

NHS GRAMPIAN

Healthcare Associated Infection (HAI) Bimonthly Report – July 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 January to March 2018.

The following information has been reported as:

Q1

Above National Average:

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

Below National Average:

- *E.coli* bacteraemias - for community
- *Caesarean Section Surgical Site Infection*

Year Ending March 2018

Above National Average:

- *Clostridium Difficile* infection rates - for healthcare
- *Clostridium difficile* infection rates - for community
- *Staphylococcus aureus* bacteraemias (SABs) - for healthcare

Below or Equal to National Average:

- Caesarean Section surgical site infections
- *Staphylococcus aureus* bacteraemias (SABs) - for 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 increase in incidence rates across healthcare and community associated infections in Q1. NHSG is not an outlier for Q1 but indications from Q2 data, which is yet to be formally reported by HPS, suggests NHSG will be an outlier.

- IPCT investigation undertaken – no risks identified.
- MDT meeting took place on 24.05.18 followed by teleconference between NHSG and HPS.
- Escalated locally via NHSG CRM group
- Part of continual / established NHSG surveillance process
- SBAR issued by AMT May 2018 describing increased incidence in correlation to usage of Co-amoxiclav and quinolones. SBAR available on Intranet homepage.
- CDI surveillance questionnaire being rolled out across GP practices and hospitals.
- Dr El Sakka, Infection Control Doctor, arranging CDI study day.

***E Coli* Bacteraemias –**

- Interim IC Manager, Acting Lead IC Nurse & IPCD to discuss
- Acting Lead IC Nurse to access ISD to review detail of data
- Review practices across other Boards & benchmark planned actions.
- Continue to monitor information at weekly surveillance meeting.
- Undertake review of results and ascertain specific areas of concern.

***Staphylococcus aureus* bacteraemias (SABs) –**

- First presentation made to IJBs by IPC team, looking at dissemination and use of surveillance data, further work to be done.
- To be discussed with IPCD

Hip Arthroplasty – 4 surgical site infections were reported in Q1 out 302 procedures undertaken. This correlates to an incidence rate of 1.3 versus 0.8 for the national average. NHSG remain equal to the national average for the Year ending Q1 2018.

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%.

MRSA Screening - MRSA (CRA) screening compliance for Q4 was 80% which is below the national average of 83% and well below the compliance target of 90%.

- Similar downward trend in Scottish data captured for Q4 which may be indicative of competing winter pressures.
- MRSA CRA is now to be reported / escalated via the Acute Sector Clinical Governance Group / NHSG CRM Group and relevant QI opportunities explored.

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 0.24 or less per 1,000 acute occupied bed days (AOBD)
 - *Clostridium difficile* infections (CDI) in patients aged 15 and over is 32 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	Local Delivery Plan Standards	Jan- Mar 2018, HPS	13.7	21.1	Amber
	Community Associated Infection	32 cases per 100,000 TOBD		7.3	9.7	Amber
<i>E coli</i> Bacteraemia	Healthcare Associated Infection	No target (rate per 100,000 bed days)	Jan- Mar 2018, HPS	33.1	33.8	Amber
	Community Associated Infection	No target (annualised rate per 100,000 population)		43.1	36.7	Green
SABs	Healthcare & Community Associated Infection	Local Delivery Plan Standards 0.24 or less cases per 1,000 AOB	Jan – Mar 2018, HPS	0.33	0.34	Amber
Surgical Site Infections (SSIs)	Caesarean Section	n/a	Jan – Mar 2018 HPS	1.6%	0.8%	Green
	Hip Arthroplasty	n/a	Jan – Mar 2018 HPS	0.8%	1.3%	Amber
MRSA (CRA) screening		HPS 90%	Apr – Jun 2018, NHSG	-	-	-
Hand Hygiene	All clinical areas	SGHD 90%	Apr – Jun 2018, NHSG	N/A	98%	Green
Cleaning		HFS 90%	Apr – Jun 2018	N/A	94%	Green
Estates		HFS 90%	Apr – Jun 2018, NHSG	N/A	95%	Green

RAG Status Ready Reckoner

Above upper control limit
 Below upper control limit but above National average
 Below National average
 Below lower control limit

Red
Amber
Green
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 Surgery	DG Surgical
Report Period		Not available	May-June 2018	May-June 2018	May-June 2018	May-June 2018
Sample size			42	52	16	10
Indication documented	95%		100%	87%	31% (5/16)	100%
Policy compliant*	95%		93%	78%	80% (4/5)	80%
Oral antibiotics: duration/stop date documented	75%		83%	71%	33% (2/6)	100%
IV antibiotics: documented clinical review within 72h [‡]	75%		100%	75%	75% (3/4)	100%
All doses administered	95%		96%	100%	90%	86%

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

[‡]New denominator – patients with no review but on IV antibiotics for less than 72 hours excluded

National Quality Indicator Primary Care Antimicrobial Prescribing

According to the latest report from PRISMS for Q4 1718 for the national therapeutic indicator: antibiotics/1000 patients/day, 76% (56/74) practices either met the target or shifted towards the target. Unfortunately this PRISMS reports have not been updated with the new target based on a baseline of Jan-Mar 2016 but it still reporting based on Jan-Mar 2013 baseline. There was a slight increase in both the number of antibiotic items dispensed and the number of 4C antibiotics dispensed in Jan-Mar 2018 compared to Jan-Mar 2017. This is likely to be explained by the high seasonal influenza rates seen in this period which often correspond with higher rates of antibiotic prescribing as some patients may develop secondary bacterial respiratory tract infections.

Antimicrobial Update

National Quality Indicator – Hospital Antimicrobial Prescribing – Part 1

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

Aberdeen Royal Infirmary	
Total antibiotic	ARI did not meet this target, total antibiotic usage was higher in every quarter compared to 2017, which was higher than in 2015. Total antibiotic usage was higher in Q1 2018 than any quarter in 2017 – probably due to the high seasonal influenza rates with corresponding increase in secondary bacterial infections.
Carbapenem	Target not met for 2017 but Q1 2018 usage is back to below target baseline.
Piperacillin-tazobactam	Target met for 2017 and Q1 2018.

Dr Gray's	
Total antibiotic	Dr Gray's did not meet this target for 2017 due to a peak in usage in Q4 2017 but in Q1 2018 total antibiotic usage was back to the target baseline.
Carbapenem	Target met for 2017 and Q1 2018.
Piperacillin-tazobactam	Target met for 2017 and Q1 2018.

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

Caroline Hiscox
Acting Director of Nursing, Midwifery
and Allied Health Professions (NMAHP)
carolinehiscox@nhs.net

Contact for further information

Grace Mckerron
Interim Infection Prevention and Control Manager
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 1 (January to March 2018) 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, Q1 2018 (January to March 2018).

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.

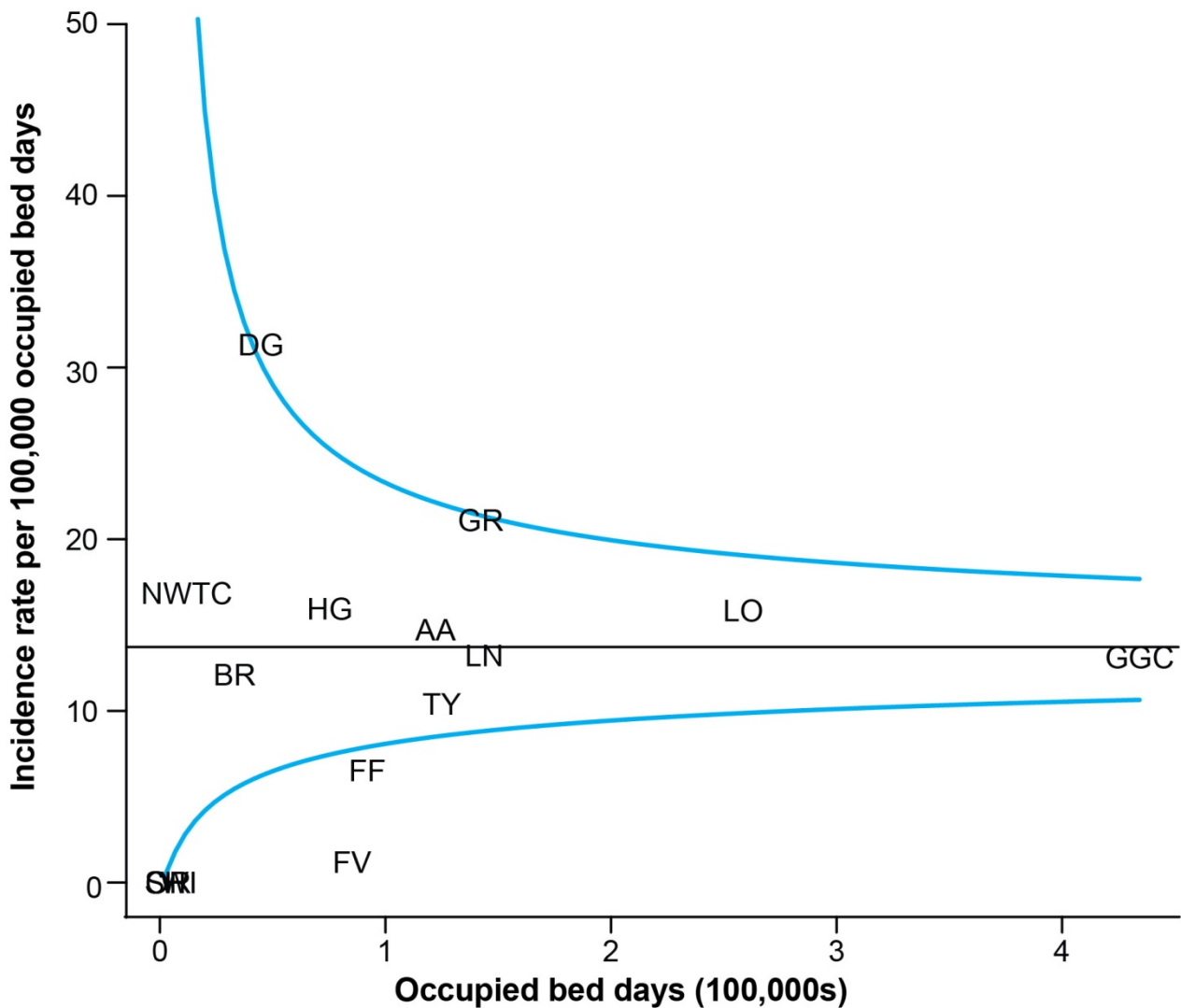
AA	Ayrshire & Arran	HG	Highland
BR	Borders	LO	Lothian
DG	Dumfries & Galloway	LN	Lanarkshire
FF	Fife	NWTC	National Waiting Times Centre
FV	Forth Valley	OR	Orkney
GGC	Greater Glasgow & Clyde	SH	Shetland
GR	Grampian	TY	Tayside
		WI	Western Isles

CDI cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q4 2017 (October to December 2017) compared to Q1 2018 (January to March 2018)

NHS Board	Q4 Cases	Q4 Bed Days	Q4 Rate	Q1 Cases	Q1 Bed Days	Q1 Rate
AA	18	123,003	14.6	18	122,158	14.7
BR	6	32,440	18.5	4	32,986	12.1
DG	11	42,845	25.7	14	44,662	31.3
FF	11	89,968	12.2	6	91,836	6.5
FV	3	86,859	3.5	1	85,107	1.2
GR	22	137,146	16.0	30	142,190	21.1
GGC	74	433,674	17.1	57	434,295	13.1
HG	14	74,412	18.8	12	75,230	16.0
LN	28	143,304	19.5	19	143,777	13.2
LO	32	256,805	12.5	41	258,580	15.9
NWTC	0	12,434	0.0	2	11,871	16.8
OR	0	3,819	0.0	0	3,683	0.0
SH	1	2,589	38.6	0	2,410	0.0
TY	10	126,195	7.9	13	124,965	10.4
WI	1	7,572	13.2	0	8,190	0.0
Scotland	231	1,573,065	14.7	217	1,581,940	13.7

- 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
- Figures include any updates received following the last publication

Funnel plot of CDI incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS Boards in Scotland in Q1 2018



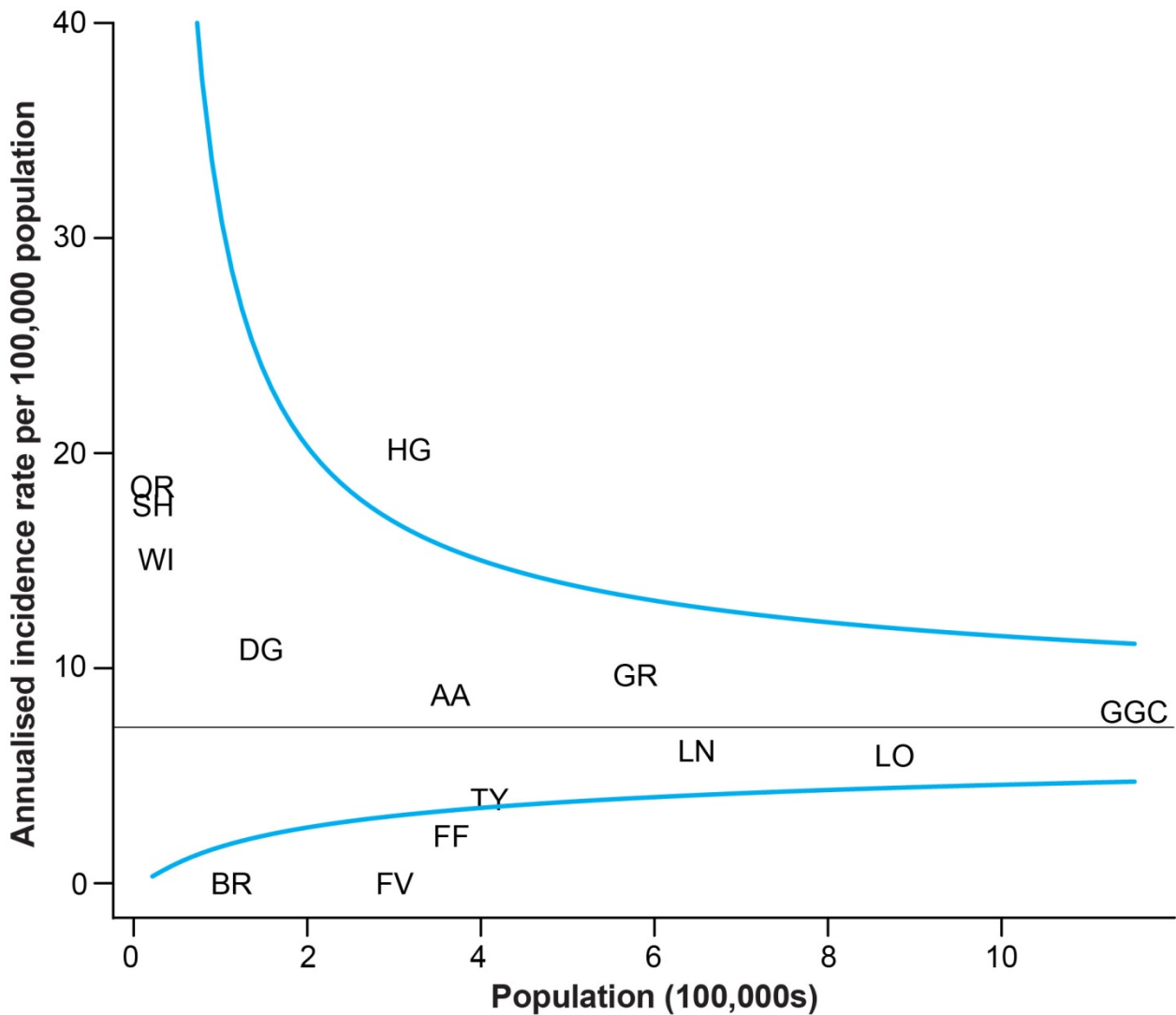
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1
- NHS Orkney, NHS Shetlands and NHS Western Isles overlap

CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q4 2017 (October to December 2017) compared to Q1 2018 (January to March 2018)

NHS Board	Q4 Cases	Q4 Population	Q4 Rate	Q1 Cases	Q1 Population	Q1 Rate
AA	6	370,410	6.4	8	370,410	8.8
BR	1	115,020	3.4	0	115,020	0.0
DG	1	149,200	2.7	4	149,200	10.9
FF	4	371,410	4.3	2	371,410	2.2
FV	5	305,580	6.5	0	305,580	0.0
GR	7	586,380	4.7	14	586,380	9.7
GGC	17	1,169,110	5.8	23	1,169,110	8.0
HG	8	321,990	9.9	16	321,990	20.2
LN	9	658,130	5.4	10	658,130	6.2
LO	17	889,450	7.6	13	889,450	5.9
OR	0	22,000	0.0	1	22,000	18.4
SH	0	23,080	0.0	1	23,080	17.6
TY	2	416,090	1.9	4	416,090	3.9
WI	1	26,950	14.7	1	26,950	15.0
Scotland	78	5,424,800	5.7	97	5,424,800	7.3

- 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 mid-year population estimates
- Figures include any updates received following the last publication

Funnel plot of CDI incidence rates (per 100,000 population) in community associated infection cases for all NHS Boards in Scotland in Q1 2018



- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS mid-year population estimates.

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)
Mar-18	30	21.1	(14.2 ,30.1)	14	9.7	(5.2 ,16.2)

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 1 the rate of HCAI *E coli* infections in NHS Grampian was 33.8 cases per 100,000 occupied bed days compared with cases 33.1 per 100,000 occupied bed days across NHS Scotland. The community *E coli* bacteraemia rate in NHS Grampian was 36.7 cases per 100,000 population compared with 43.1 cases per 100,000 population across NHS Scotland.

E Coli bacteraemia rates in NHS Scotland Q1 (January to March 2018)

	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
Mar-18	524	33.1	(30.3 ,36)	577	43.1	(39.6, 46.8)

E Coli bacteraemia rates in NHS Grampian Q1 (January to March 2018)

	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
Mar-18	48	33.8	(24.8, 44.7)	53	36.7	(27.4, 47.9)

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>

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.

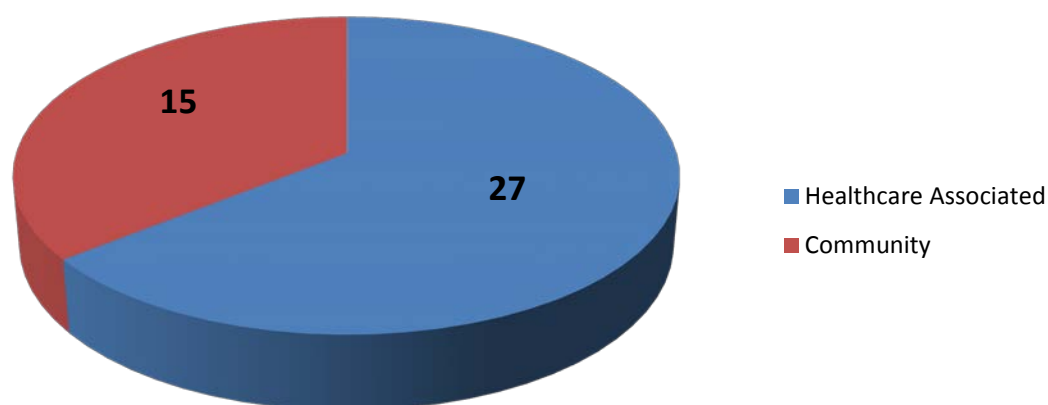
Cases are defined as:

- Healthcare Associated
- Community Associated

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

More than half of the 42 SAB cases were healthcare associated.

Origin of SAB cases Q1



Of the 27 healthcare associated cases of SAB, 7 patients had the source of their SAB identified as a medical device; CVC tunnelled, PVC, PICC/midline. 8 patients had the source of their SAB identified as skin & soft tissue conditions.

Source	Number
Devices (PICC/Midline, PVC, CVC non tunnelled)	7
Skin & soft tissue (ulcer, pressure ulcer, skin break, other)	8
Surgical Site Infection	2
Respiratory infection	3
Contaminant	3
Other: catheterisation	2
Not known	2

Of the 15 community acquired cases of SAB, 5 patients had the source of their SAB identified as skin soft tissue conditions.

Source	Number
Skin & Soft Tissue (cellulitis, abscess, eczema, skin break)	5
Respiratory infection	4
Not known	6

National *Staphylococcus aureus* bacteraemia surveillance programme

Health Protection Scotland published their quarterly reports on the surveillance of *Staphylococcus aureus* bacteraemia (SAB) in Scotland, Q1 2018 (January to March 2018).

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

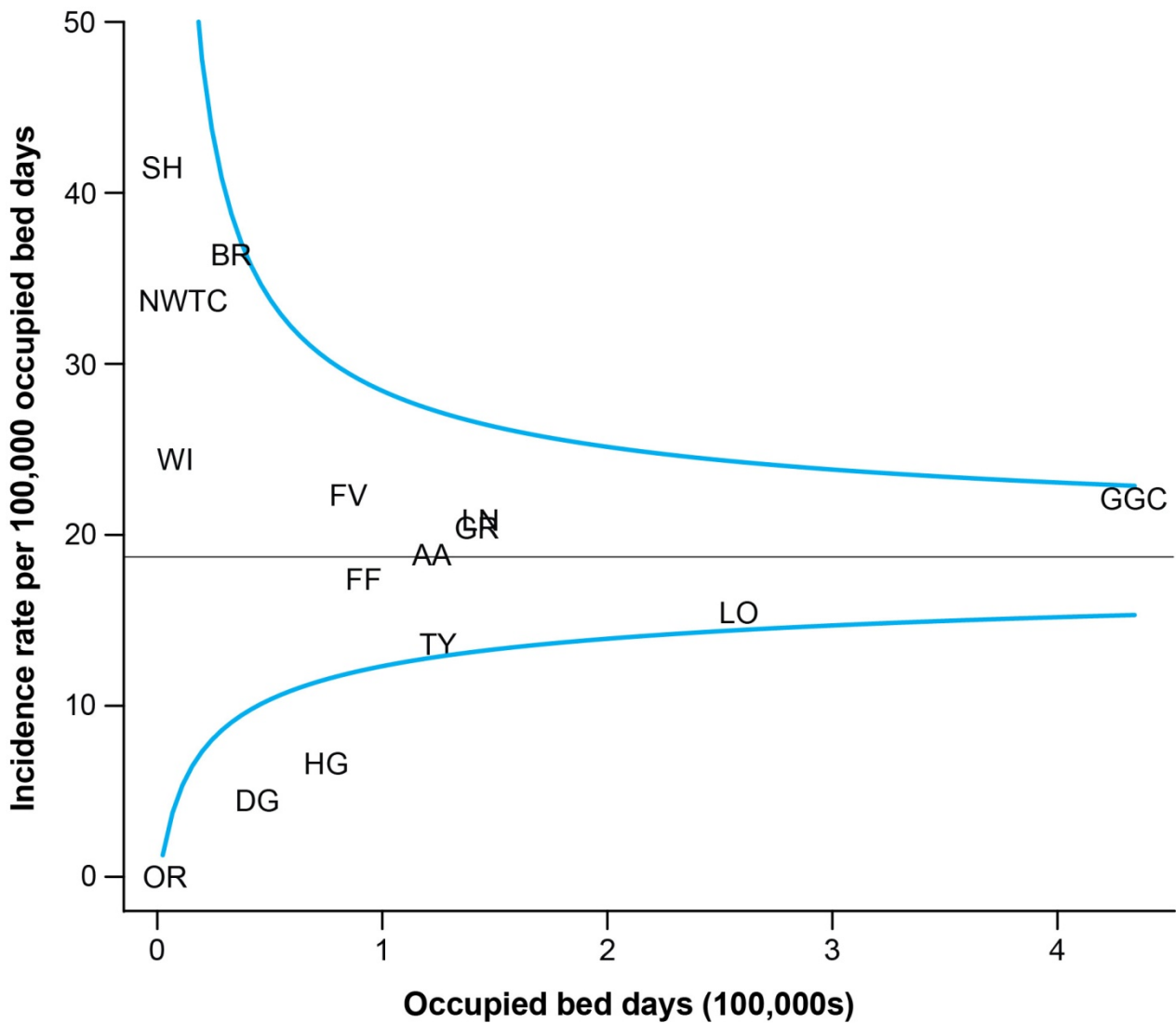
The rate of SABs in NHS Grampian in this quarter remains below the national average in Scotland and similar to that in NHS Tayside.

SAB cases and incidence rates (per 100,000 TOBDs) for healthcare associated infection cases: Q4 2017 (October to December 2017) and Q1 2018 (January to March 2018)

NHS Board	Q4 Cases	Q4 Bed Days	Q4 Rate	Q1 Cases	Q1 Bed Days	Q1 Rate
AA	14	123,003	11.4	23	122,158	18.8
BR	4	32,440	12.3	12	32,986	36.4
DG	3	42,845	7.0	2	44,662	4.5
FF	11	89,968	12.2	16	91,836	17.4
FV	16	86,859	18.4	19	85,107	22.3
GR	22	137,146	16.0	29	142,190	20.4
GGC	88	433,674	20.3	96	434,295	22.1
HG	6	74,412	8.1	5	75,230	6.6
LN	30	143,304	20.9	30	143,777	20.9
LO	39	256,805	15.2	40	258,580	15.5
NWTC	3	12,434	24.1	4	11,871	33.7
OR	0	3,819	0.0	0	3,683	0.0
SH	1	2,589	38.6	1	2,410	41.5
TY	23	126,195	18.2	17	124,965	13.6
WI	2	7,572	26.4	2	8,190	24.4
Scotland	262	1,573,065	16.7	296	1,581,940	18.7

- An arrow denotes statistically significant change
- Note: Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1
- Figures include any updates received following the last publication

Funnel plot of SAB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS Boards in Scotland in Q1 2018



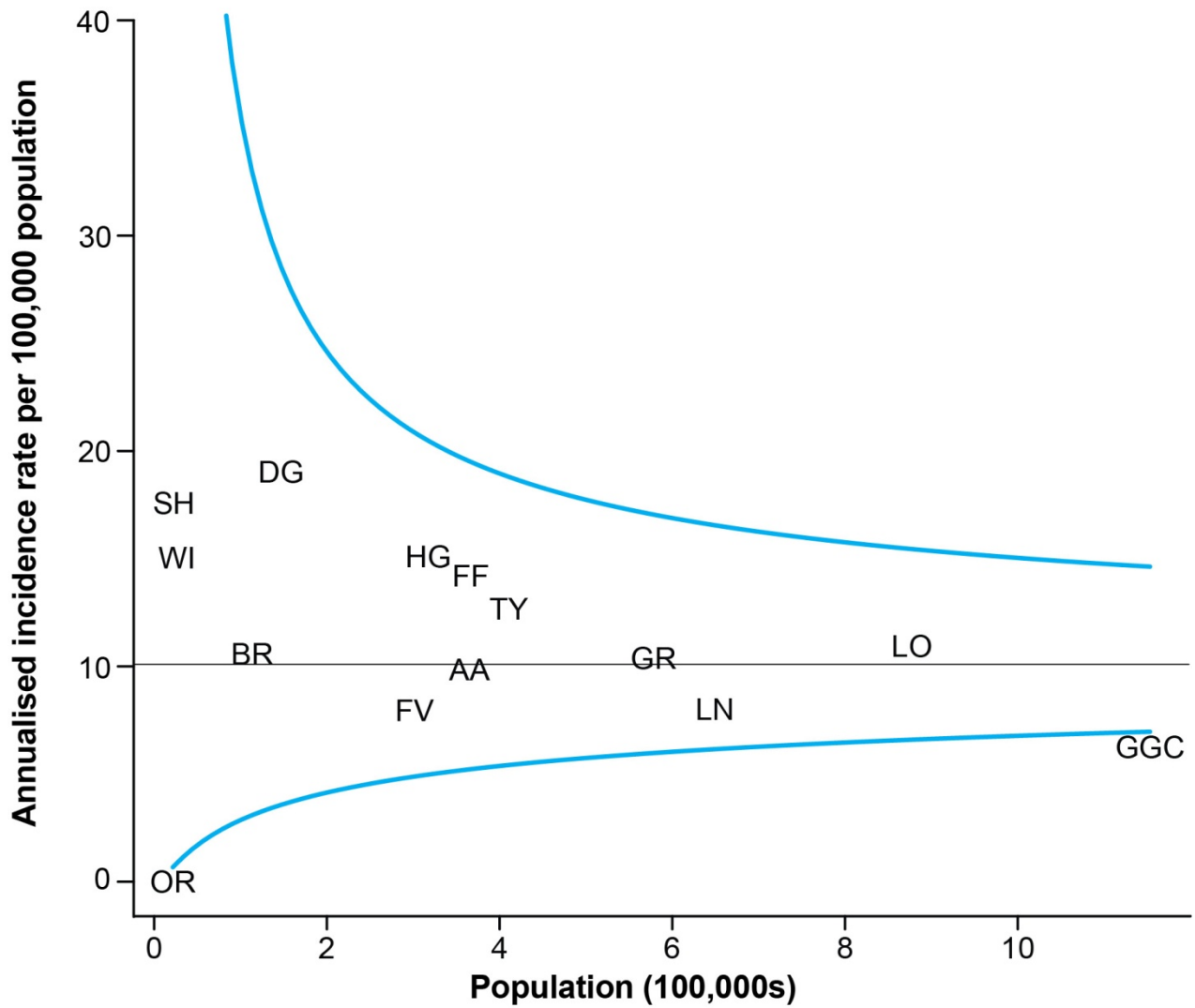
- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & Total occupied bed days: Information Services Division ISD(S)1
- NHS Grampian and NHS Lanarkshire overlap

SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q4 2017 (October to December 2017) and Q1 2018 (January to March 2018)

NHS Board	Q4 Cases	Q4 Population	Q4 Rate	Q1 Cases	Q1 Population	Q1 Rate
AA	6	370,410	6.4	9	370,410	9.9
BR	2	115,020	6.9	3	115,020	10.6
DG	6	149,200	16.0	7	149,200	19.0
FF	13	371,410	13.9	13	371,410	14.2
FV	5	305,580	6.5	6	305,580	8.0
GR	17	586,380	11.5	15	586,380	10.4
GGC	28	1,169,110	9.5	18	1,169,110	6.2
HG	2	321,990	2.5	12	321,990	15.1
LN	10	658,130	6.0	13	658,130	8.0
LO	17	889,450	7.6	24	889,450	10.9
OR	0	22,000	0.0	0	22,000	0.0
SH	0	23,080	0.0	1	23,080	17.6
TY	25	416,090	23.8	13	416,090	12.7
WI	1	26,950	14.7	1	26,950	15.0
Scotland	132	5,424,800	9.7	135	5,424,800	10.1

- 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 mid-year population estimates
- Figures include any updates received following the last publication

Funnel plot of SAB incidence rates (per 100,000 population) in community associated infection cases for all NHS Boards in Scotland in Q1 2018



- Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS mid-year population estimates

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 data: Quarter 1 2018 (January to March 2018).

Category of Procedure	Number of operations	Number of Infections	NHS Grampian SSI rate (%)	National dataset SSI rate (%)
Caesarean section	394	3	0.8 %	1.6 %
Hip arthroplasty	302	4	1.3 %	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 1 (April to June 2018) within NHS Grampian was 86%.

Health Board	2017_18 Q2	2017_18 Q3	2017_18 Q4	2018_19 Q1
Grampian	87%	88%	80%	86%
Scotland	90%	88%	83%	84%

Red indicates a decrease from the previous quarter; **green** indicates an increase; black indicates no change.

NB this does not indicate statistically significant change.

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.

<u>1st Quarter April - June 2018</u>	<u>April Domestic</u>	<u>April Estates</u>	<u>May Domestic</u>	<u>May Estates</u>	<u>June Domestic</u>	<u>June Estates</u>	<u>Quarter 1 Domestic</u>	<u>Quarter 1 Estates</u>
NHS Grampian Overall	94.25	95.15	94.30	94.55	93.65	95.30	94.06	95.00
Aberdeen Maternity Hospital, RACH & Outlying Areas	94.65	91.45	93.95	92.05	94.25	94.10	94.28	92.53
Aberdeen Royal Infirmary	93.40	96.70	93.30	95.95	93.50	95.50	93.20	96.05
Aberdeenshire North & Moray Community	97.55	95.90	96.20	95.15	94.40	97.30	96.05	96.10
Aberdeenshire South & Aberdeen City	97.30	97.65	95.90	97.55	94.50	98.40	95.90	97.86
Dr Grays Hospital	94.10	93.65	94.00	91.95	92.65	93.20	93.58	92.93
Royal Cornhill Hospital	95.10	96.30	95.70	95.50	89.50	96.70	93.43	96.16
Woodend Hospital	94.05	94.65	94.65	94.30	94.35	95.80	94.35	94.91

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 April 2018 and May 2018 there were 2 partial ward closures and 3 complete ward closures due to Norovirus and enteric illness symptoms. In April 2018 there were 0 wards partially closed and 0 wards completely closed with Norovirus and enteric illness symptoms and 0 staff affected. In May 2018 there were 2 wards partially closed and 3 wards completely closed with Norovirus and enteric illness symptoms and 6 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/publications-/guidance-publications/?keywords=monitoring+framework§ion=&category=&month=&year=&show=10>

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

	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018
MRSA	0	0	0	2	1	1	0	1	0	0	2	0
MSSA	9	12	15	14	11	12	12	20	10	12	13	9
Total SABS	9	12	15	16	12	13	12	21	10	12	15	9

Clostridium difficile infection monthly case numbers

	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018
Ages 15-64	4	8	7	6	5	4	5	3	4	5	11	20
Ages 65+	8	8	7	5	6	6	5	6	9	17	8	18
Total CDIs	12	16	14	11	11	10	10	9	13	22	19	38

Hand Hygiene Monitoring Compliance (%)

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

Cleaning Compliance (%)

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

Estates Monitoring Compliance (%)

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

NHS HOSPITAL A REPORT CARD – Aberdeen Royal Infirmary

Staphylococcus aureus bacteraemia monthly case numbers

	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018
MRSA	0	0	0	2	1	0	0	1	0	0	0	0
MSSA	1	2	4	3	0	4	4	4	4	2	4	1
Total SABS	1	2	4	5	1	4	4	5	0	2	4	1

Clostridium difficile infection monthly case numbers

	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018
Ages 15-64	0	2	0	0	1	0	0	1	2	0	5	4
Ages 65+	3	1	1	0	1	1	2	2	0	6	5	4
Total CDIs	3	3	1	0	2	1	2	3	2	6	10	8

Cleaning Compliance (%)

	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018
ARI Total	92	94	94	94	94	94	94	94	94	95	93	93

Estates Monitoring Compliance (%)

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

NHS HOSPITAL B REPORT CARD – Dr Gray’s Hospital

Staphylococcus aureus bacteraemia monthly case numbers

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

Clostridium difficile infection monthly case numbers

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

Cleaning Compliance (%)

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

Estates Monitoring Compliance (%)

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

NHS HOSPITAL C REPORT CARD – Woodend Hospital

Staphylococcus aureus bacteraemia monthly case numbers

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

Clostridium difficile infection monthly case numbers

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

Cleaning Compliance (%)

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

Estates Monitoring Compliance (%)

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

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

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

Clostridium difficile infection monthly case numbers

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

NHS OUT OF HOSPITAL REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

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

Clostridium difficile infection monthly case numbers

	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018
Ages 15-64	4	6	6	6	4	4	5	1	2	4	5	15
Ages 65+	5	4	6	4	4	3	1	3	8	5	2	14
Total CDIs	9	10	12	10	8	7	6	4	10	9	7	29