

# Healthcare Associated Infection Report

## January 2019 data

### Section 1 – Board Wide Issues

Section 1 of the HAIRT covers Board wide infection prevention and control activity and actions. For reports on individual departments, please refer to the 'Healthcare Associated Infection Report Cards' in Section 2.

#### Key Healthcare Associated Infection Headlines

✚ **Staphylococcus aureus Bacteraemia**- Two cases of SAB to report in January.  
Sources- Chest drain site/PVC.  
Total number of cases reported since April 18 =6

✚ **Clostridium difficile infection**- No CDI to report since June 18.

✚ **Hand Hygiene**- The **bimonthly** report from January demonstrates an overall Board compliance rate of 98%. Medical staff compliance has decreased to 92%.

Non compliances reported for this time period are predominately staff not taking the opportunity to perform hand hygiene before/after patient contact or contact with patient surroundings. **Next update January 2019.**

✚ **Cleaning and the Healthcare Environment- Facilities Management Tool**  
**Housekeeping Compliance: 98.71%                      Estates Compliance: 98.93%**

✚ **Surgical Site Infection**-  
Hip and Knee replacement SSI rates are within control limits.

Cardiac and CABG SSIs are currently within control limits however remain above centre line.

#### **Other HAI Related Activity**

**Problem Assessment Groups (PAG)** - Locally convened group to further investigate an HAI issue which may require additional multidisciplinary controls.

PAGs	Update
<b>Cardiac/CABG Surgical Site Infection</b>	<p>Chair of the SLWG transferred from Tissue Viability to a Surgical Services Division chair (CNM Crit Care and CNM Surgical Services) &amp; supported by the PCI and TV team. The SSI SLWG has now disbanded as all nursing actions have been taken forward. However SSI rates remain elevated and outstanding actions require medical input.</p> <p>A draft skin prep protocol has been developed by Theatre Services Manager. The Prevention and Control of Infection Team have had the opportunity to contribute to this and this document was shared with the Consultant Cardiac Surgeon body for review in December. No outcome /progression has been communicated. As agreed within SSCGC the Associate Medical Director will take this forward with the consultant group. The HAI Exec Lead has discussed this issue further with the Medical Director. Agreed actions will follow in the February HAIRT.</p>

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

*Staphylococcus aureus* is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. The most common form of this is Meticillin Sensitive *Staphylococcus aureus* (MSSA), but the more well known is MRSA (Meticillin Resistant *Staphylococcus aureus*), which is a specific type of the organism which is resistant to certain antibiotics and is therefore more difficult to treat. More information on these organisms can be found at: [http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=346](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346)

MRSA: [http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=252](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252)

NHS Boards carry out surveillance of *Staphylococcus aureus* blood stream infections, known as bacteraemias. These are a serious form of infection and there is a national target to reduce them. The number of patients with MSSA and MRSA bacteraemias for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for *Staphylococcus aureus* bacteraemias can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/publicationsdetail.aspx?id=30248>

### **GJNH approach to SAB prevention and reduction**

It is accepted within HPS that care must be taken in making comparisons with other Boards data because of the specialist patient population within GJNH. All SAB isolates identified within the laboratory are subject to case investigation to determine future learning and quality improvement.

Small numbers of cases can quickly change our targeted approach to SAB reduction.

#### **Broad HAI initiatives which influence our SAB rate include-**

- Hand Hygiene monitoring
- MRSA screening at pre-assessment clinics and admission
- Compliance with National Cleaning Standards Specifications
- Audit of the environment and practices via Prevention and Control of Infection Annual Reviews & monthly SCN led Standard Infection Control Precautions and CNM Peer Review monitoring
- Participation in National Enhanced SAB surveillance- gaining further intelligence on the epidemiology of SAB locally and nationally.

#### **SSI Related SAB**

- Introduction of MSSA screening for cardiac and subsequent treatment pre and post op as a risk reduction approach.
- Surgical Site Infection Surveillance in collaboration with Health Protection Scotland and compared with Health Protection Agency data to allow rapid identification of increasing and decreasing trends of SSI.
- Standardisation of post op cardiac wound care.
- Review and continued implementation of a wound swabbing protocol and competency.

#### **Device Related SAB**

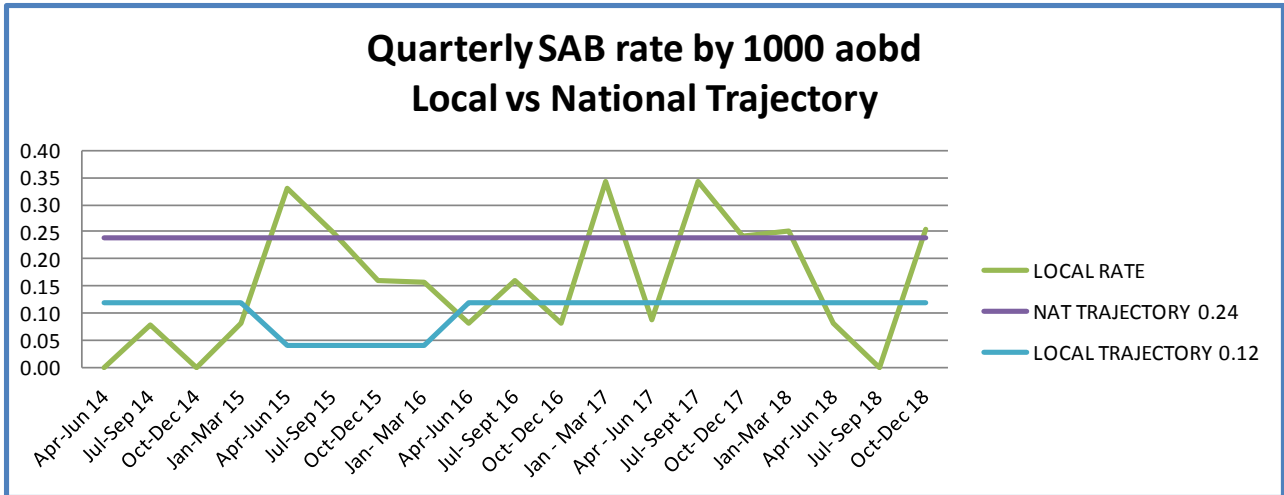
- SPSP work streams continue to aim to sustain compliance with PVC, CVC, PICC and IABP bundles; assessment of compliance locally aids targeting of interventions accordingly.
- Implementation of combined PVC insertion and maintenance bundle
- Implementation of arterial line maintenance bundle in Critical Care.

**SAB Local Delivery Plan (LDP) Heat Delivery Trajectories**

SGHD have not yet announced new targets, therefore we continue to work toward the extant target rolling trajectory of 0.24 cases per 1,000 acute occupied bed days or lower.

Boards currently with a rate of less than 0.24 are expected to at least maintain this, as reflected in their trajectories.

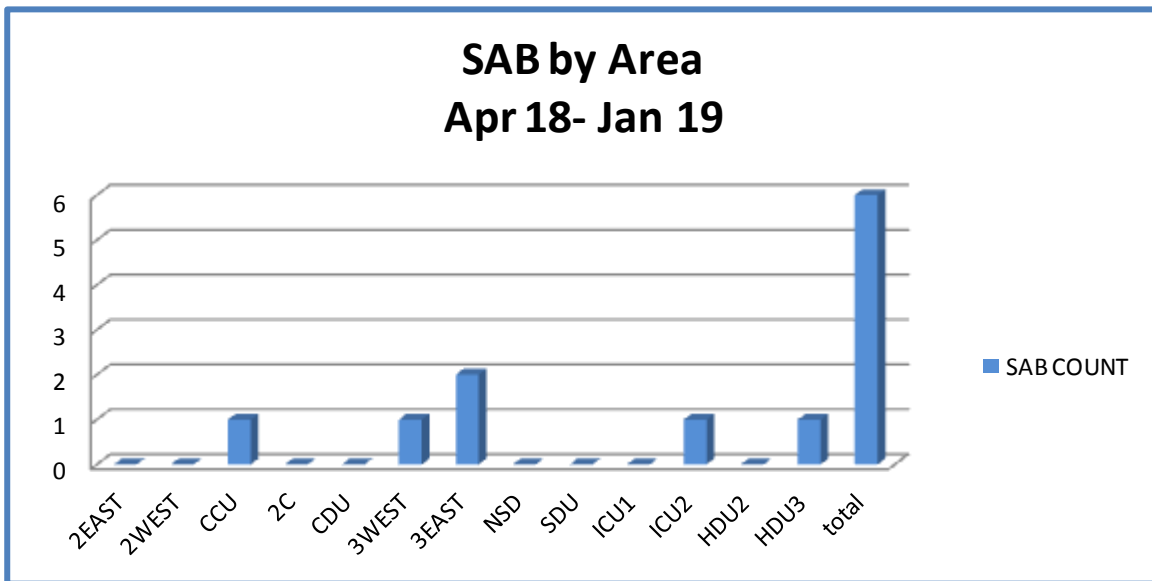
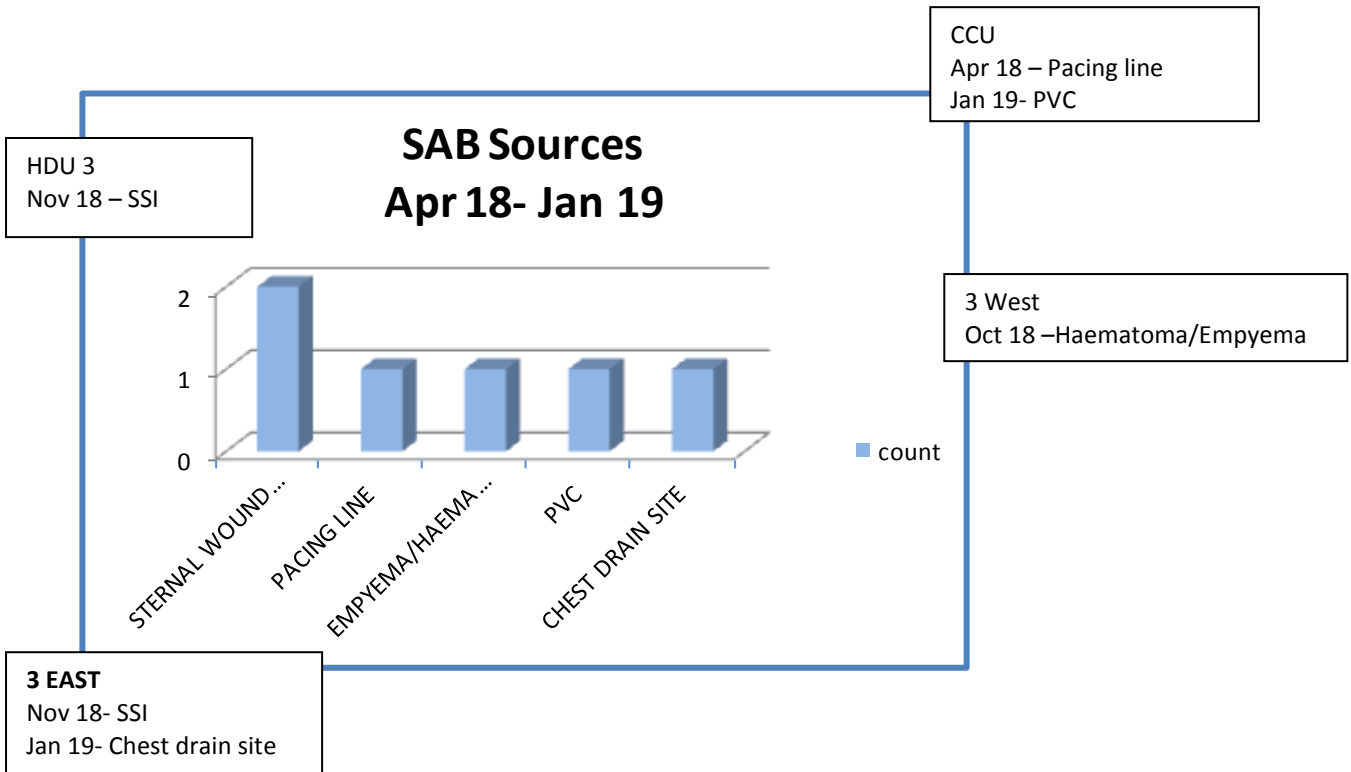
**From October - December 18, 3 cases of SAB were been reported. This equates to a quarterly rate of 0.25 SAB per 1000 occupied bed days.**



**Sources of SAB**

The Prevention and Control of Infection Team continue to work closely with the clinical teams, CGRM and clinical educators to gain insight into the sources of SAB acquisition and associated learning.

Each SAB is subject to an enhanced surveillance process involving the PCIT, SCN and responsible consultant to determine any learning from the source of the SAB. Thereafter the Enhanced SAB surveillance reports are submitted to the relevant division clinical governance group to share potential learning and note actions required.



**Clostridium difficile**

*Clostridium difficile* is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. More information can be found at:

<http://www.nhs.uk/conditions/Clostridium-difficile/Pages/Introduction.aspx>

NHS Boards carry out surveillance of *Clostridium difficile* infections (CDI), and there is a national target to reduce these. The number of patients with CDI for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for *Clostridium difficile* infections can be found at:

<http://www.hps.scot.nhs.uk/haic/sshaip/ssdetail.aspx?id=277>

**GJNH approach to CDI prevention and reduction**

Our numbers of CDI cases are low in comparison with other Boards, which is likely to relate to our specialist patient population.

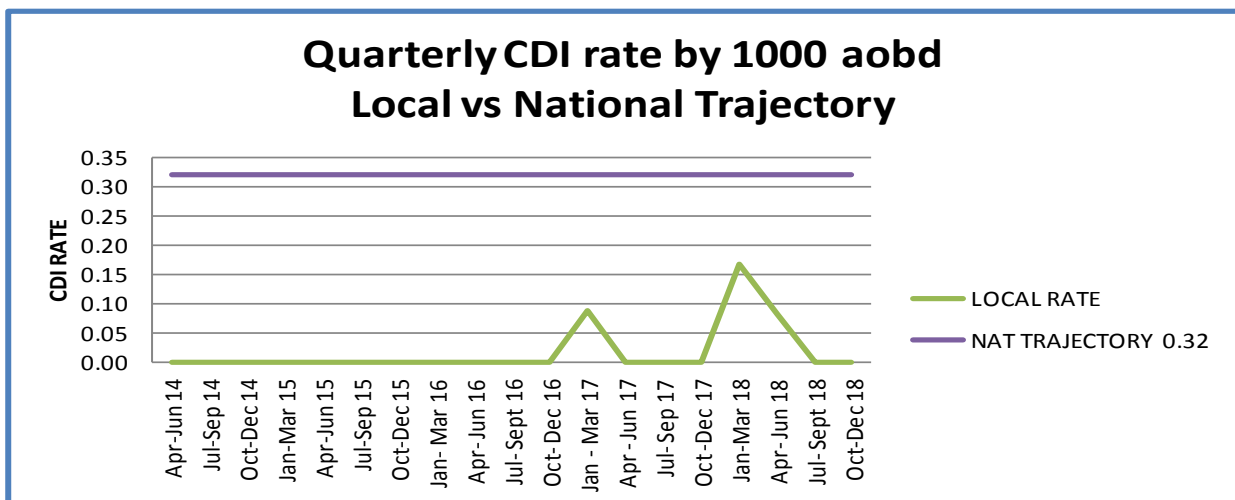
**Actions to reduce CDI-**

- Ongoing alert organism surveillance and close monitoring of the severity of cases by the PCIT.
- Unit specific reporting and triggers.
- Implementation of HPS Severe Case Investigation Tool if the case definition is met
- Typing of isolates when two or more cases occur within 30 days in one unit.

**CDI LDP Heat Delivery Trajectories**

SGHD have not yet announced new targets, therefore we continue to work toward the extant target of rolling trajectory of 0.32 cases CDI per 1,000 occupied bed days. This relates to people aged 15 and over. Boards currently with a rate of less than 0.32 will be expected to at least maintain this, as reflected in their trajectories.

**From October to December 18, 0 cases of CDI was been reported this equates to a quarterly rate of 0.00 CDI per 1000 occupied bed days.**



## Hand Hygiene

Good hand hygiene by staff, patients and visitors is a key way to prevent the spread of infections. More information on the importance of good hand hygiene can be found at:

<http://www.washyourhandsofthem.com/>

NHS Boards monitor hand hygiene and ensure a zero tolerance approach to non compliance. The hand hygiene compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national hand hygiene monitoring can be found at:

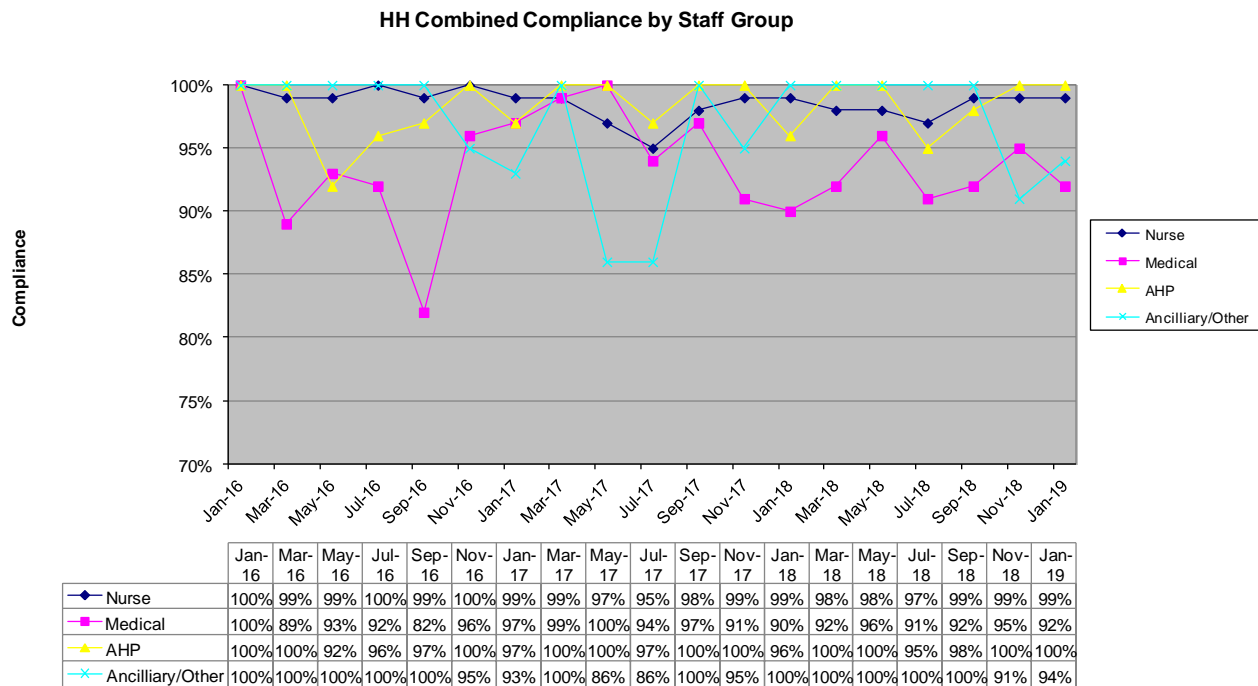
<http://www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx>

### GJNH approach to Hand Hygiene

The **bimonthly** report from January demonstrates an overall Board compliance rate of 98%. Medical staff compliance decreased to 92%. Ancillary staff increased to 94%.

Non compliance reported for this time period are predominately staff not taking the opportunity to perform hand hygiene before patient contact.

Staff within the GJF are reminded to actively promote good hand hygiene and challenge non compliance. Where repeated incidents of non compliance are noted, staff are should utilise the “Repeated Hand Hygiene Non Compliance Form” to record and escalate these incidents.



Audit Dates

## Item 6.1

AREA	STAFF GROUP	KEY MOMENT	OPPORTUNITY TAKEN	CORRECT TECHNIQUE
ICU 2	D	1	NO	NO
ICU 2	D	1	NO	NO
OPD	D	1	YES	NO
OPD	D	5	YES	NO
OPD	O	2	NO	NO
PACU	O	1	NO	NO
PACU	N	4	NO	NO

Key Moments	
1	Before patient contact
2	Before aseptic task
3	After body fluid exposure risk
4	After patient contact
5	After contact with patient surroundings

AREA AUDITED	COMPLIANCE
OPD	90%
ICU 2	90%
PACU	90%
CCU	100%
2 WEST	100%
HDU 3	100%
2D	100%
3 WEST	100%
NSD	100%
ENDOSCOPY	100%
RADIOLOGY	100%
TH 4	100%
TH 1	100%
TH 8	100%
TH 15	100%
95% Compliance or above	
80% - 94% Compliance	
Below 80% Compliance	

## Cleaning and Maintaining the Healthcare Environment

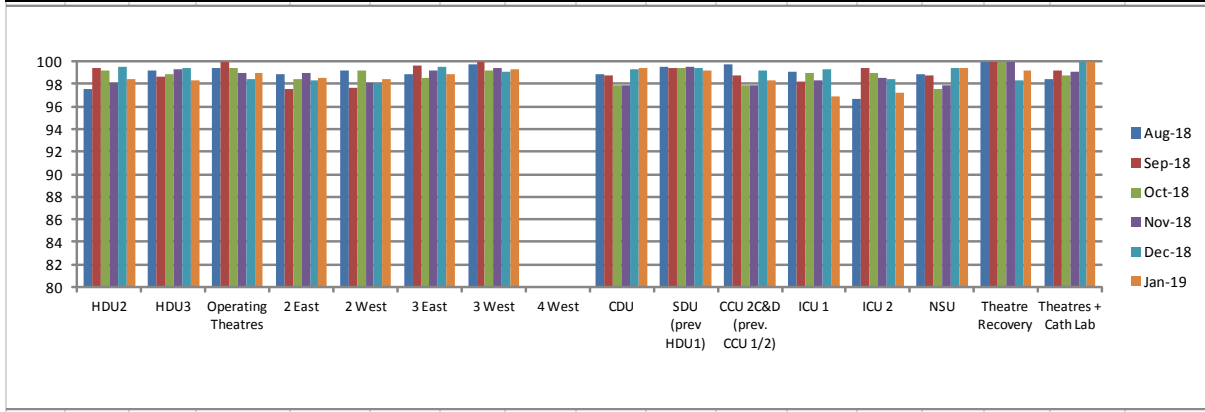
### Housekeeping FMT Audit Results

Cleaning services continue to be monitored against the NHSScotland National Cleaning Service Specifications (NCSS) using the HFS Domestic monitoring tool. All healthcare facilities and component parts, e.g. wards, treatment rooms, corridors etc, **are expected to be at least 90% compliant with the requirements set out in the NCSS.**

Integral to the updated National Cleaning Services Specifications, the Housekeeping team have reviewed existing task sheets for each area to risk assess the frequency of tasks, these will be ratified by the Prevention and Control of Infection Committee in February.



HOUSEKEEPING FMT AUDIT RESULTS																
	HDU2	HDU3	Operating Theatres	2 East	2 West	3 East	3 West	4 West	CDU	SDU (prev HDU1)	CCU 2C&D (prev. CCU 1/2)	ICU 1	ICU 2	NSU	Theatre Recovery	Theatres + Cath Lab
Jan-18	97.97	98.09	99.48	98.07	97.42	99.26	98.04		97.66	100.00	97.26	98.62	97.61	99.38	100.00	99.20
Feb-18	98.46	99.46	98.96	97.48	97.68	98.95	98.51		99.05	99.35	97.53	98.66	98.75	96.57	98.68	98.34
Mar-18	99.70	99.43	96.87	97.73	100.00	99.22	98.90		98.77	99.24	99.50	98.54	98.60	98.11	98.94	96.56
Apr-18	98.76	98.13	99.48	98.50	98.21	99.33	99.22		100.00	99.49	98.87	99.00	99.55	98.43	99.30	100.00
May-18	98.58	99.72	99.48	99.26	97.36	99.23	98.05		100	99.55	99.06	99.32	98.38	98.28	98.82	99.16
Jun-18	98.04	99.14	99.48	98.54	97.59	99.23	99.07		96.94	99.16	98.7	98.13	100	100	99.11	98.56
Jul-18	99.59	99	100	97.47	96.99	99.59	99.16		97.63	98.63	98.87	98.55	100	98.31	97.89	97.63
Aug-18	97.61	99.21	99.47	98.92	99.15	98.92	99.72		98.88	99.55	99.72	99.14	96.71	98.84	100.00	98.42
Sep-18	99.42	98.65	100	97.56	97.68	99.65	100		98.78	99.46	98.81	98.18	99.38	98.8	100.00	99.21
Oct-18	99.25	98.83	99.47	98.47	99.15	98.58	99.22		97.9	99.38	97.87	98.98	98.97	97.6	100	98.8
Nov-18	98.16	99.34	98.94	98.95	98.09	99.22	99.39		97.87	99.48	97.92	98.29	98.5	97.93	100	99.11
Dec-18	99.51	99.41	98.44	98.3	98.07	99.58	99.14		99.36	99.47	99.23	99.36	98.42	99.4	98.33	100
Jan-19	98.47	98.35	98.96	98.57	98.42	98.88	99.28		99.45	99.21	98.35	96.87	97.25	99.4	99.19	100



### MRSA Screening Compliance

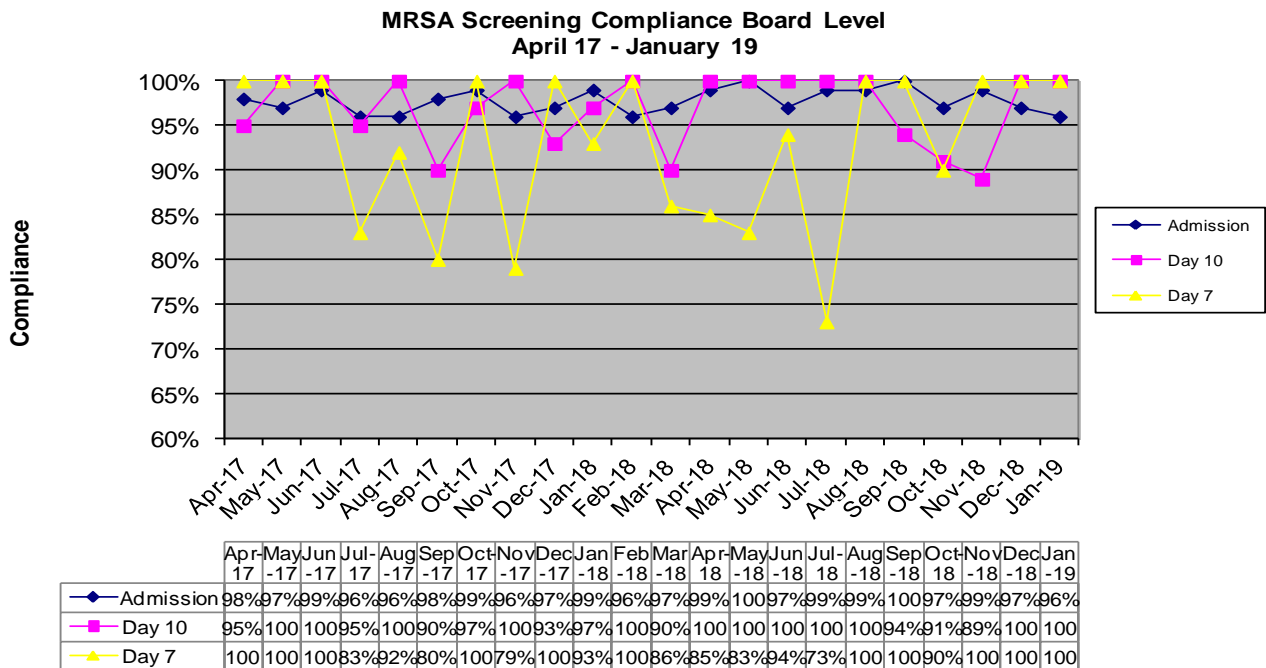
#### Long Term Patient Screening

- All patients should be rescreened on Day 10 of stay and weekly thereafter.
- Day 10 screen was identified as the initial screen date as it captures patient stay beyond routine pathways.
- Compliance is monitored via reviewing a sample of eligible patients against submitted MRSA screens.
- SCNs are informed of results at the time of audit and informed an action plan required to improve compliance should be submitted.

The table below provides an overall monthly compliance with MRSA screening and subsequent graph detail compliance over time.

Jan 19	Board Total
<b>SAMPLE SIZE</b>	135
<b>ADMIT COMPLIANCE</b>	96%
	n= 5
<b>SAMPLE SIZE</b>	26
<b>10 DAY COMPLIANCE</b>	100
<b>SAMPLE SIZE</b>	12
<b>7 DAY COMPLIANCE</b>	100%

Omitted admission screens were noted in 3 East (x1), 2West Ortho (x1), 2 West SPVU (x2) and NSD(x1). **No extenuating circumstances were noted in omitted screens.**



## 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). More information on these organisms can be found on the NHS24 website:

*Clostridium difficile* :

[http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=2139&sectionID=1](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=2139&sectionID=1)

*Staphylococcus aureus* : [http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=346](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346)

MRSA: [http://www.nhs24.com/content/default.asp?page=s5\\_4&articleID=252&sectionID=1](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252&sectionID=1)

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. difficile* and SABs. More information on these can be found on the Scotland Performs website:

<http://www.scotland.gov.uk/About/Performance/scotPerforms/partnerstories/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. 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

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sept 18	Oct 18	Nov 18	Dec 18	Jan 19
<b>MRSA</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>MSSA</b>	1	1	1	0	0	0	0	0	1	2	0	2
<b>Total SABS</b>	1	1	1	0	0	0	0	0	1	2	0	2

### *Clostridium difficile* infection monthly case numbers

	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sept 18	Oct 18	Nov 18	Dec 18	Jan 19
<b>Ages15-64</b>	0	0	0	0	1	0	0	0	0	0	0	0
<b>Ages 65+</b>	0	1	0	0	0	0	0	0	0	0	0	0
<b>Ages 15 +</b>	0	0	0	0	0	0	0	0	0	0	0	0

### Hand Hygiene Monitoring Compliance (%)

	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sept 18	Oct 18	Nov 18	Dec 18	Jan 19
<b>AHP</b>		100		100		95		98		100		100
<b>Ancillary</b>		100		100		100		100		91		94
<b>Medical</b>		92		96		91		92		95		92
<b>Nurse</b>		98		98		97		99		99		99
<b>Board Total</b>		97		98		96		98		98		98

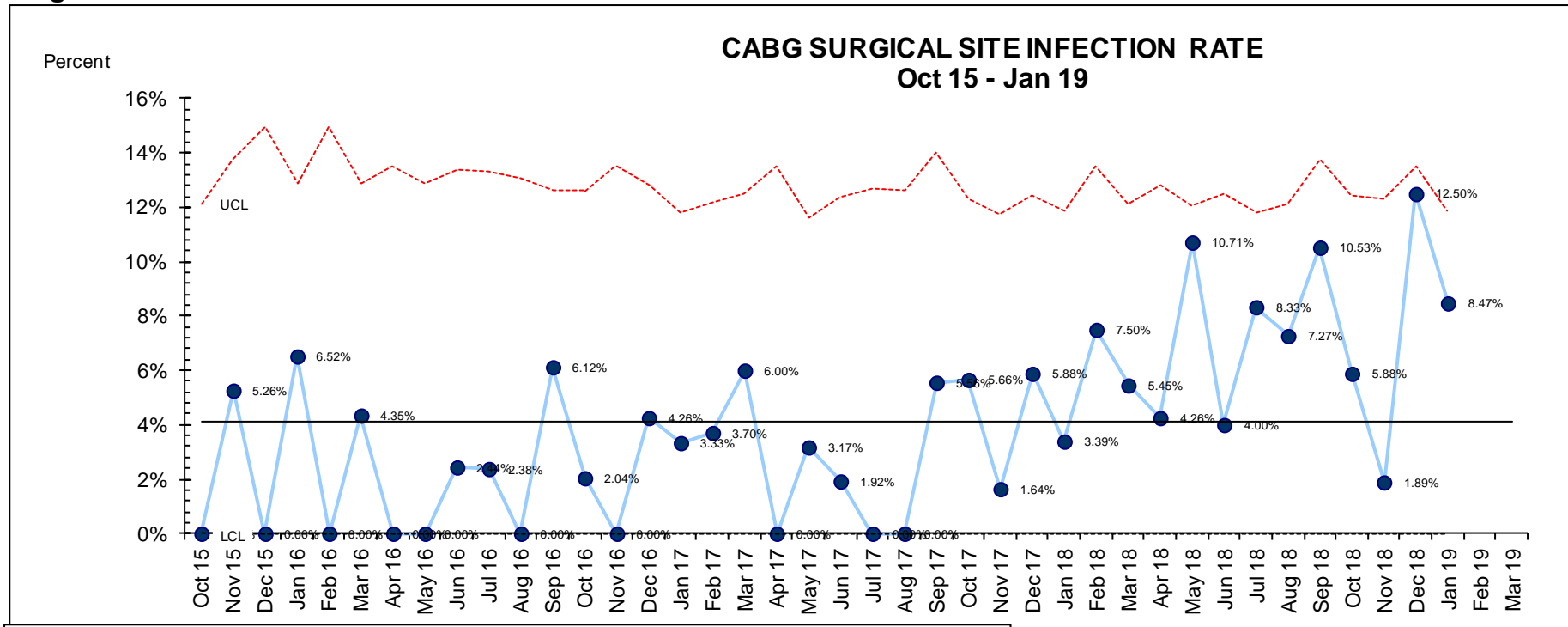
### Cleaning Compliance (%)

	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sept 18	Oct 18	Nov 18	Dec 18	Jan 19
<b>Board Total</b>	98.43	98.56	99.08	98.95%	98.61	98.67	98.92	98.93	98.83	98.75	99.08	98.71

### Estates Monitoring Compliance (%)

	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sept 18	Oct 18	Nov 18	Dec 18	Jan 19
<b>Board Total</b>	99.37	99.39	99.42	98.95%	99.42	99.14	99.51	98.79	99.02	99.35	99.46	98.93

## Surgical Site Infection Surveillance

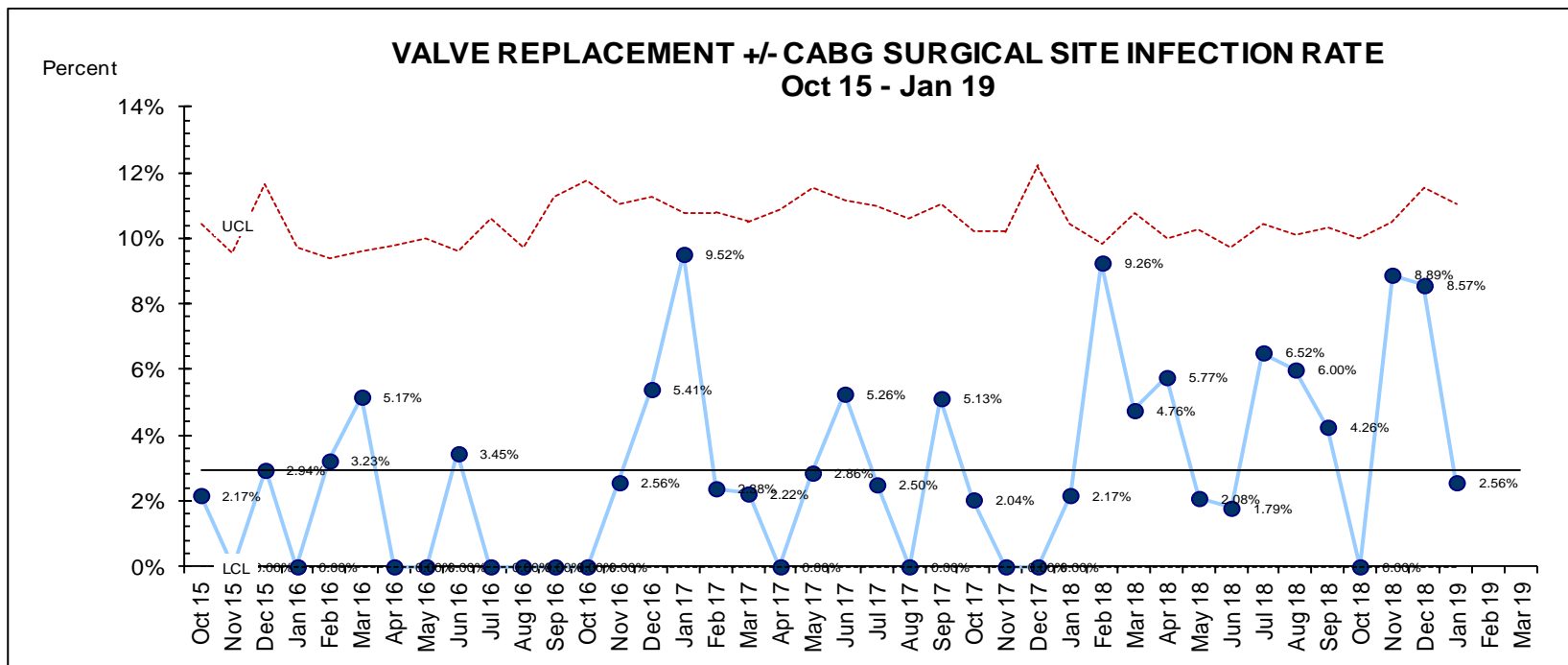


CABG SSI			
Number of Procedures	Month	Type of SSI	
50	Jun 18	2 Superficial Sternum	Confirmed
60	Jul 18	1 Deep Sternum /4 Superficial Sternum	Confirmed
55	Aug 18	1 Deep Sternum+ Leg/1Superficial Sternum+ Leg/ 1Superficial Leg/ 1 Superficial Sternum	Confirmed
38	Sept 18	1 Deep Sternum /2 Superficial Leg/1 Superficial Sternum	Confirmed
51	Oct 18	1 Deep Sternum /2 Superficial Sternum	Confirmed
53	Nov 18	1 Superficial Leg	Confirmed
40	Dec 18	2 Deep Sternum /2 Superficial Sternum/ 1 Superficial leg & sternum	Confirmed
59	Jan 19	1 Organ space Sternum/3 Superficial Sternum/1 Superficial leg	Extent unconfirmed until 30 days post op

**HPA 2012-2017 SSI rate CABG – 3.8%**

\*A surgical site infection is defined a superficial, deep or organ space infection occurring within 30 days of operation. Definitions of superficial, deep and organ space are defined in Health Protection Scotland Surgical Site Infection Surveillance Protocol.

Heather Gourlay- Senior Manager Prevention and Control of Infection  
 Sandra Wilson- CNM Prevention and Control of Infection  
 Date -20/02/19

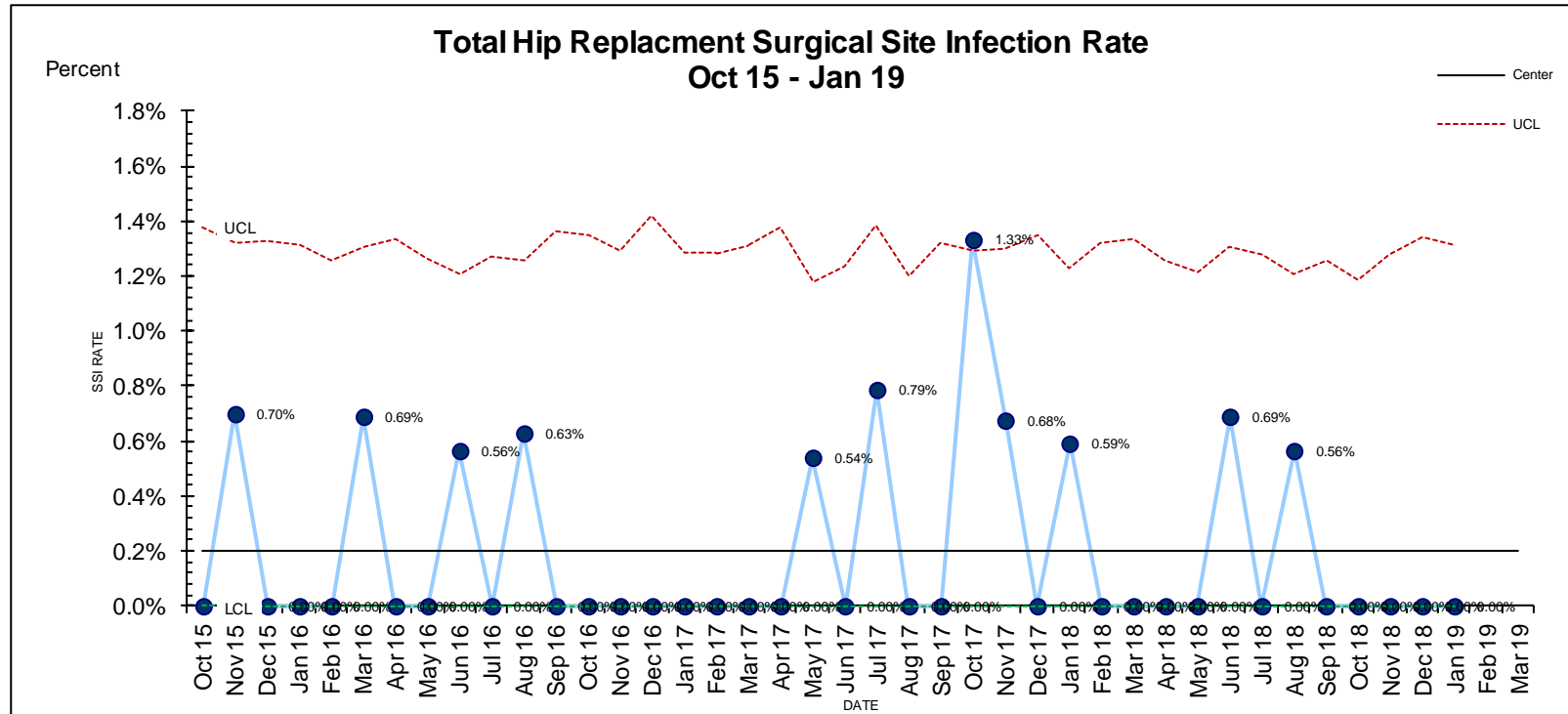


Valve Replacement +/- CABG SSI			
Number of Procedures	Month	Type of SSI	
56	Jun 18	1 Superficial Sternum	Confirmed
46	Jul 18	1 Superficial Sternum/ 2 Superficial Leg	Confirmed
50	Aug 18	3 Superficial Sternum	Confirmed
47	Sep 18	1 Superficial Sternum/ 1 Superficial Leg	Confirmed
52	Oct 18	NIL	
45	Nov 18	1 organ space sternum/ 2 Superficial Sternum/1 Superficial R + L leg	Confirmed
35	Dec 18	3 Superficial sternum	Confirmed
39	Jan 19	1 Superficial Leg/Sternum	Extent unconfirmed until 30 days post op

**HPA 2012-2017 SSI rate -1.3%**

\*A surgical site infection is defined a superficial, deep or organ space infection occurring within 30 days of operation. Definitions of superficial, deep and organ space are defined in Health Protection Scotland Surgical Site Infection Surveillance Protocol.

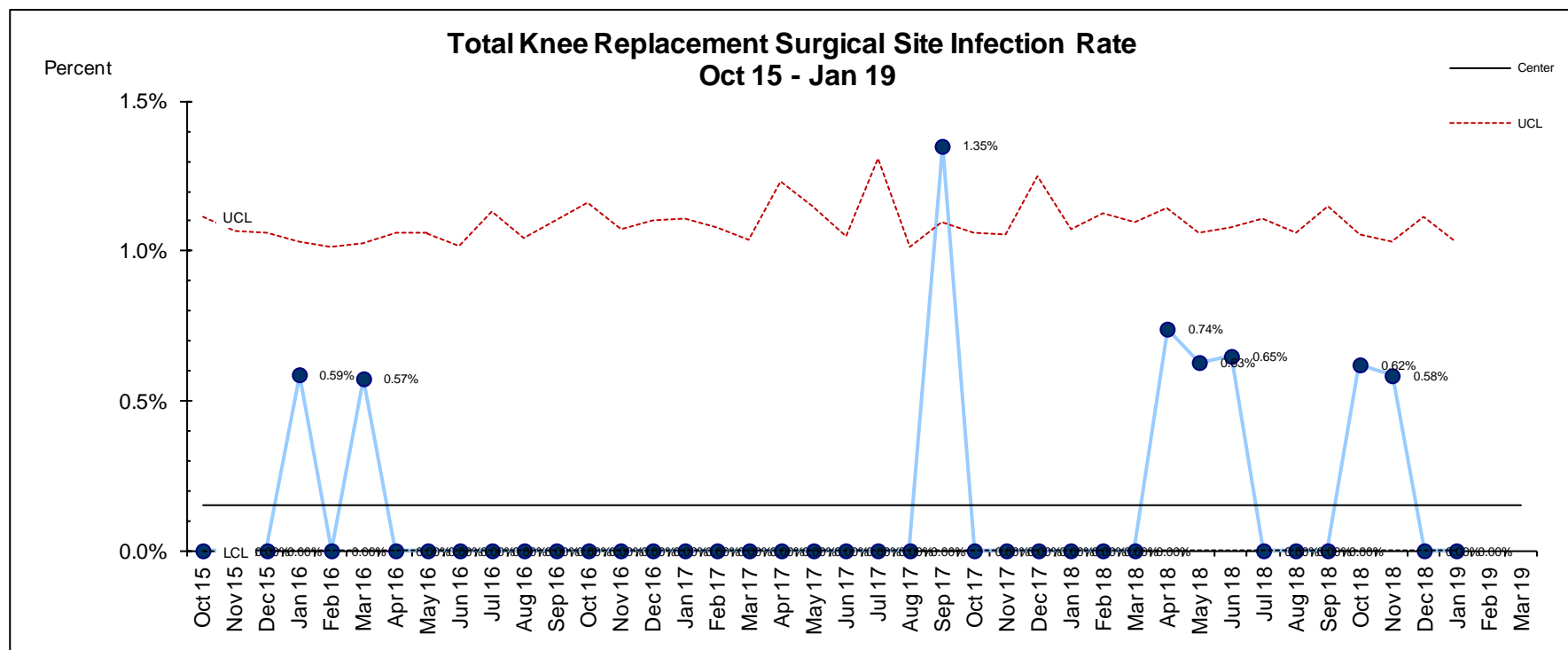
## Surgical Site Infection Surveillance- Orthopaedic Local data



**THR SSI**  
 Jan18- Primary THR -1Deep  
 Jun18- Primary THR- 1 Deep  
 Aug 18- Primary THR- 1 Deep

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Heather Gourlay- Senior Manager Prevention and Control of Infection  
 Sandra Wilson- CNM Prevention and Control of Infection  
 Date -20/02/19



**TKR SSI**

- Apr 18- Primary TKR 1 Superficial
- May 18- Primary TKR 1 Superficial
- Jun 18 -Primary TKR 1 Deep

\*A surgical site infection is defined a superficial, deep or organ space infection occurring within 30 days of operation. Definitions of superficial, deep and organ space are defined in Health Protection Scotland Surgical Site Infection Surveillance Protocol.



## HAIRT Table of Abbreviations

AHP	Allied Health Professional
CABG	Coronary Artery Bypass Graft
CCU	Coronary Care Unit
CDI/C. difficile	<i>Clostridium Difficile</i> Infection
CNM	Clinical Nurse Manager
CVC	Central Venous Catheter
DMT	Domestic Monitoring Tool
E.coli	Escherichia coli
FMT	Facilities Monitoring Tool
GJNH	Golden Jubilee National Hospital
GP	General Practitioner
HAI	Healthcare Associated Infection
HAIRT	Healthcare Associated Infection Report Template
HA MRSA	Hospital Acquired Meticillin Resistant <i>Staphylococcus aureus</i>
HEAT	Health Improvement, Efficiency, Access to treatment, and Treatment
HEI	Healthcare Environment Inspection
HFS	Healthcare Facilities Scotland
HH	Hand Hygiene
HIS	Healthcare Improvement Scotland
HPA	Health Protection Agency
HPS	Health Protection Scotland
IABP	Intra aortic balloon pump
IC	Infection Control
ICAR	Infection Control Audit Review
LDP	Local Delivery Plan
MRSA	Meticillin Resistant <i>Staphylococcus aureus</i>
MSSA	Meticillin Sensitive <i>Staphylococcus aureus</i>
NAT	National
NCSS	National Cleaning Standard Specification
PAG	Problem Assessment Group
PCIC	Prevention & Control of Infection Committee
PCINs	Prevention & Control of Infection Nurses
PCIT	Prevention & Control of Infection Team
PVC	Peripheral Venous Cannula
SAB	<i>Staphylococcus aureus</i> bacteraemia
SCN	Senior Charge Nurse
SICP s	Standard Infection Control Precautions
SPSP	Scottish Patient Safety Programme
SSI	Surgical Site Infection
TBPs	Transmission Based Precautions
THR	Total Hip Replacement
TKR	Total Knee Replacement