

NHS GRAMPIAN

Healthcare Associated Infection (HAI) Bimonthly Report – November 2017

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 April to June 2017. The following information has been reported as:

Below National Average:

- *Staphylococcus aureus* bacteraemias - SABs
- *E.coli* bacteraemias
- Hip Arthroplasty surgical site infection

Above National Average:

- Caesarean Section surgical site infections
- *Clostridium difficile* infection rates

Actions:

C Sections – there has been work undertaken to better understand the rise in infection rates within this group and the main cause identified has been due to an increase in the numbers of C Sections undertaken during this period. In addition, 64% of woman who underwent a C Section during this period and acquired an infection, had a BMI of 30 and above, this is a known risk factor. The IPC team continues to monitor trends on a monthly basis.

C. difficile – There has been no single identifiable cause for the 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. This continues to be a priority for the IPC team.

In addition, **MRSA** screening is 87% with a target of 90%. The IPC team need to revisit this compliance rate and review educational requirements. NHSG have consistently been above the national average until Quarter 2, 2017.

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
SABs	Healthcare Associated Infection	Local Delivery Plan Standards 24 cases per 100,000 AOB	Apr - Jun 2017, HPS	16	14.4	Green
	Community Associated Infection			9.4	6.1	Green
CDIs	Healthcare Associated Infection	Local Delivery Plan Standards 32 cases per 100,000 TOB	Apr - Jun 2017, HPS	14.7	23.7	Red
	Community Associated Infection			8.3	10.9	Red
<i>E coli</i> Bacteraemia	Healthcare Associated Infection	No target (rate per 100,000 bed days)	Apr - Jun 2017, HPS	34.4	31.7	Green
	Community Associated Infection	No target (annualised rate per 100,000 population)		49.2	34.8	Green
MRSA (CRA) screening		HPS 90%	Apr - Jun 2017, HPS	85%	87%	Amber*
Hand Hygiene	All clinical areas	SGHD 90%	Apr - Jun 2017, NHSG	N/A	98%	Green
Cleaning		HFS 90%	Jul - Sep 2017	N/A	95%	Green
Estates		HFS 90%	Jul - Sep 2017	N/A	96%	Green
Surgical Site Infections (SSIs)	Caesarean Section	n/a	Apr - Jun 2017, HPS	1.2%	1.7%	Amber
	Hip Arthroplasty	n/a	Apr - Jun 2017, HPS	0.7%	0%	Green

*please note status changed locally to amber although reported green from HPS

National Quality Indicator – Hospital Antimicrobial Prescribing-

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

	SAPG	National Average	ARI Medical 110, 105		DG Medical Ward 7	ARI Surgical 216/217, General Surgery		DG Surgical
Report Period			Jul-Sep	Oct	Jul-Sep	Jul-Sep	Oct	Jul-Sep
Sample size			26	24	22	26	10	11
Indication documented	95%		88%	83%	95%	61%	40%	73%
Policy compliant*	95%		91%	90%	91%	91%	100%	75%
Oral antibiotics duration/stop date documented	50% Q1&2 75% Q3&4		68%	85%	80%	92%	75%	100%
IV antibiotics: documented clinical review within 72h	50% Q1&2 75% Q3&4		85%	64%	67%	69%	17%	100%
All doses administrated	95%		96%	96%	100%	94%	100%	91%

* 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.

	SAPG Audit Target	Apr-June 2017 (PRISMS)
Total antibiotic prescribing (primary care)	50% GP practices at or moved towards target	95%

Q1 data for 2017/18 (Apr-Jun17) shows a figure of 95% (70/74) practices have either met the target or achieved an acceptable shift within this time period compared to Jan-Mar13 but as achievement of target is assessed in Q4 (Jan-Mar 18), the Q1 data does not necessarily predict the likelihood of meeting the target in Q4 (Antibiotic prescribing is always lower in Q1 compared to Q4 due to seasonal variation). Q2 data is not available until end of November.

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

Contact for further information

Grace Mckerron
Interim Infection Prevention and Control
Manager
grace.mckerron@nhs.net

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.

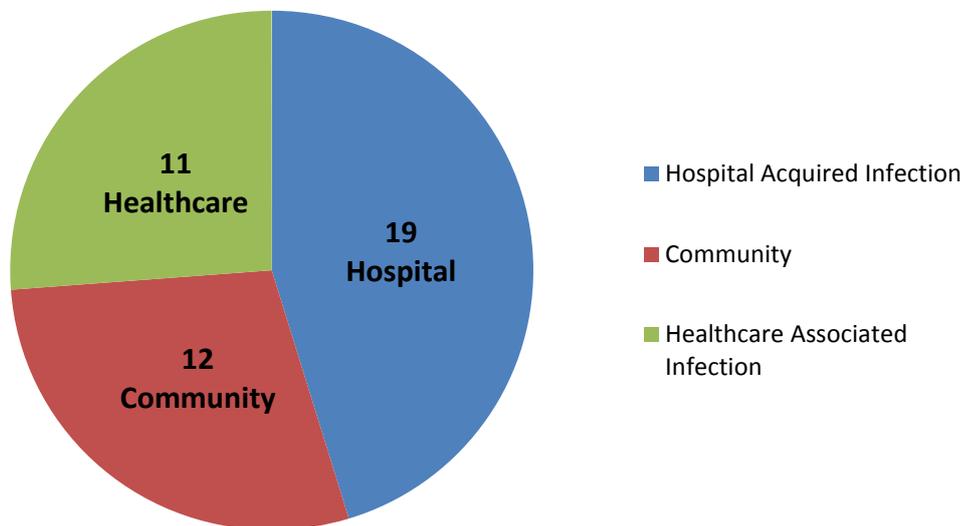
Cases are defined as:

- Hospital Acquired
- Healthcare Associated
- Community Associated

The most recent collated results for NHS Scotland demonstrate that during quarter 3, 2017 (July to September), 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 Q3 (n=42)



Of the 19 hospital acquired cases of SAB, two patients had the source of their SAB identified as a medical device; dialysis line and urinary catheter.

Source	Number
Devices (dialysis line tunnelled, urinary catheter)	2
Skin & soft tissue (pressure ulcer, skin break, cellulitis, ulcer, eczema)	7
Contaminant	1
Respiratory infection	1
Not known	6
Other(parotitis)	1
Surgical Site Infection (deep)	1

Of the 11 healthcare acquired cases of SAB, two patients had the source of their SAB identified as a medical device a CVC.

Source	Number
Skin & Soft Tissue (pressure ulcer, skin break, ulcer, cellulitis, eczema)	6
Device CVC tunnelled	2
Respiratory infection	1
Surgical Site Infection (deep)	1
Other (traumatic catheterisation)	1

Of the 12 community acquired cases of SAB, five patients had the source of their SAB identified as skin soft tissue conditions.

Source	Number
Not known	7
Skin & Soft Tissue (pressure ulcer, skin break, cellulitis, abscess)	5

National *Staphylococcus aureus* bacteraemia surveillance programme

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

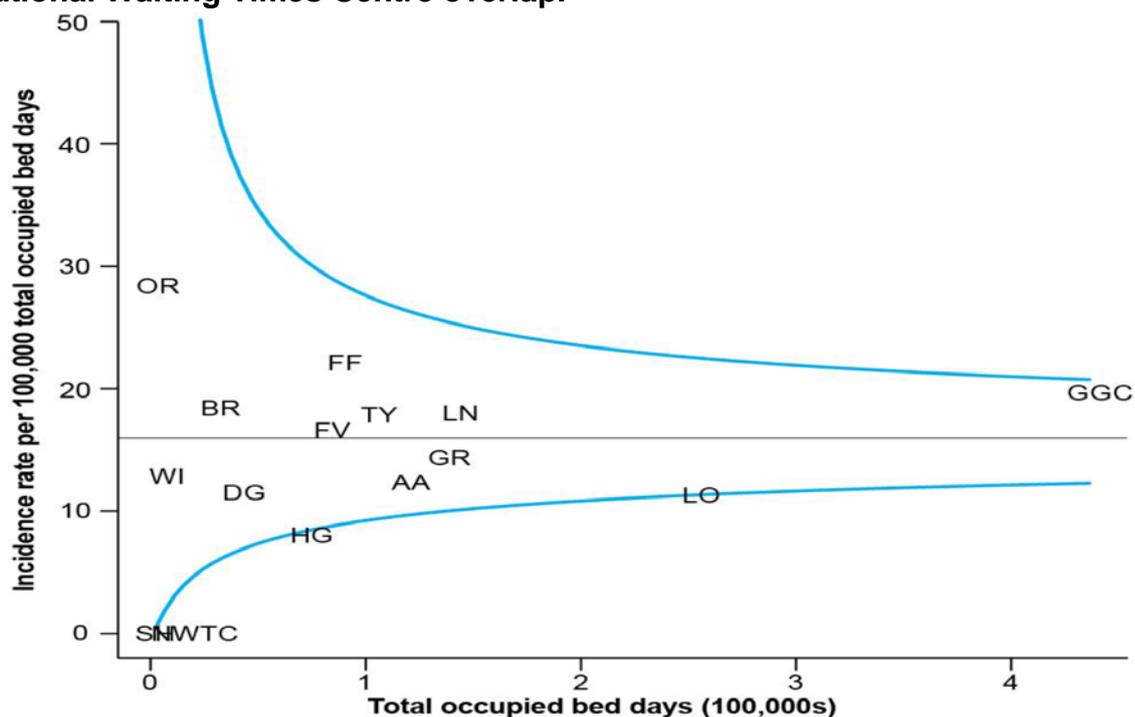
The following table and graphs demonstrate NHS Grampian's rate of SABs compared with all other Boards in Scotland.

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: Q1 2017 (January to March 2017) and Q2 2017 (April to June 2017).

NHS Board	Q1 2017			Q2 2017		
	Cases	Bed Days	Rate	Cases	Bed Days	Rate
AA	18	119,981	15.0	15	121,063	12.4
BR	4	33,461	12.0	6	32,504	18.5
DG	6	43,221	13.9	5	43,510	11.5
FF	13	94,451	13.8	20	90,490	22.1
FV	21	85,603	24.5	14	84,320	16.6
GR	20	145,994	13.7	20	138,958	14.4
GGC	84	442,470	19.0	86	436,418	19.7
HG	6	78,104	7.7	6	74,844	8.0
LN	35	147,866	23.7	26	144,126	18.0
LO	28	259,482	10.8	29	256,027	11.3
NWTC	4	11,569	34.6	0	11,614	0.0
OR	0	3,608	0.0	1	3,521	28.4
SH	1	2,383	42.0	0	2,201	0.0
TY	18	106,222	16.9	19	106,293	17.9
WI	1	8,557	11.7	1	7,805	12.8
Scotland	259	1,582,972	16.4	248	1,553,694	16.0

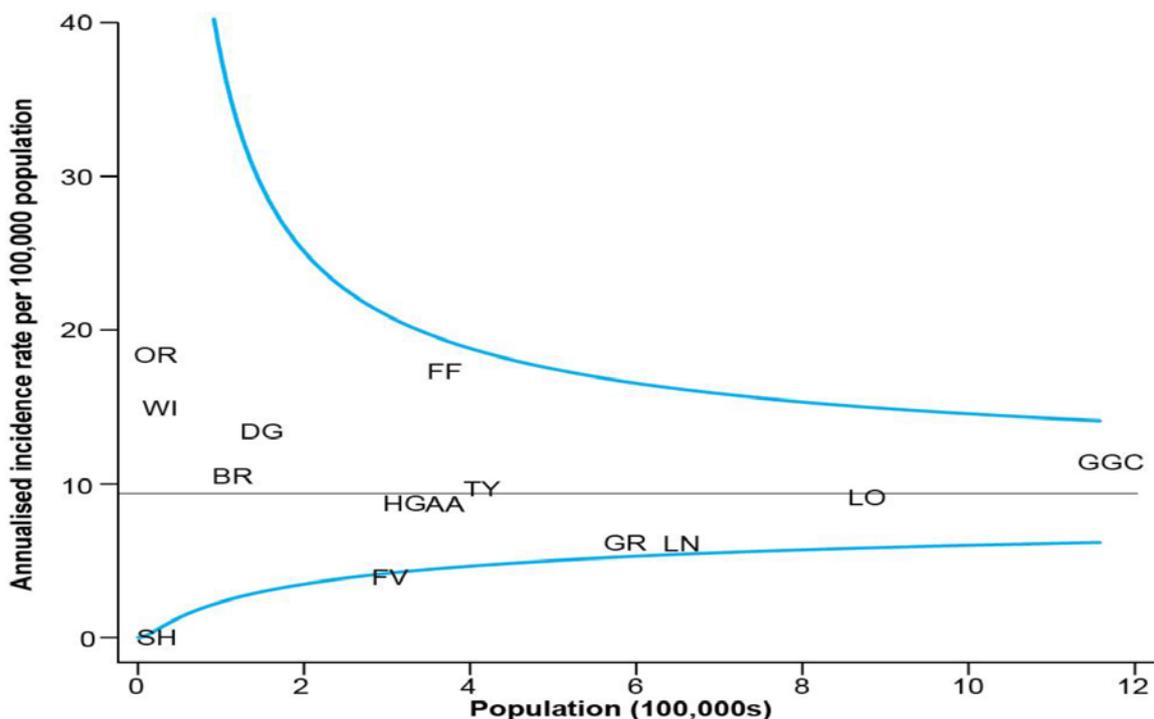
Funnel plot of SAB incidence rates (per 100,000 TOBDs) in healthcare associated infection cases for all NHS boards in Scotland in Q2 2017. NHS Shetland and National Waiting Times Centre overlap.



SAB cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2017 (January to March 2017) and Q2 2017 (April to June 2017).

NHS Board	Q1 2017			Q2 2017		
	Cases	Population	Rate*	Cases	Population	Rate*
AA	6	370,560	6.6	8	370,560	8.7
BR	2	114,530	7.1	3	114,530	10.5
DG	10	149,520	27.1	5	149,520	13.4
FF	7	370,330	7.7	16	370,330	17.3
FV	7	304,480	9.3	3	304,480	4.0
GR	17	588,100	11.7	9	588,100	6.1
GGC	28	1,161,370	9.8	33	1,161,370	11.4
HG	10	321,900	12.6	7	321,900	8.7
LN	15	656,490	9.3	10	656,490	6.1
LO	30	880,000	13.8	20	880,000	9.1
OR	0	21,850	0.0	1	21,850	18.4
SH	1	23,200	17.5	0	23,200	0.0
TY	7	415,470	6.8	10	415,470	9.7
WI	2	26,900	30.2	1	26,900	14.9
Scotland	142	5,404,700	10.7	126	5,404,700	9.4

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



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>

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 2 (April to June 2017) within NHS Grampian was 87%.

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

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=>

***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 2 (April to June 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, Q2 2017, (April to June 2017).

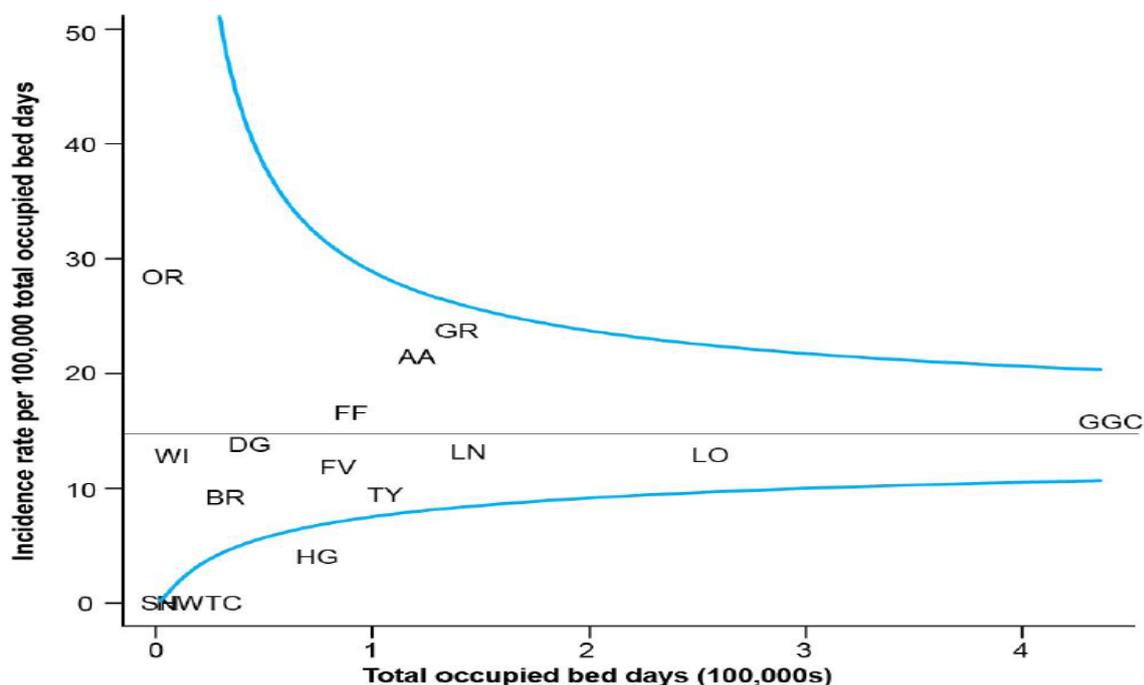
The following tables and graphs demonstrate NHS Grampian's rate of CDI compared with all other Boards in Scotland, with data broken down for healthcare and community.

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: Q1 2017 (January to March 2017) compared to Q2 2017 (April to June 2017).

NHS Board	Q1 2017			Q2 2017		
	Cases	Bed Days	Rate	Cases	Bed Days	Rate
AA	27	119,981	22.5	26	121,063	21.5
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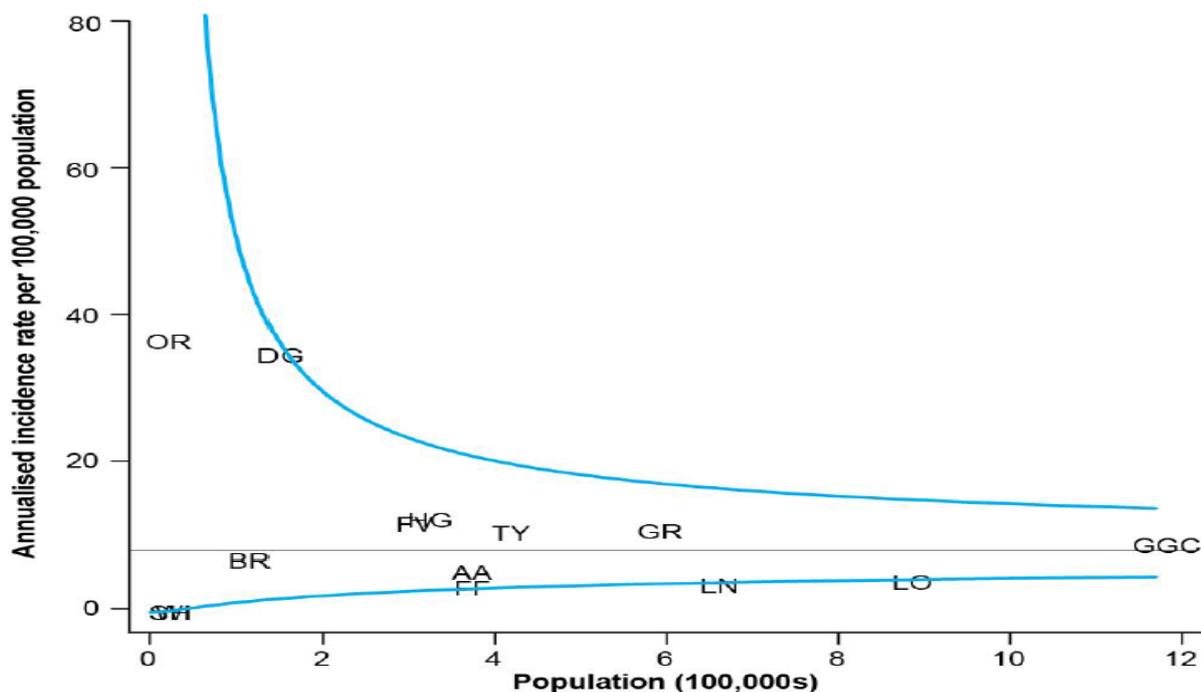
Funnel plot of CDI incidence rates (per 100,000 TOBDs) in healthcare associated infection cases for all NHS boards in Scotland in Q2 2017. NHS Shetland and Notional Waiting Time Centre overlap.



CDI cases and incidence rates (per 100,000 population) for community associated infection cases: Q1 2017 (January to March) compared to Q2 2017 (April to June 2017).

NHS Board	Q1 2017			Q2 2017		
	Cases	Population	Rate*	Cases	Population	Rate*
AA	13	370,560	14.2	5	370,560	5.4
BR	0	114,530	0.0	2	114,530	7.0
DG	2	149,520	5.4	13	149,520	34.9
FF	2	370,330	2.2	3	370,330	3.2
FV	3	304,480	4.0	9	304,480	11.9
GR	9	588,100	6.2	16	588,100	10.9
GGC	18	1,161,370	6.3	26	1,161,370	9.0
HG	4	321,900	5.0	10	321,900	12.5
LN	11	656,490	6.8	6	656,490	3.7
LO	11	880,000	5.1	9	880,000	4.1
OR	0	21,850	0.0	2	21,850	36.7
SH	0	23,200	0.0	0	23,200	0.0
TY	5	415,470	4.9	11	415,470	10.6
WI	0	26,900	0.0	0	26,900	0.0
Scotland	78	5,404,700	5.9	112	5,404,700	8.3

Funnel plot of CDI incidence rates (per 100,000 population) in community associated infection cases for all NHS boards in Scotland in Q2 2017. NHS Highland and NHS Forth Valley overlap as do NHS Shetland and NHS Western Isles.



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
Sep-14	31	20.1	(13.6 ,28.4)	12	8.1	(4.2 ,14.2)
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	23	14.9	(9.4 ,22.3)	8	5.5	(2.3 ,10.7)
Sep-15	23	15.5	(9.8 ,23.3)	13	8.8	(4.6 ,15)
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	31	21.5	(14.5 ,30.5)	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)	16	10.9	(6.2 ,17.7)

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 and we are now able to provide feedback.

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 2 the rate of HCAI *E coli* infections in NHS Grampian was 31.7 cases per 100,000 occupied bed days compared with cases 34.4 per 100,000 occupied bed days across NHS Scotland. The community *E coli* bacteraemia rate in NHS Grampian was 34.8 cases per 100,000 population compared with 49.2 cases per 100,000 population across NHS Scotland.

E Coli bacteraemia rates in NHS **Scotland** Q2 (April to June 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
Jun-17	534	34.4	(31.5 ,37.4)	663	49.2	(45.5 ,53)

E Coli bacteraemia rates in NHS **Grampian** Q2 (April to June 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
Jun-17	44	31.7	(23 ,42.5)	51	34.8	(25.8 ,45.7)

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>

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>2nd Quarter - July - Sept - 2017</u>	<u>July Domestic</u>	<u>July Estates</u>	<u>August Domestic</u>	<u>August Estates</u>	<u>September Domestic</u>	<u>September Estates</u>	<u>Quarter 2 Domestic</u>	<u>Quarter 2 Estates</u>
NHS Grampian Overall	94.80	95.55	94.65	95.50	94.95	96.20	94.90	95.75
Aberdeen Maternity Hospital, RACH & Outlying Areas	94.90	94.55	94.15	93.95	94.45	93.90	94.50	94.13
Aberdeen Royal Infirmary	93.95	95.40	93.90	95.85	94.10	95.80	93.98	95.68
Aberdeenshire North & Moray Community	97.55	95.65	97.80	97.35	97.15	97.20	97.50	96.73
Aberdeenshire South & Aberdeen City	97.70	97.40	96.00	95.60	95.80	98.40	96.50	97.13
Dr Grays Hospital	93.90	97.10	95.60	95.80	94.35	96.55	94.61	96.48
Royal Cornhill Hospital	95.00	93.20	93.35	92.60	94.90	93.85	94.41	93.21
Woodend Hospital	95.35	97.05	95.35	97.40	93.85	97.40	94.85	97.28

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 August and September 2017 there was ward closure due to Norovirus during Point Prevalence. Between 29th September and 1st October there was one bay closed with 6 patients affected with enteric illness symptoms.

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.

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 2 (April to June 2017).

Category of Procedure	Number of operations	Number of Infections	NHS Grampian SSI rate (%)	National dataset SSI rate (%)
Caesarean section	416	7	1.7%	1.2%
Hip arthroplasty	295	0	0.0%	0.7%

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>

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 and 1% reductions in piperacillin-tazobactam and carbapenem use from baseline of 2015 data.

Aberdeen Royal Infirmary

At present there is a trend of increasing **total** antibiotic usage at ARI and it is unlikely that the national target for reducing overall antibiotic use will be met. In the last 12 months there has been an increase in **carbapenem** use at ARI, with a significant increase in Q2 2017 - likely in part due to the shortage of piperacillin/tazobactam. The global **piperacillin/tazobactam** shortage resulted in a significant reduction in piperacillin/tazobactam use and therefore it is predicted ARI *will* meet this target.

Dr Gray's

Total antibiotic use has fluctuated but the 1% reduction target may be met. **Carbapenem** use at Dr Gray's Hospital has remained low; and is predicted to meet the 1% reduction target. **Piperacillin/tazobactam** use shows a similar trend to ARI and is predicted to meet the 1% reduction target.

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

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	1	2	1	1	0	0	0	2	0	0	0	1
MSSA	12	11	12	8	17	11	10	8	9	12	15	15
Total SABS	13	13	13	9	17	11	10	10	9	12	15	16

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	7	6	2	3	7	1	6	8	4	8	7	6
Ages 65+	6	11	12	9	8	6	14	11	8	8	7	6
Total CDIs	13	17	14	12	15	7	20	19	12	16	14	12

Hand Hygiene Monitoring Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
AHP	99	100	99	99	97	99	99	99	100	100	98	99
Ancillary	97	95	97	99	99	95	98	98	97	96	96	98
Medical	96	95	96	96	97	95	96	97	96	95	94	97
Nurse	99	99	98	99	99	99	99	99	99	99	97	99
Total	98	97	98	98	98	97	98	98	98	98	96	98

Cleaning Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Board Total	94	95	95	95	95	95	95	94	95	95	95	95

Estates Monitoring Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Board Total	95	95	96	96	96	96	96	96	96	96	96	96

NHS HOSPITAL A REPORT CARD – Aberdeen Royal Infirmary

Staphylococcus aureus bacteraemia monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	0	2	1	0	0	0	0	1	0	0	0	1
MSSA	0	2	3	4	0	2	1	1	1	2	4	4
Total SABS	0	4	4	4	0	2	1	2	1	2	4	5

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	2	3	1	0	3	1	0	5	0	1	0	0
Ages 65+	2	1	6	6	2	2	3	5	3	2	1	0
Total CDIs	4	4	7	6	5	3	3	10	3	3	1	0

Cleaning Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
ARI Total	93	94	95	94	94	94	94	92	94	94	94	94

Estates Monitoring Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
ARI Total	97	96	96	96	96	97	96	95	96	95	96	96

NHS HOSPITAL B REPORT CARD – Dr Gray’s Hospital

Staphylococcus aureus bacteraemia monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	1	0	0	0	0	1	0	1	0	1	1	0
Total SABS	1	0	0	0	0	1	0	1	0	1	1	0

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	0	0	0	0	0	0	0	0	0	0	1	0
Ages 65+	0	0	1	1	1	1	1	0	0	1	0	1
Total CDIs	0	0	1	1	1	1	1	0	0	1	1	1

Cleaning Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
DGH Total	95	93	93	94	94	94	94	94	94	94	96	94

Estates Monitoring Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
DGH Total	95	95	95	97	97	96	95	94	96	97	96	97

NHS HOSPITAL C REPORT CARD – Woodend Hospital

Staphylococcus aureus bacteraemia monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	1	0	0	0	0	0	0	0	0	0	1	1
Total SABS	1	0	0	0	0	0	0	0	0	0	1	1

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	0	0	0	0	0	0	0	0	0	0	0	0
Ages 65+	0	1	1	0	0	0	0	1	0	0	0	0
Total CDIs	0	1	1	0	0	0	0	1	0	0	0	0

Cleaning Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
WE Total	95	94	95	95	96	94	95	95	94	95	95	97

Estates Monitoring Compliance (%)

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
WE Total	93	89	90	96	98	96	96	95	96	97	94	97

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

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	0	0	2	1	1	0	1	0	1	1	0	2
Total SABS	0	0	0	1	1	0	1	0	1	1	0	2

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	0	0	0	0	0	0	1	0	0	0	0	0
Ages 65+	0	1	2	0	0	0	0	0	0	2	0	0
Total CDIs	0	1	2	0	0	0	1	0	0	2	0	0

NHS OUT OF HOSPITAL REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
MRSA	1	0	0	1	0	0	0	1	0	0	0	0
MSSA	10	9	7	3	16	8	8	6	7	8	9	8
Total SABS	11	9	7	4	16	8	8	7	7	8	9	8

Clostridium difficile infection monthly case numbers

	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017
Ages 15-64	5	3	2	3	4	0	4	3	4	6	6	6
Ages 65+	4	8	1	2	5	3	10	5	5	4	6	4
Total CDIs	9	11	3	5	9	3	14	8	9	10	12	10