No target</b> (annualised rate per 100,000 population)		48.3	31.0	Green
SABs	Healthcare Associated Infection	<b>Local Delivery Plan Standards</b>	Oct – Dec 2017, HPS	16.6	16.0	Green
	Community Associated Infection	24 cases per 100,000 AOB		9.7	11.5	Amber
Surgical Site Infections (SSIs)	Caesarean Section	n/a	Oct – Dec 2017, HPS	1.5%	1.3%	Green
	Hip Arthroplasty	n/a	Oct – Dec 2017, HPS	0.8%	0.7%	Green
MRSA (CRA) screening		<b>HPS</b> 90%	Jan – Mar 2018, NHSG	83%	80%	Red
Hand Hygiene	All clinical areas	<b>SGHD</b> 90%	Jan – Mar 2018, NHSG	N/A	98%	Green
Cleaning		<b>HFS</b> 90%	Jan – Mar 2018	N/A	94%	Green
Estates		<b>HFS</b> 90%	Jan – Mar 2018, NHSG	N/A	97%	Green

Colour Coding	
	Target achieved
	≥80% of target
	<80% of target

## National Quality Indicator – Hospital Antimicrobial Prescribing

	SAPG Audit Target	National Average	ARI Medical 105, 107, 110	DG Medical Ward: 7,8	ARI Surgical Gen Surg	DG Surgical
<b>Report Period</b>		Not available	Feb-Apr 2018	Feb-Apr 2018	Feb-Apr 2018	Jan-Feb 2018
<b>Sample size</b>			84	52	20	29
Indication documented	95%		<b>88%</b>	<b>85%</b>	<b>40% (8/20)</b>	<b>90%</b>
Policy compliant*	95%		<b>85%</b>	<b>82%</b>	<b>75% (6/8)</b>	<b>85%</b>
Oral antibiotics: duration/stop date documented	75%		<b>71%</b>	<b>76%</b>	<b>30% (3/10)</b>	<b>100%</b>
IV antibiotics: documented clinical review within 72h <sup>‡</sup>	75%		<b>100%</b>	<b>91%</b>	<b>100%</b>	<b>100%</b>
All doses administered	95%		<b>89%</b>	<b>92%</b>	<b>100%</b>	<b>100%</b>

\*Compliance with policy can only be assessed if there is a documented indication

**National Quality Indicator Primary Care Antimicrobial Prescribing**

**The reports for this indicator are not yet available for analysis for Q4 1718.**

*This quality indicator is that antibiotic use, expressed in items/1000/day in at least 50% of practices in each NHS board will be at or below the 25th percentile of Scottish practices or will have made an acceptable move toward that level - using Jan – Mar 2013 data as baseline.*

	<b>SAPG Audit Target</b>	Oct-Dec 2017 (NSS personal communication)
Total antibiotic prescribing (primary care)	50% GP practices at or moved towards target	75%

Q3 data for 2017/18 (Oct-Dec17) showed 35 practices met the target, 15 made an acceptable shift towards the target and 16 did not meet the target. Achievement of target is assessed in Q4 (Jan-Mar 18), therefore the Q3 data does not necessarily predict the likelihood of meeting the target in Q4 (Antibiotic prescribing is generally lower in Q3 compared to Q4 due to seasonal variation).

## Antimicrobial Update

### National Quality Indicator – Hospital Antimicrobial Prescribing – Part 1

The target for this quality indicators is an annual **1% reduction** in total antibiotic use, carbapenem use and piperacillian-tazobactam use from baseline of 2015 data.

Aberdeen Royal Infirmary	
<b>Total antibiotic</b>	Trend of increasing <b>total</b> antibiotic usage at ARI, <i>unlikely</i> target will be met. Very few Scottish hospitals are likely to achieve this target.
<b>Carbapenem</b>	The reduction in carbapenem prescribing seen in Q3 2017 has continued with levels now much closer to the 2015 baseline. Just over half of Scottish hospitals are currently predicted to meet this target.
<b>Piperacillin-tazobactam</b>	The global <b>piperacillin/tazobactam</b> shortage resulted in a significant reduction in piperacillin/tazobactam use and therefore it is predicted ARI <i>will</i> meet this target, along with all other Scottish hospitals.

Dr Gray's	
<b>Total antibiotic</b>	Total antibiotic use for Q4 has decreased slightly from the rise seen in Q3 with prescribing nearer the 2015 baseline.
<b>Carbapenem</b>	Use remains low – predicted to meet 1% reduction target
<b>Piperacillin-tazobactam</b>	Use remains low – predicted to meet 1% reduction target

#### **4. Risk Mitigation**

By noting the contents of this report, the Board will fulfil its requirement to seek assurance that appropriate surveillance of healthcare associated infection is taking place and that this surveillance is having a positive impact on reducing the risk of avoidable harm to the patients of NHS Grampian.

#### **5. Responsible Executive Director and contact for further information**

If you require any further information in advance of the Board meeting please contact:

**Responsible Executive Director**

Amanda Croft

Director of Nursing

[amanda.croft@nhs.net](mailto:amanda.croft@nhs.net)

**Contact for further information**

Grace Mckerron

Interim Infection Prevention and Control Manager

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## ***Clostridium difficile* Infection**

### ***Clostridium difficile* Infection Surveillance**

As with *Staph aureus* bacteraemias, each new case is discussed at a weekly multidisciplinary team meeting involving Infection Prevention and Control Doctor(s), Infection Prevention and Control Nurses and Surveillance Nurse – the Infection Unit Nurse is not present for the CDI case discussions. By close investigation of each case and typing of the organisms – when indicated – the Infection Prevention and Control Team is assured that there have not been any outbreaks of CDI.

Local enhanced surveillance data can be provided in a more timely fashion as this is not part of a national enhanced surveillance programme.

During quarter 4 (October to December 2017) cases were defined as either:

- Healthcare associated infection or
- Community associated infection

Historically HPS reported CDiff cases based on age ranges 15-64yrs and 65yrs and above but have since changed to the definitions described above.

### **National *Clostridium difficile* infection surveillance programme**

Health Protection Scotland published their quarterly reports on the surveillance of *Clostridium difficile* infections (CDIs) in Scotland, Q4 2017, (October to December 2017).

The following tables and graphs demonstrate NHS Grampian's rate of CDI compared with all other Boards in Scotland, with data broken down for healthcare and community.

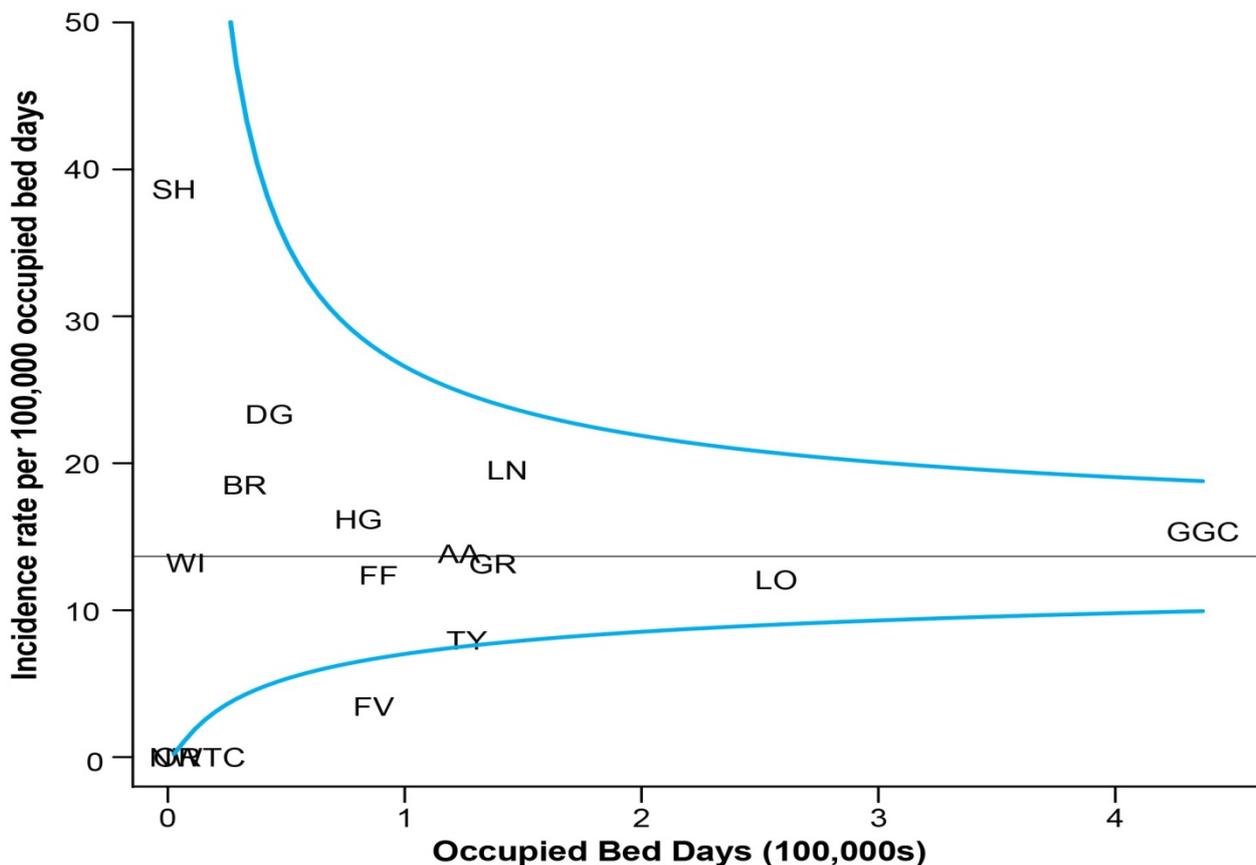
AA	Ayrshire & Arran	HG	Highland
BR	Borders	LO	Lothian
DG	Dumfries & Galloway	LN	Lanarkshire
FF	Fife	NWTC	National Waiting Times Centre
FV	Forth Valley	OR	Orkney
GGC	Greater Glasgow & Clyde	SH	Shetland
GR	Grampian	TY	Tayside
		WI	Western Isles

**CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q3 2017 (July to September) compared to Q4 (October to December).**

NHS Board	Q3 Cases	Q3 Bed Days	Q3 Rate	Q4 Cases	Q4 Bed Days	Q4 Rate
AA	27	118,431	22.8	17	123,003	13.8
BR	6	32,452	18.5	6	32,440	18.5
DG	13	41,406	31.4	10	42,845	23.3
FF	12	87,701	13.7	11	88,972	12.4
FV	14	80,291	17.4	3	86,859	3.5
GR	22	136,682	16.1	18	137,146	13.1
GGC	99	428,082	23.1	67	436,872	15.3
HG	11	79,641	13.8	13	80,452	16.2
LN	25	139,493	17.9	28	143,304	19.5
LO	24	252,661	9.5	31	256,793	12.1
NWTC	0	11,658	0	0	12,434	0
OR	2	2,936	68.1	0	3,819	0
SH	0	2,600	0	1	2,589	38.6
TY	18	123,857	14.5	10	126,195	7.9
WI	0	7,180	0	1	7,572	13.2
<b>Scotland</b>	<b>273</b>	<b>1,545,083</b>	<b>17.7</b>	<b>216</b>	<b>1,581,295</b>	<b>13.7↓</b>

- An arrow denotes statistically significant change.
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1.

**Funnel plot of CDI incidence rates (per 100,000 TOBDs) in healthcare associated infection cases for all NHS boards in Scotland in Q4 2017.**



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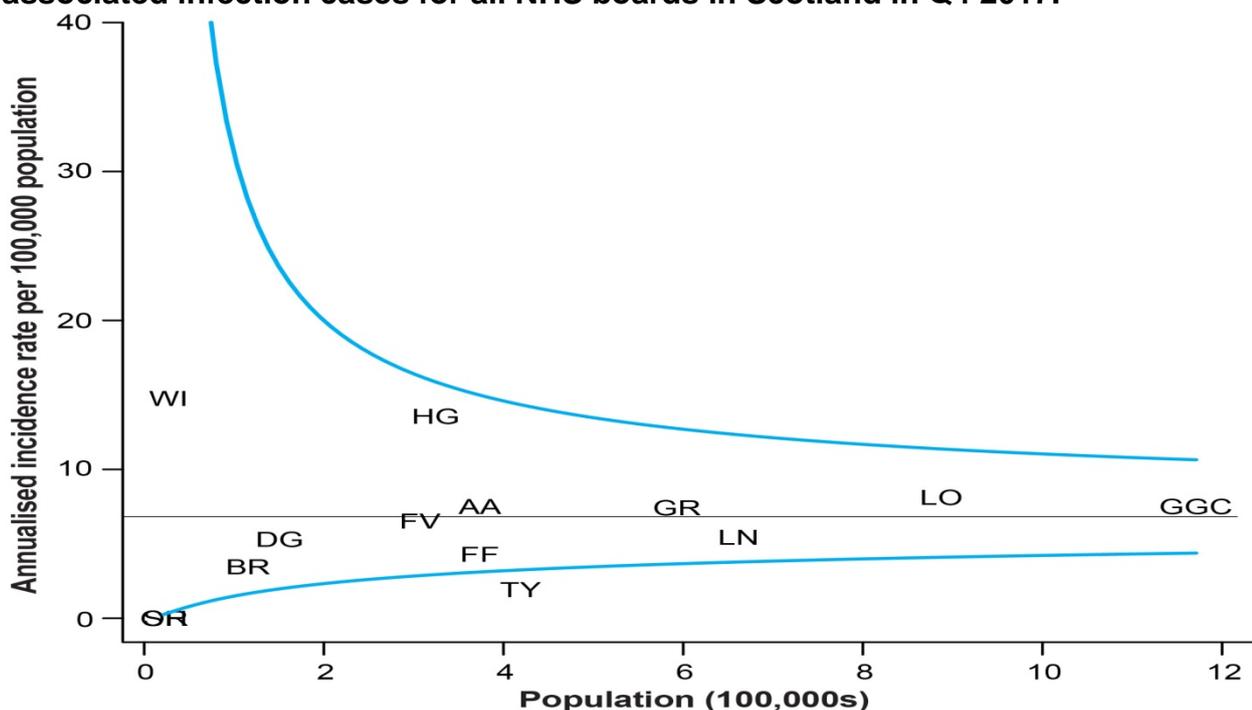
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1.
- NHS National Waiting Time Centre, NHS Shetland and NHS Western Isles overlap as do NHS Grampian, NHS Lanarkshire and NHS Tayside.

**CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q3 2017 (July to September 2017) compared to Q4 (October to December).**

NHS Board	Q3 Cases	Q3 Population	Q3 Rate	Q4 Cases	Q4 Population	Q4 Rate
AA	8	370,560	8.6	7	370,560	7.5
BR	1	114,530	3.5	1	114,530	3.5
DG	5	149,520	13.3	2	149,520	5.3
FF	7	370,330	7.5	4	370,330	4.3
FV	8	304,480	10.4	5	304,480	6.5
GR	20	588,100	13.5	11	588,100	7.4
GGC	36	1,161,370	12.3	22	1,161,370	7.5
HG	8	321,900	9.9	11	321,900	13.6
LN	12	656,490	7.3	9	656,490	5.4
LO	17	880,000	7.7	18	880,000	8.1
OR	1	21,850	18.2	0	21,850	0
SH	1	23,200	17.1	0	23,200	0
TY	8	415,470	7.6	2	415,470	1.9
WI	0	26,900	0	1	26,900	14.7
<b>Scotland</b>	<b>118</b>	<b>5,404,700</b>	<b>8.7</b>	<b>93</b>	<b>5,404,700</b>	<b>6.8</b>

- Quarterly population rates are based on an annualised population.
- An arrow denotes statistically significant change.
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS population estimates.

**Funnel plot of CDI incidence rates (per 100,000 population) in community associated infection cases for all NHS boards in Scotland in Q4 2017.**



The table below gives an overview of the CDiff incidence rates and associated cases over the last three years.

	Healthcare associated* CDI			Community associated CDI		
	Cases	Rate per 100 000 bed days	95% CI	Cases	Rate per 100 000 population	95% CI
Dec-14	23	14.5	(9.2 ,21.8)	7	4.8	(1.9 ,9.7)
Mar-15	24	14.9	(9.5 ,22.2)	6	4.1	(1.5 ,9)
Jun-15	22	14.3	(8.9 ,21.5)	9	6.1	(2.8 ,11.6)
Sep-15	22	14.9	(9.3 ,22.5)	14	9.4	(5.1 ,15.8)
Dec-15	38	25.4	(18 ,34.9)	15	10.1	(5.6 ,16.6)
Mar-16	30	19.5	(13.1 ,27.8)	19	13.0	(7.8 ,20.2)
Jun-16	21	14.4	(8.8 ,21.9)	8	5.5	(2.3 ,10.7)
Sep-16	25	17.4	(11.2 ,25.7)	20	13.5	(8.2 ,20.8)
Dec-16	32	22.2	(15.1 ,31.3)	12	8.1	(4.1 ,14.1)
Mar-17	24	16.4	(10.5 ,24.4)	10	6.9	(3.3 ,12.6)
Jun-17	33	23.7	(16.3 ,33.3)	17	11.6	(6.7 ,18.5)
Sep-17	22	16.1	(10 ,24.3)	19	12.8	(7.7 ,20)
Dec-17	18	13.1	(7.7 ,20.7)	11	7.4	(3.6 ,13.2)

Information on the national surveillance programme for *Clostridium difficile* infections can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/resourcedetail.aspx?id=678>

## National *Escherichia coli* bacteraemia surveillance programme

Data collection for this programme commenced in 2016.

*Escherichia coli* continue to be the most frequent cause of Gram-negative bacteraemia in Scotland and is a frequent cause of infection worldwide.

Healthcare associated (HCAI) *E coli* infections are measured as a rate per 100,000 occupied bed days. However, community acquired infections are measured as a rate per population.

In Quarter 4 the rate of HCAI *E coli* infections in NHS Grampian was 35.7 cases per 100,000 occupied bed days compared with cases 33.5 per 100,000 occupied bed days across NHS Scotland. The community *E coli* bacteraemia rate in NHS Grampian was 31.0 cases per 100,000 population compared with 48.3 cases per 100,000 population across NHS Scotland.

### E Coli bacteraemia rates in NHS **Scotland** Q4 (October to December 2017)

	Healthcare associated ECB infection			Community associated ECB infection		
	Cases	Rate per 100 000 bed days	95% CI	Cases	Rate per 100 000 Population	95% CI
Dec-17	529	33.5	(30.6 ,36.4)	658	48.3	(44.6 ,52.1)

### E Coli bacteraemia rates in NHS **Grampian** Q4 (October to December 2017)

	Healthcare associated ECB infection			Community associated ECB infection		
	Cases	Rate per 100 000 bed days	95% CI	Cases	Rate per 100 000 Population	95% CI
Dec-17	49	35.7	(26.4 ,47.2)	46	31.0	(22.7 ,41.3)

Information on the national surveillance programme for *Escherichia coli* infection can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/ecolibacteraemia.aspx?subjectid=80#mandatory>

## **Staphylococcus aureus (including MRSA) Bacteraemia**

### **Enhanced *Staphylococcus aureus* Bacteraemia (SAB) Surveillance**

Enhanced SAB surveillance is carried out in all Health Boards using standardised data definitions. Each new case continues to be discussed at a weekly multidisciplinary team meeting involving Infection Prevention and Control Doctors, Infection Prevention and Control Nurses, Surveillance Nurse and Infection Unit Nurse. The offer of attendance at speciality case review meetings from the IPCT is extended should further discussion be required.

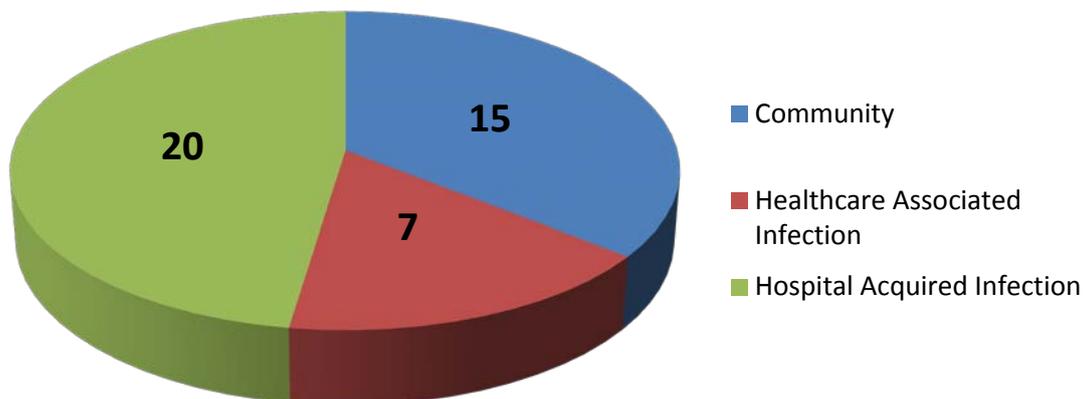
Cases are defined as:

- Hospital Acquired
- Healthcare Associated
- Community Associated

The most recent collated results for NHS Scotland demonstrate that during quarter 1, 2018 (January to March), within NHS Grampian. There were 42 cases of *Staphylococcus aureus* Bacteraemia.

Less than half of the 42 SAB cases were hospital acquired.

**Origin of SAB cases Q1 (n=42)**



Of the 20 hospital acquired cases of SAB, seven patients had the source of their SAB identified as a medical device; CVC tunnelled, PVC, PICC/midline.

<b>Source</b>	<b>Number</b>
Devices (PICC/Midline, PVC, CVC non tunnelled)	7
Skin & soft tissue (ulcer, pressure ulcer, skin break, other)	6
Contaminant	2
Not known	3
Surgical Site Infection (superficial)	1
Respiratory infection	1

Of the 7 healthcare acquired cases of SAB, one patients had the source of their SAB identified as a skin & soft tissue.

<b>Source</b>	<b>Number</b>
Skin & Soft Tissue (ulcer)	1
Respiratory infection	2
Surgical Site Infection (organ/space)	2
Other: catheterisation	2

Of the 15 community acquired cases of SAB, four patients had the source of their SAB identified as skin soft tissue conditions.

<b>Source</b>	<b>Number</b>
Device (arterial line)	1
Respiratory infection	4
Not known	6
Skin & Soft Tissue (cellulitis, abscess, eczema, skin break)	4

## National *Staphylococcus aureus* bacteraemia surveillance programme

Health Protection Scotland published their quarterly reports on the surveillance of *Staphylococcus aureus* bacteraemia (SAB) in Scotland, (October to December 2017).

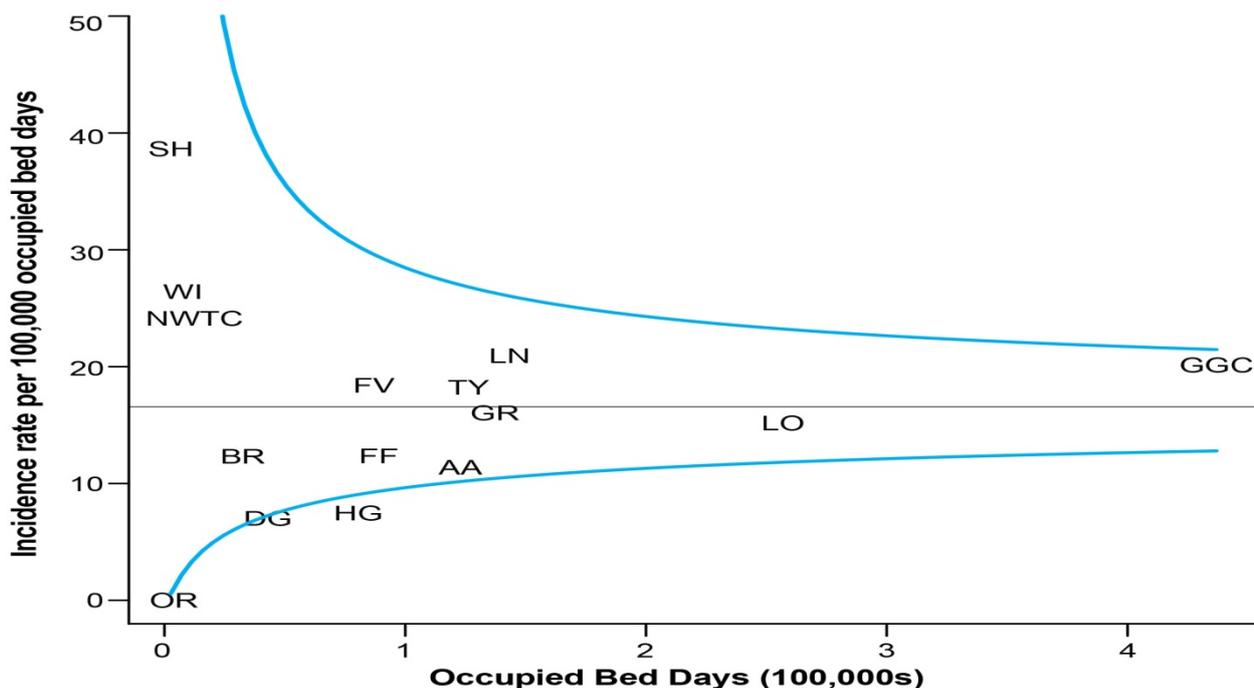
The following table and graphs demonstrate NHS Grampian's rate of SABs compared with all other Boards in Scotland.

The rate of SABs in NHS Grampian in this quarter remains below the national average in Scotland and similar to that in NHS Tayside.

### SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q3 2017 (July to September 2017) and Q4 (October to December).

NHS Board	Q3 Cases	Q3 Bed Days	Q3 Rate	Q4 Cases	Q4 Bed Days	Q4 Rate
AA	17	118,443	14.4	14	123,003	11.4
BR	6	32,452	18.5	4	32,440	12.3
DG	4	41,406	9.7	3	42,845	7.0
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FV	18	80,291	22.4	16	86,859	18.4
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HG	11	79,641	13.8	6	80,452	7.5
LN	28	139,493	20.1	30	143,304	20.9
LO	39	252,661	15.4	39	256,793	15.2
NWTC	5	11,658	42.9	3	12,434	24.1
OR	1	2,936	34.1	0	3,819	0.0
SH	2	2,600	76.9	1	2,589	38.6
TY	26	123,857	21.0	23	126,195	18.2
WI	1	7,180	13.9	2	7,572	26.4
<b>Scotland</b>	<b>278</b>	<b>1,545,083</b>	<b>18.0</b>	<b>262</b>	<b>1,581,295</b>	<b>16.6</b>

**Funnel plot of SAB incidence rates (per 100,000 TOBDs) in healthcare associated infection cases for all NHS boards in Scotland in Q4 2017.**

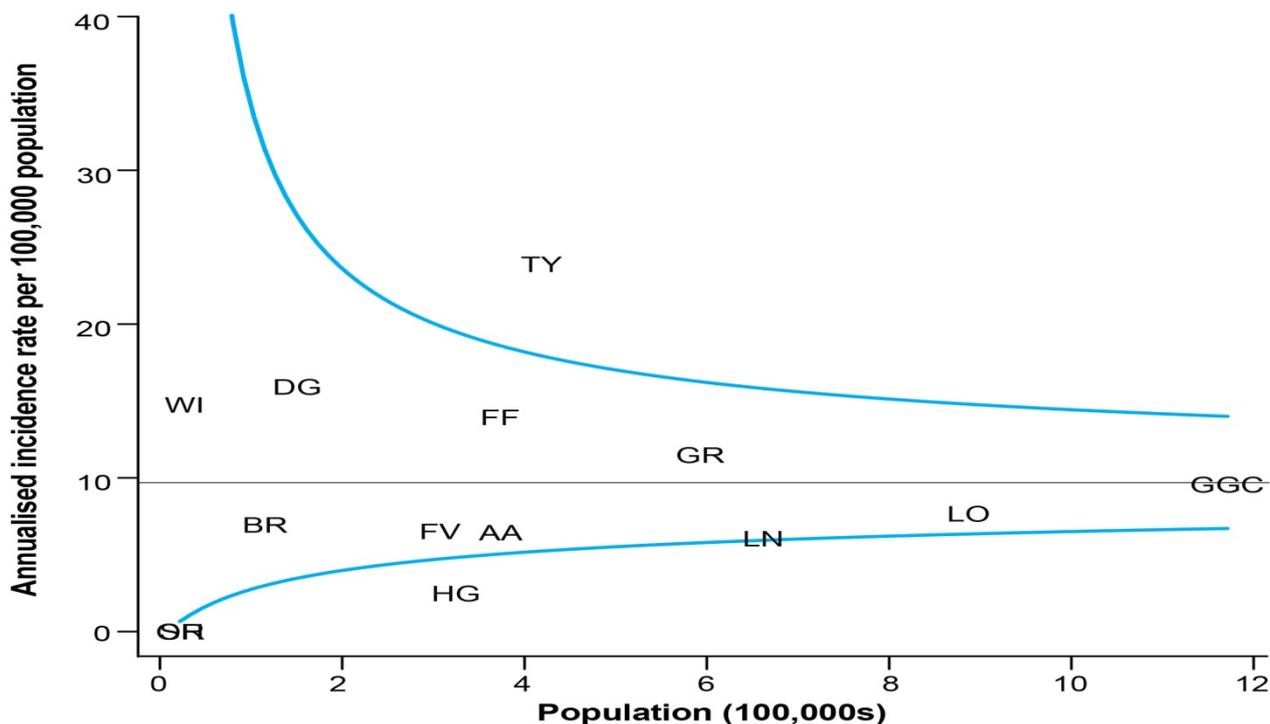


- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1.
- NHS Fife and NHS Highland overlap.

**SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q3 2017 (July to September 2017) and Q4 2017(October to December).**

NHS Board	Q3 Cases	Q3 Population	Q3 Rate	Q4 Cases	Q4 Population	Q4 Rate
AA	15	370,560	16.1	6	370,560	6.4
BR	7	114,530	24.2	2	114,530	6.9
DG	3	149,520	8.0	6	149,520	15.9
FF	11	370,330	11.8	13	370,330	13.9
FV	6	304,480	7.8	5	304,480	6.5
GR	12	588,100	8.1	17	588,100	11.5
GGC	25	1,161,370	8.5	28	1,161,370	9.6
HG	9	321,900	11.1	2	321,900	2.5
LN	15	656,490	9.1	10	656,490	6.0
LO	13	880,000	5.9	17	880,000	7.7
OR	0	21,850	0.0	0	21,850	0.0
SH	0	23,200	0.0	0	23,200	0.0
TY	11	415,470	10.5	25	415,470	23.9
WI	0	26,900	0.0	1	26,900	14.7
<b>Scotland</b>	<b>127</b>	<b>5,404,700</b>	<b>9.3</b>	<b>132</b>	<b>5,404,700</b>	<b>9.7</b>

**Funnel plot of SAB incidence rates (per 100,000 populations) in community associated infection cases for all NHS boards in Scotland 2017 in Q4 2017.**



- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS population estimates.
- NHS Orkney and NHS Western Isles overlap.

The following measures have been put in place:

- Quality Improvement opportunities for prevention of SABs are highlighted to clinical teams.
- Clinical teams who are responsible for potentially preventable SABs are advised to report via DATIX.
- There is standardised paperwork for recording insertion and maintenance of peripheral vascular catheters (PVCs) across NHS Grampian.

Other HAI initiatives which influence our SAB rate include:

- Hand Hygiene monitoring
- Compliance with National Housekeeping Specifications
- Audit of the environment and practices via biannual environmental audits and frequent independent audit inspections.
- Participation in National Enhanced SAB Surveillance
- MRSA screening at pre-assessment clinics and on admission

More information on the national surveillance programme for *Staphylococcus aureus* bacteraemias can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/quarterlyepidemiologicalcommentaries.aspx>

## Surgical Site Infection (SSI) Surveillance

NHS Grampian participates in the Surgical Site Infection (SSI) surveillance programme that is mandatory in all NHS boards in Scotland. All NHS boards are required to undertake surveillance for hip arthroplasty and caesarean section procedures as per the mandatory requirements of HDL (2006) 38 and CEL (11) 2009.

Readmission surveillance is carried out using prospective readmission data on orthopaedic procedure categories under inpatient and re-admission surveillance up to 30 days post operatively. Post discharge surveillance until day 10 post operation is also carried out for all caesarean sections performed.

Last available quarter 4 2017 (October to December 2017).

Category of Procedure	Number of operations	Number of Infections	NHS Grampian SSI rate (%)	National dataset SSI rate (%)
Caesarean section	467	6	1.3 %	1.5 %
Hip arthroplasty	297	2	0.7 %	0.8 %

Information on the national surveillance programme for Surgical Site Infection can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/surgicalsiteinfectionsurveillance.aspx?subjectid=B>

## MRSA Screening

In early 2011, the Scottish Government announced new national minimum MRSA screening recommendations. Targeted MRSA screening by specialty (implemented in January 2010) has now been replaced by a Clinical Risk Assessment (CRA) followed by a nose and perineal swab (if the patient answers yes to any of the CRA questions). National Key Performance Indicators (KPIs) have now been implemented with Boards being required to achieve 90% compliance with CRA completion.

CRA compliance for Quarter 4 (January to March 2018) within NHS Grampian was 80%.

Health Board	2017_18 Q1	2017_18 Q2	2017_18 Q3	2017_18 Q4
Grampian	82%	87%	88%	80%
Scotland	85%	90%	88%	83%

More information on the national surveillance programme for *MRSA screening* can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/mrsascreeningprogramme.aspx?subjectid=>

## Cleaning and the Healthcare Environment

### Health Facilities Scotland National Cleaning Specification Reports

NHS Grampian continues to achieve the required cleanliness standards across all locations as monitored by the Facilities Monitoring Tool.

4th Quarter - January - Mar 2018	<a href="#">January Domestic</a>	<a href="#">January Estates</a>	<a href="#">February Domestic</a>	<a href="#">February Estates</a>	<a href="#">March Domestic</a>	<a href="#">March Estates</a>	<a href="#">Quarter 4 Domestic</a>	<a href="#">Quarter 4 Estates</a>
NHS Grampian Overall	94.65	95.30	94.15	95.15	94.40	95.10	94.40	95.18
Aberdeen Maternity Hospital, RACH & Outlying Areas	94.10	91.85	93.70	92.35	94.40	91.50	94.06	91.90
Aberdeen Royal Infirmary	93.75	96.30	95.05	96.30	93.25	96.95	94.01	96.51
Aberdeenshire North & Moray Community	97.60	95.05	96.25	93.00	96.20	96.10	96.68	94.71
Aberdeenshire South & Aberdeen City	96.20	98.85	94.20	98.85	96.15	98.00	95.51	98.56
Dr Grays Hospital	93.65	94.45	93.30	93.45	94.10	93.65	93.68	93.85
Royal Cornhill Hospital	97.35	96.10	93.90	90.60	92.25	93.25	94.50	93.31
Woodend Hospital	95.75	96.30	95.05	96.30	94.80	95.50	95.20	96.03

### Incidents and Outbreaks

#### Norovirus Prevalence

Monday Point Prevalence Surveillance figures are reported to Health Protection Scotland. These capture the significant outbreaks of Norovirus in NHS Grampian and the prevalence of Norovirus activity in close to real time. They are not and should not be interpreted as data for benchmarking or judgement. The data can be used for the assessment of risk and Norovirus outbreak preparedness only.

During February 2018 and March 2018 there were 10 partial ward closures and 12 complete ward closures due to Norovirus and enteric illness symptoms. In February 2018 there were 2 wards partially closed and 9 wards completely closed with Norovirus and enteric illness symptoms and with staff affected. In March 2018 there were 8 wards partially closed and 3 wards completely closed with Norovirus and enteric illness symptoms and with staff affected.

Data on the numbers of wards closed due to confirmed or suspected Norovirus are available from HPS at:

<http://www.hps.scot.nhs.uk/giz/norovirusdashboard.asp>  
(do not use Internet Explorer to open this hyperlink, use Google Chrome instead)

NB. The method of data collection allows for data to be retrospective, therefore on occasions there will be bay/ward closures that are not seen on the dashboard until these areas are re-opened.

## 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 community hospitals in the Board, on the number of cases of *Staphylococcus aureus* blood stream infections (also broken down into MSSA and MRSA) and *Clostridium difficile* infections, as well as hand hygiene and cleaning compliance. In addition, there is a single report card which covers all community hospitals [which do not have individual cards], and a report which covers infections identified as having been contracted from outwith hospital. The information in the report cards is provisional local data, and may differ from the national surveillance reports carried out by Health Protection Scotland and Health Facilities Scotland. 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 HAI activities at local level than is possible to provide through the national statistics.

#### Understanding the Report Cards – Infection Case Numbers

*Clostridium difficile* infections (CDI) and *Staphylococcus aureus* bacteraemia (SAB) cases are presented for each hospital, broken down by month. *Staphylococcus aureus* bacteraemia (SAB) cases are further broken down into Meticillin Sensitive *Staphylococcus aureus* (MSSA) and Meticillin Resistant *Staphylococcus aureus* (MRSA).

For each hospital the total number of cases for each month are those which have been reported as positive from a laboratory report on samples taken more than 48 hours after admission. For the purposes of these reports, positive samples taken from patients within 48 hours of admission will be considered to be confirmation that the infection was contracted prior to hospital admission and will be shown in the “out of hospital” report card.

#### Targets

There are national targets associated with reductions in C.diff and SABs. More information on these can be found on the Scotland Performs website:

<http://www.gov.scot/About/Performance/scotPerforms/NHSScotlandperformance>

#### Understanding the Report Cards – Hand Hygiene Compliance

Hospitals carry out regular audits of how well their staff are complying with hand hygiene. Each hospital 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 Health Facilities Scotland website:

<http://www.hfs.scot.nhs.uk/online-services/publications/hai/>

#### Understanding the Report Cards – ‘Out of Hospital Infections’

*Clostridium difficile* infections and *Staphylococcus aureus* (including MRSA) bacteraemia cases are all associated with being treated in hospitals. However, this is not the only place a patient may contract an infection. This total will also include infection from community sources such as GP surgeries and care homes and. The final Report Card report in this section covers ‘Out of Hospital Infections’ and reports on SAB and CDI cases reported to a Health Board which are not attributable to a hospital.

## NHS BOARD REPORT CARD – NHS Grampian

### Staphylococcus aureus bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>MRSA</b>	0	2	0	0	0	1	1	1	0	1	0	0
<b>MSSA</b>	10	8	9	12	15	15	11	12	12	20	10	12
<b>Total SABS</b>	10	10	9	12	15	16	12	13	12	21	10	12

### Clostridium difficile infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>Ages 15-64</b>	6	8	4	8	7	6	5	4	5	3	4	5
<b>Ages 65+</b>	14	11	8	8	7	6	6	6	5	6	9	17
<b>Total CDIs</b>	20	19	12	16	14	12	11	10	10	9	13	22

### Hand Hygiene Monitoring Compliance (%)

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>AHP</b>	99	99	100	100	98	99	100	99	99	99	99	99
<b>Ancillary</b>	98	98	97	96	96	98	98	99	97	97	97	97
<b>Medical</b>	96	97	96	95	94	97	95	98	96	97	96	96
<b>Nurse</b>	99	99	99	99	97	99	99	99	99	99	99	99
<b>Total</b>	98	98	98	98	96	98	98	99	98	98	98	98

### Cleaning Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>Board Total</b>	95	95	94	95	95	95	95	95	95	95	95	94

### Estates Monitoring Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>Board Total</b>	96	96	96	96	96	96	96	96	96	96	95	95

## NHS HOSPITAL A REPORT CARD – Aberdeen Royal Infirmary

### Staphylococcus aureus bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>MRSA</b>	0	1	0	0	0	1	1	0	0	1	0	0
<b>MSSA</b>	1	1	1	2	4	4	0	4	4	4	4	2
<b>Total SABS</b>	1	2	1	2	4	5	1	4	4	5	0	2

### Clostridium difficile infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>Ages 15-64</b>	0	5	0	1	0	0	1	0	0	1	2	0
<b>Ages 65+</b>	3	5	3	2	1	0	1	1	2	2	0	6
<b>Total CDIs</b>	3	10	3	3	1	0	2	1	2	3	2	6

### Cleaning Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>ARI Total</b>	94	94	92	94	94	94	94	94	94	94	94	95

### Estates Monitoring Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>ARI Total</b>	97	96	95	96	95	96	96	96	96	96	96	96

## NHS HOSPITAL B REPORT CARD – Dr Gray’s Hospital

### Staphylococcus aureus bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>MRSA</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>MSSA</b>	0	1	0	1	1	0	0	0	1	1	0	0
<b>Total SABS</b>	0	1	0	1	1	0	0	0	1	1	0	0

### Clostridium difficile infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>Ages 15-64</b>	0	0	0	0	1	0	0	0	0	0	0	0
<b>Ages 65+</b>	1	0	0	1	0	1	1	0	2	1	0	3
<b>Total CDIs</b>	1	0	0	1	1	1	1	0	2	1	0	3

### Cleaning Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>DGH Total</b>	94	94	94	94	94	96	94	95	94	95	94	93

### Estates Monitoring Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>DGH Total</b>	96	95	94	96	97	96	97	97	96	95	94	93

## NHS HOSPITAL C REPORT CARD – Woodend Hospital

### Staphylococcus aureus bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>MRSA</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>MSSA</b>	0	0	0	0	1	1	0	0	0	1	0	0
<b>Total SABS</b>	0	0	0	0	1	1	0	0	0	1	0	0

### Clostridium difficile infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
<b>Ages 15-64</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>Ages 65+</b>	0	1	0	0	0	0	0	0	0	0	1	0
<b>Total CDIs</b>	0	1	0	0	0	0	0	0	0	0	1	0

### Cleaning Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>WE Total</b>	94	95	95	94	95	95	97	96	96	95	96	95

### Estates Monitoring Compliance (%)

	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018
<b>WE Total</b>	96	96	95	96	97	94	97	96	97	96	96	96

## OTHER NHS HOSPITALS REPORT CARD

The other hospitals covered in this report card include:

Aberdeen Maternity Hospital  
 Royal Cornhill Hospital  
 Royal Aberdeen Children's Hospital  
 Roxburgh House  
 All Community Hospitals

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	1	0	1	1	0	2	0	0	1	0	1	1
<b>Total SABS</b>	1	0	1	1	0	2	0	0	0	0	1	1

### *Clostridium difficile* infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
Ages 15-64	1	0	0	0	0	0	0	0	0	1	0	1
Ages 65+	0	0	0	2	0	0	0	2	0	0	0	3
<b>Total CDIs</b>	1	0	0	2	0	0	0	2	0	1	0	4

## NHS OUT OF HOSPITAL REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
MRSA	0	1	0	0	0	0	0	1	0	0	0	0
MSSA	8	6	7	8	9	8	11	8	6	14	5	8
<b>Total SABS</b>	8	7	7	8	9	8	11	9	6	14	5	8

### *Clostridium difficile* infection monthly case numbers

	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
Ages 15-64	4	3	4	6	6	6	4	4	5	1	2	4
Ages 65+	10	5	5	4	6	4	4	3	1	3	8	5
<b>Total CDIs</b>	14	8	9	10	12	10	8	7	6	4	10	9