

# NHS Ayrshire & Arran

<b>Meeting:</b>	<b>Ayrshire and Arran NHS Board</b>
<b>Meeting date:</b>	<b>Monday 30 March 2020</b>
<b>Title:</b>	<b>Healthcare Associated Infection Report</b>
<b>Responsible Director:</b>	<b>Hazel Borland, Nurse Director</b>
<b>Report Author:</b>	<b>Bob Wilson, Infection Control Manager</b>

## 1. Purpose

This is presented to the Board for:

- Discussion

This paper relates to:  
Annual Operational Plan

This aligns to the following NHSScotland quality ambition:

- Safe

## 2. Report summary

### 2.1 Situation

This paper provides Board members with the current position against the national Healthcare Associated Infection (HCAI) Standards and the national meticillin resistant *Staphylococcus aureus* (MRSA) admission clinical risk assessment (CRA) key performance indicator (KPI).

Any significant infection incidents and outbreaks are included in the report.

Appendix 1 contains analysis of performance against the *Escherichia coli* bacteraemia (ECB) national standard

Appendix 2 Contains the Healthcare Associated Infection Reporting Template (HAIRT) that is included in each alternate Board paper.

### 2.2 Background

The Scottish Government has established national HCAI Standards for:

- *Clostridium difficile* infection (CDI) - a reduction of 10% in the national rate of healthcare associated (HCA) CDI for the year ending March 2022, with 2018-19 used as the baseline.

- *Staphylococcus aureus* bacteraemias (SABs) - a reduction of 10% in the national rate of HCA SAB by year end March 2022, with 2018-19 used as the baseline.
- ECBs - a 50% reduction in HCA ECBs by 2023-24, with an initial reduction of 25% by 2021-22. The baseline is the 2018-19 rate.

Each Board is required to contribute its own proportionate reduction to achieve the national standard

The national KPI for MRSA admission CRA is 90%.

## 2.3 Assessment

The Board's current verified position against each HCAI standard for the year ending September 2019 is:

Infection	NHS A&A Annual Rate Year Ending September 2019	2021-22 Target	2023-24 Target
<i>Clostridium difficile</i> Infection	16.7	13.0	
<i>Staphylococcus aureus</i> Bacteraemia	15.4	12.4	
<i>Escherichia coli</i> Bacteraemia	42.5	34.4	22.8

Analysis of the current ECB position is contained in Appendix 1.

The Board's compliance with the MRSA admission CRA KPI for the October – December 2019 quarter was 87% up from 80% the previous quarter.

An outbreak of influenza recently occurred in Station 8 in University Hospital Ayr. Seven patients and two staff were affected. Sadly three patients died as a result of influenza. The families of all three patients were informed by medical staff that their relative's death was due to influenza and that there was an outbreak within the ward.

Audits of hand hygiene and the correct use of personal protective equipment undertaken by the Infection Prevention and Control Team during the outbreak both showed 95% compliance.

In line with national requirements the deaths and their association with an outbreak were reported to the Procurator Fiscal (PF). No further action was required by the Fiscals office.

The outbreak was reported to Health Protection Scotland in line with national policy who in turn notified the Healthcare Associated Infection Policy Unit (HAIPU) at the Scottish Government. Feedback was received from HAIPUs medical advisor that the *"The work the AA [Ayrshire & Arran] team have done regarding communication with PF [Procurator Fiscal] and families is excellent and provides assurance the team know how to manage the outbreak."* The feedback has been shared with the relevant teams.

### **2.3.1 Quality/patient care**

Attainment of the national HCAI standards will result in fewer infections in patients and improve patient outcome.

Compliance with the national MRSA KPI will minimise the risk of transmission of MRSA from unidentified sources.

### **2.3.2 Workforce**

Reductions in HCAI will reduce the exposure risk to staff from harmful infections

### **2.3.3 Financial**

Reductions in HCAI will lead to reduced inpatient lengths of stay and associated treatment costs

### **2.3.4 Risk assessment/management**

The Infection Prevention Control Team (IPCT) provide clinical teams and managers with risk assessed advice and guidance based on national policy and best practice.

Current activity required in order to respond to COVID-19 will impact on the capacity of the IPCT to continue with some routine IPC activity. Risk based prioritisation will be undertaken.

### **2.3.5 Equality and diversity, including health inequalities**

An impact assessment has not been completed because this is an update report to Committee members.

### **2.3.6 Other impacts**

Nil to Note

### **2.3.7 Communication, involvement, engagement and consultation**

These topics are discussed regularly at the Prevention and Control of Infection Committee which has public representatives as members.

### **2.3.8 Route to the meeting**

This report is a standing report to the Board as required by the national Healthcare Associated Infections Standards 2015. These topics are standing agenda items at the Prevention and Control of Infection Committee. Thereafter there is a standing report submitted at each Healthcare Governance Committee.

A version of the paper was presented to the Healthcare Governance Committee on 9 March 2020.

## **2.4 Recommendation**

This paper is for discussion and provides an update for committee members on the Board's current performance against the national HCAI standards.

## **3. List of appendices**

The following appendices are included with this report:

Appendix 1 - ECB Update Report

Appendix 2 - HAIRT

## ***Escherichia coli* Bacteraemia (ECB) National Standard**

The ECB target is:

- 50% reduction in HCA ECBs by 2023-24,
- with an initial reduction of 25% by 2021-22.

The baseline used for all NHS Boards for this target is their 2018-19 ECB rate.

NHS Ayrshire and Arran's HCA rate for 2018-19 was 45.7 cases per 100,000 Total Occupied Bed Days (TOBDs) therefore in order to deliver our contribution the national standard we must have achieve a rate of no more than 34.4 cases per 100,00 TOBDs for the year 2021-22 and rate of no more than 22.8 cases per 100,000 TOBDs by 2023-24.

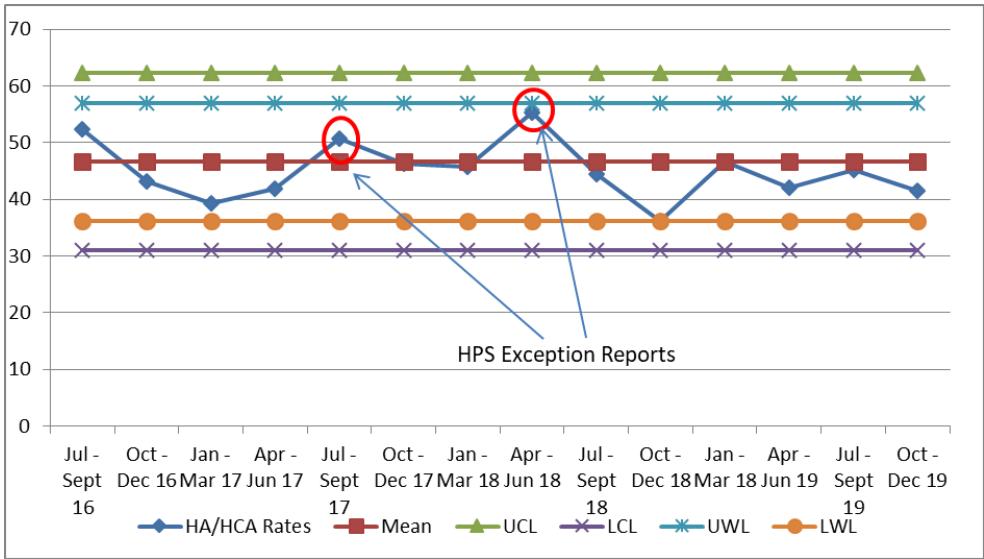
Given the magnitude of the reductions required combined with the need to develop long term sustained interventions, quick attainment of the targets is very unlikely. Therefore the Prevention and Control of Infection Committee agreed that there should be annual graduated reduction targets against which we should measure progress towards the national target.

Given that Year 1 had already commenced when the target was announced and a number of interventions in relation to urinary catheters are still to be fully developed and implemented it was agreed that we should aim for a 5% reduction in Year 1 followed by 10% reductions in Years 2, 3 and 4 with a 15% reduction in Year 5 (Table 1).

Year	Percentage Reduction	Target rate	Target Case Numbers
Baseline	-	45.7	205
2019-20	5%	43.4	195
2020-21	10%	38.5	174
2021-22 (Interim Target)	10%	34.5	153
2022-23	10%	29.9	132
2023-24 (Final target)	15%	22.8	102

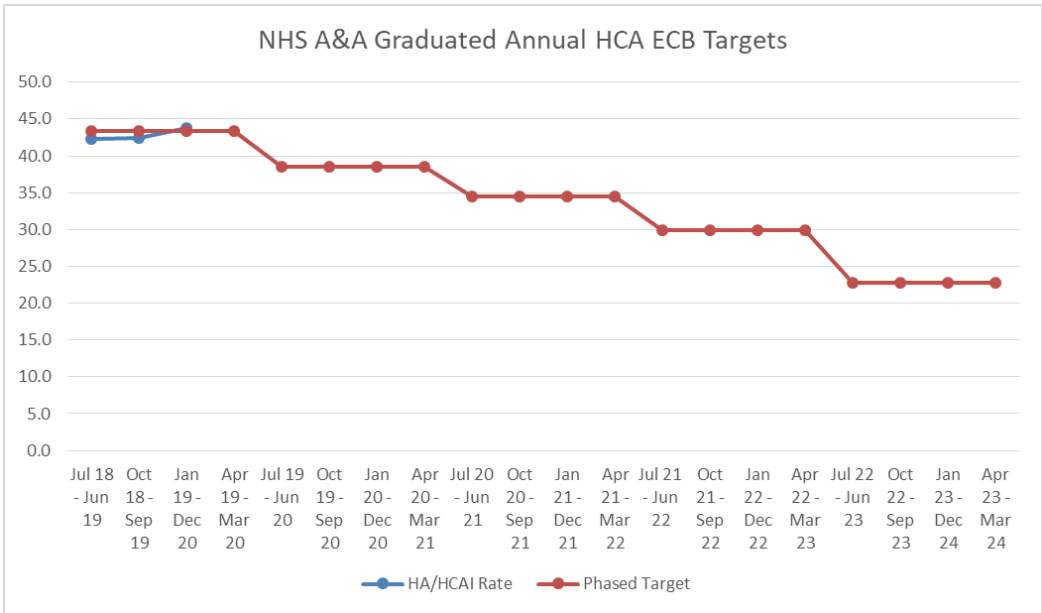
**Table 1 – Graduated Reduction Targets for HCA ECBs**

The Board’s verified **quarterly** rate for the July – September 19 quarter is 45.2 with a projected rate of 41.5 for the October – December 2019 quarter (Chart 1).



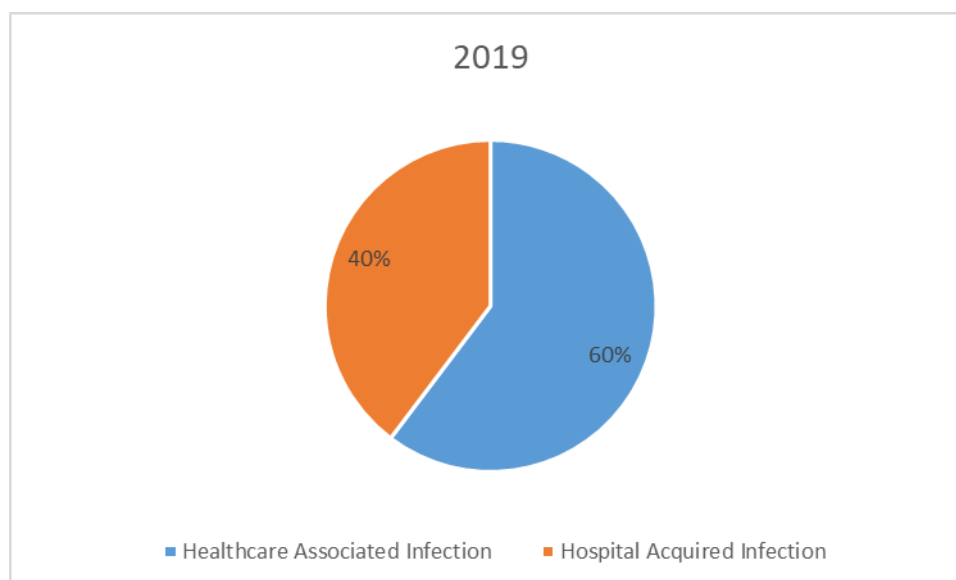
**Chart 1 – Quarterly Healthcare Associated ECB Rate**

The Board’s verified **annual** HCA rate for the year ending September 2019 was 42.5 with a projected rate for year ending December 2019 of 43.8. This is currently slightly above the proposed Year 1 reduction target (Chart 2).



**Chart 2 – NHS Ayrshire and Arran Graduated Rolling Annual HCA Target Trajectory**

There were 194 HCA ECBs in 2019 compared with 209 the previous year. 60% were healthcare associated whilst 40% were classed as hospital acquired infections (Chart 3).



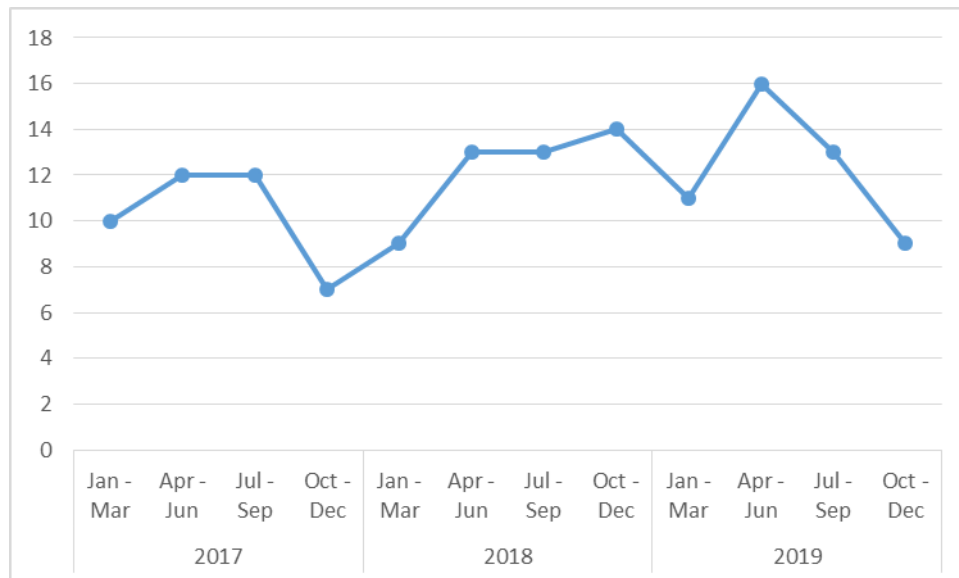
**Chart 3 – Hospital Acquired/Healthcare Associated ECBs**

In 2019 urinary catheters were the most common source of infection accounting for 25% and unchanged from the previous year at 49 cases, (Table 2). Other urinary tract sources were responsible for a further 24% of infections. 15% of cases were associated with the hepatobiliary system (liver & gall bladder) whilst no source could be identified in 18% of infections.

Source of Infection	2018	2019
Contaminant	1	
Device - Other	4	6
Device - Suprapubic Catheter	1	
Device - Urinary Catheter	49	49
Hepatobiliary	36	30
Lower urinary tract infection	26	26
Nephrostomy	6	
Not known	26	34
Osteomyelitis	1	2
Other	14	19
Pneumonia	18	6
Pyelonephritis	20	20
Septic arthritis		1
Skin - Ulcer	2	
Surgical site infection	5	1
<b>Total</b>	<b>209</b>	<b>194</b>

**Table 2 – Source of HCA ECBs 2018 and 2019**

There were nine urinary catheter related bacteraemias during the October – December 2019 quarter, the lowest level since January – March 2018 (Chart 4).



**Chart 4 – Urinary Catheter Related ECBs per Quarter**

As previously reported to the Committee urinary catheter related bacteraemias have been identified as the priority area for intervention. The multi-disciplinary Urinary Catheter Improvement Group (UCIG) has been established to identify and co-ordinate interventions across primary and secondary care. The Group's aims include reducing urinary catheter usage and improving the management of catheters whilst inserted. To support the work of the group a patient representative is currently being sought.

A scoping exercise has identified a number of themes that require to be developed and taken forward. These include:

- Revising the urinary catheter insertion and maintenance bundles to support hospital staff in making informed decisions on the continuing need for urinary catheters. This will include stricter criteria for urinary catheterisation. Initial testing has commenced in Ward 2D, University Hospital Crosshouse.
- Trial without catheter (TWOC) is a managed process for safely removing a urinary catheter to minimise the risk of re-insertion. TWOC documentation will be incorporated into the urinary catheter maintenance documentation.
- 30% of out of hours calls to the community nursing service relate to urinary catheters. An audit has been carried out in East Ayrshire between November 2019 and January 2020 to determine how many could possibly have been removed. A report will be compiled and submitted to the UCIG and the Nurse Director's Professional Leadership Group.
- Exploring staff education opportunities including senior medical staff who are seen as key influencers.
- Establishing a Continence Resource page on Athena as a one stop shop signposting staff to key information, guidance and support.
- Develop plans for a Board wide focus week during 2020 with the primary message being to reduce the overall number of patients with a urinary catheter in situ.
- Participate in the review of National Catheter Passport being undertaken by Health Protection Scotland.

## NHS AYRSHIRE &amp; ARRAN REPORT CARD

*Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
MRSA	0	1	0	1	2	0	1	0	0	1	0	2
MSSA	2	8	10	9	9	7	13	8	10	9	5	8
Total SABS	2	9	10	10	11	7	14	8	10	10	5	10

*Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Ages 15-64	1	1	1	2	4	4	0	3	5	1	0	1
Ages 65 plus	6	7	6	4	5	8	9	8	11	4	6	8
Ages 15 plus	7	8	7	6	9	12	9	11	16	5	6	9

## Hand Hygiene Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
AHP	97	98	97	100	100	96	97	98	96	100	97	98
Ancillary	98	96	93	90	100	93	93	98	91	91	98	93
Medical	93	95	91	89	97	95	94	100	96	94	90	91
Nurse	99	98	98	97	99	98	96	98	98	95	99	97
Board Total	98	99	96	96	99	97	96	98	97	97	97	97

## Cleaning Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Board Total	95	95	96	94	96	93	94	95	94	96	94	93

## Estates Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Board Total	98	98	98	98	98	97	97	97	97	97	96	97



## UNIVERSITY HOSPITAL AYR REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>MRSA</b>	0	1	0	0	0	0	0	0	0	0	0	0
<b>MSSA</b>	0	0	1	1	0	2	3	0	0	1	0	0
<b>Total SABS</b>	0	1	1	1	0	2	3	0	0	1	0	0

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Ages 15-64</b>	0	0	0	0	0	0	0	0	1	0	0	0
<b>Ages 65 plus</b>	1	0	1	1	0	1	1	3	1	2	2	0
<b>Ages 15 plus</b>	1	0	1	1	0	1	1	3	2	2	2	0

1

### Cleaning Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Ayr</b>	94	94	95	95	94	94	94	95	94	96	94	94

96

95

### Estates Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Ayr</b>	96	96	95	96	95	96	96	96	95	96	95	94

## UNIVERSITY HOSPITAL CROSSHOUSE REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>MRSA</b>	0	0	0	0	0	0	4	0	0	1	0	1
<b>MSSA</b>	1	2	1	0	1	1	0	1	4	3	1	2
<b>Total SABS</b>	1	2	1	0	1	1	4	1	4	4	1	3

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Ages 15-64</b>	0	0	0	0	0	1	0	1	0	1	0	0
<b>Ages 65 plus</b>	1	3	1	1	1	0	1	1	3	0	0	1
<b>Ages 15 plus</b>	1	3	1	1	1	1	1	2	3	1	0	1

### Cleaning Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Crosshouse</b>	95	96	96	96	96	96	96	95	95	95	95	95

### Estates Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Crosshouse</b>	98	98	98	98	98	98	98	98	97	97	96	97

## AYRSHIRE CENTRAL HOSPITAL REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>MRSA</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>MSSA</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total SABS</b>	0	0	0	0	0	0	0	0	0	0	0	0

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>Ages 15-64</b>	0	0	0	0	0	0	0	0	0	0	0	0
<b>Ages 65 plus</b>	1	1	0	0	0	0	0	0	0	0	0	0
<b>Ages 15 plus</b>	1	1	0	0	0	0	0	0	0	0	0	0

### Cleaning Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>ACH</b>	94	94	96	90	95	85	91	95	95	98	93	89

### Estates Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
<b>ACH</b>	99	99	100	98	99	98	96	98	98	98	96	98

## BIGGART HOSPITAL REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	0	0	1	0	0	1	0	0	0	0	0	0
Total SABS	0	0	1	0	0	1	0	0	0	0	0	0

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Ages 15-64	0	0	0	0	0	0	0	0	0	0	0	0
Ages 65 plus	0	0	1	0	0	0	0	0	0	0	0	2
Ages 15 plus	0	0	1	0	0	0	0	0	0	0	0	2

### Cleaning Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Biggart	96	96	-	93	99	97	-	96	91	96	95	96

### Estates Monitoring Compliance (%)

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Biggart	97	98	-	97	98	98	-	97	97	96	98	96

## NHS COMMUNITY HOSPITALS REPORT CARD

- Ailsa Hospital,
- Arran War Memorial Hospital
- Arrol Park Resource Centre
- East Ayrshire Community Hospital
- Girvan Community Hospital
- Lady Margaret
- Woodland View

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
MRSA	0	0	0	0	0	0	0	0	0	0	0	0
MSSA	0	0	0	0	0	0	1	0	0	0	0	0
Total SABS	0	0	0	0	0	0	1	0	0	0	0	0

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Ages 15-64	0	0	0	0	0	0	0	0	0	0	0	0
Ages 65 plus	0	0	0	0	1	0	0	0	0	0	0	0
Ages 15 plus	0	0	0	0	1	0	0	0	0	0	0	0

## NHS OUT OF HOSPITAL REPORT CARD

### *Staphylococcus aureus* bacteraemia monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
MRSA	0	0	0	1	2	0	1	0	0	0	0	1
MSSA	1	6	7	8	8	4	5	5	6	5	4	6
Total SABS	1	6	7	9	10	4	6	5	6	5	4	7

### *Clostridium difficile* infection monthly case numbers

	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 20	Jan 20
Ages 15-64	1	1	1	2	4	3	0	2	4	0	0	1
Ages 65 plus	3	3	3	2	3	7	6	4	7	2	4	5
Ages 15 plus	4	4	4	4	7	10	6	6	11	2	4	6