

# NHS GRAMPIAN

## Healthcare Associated Infection (HAI) Bimonthly Report – March 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 July to September 2017.

The data contained herein has not been updated as HPS have not sent an updated Epidemiological report. This report from HPS is pending.

The following information has been reported as:

### Q3

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

- *Clostridium difficile* infection rates - for community
- *E.coli* bacteraemias - for healthcare
- *Staphylococcus aureus* bacteraemias (SABs) - for healthcare.
- Caesarean Section surgical site infections
- Hip Arthroplasty surgical site infection

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

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

### Year Ending September 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 a significant improvement across healthcare in Q3 but not community associated infections.

There has been no single identifiable cause for the previous rise in *C. diff* infection rates. However, there has been extensive work undertaken to better understand and prevent the increase in *C. diff* infection rates. This includes a new laboratory protocol for phoning positive results, medical microbiology undertaking a new process for communicating *C. diff* results, the Antimicrobial Pharmacy team undertaking audits and analysing data to review antimicrobial usage, discussion of cases at multidisciplinary surveillance meetings as well as training and educational components.

Surveillance processes are being improved with the roll out of information for GPs around antimicrobial stewardship, case definitions of CDI and case management.

This continues to be a priority for the IPC team.

**E Coli Bacteraemias** – there has been a significant increase noted across healthcare for Q3. 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 increase noted across healthcare for Q3. A meeting to review surveillance data has been arranged and an action plan will be created thereafter.

**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 Q3 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 Q3 out 257 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 95% 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> 32 cases per 100,000 TOBD	Jul-Sep 2017, HPS	17.7	16.1	Green
	Community Associated Infection			8.7	12.8	Amber
<i>E coli</i> Bacteraemia	Healthcare Associated Infection	<b>No target</b> (rate per 100,000 bed days)	Jul-Sep 2017, HPS	37.9	46.8	Amber
	Community Associated Infection	<b>No target</b> (annualised rate per 100,000 population)		49.7	34.4	Green
SABs	Healthcare Associated Infection	<b>Local Delivery Plan Standards</b> 24 cases per 100,000 AOBD	Jul-Sep 2017, HPS	18.0	22.7	Amber
	Community Associated Infection			9.3	8.1	Green
Surgical Site Infections (SSIs)	Caesarean Section	n/a	Jul- Sep 2017, HPS	1.3	1.6	Amber
	Hip Arthroplasty	n/a	Jul- Sep 2017, HPS	0.4	0.8	Amber
MRSA (CRA) screening		<b>HPS</b> 90%	Oct – Dec 2017, NHSG	N/A	88%	Green
Hand Hygiene	All clinical areas	<b>SGHD</b> 90%	Oct – Dec 2017, NHSG	N/A	98%	Green
Cleaning		<b>HFS</b> 90%	Oct-Dec 2017	N/A	96%	Green
Estates		<b>HFS</b> 90%	Oct-Dec 2017	N/A	96%	Green

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

### National Quality Indicator – Hospital Antimicrobial Prescribing

	SAPG Audit Target	National Average	ARI Medical <sup>‡</sup> 105, 107, 110	DG Medical Ward: 7,8	ARI Surgical Gen Surg	DG Surgical
<b>Report Period</b>		Not available	Jan-Feb 2018	Jan-Feb 2018	Jan 2018	Jan-Feb 2018
<b>Sample size</b>			56	19	10	19
Indication documented	95%		<b>80%</b>	<b>79%</b>	<b>80%</b>	<b>95%</b>
Policy compliant*	95%		<b>84%</b>	<b>80%</b>	<b>100%</b>	<b>100%</b>
Oral antibiotics: duration/stop date documented	75%		<b>61%</b>	<b>56% (5/9)</b>	<b>75%</b>	<b>100%</b>
IV antibiotics: documented clinical review within 72h <sup>‡</sup>	75%		<b>91%</b>	<b>67% (2/3)</b>	<b>50% (1/2)</b>	<b>100%</b>
All doses administered	95%		<b>91%</b>	<b>89%</b>	<b>100%</b>	<b>84%</b>

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

## National Quality Indicator Primary Care Antimicrobial Prescribing

*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>	In the last 12 months there has been an increase in <b>carbapenem</b> use at ARI, with a significant increase in Q2 2017. Q3 showed a slight reduction compared to Q2 but still significantly higher than 2015 (likely in part due to the shortage of piperacillin/tazobactam). 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 Oct-Dec (Q3 2017 has increased slightly and therefore it is now <i>unlikely</i> the 1% reduction target will be met.
<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

[grace.mckerron@nhs.net](mailto:grace.mckerron@nhs.net)

## ***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 3 (July to September 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, Q3 2017, (July to September 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.

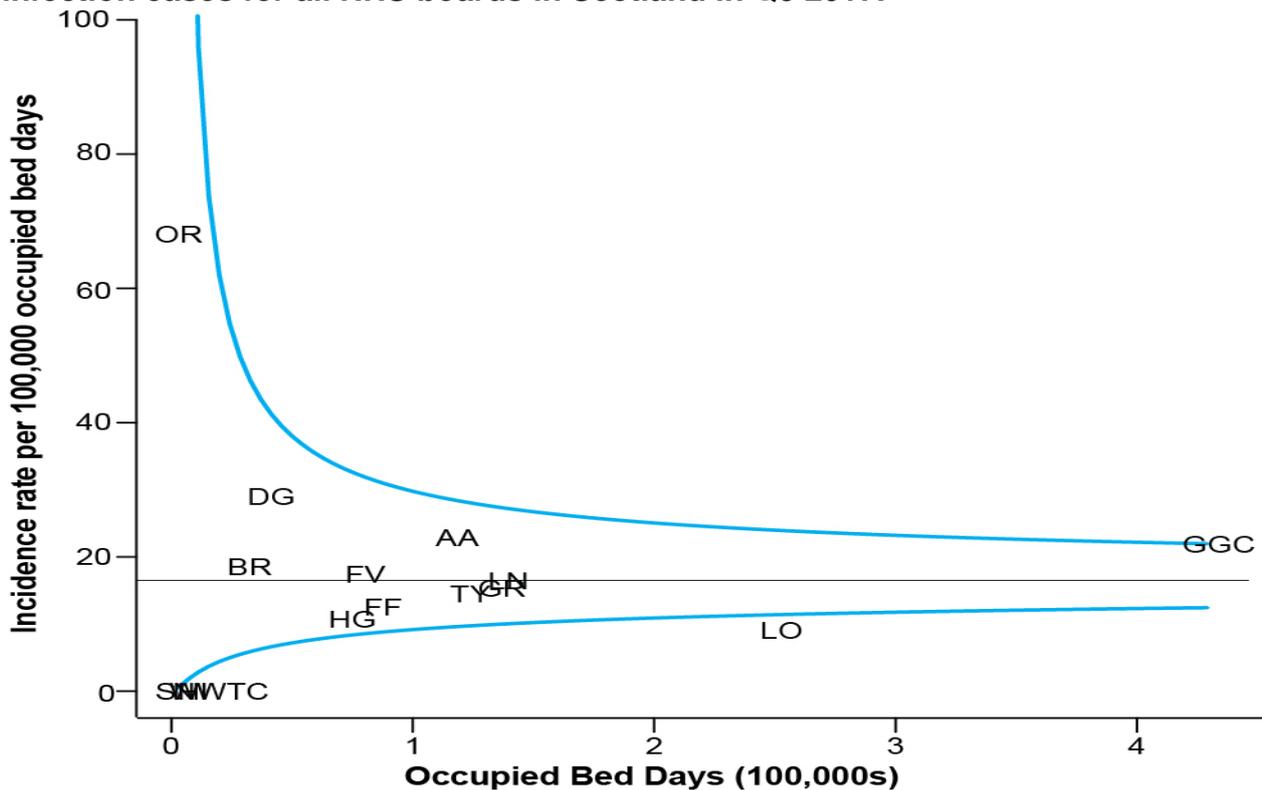
AA	Ayrshire & Arran	HG	Highland
BR	Borders	LO	Lothian
DG	Dumfries & Galloway	LN	Lanarkshire
FF	Fife	NWTC	National Waiting Times Centre
FV	Forth Valley	OR	Orkney
GGC	Greater Glasgow & Clyde	SH	Shetland
GR	Grampian	TY	Tayside
		WI	Western Isles

**CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q2 2017 (April to June 2017) compared to Q3 2017 (July to September).**

NHS Board	Q2 Cases	Q2 Bed Days	Q2 Rate	Q3 Cases	Q3 Bed Days	Q3 Rate
AA	25	121,063	20.7	27	118,431	22.8
BR	3	32,504	9.2	6	32,452	18.5
DG	6	43,510	13.8	12	41,406	29.0
FF	13	90,490	14.4	11	87,701	12.5
FV	7	84,320	8.3	14	80,291	17.4
GR	33	138,958	23.7	21	136,682	15.4
GGC	76	436,418	17.4	94	429,108	21.9
HG	4	74,844	5.3	8	74,827	10.7
LN	16	144,126	11.1	23	139,493	16.5
LO	33	256,027	12.9	23	252,661	9.1
NWTC	0	11,614	0.0	0	11,658	0.0
OR	0	3,521	0.0	2	2,936	68.1
SH	0	2,201	0.0	0	2,600	0.0
TY	12	109,040	11.0	18	123,857	14.5
WI	0	7,803	0.0	0	7,180	0.0
<b>Scotland</b>	<b>228</b>	<b>1,556,439</b>	<b>14.6</b>	<b>259</b>	<b>1,541,283</b>	<b>16.8</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 Q3 2017.**



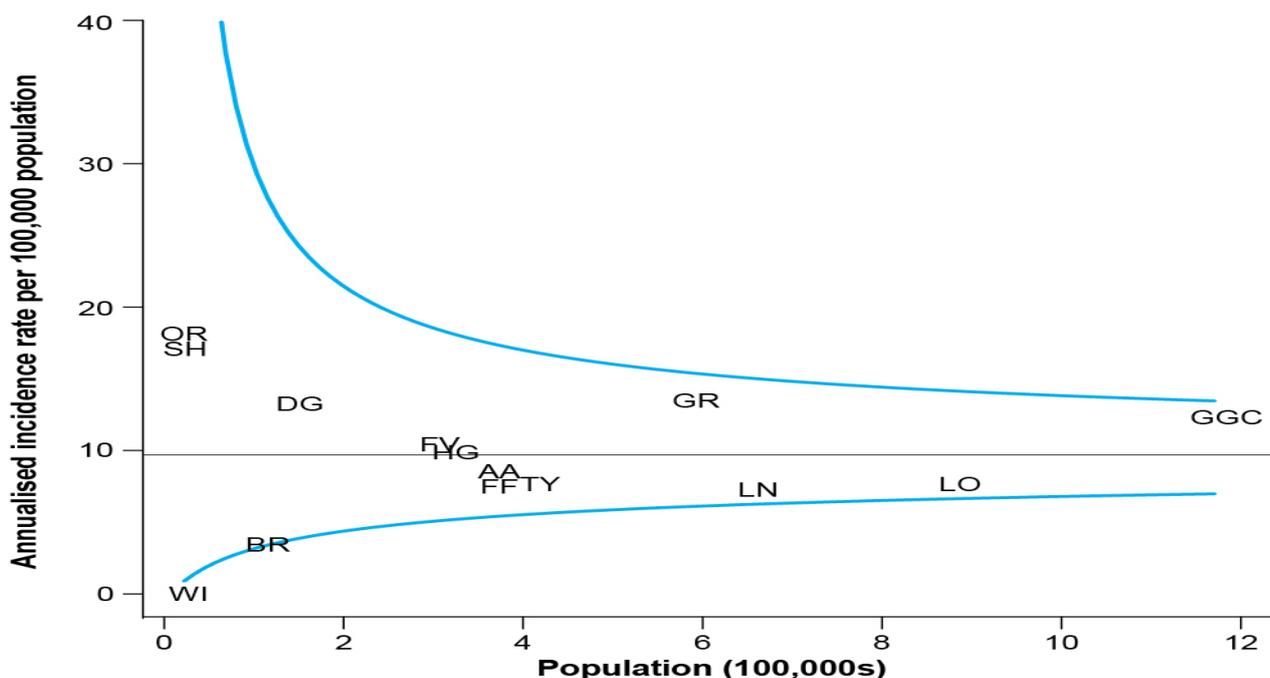
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1.
- NHS National Waiting Time Centre, NHS Shetland and NHS Western Isles overlap as do NHS Grampian, NHS Lanarkshire and NHS Tayside.

**CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q2 2017 (April to June) compared to Q2 2017 (July to September 2017).**

NHS Board	Q2 Cases	Q2 Population	Q2 Rate	Q3 Cases	Q3 Population	Q3 Rate
AA	4	370,560	4.3	8	370,560	8.6
BR	2	114,530	7.0	1	114,530	3.5
DG	13	149,520	34.9	5	149,520	13.3
FF	2	370,330	2.2	7	370,330	7.5
FV	8	304,480	10.5	8	304,480	10.4
GR	17	588,100	11.6	20	588,100	13.5
GGC	25	1,161,370	8.6	36	1,161,370	12.3
HG	8	321,900	10.0	8	321,900	9.9
LN	7	656,490	4.3	12	656,490	7.3
LO	10	880,000	4.6	17	880,000	7.7
OR	2	21,850	36.7	1	21,850	18.2
SH	0	23,200	0.0	1	23,200	17.1
TY	12	415,470	11.6	8	415,470	7.6
WI	0	26,900	0.0	0	26,900	0.0
<b>Scotland</b>	<b>110</b>	<b>5,404,700</b>	<b>8.2</b>	<b>132</b>	<b>5,404,700</b>	<b>9.7</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 Q3 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	25	17.1	(11 ,25.2)	9	6.2	(2.8 ,11.7)
Jun-17	33	23.7	(16.3,33.3)	17	11.6	(6.7 ,18.5)
Sep-17	21	15.4	(9.5 ,23.4)	20	13.5	(8.2 ,20.8)

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 3 the rate of HCAI *E coli* infections in NHS Grampian was 46.8 cases per 100,000 occupied bed days compared with cases 38.0 per 100,000 occupied bed days across NHS Scotland. The community *E coli* bacteraemia rate in NHS Grampian was 34.4 cases per 100,000 population compared with 49.7 cases per 100,000 population across NHS Scotland.

### E Coli bacteraemia rates in NHS **Scotland** Q3 (July to September 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
Sep-17	585	37.9	(34.9 ,41.1)	677	49.7	(46 ,53.5)

### E Coli bacteraemia rates in NHS **Grampian** Q3 (July to September 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
Sep-17	64	46.8	(36 ,59.7)	51	34.4	(25.6 ,45.2)

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.

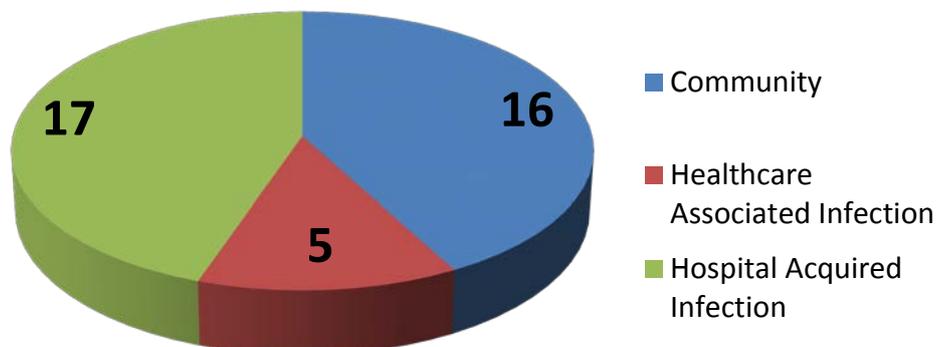
Cases are defined as:

- Hospital Acquired
- Healthcare Associated
- Community Associated

The most recent collated results for NHS Scotland demonstrate that during quarter 4, 2017 (October to December), within NHS Grampian. There were 38 cases of *Staphylococcus aureus* Bacteraemia.

Less than half of the 38 SAB cases were hospital acquired.

**Origin of SAB cases Q4 (n=38)**



Of the 17 hospital acquired cases of SAB, seven patients had the source of their SAB identified as a medical device; dialysis line and urinary catheter.

<b>Source</b>	<b>Number</b>
Devices (PICC/Midline, PVC, other, CVC non tunnelled)	7
Skin & soft tissue (ulcer)	3
Contaminant	2
Not known	4
Surgical Site Infection (organ/space)	1

Of the 5 healthcare acquired cases of SAB, one patients had the source of their SAB identified as a medical device a CVC.

<b>Source</b>	<b>Number</b>
Skin & Soft Tissue (skin break)	1
Device other	1
Nephrostomy	1
Surgical Site Infection (organ/space)	1
Not known	1

Of the 16 community acquired cases of SAB, five patients had the source of their SAB identified as skin soft tissue conditions.

<b>Source</b>	<b>Number</b>
Urinary tract infection	1
Injection site related to illicit drug use	1
Respiratory infection	2
Not known	7
Skin & Soft Tissue (cellulitis, abscess, other)	5

## National *Staphylococcus aureus* bacteraemia surveillance programme

Health Protection Scotland published their quarterly reports on the surveillance of *Staphylococcus aureus* bacteraemia (SAB) in Scotland, Q3 (July to September 2017).

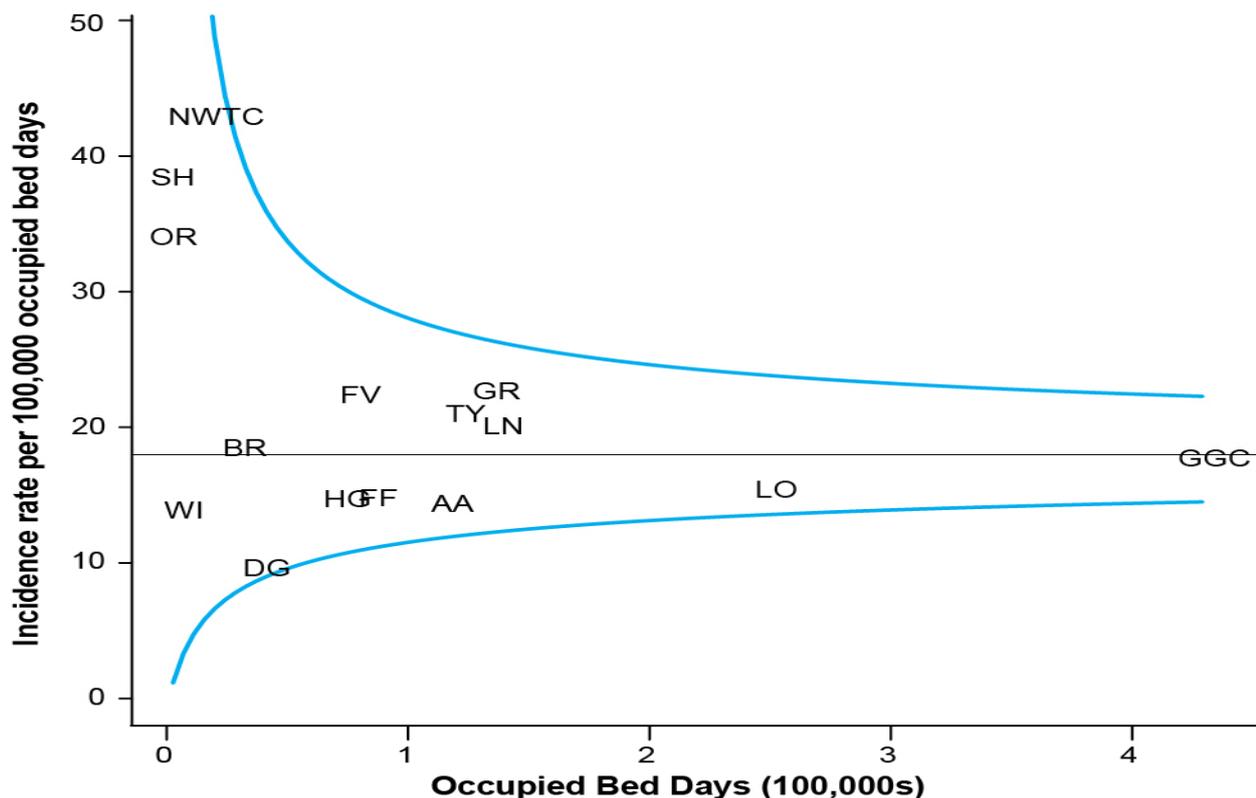
The following table and graphs demonstrate NHS Grampian's rate of SABs compared with all other Boards in Scotland.

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: Q2 2017 (April to June 2017) and Q3 2017 (July to September 2017).

NHS Board	Q2 Cases	Q2 Bed Days	Q2 Rate	Q3 Cases	Q3 Bed Days	Q3 Rate
AA	15	121,063	12.4	17	118,431	14.4
BR	6	32,504	18.5	6	32,452	18.5
DG	5	43,510	11.5	4	41,406	9.7
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HG	6	74,844	8.0	11	74,827	14.7
LN	26	144,126	18.0	28	139,493	20.1
LO	29	256,027	11.3	39	252,661	15.4
NWTC	0	11,614	0.0	5	11,658	42.9
OR	1	3,521	28.4	1	2,936	34.1
SH	0	2,201	0.0	1	2,600	38.5
TY	19	109,040	17.4	26	123,857	21.0
WI	1	7,803	12.8	1	7,180	13.9
<b>Scotland</b>	<b>248</b>	<b>1,556,439</b>	<b>15.9</b>	<b>277</b>	<b>1,541,283</b>	<b>18.0</b>

**Funnel plot of SAB incidence rates (per 100,000 TOBDs) in healthcare associated infection cases for all NHS boards in Scotland in Q3 2017.**

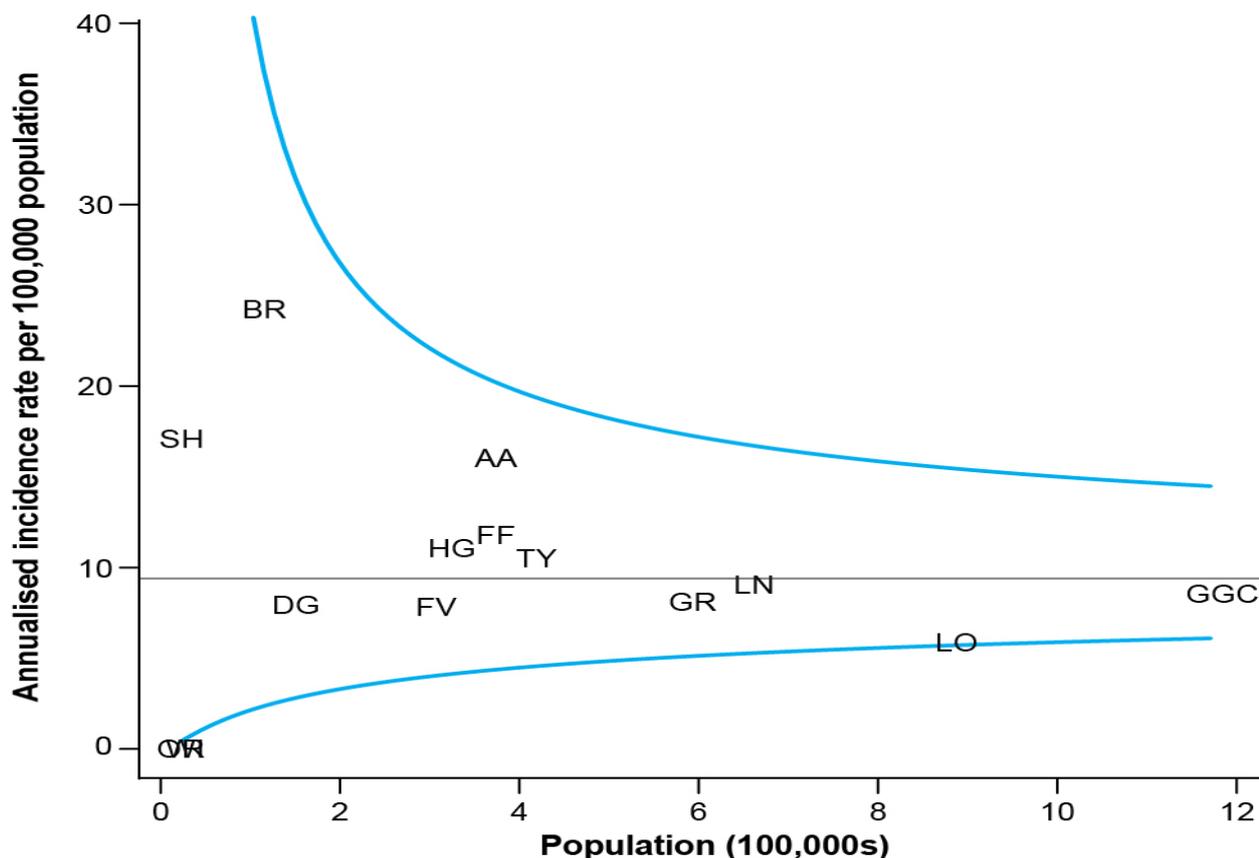


- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1.
- NHS Fife and NHS Highland overlap.

**SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q2 2017 (April to June 2017) and Q3 2017 (July to September 2017).**

NHS Board	Q2 Cases	Q2 Population	Q2 Rate	Q3 Cases	Q3 Population	Q3 Rate
AA	8	370,560	8.7	15	370,560	16.1
BR	3	114,530	10.5	7	114,530	24.2
DG	5	149,520	13.4	3	149,520	8.0
FF	16	370,330	17.3	11	370,330	11.8
FV	3	304,480	4.0	6	304,480	7.8
GR	9	588,100	6.1	12	588,100	8.1
GGC	33	1,161,370	11.4	25	1,161,370	8.5
HG	7	321,900	8.7	9	321,900	11.1
LN	10	656,490	6.1	15	656,490	9.1
LO	20	880,000	9.1	13	880,000	5.9
OR	1	21,850	18.4	0	21,850	0.0
SH	0	23,200	0.0	1	23,200	17.1
TY	10	415,470	9.7	11	415,470	10.5
WI	1	26,900	14.9	0	26,900	0.0
<b>Scotland</b>	<b>126</b>	<b>5,404,700</b>	<b>9.4</b>	<b>128</b>	<b>5,404,700</b>	<b>9.4</b>

**Funnel plot of SAB incidence rates (per 100,000 populations) in community associated infection cases for all NHS boards in Scotland 2017 in Q3 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 3 2017 (July to September 2017).

Category of Procedure	Number of operations	Number of Infections	NHS Grampian SSI rate (%)	National dataset SSI rate (%)
Caesarean section	490	8	1.6 %	1.3 %
Hip arthroplasty	252	2	0.8 %	0.4 %

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 3 (October and December 2017) within NHS Grampian was 88%.

Health Board	2016_17 Q4	2017_18 Q1	2017_18 Q2	2017_18 Q3
Grampian	91%	82%	87%	88%
Scotland	79%	85%	90%	88%

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.

3rd Quarter - October - Dec 2017	October Domestic	October Estates	November Domestic	November Estates	December Domestic	December Estates	Quarter 3 Domestic	Quarter 3 Estates
NHS Grampian Overall	94.70	96.00	94.65	95.80	94.70	95.95	94.68	95.92
Aberdeen Maternity Hospital, RACH & Outlying Areas	94.30	94.05	93.55	93.30	94.15	94.75	94.00	93.71
Aberdeen Royal Infirmary	93.60	96.10	93.80	96.00	93.95	95.95	93.78	96.02
Aberdeenshire North & Moray Community	97.70	96.40	96.85	94.95	97.20	96.45	97.25	95.93
Aberdeenshire South & Aberdeen City	98.65	98.66	95.30	98.40	96.10	99.10	96.68	98.72
Dr Grays Hospital	95.15	97.05	94.45	95.70	95.40	95.05	95.00	95.93
Royal Cornhill Hospital	93.20	92.00	94.90	95.20	94.40	96.10	94.17	94.43
Woodend Hospital	95.75	96.25	96.05	97.45	95.45	95.25	95.75	96.32

### 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 December 2017 and January 2018 there were 6 partial ward closures and 4 complete ward closures due to Norovirus. In December there was 1 ward partially closed with enteric illness symptoms and no staff affected. In January 2018 there were 5 wards partially closed and 4 wards completely closed with confirmed 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

	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018
<b>MRSA</b>	0	0	0	2	0	0	0	1	1	1	0	1
<b>MSSA</b>	17	11	10	8	9	12	15	15	11	12	12	20
<b>Total SABS</b>	17	11	10	10	9	12	15	16	12	13	12	21

### Clostridium difficile infection monthly case numbers

	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018
<b>Ages 15-64</b>	7	1	6	8	4	8	7	6	5	4	5	3
<b>Ages 65+</b>	8	6	14	11	8	8	7	6	6	6	5	6
<b>Total CDIs</b>	15	7	20	19	12	16	14	12	11	10	10	9

### Hand Hygiene Monitoring Compliance (%)

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

### Cleaning Compliance (%)

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

### Estates Monitoring Compliance (%)

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

## NHS HOSPITAL A REPORT CARD – Aberdeen Royal Infirmary

### Staphylococcus aureus bacteraemia monthly case numbers

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

### Clostridium difficile infection monthly case numbers

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

### Cleaning Compliance (%)

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

### Estates Monitoring Compliance (%)

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

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

### Staphylococcus aureus bacteraemia monthly case numbers

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

### Clostridium difficile infection monthly case numbers

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

### Cleaning Compliance (%)

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

### Estates Monitoring Compliance (%)

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

## NHS HOSPITAL C REPORT CARD – Woodend Hospital

### Staphylococcus aureus bacteraemia monthly case numbers

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

### Clostridium difficile infection monthly case numbers

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

### Cleaning Compliance (%)

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

### Estates Monitoring Compliance (%)

	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017
<b>WE Total</b>	96	98	96	96	95	96	97	94	97	96	97	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

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

### *Clostridium difficile* infection monthly case numbers

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

## NHS OUT OF HOSPITAL REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018
<b>MRSA</b>	0	0	0	1	0	0	0	0	0	1	0	0
<b>MSSA</b>	16	8	8	6	7	8	9	8	11	8	6	14
<b>Total SABS</b>	16	8	8	7	7	8	9	8	11	9	6	14

### *Clostridium difficile* infection monthly case numbers

	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018
<b>Ages 15-64</b>	4	0	4	3	4	6	6	6	4	4	5	1
<b>Ages 65+</b>	5	3	10	5	5	4	6	4	4	3	1	3
<b>Total CDIs</b>	9	3	14	8	9	10	12	10	8	7	6	4