Borders NHS Board

Meeting Date: 24 June 2021

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HEALTHCARE ASSOCIATED INFECTION PREVENTION AND CONTROL REPORT May 2021

Purpose of Report:

The purpose of this paper is to update Board members on the current status of Healthcare Associated Infections (HAI) and infection control measures in NHS Borders.

Recommendations:

The Board is asked to **note** this report.

Approval Pathways:

The format of this report is in accordance with Scottish Government requirements for reporting HAI to NHS Boards. This report has not been submitted to any prior groups or committees but much of the content will be presented to the Clinical Governance Committee.

Executive Summary:

This report provides an overview for Borders NHS Board of infection prevention and control with particular reference to the incidence of Healthcare Associated Infections (HAI) against Scottish Government targets for infection control.

The report provides updates on:-

- NHS Borders infection surveillance against Scottish Government targets including *S.aureus* bacteraemia, *C.difficile* infections and *E.coli* bacteraemia
- Cleanliness monitoring, hand hygiene and the Infection Control compliance monitoring programme
- Infection Control work plan
- Incidents and outbreaks
- Personal Protective Equipment (PPE)

Impact of item/issues on:

Strategic Context	This report is in line with the NHS Scotland HAI Action Plan.
Patient Safety/Clinical Impact	Infection prevention and control is central to patient safety
Staffing/Workforce	Infection Control staffing issues are detailed in this

	report.
Finance/Resources	This assessment has not identified any resource implications.
Risk Implications	All risks are highlighted within the paper.
Equality and Diversity	This is an update paper so a full impact assessment is not required.
Consultation	This is a regular bi-monthly update as required by SGHD. As with all Board papers, this update will be shared with the Area Clinical Forum for information.
Glossary	See Appendix A.

Healthcare Associated Infection Reporting Template (HAIRT)

Section 1– Board Wide Issues

1.0 Key Healthcare Associated Infection Headlines

- 1.1 NHS Borders had a total of 30 *Staphylococcus aureus* Bacteraemia (SAB) cases between April 2020 and March 2021, 19 of which were healthcare associated infections: healthcare associated in this context includes hospital acquired infections and healthcare associated infections.

  1.2 In April 2021, we have had 2 *Staphylococcus aureus* Bacteraemia (SAB) cases, 1 of which was healthcare associated.

  1.3 The Scottish Government has set a target for each Board to achieve a 10% reduction in the healthcare associated SAB rate per 100,000 Total Occupied Bed Days (TOBDs) by 2021/22 (using 2018/19 as the baseline). Based on historic occupied bed days, this would equate to a target for NHS Borders of no more than 19 healthcare associated SAB cases per financial year. However, due to the pandemic, occupied bed days have decreased which reduces the target for the number of cases. We are awaiting the HPS Quarterly Epidemiological report for Quarter 1 2021 which will likely be available in July this year. Until then, we are unable to re-calculate our rate to establish if we have met the target.

- 1.4 NHS Borders had a total of 12 *C.difficile* Infection (CDI) cases between April and March 2021, 9 of which were healthcare associated infections.

  1.5 In April 2021, we have had 2 CDI cases, both of which were healthcare associated.

  1.6 The Scottish Government has set a target for each Board to achieve a 10% Reduction in the healthcare associated CDI rate per 100,000 Total Occupied Bed Days (TOBDs) by 2021/22 (using 2018/19 as the baseline). Based on historic occupied bed days, this would equate to a target for NHS Borders of no more than 11 healthcare associated CDI cases per financial year. However, as with SABs, we are awaiting the HPS Quarterly Epidemiological report for Quarter 1 2021 to enable us to re-calculate our rate to establish if we have met the target.

- 1.7 NHS Borders had a total of 81 *E. coli* Bacteraemia (ECB) cases between April 2020 and March 2021, 48 of which were healthcare associated. Early indications suggest that NHS Borders ECB rate is comparable with the NHS Scotland average rate during this period.

  1.8 In April 2021, we have had 13 ECB cases, 9 of which were healthcare associated.

  1.9 The Scottish Government has set a target for each Board to achieve a 25%

reduction in the healthcare associated ECB rate per 100,000 Total Occupied Bed Days (TOBDs) by 2021/22 (using 2018/19 as the baseline) and with a total reduction of 50% by 2023/24. Based on historic occupied bed days, this would equate to a target for NHS Borders of no more than 32 healthcare associated ECB cases per financial year by 2021/22 and 21 healthcare associated cases by 2023/24. However, as with SABs and CDI, we are awaiting the HPS Quarterly Epidemiological report for Quarter 1 2021 to enable us to re-calculate our rate.

2.0 *Staphylococcus aureus* Bacteraemia (SAB)

See Appendix A for definition.

2.1 Between April and March 2021, there have been 29 cases of Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia and 1 case of Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia.

2.2. In April 2021, there have been 2 cases of Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia and 0 cases of Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia.

2.2. Figure 1 shows a Statistical Process Control (SPC) chart showing the number of days between each SAB case. The reason for displaying the data in this type of chart is due to SAB cases being rare events with low numbers each month.

2.3 Traditional charts which show the number of cases per month can make it more difficult to spot either improvement or deterioration. These charts highlight any statistically significant events which are not part of the natural variation within our health system.

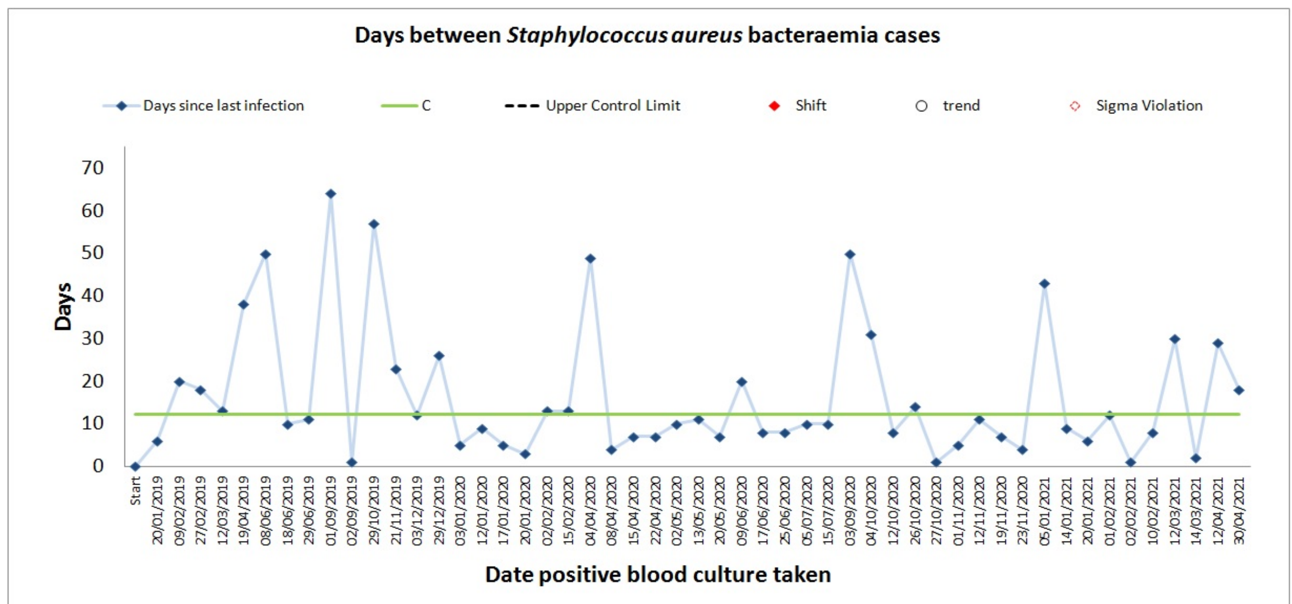


Figure 1: NHS Borders days between SAB cases (January 2019 – April 2021)

2.4 In interpreting Figure 1, it is important to remember that as this graph plots the number of days between infections, we are trying to achieve performance above the green average line.

2.5 The graph shows that there have been no statistically significant events since the last Board update.

2.6 Health Protection Scotland produces quarterly reports showing infection rates for all Scottish Boards. Figure 2 below shows the most recently published data as a funnel plot of healthcare associated SAB cases as rates per 100,000 Total Occupied Bed Days (TOBDs) for all NHS boards in Scotland in Quarter 4 (Oct-Dec 2020).

2.7 During this period, NHS Borders (BR) had a rate of 18.4 which was below the Scottish average rate of 18.8.

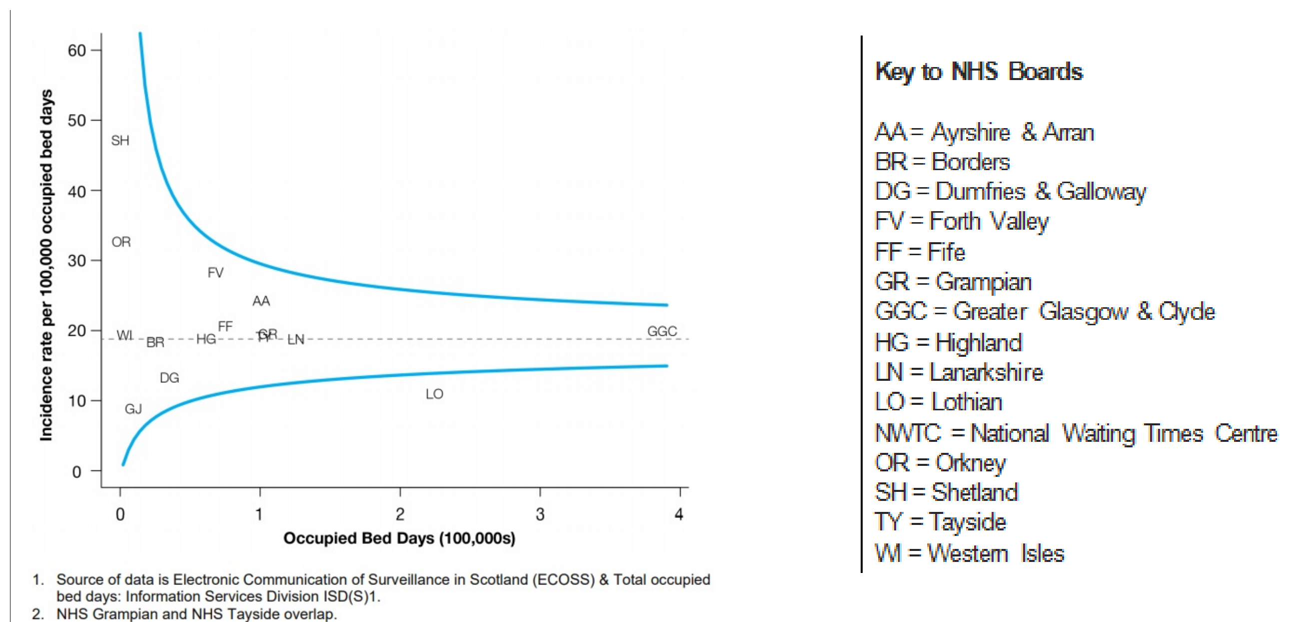
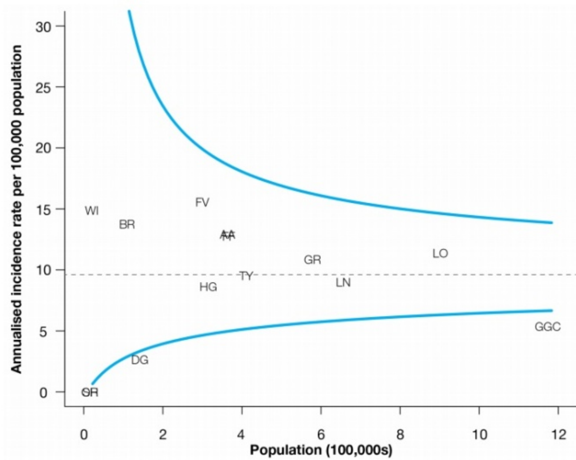


Figure 2: Funnel plot of SAB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS Boards in Scotland in Q4 2020

2.8 A funnel plot chart is designed to distinguish natural variation from statistically significant outliers. The funnel narrows on the right of the graph as the larger health Boards will have less fluctuation in their rates due to greater Total Occupied Bed Days. Figure 2 shows that NHS Borders was within the blue funnel, which means that we are not a statistical outlier but we are below the Scottish average rate due to natural variation.

2.9 Figure 3 below shows a funnel plot of community associated SAB cases as rates per 100,000 population for all NHS boards in Scotland in Q4 2020. During this period NHS Borders (BR) had a rate of 13.8 which is above the Scottish average rate of 9.6 but we are not a statistical outlier from the rest of Scotland.



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS mid-year population estimates.
2. NHS Ayrshire and Arran and NHS Fife overlap, as do NHS Shetland and NHS Orkney.

Figure 3: Funnel plot of SAB incidence rates (per 100,000 population) in community associated infection cases for all NHS Boards in Scotland in Q4 2020

3.0 *Clostridioides difficile* infections (CDI)

See Appendix A for definition.

3.1 Figure 4 below shows a Statistical Process Control (SPC) chart showing the number of days between each CDI case. As with SAB cases, the reason for displaying the data in this type of chart is due to CDI cases being rare events with low numbers each month. The graph shows that there have been no statistically significant events since the last Board update.

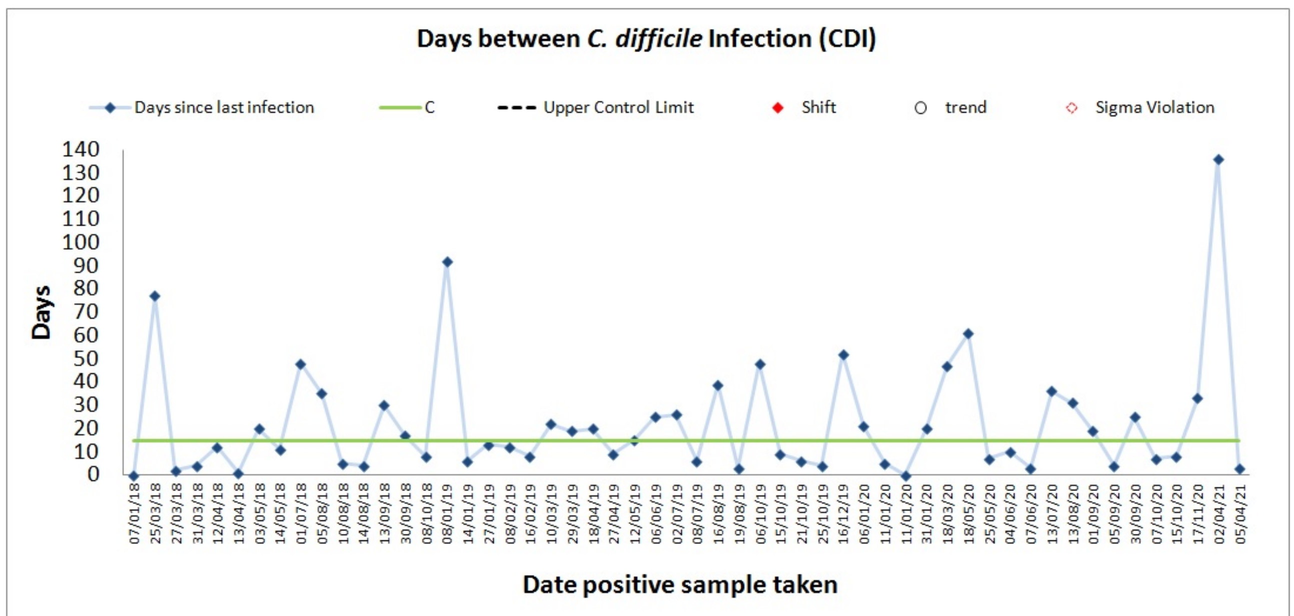
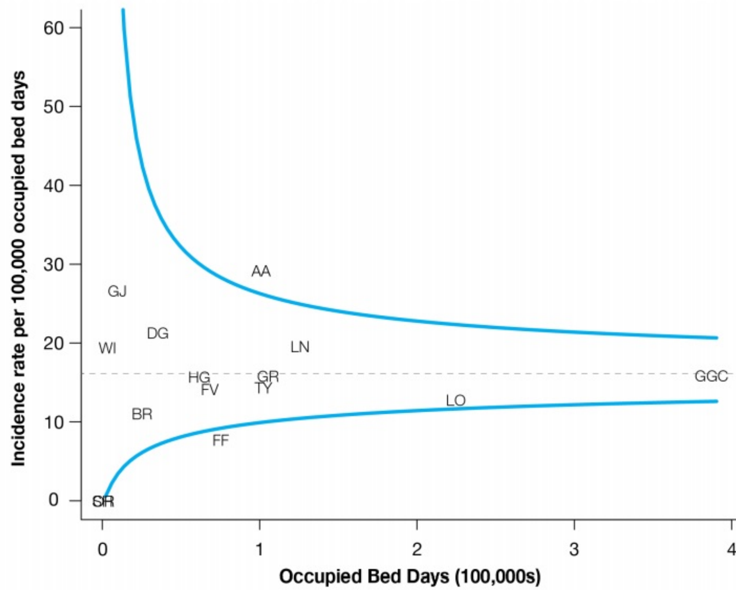


Figure 4: NHS Borders days between CDI cases (January 2018–April 2021)

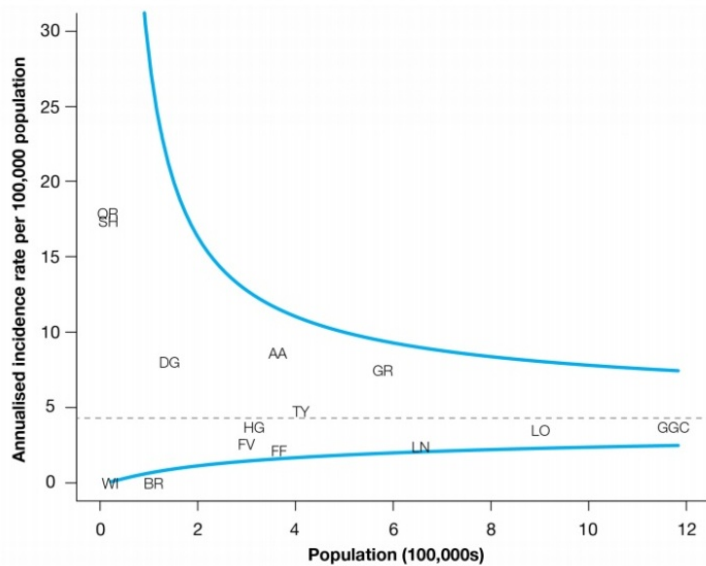
3.2 Health Protection Scotland produces quarterly reports showing infection rates for all Scottish Boards. Figure 5 below shows a funnel plot of CDI incidence rates (per 100,000 TOBD) of <u>healthcare associated</u> infection cases for all NHS Boards in Scotland in Q4 2020. The graph shows that NHS Borders (BR) had a rate of 11.0 which is below the Scottish average rate of 16.1.



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

Figure 5: Funnel plot of CDI incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS Boards in Scotland in Q4 2020

3.3 Figure 6 below shows a funnel plot of CDI incidence rates (per 100,000 population) of <u>community associated</u> infection cases for all NHS Boards in Scotland in Q4 2020. The graph shows that NHS Borders (BR) had a rate of 0 which is below the Scottish average rate of 4.3.



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS mid-year population estimates.
2. NHS Orkney and NHS Shetland overlap.

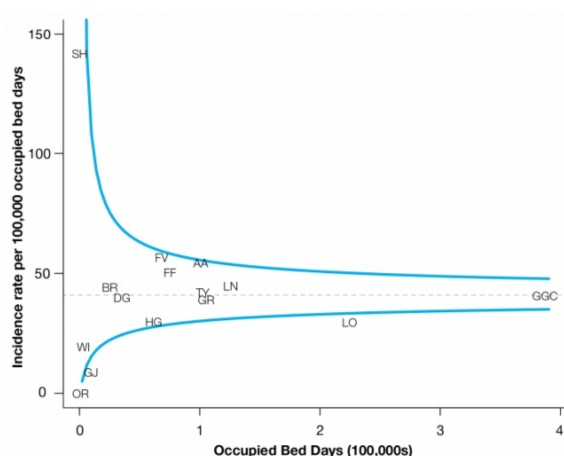
Figure 6: Funnel plot of CDI incidence rates (per 100,000 population) in community associated infection cases for all NHS Boards in Scotland in Q4 2020

4.0 *Escherichia coli (E. coli)* Bacteraemia (ECB)

4.1 The biggest risk factor for patients in relation to *E. coli* Bacteraemia is Catheter Associated Urinary Tract Infection (CAUTI). COVID activity has been prioritised by the Infection Prevention and Control Team over the last year and this has impacted on capacity for improvement activity associated with CAUTI. The Prevention of CAUTI group has now been re-established and the group meets bi-monthly to develop and inform improvement activity.

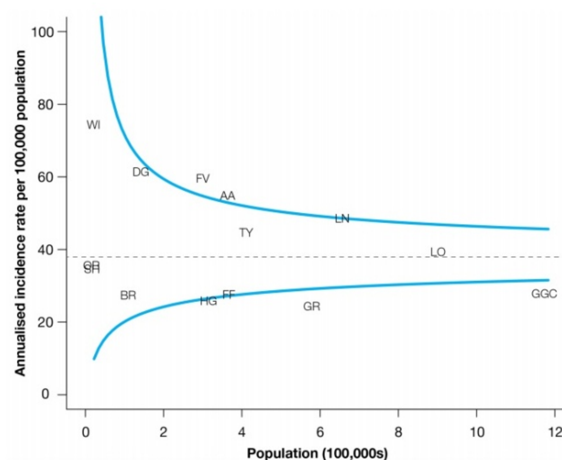
4.2 Health Protection Scotland produces quarterly reports showing infection rates for all Scottish Boards. Figure 7 below shows a funnel plot of healthcare associated ECB infection rates (per 100,000 TOBD) for all NHS Boards in Scotland in Q4 2020. NHS Borders (BR) had a rate of 44.2 for healthcare associated infection cases which is above the Scottish average rate of 40.9 but we are not a statistical outlier from the rest of Scotland.

4.3 Figure 8 below shows a funnel plot of community associated ECB infection rates (per 100,000 population) for all NHS Boards in Scotland in Q4 2020. NHS Borders (BR) had a rate of 27.6 for community associated infection cases which is below the Scottish average rate of 37.9. It is worth noting that community acquired ECB cases had no healthcare intervention prior to the positive blood culture being taken.



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

Figure 7: Funnel plot of healthcare associated ECB infection rates (per 100,000 TOBD) for all NHS Boards in Scotland in Q4 2020



1. Source of data is Electronic Communication of Surveillance in Scotland (ECOSS) & NRS mid-year population estimates.
2. NHS Orkney and NHS Shetland overlap.

Figure 8: Funnel plot of community associated ECB infection rates (per 100,000 population) for all NHS Boards in Scotland in Q4 2020

5.0 NHS Borders Surgical Site Infection (SSI) Surveillance

5.1 The Scottish Government updated the requirements for HAI surveillance on the 25th of March 2020. In light of the prioritisation of COVID-19 surveillance, all mandatory and voluntary surgical site infection surveillance has been paused from this date. Mandatory surveillance of *E.coli* bacteraemia, *Staphylococcus aureus* bacteraemia and *C. difficile* Infections has continued but as light surveillance only.

6.0 Hand Hygiene

For supplementary information see Appendix A

6.1 The hand hygiene data tables contained within the NHS Borders Report Card (section 2, p.12) are generated from wards conducting self-audits.

6.2 The importance of strict hand hygiene continues to be promoted as part of the COVID-19 precautions aimed at patients, staff and members of the public.

7.0 Infection Prevention and Control Compliance Monitoring Programme

7.1 The current risk assessed approach for spot checks and resulting follow-up process has created a cycle of audits, spot checks and follow-up visits within the same areas resulting in missed opportunities to visit other clinical areas.

7.2 A meeting was convened on 6th May 2021 with senior representatives from each clinical board to discuss and agree an alternative approach for undertaking spot checks. The group agreed to establish a process which will require Clinical Nurse Managers (CNM) to complete spot checks out with their own area. This will require a programme of education with the IPCN and an implementation programme is currently being developed. Pace of implementation will be restricted by IPCN capacity. This supports local ownership by CNM's of the quality assurance process reflecting good practice.

7.3 The IPCT will retain management and oversight of the spot checking process including collation, feedback and reporting of spot check outcomes.

8.0 Cleaning and the Healthcare Environment

For supplementary information see Appendix A.

8.1 The data presented within the NHS Borders Report Card (Section 2 p.12) is an average figure across the sites using the national cleaning and estates monitoring tool that was implemented in April 2012. All areas met the Health Facilities Scotland national target of 90% although a study is progressing to validate these results.

9.0 2020/21 Infection Control Workplan

9.1 Due to prioritisation of clinical activity and COVID-19 response, the 2020/21 work plan has 21 incomplete actions as of 1st April 2021. Whilst completion of these actions has been delayed some progress has been made and work towards completion continues. These actions have been reviewed and have been added to the new 2021/22 work plan where appropriate.

9.2 The 2021/22 work plan was approved by the Infection Control Committee on 12th May 2021. This is an ambitious work plan given the ongoing management to the COVID-19 pandemic. The IPCT will report to each Infection Control Committee on progress against the 2021/22 work plan highlighting potential risks associated with delay in implementation.

10.0 Outbreaks/ Incidents

COVID-19

10.1 Since the last Board update, there have been no COVID-19 related outbreaks/incidents. Meetings are ongoing to review all COVID-19 outbreaks and identify learning.

Incidents

10.2 There have been three incidents since the last Committee update for which a Problem Assessment Group (PAG) and/or Incident Management Meeting (IMT) has been convened:

- **ITU Hospital Acquired Infections**

10.3 A PAG was convened on the 23rd March 2021 to discuss 3 apparent hospital acquired infections in ITU. There were a number of actions from the PAG including a spot check being performed to assess compliance with standard infection prevention and control precautions including environmental cleanliness and PPE usage.

- **Borderline Oxacillin Resistant *Staphylococcus aureus* (BORSA)**

10.4 A PAG was convened on the 29th April 2021 to discuss an apparent increase in the prevalence of new BORSA isolates. Between November 2020 and April 2021 there were 16 new isolates across acute and community settings.

10.5 The hypothesis is that there has been healthcare associated transmission of BORSA; however, the means by which transmission occurred is not clear.

10.6 There is no national surveillance programme for BORSA or guidance on the management of patients. The local cases were identified incidentally from clinical samples.

10.7 There have been no further cases in May 2021. Management of new BORSA patients is being reviewed including developing new processes to enable faster detection of an emerging outbreak in future.

- **Post-IVT (intravitreal) Endophthalmitis**

10.8 Between January 2021 and March 2021, 2 cases of endophthalmitis occurred following IVT procedures at the Borders Eye Centre. An organism was isolated from one patient's sample but there was no growth from patient two. Patients in NHS Borders are advised of a 0.02%-0.06% chance of infection post-IVT and in the last 12 years there have been no cases of endophthalmitis post-IVT.

10.9 No definitive cause has been identified; however, this procedure is now being undertaken in a different room as a precaution whilst ventilation is assessed. There is a further meeting scheduled for the 8th of June to review the situation.

11.0 Infection Prevention and Control Team Capacity

11.1 Clinical capacity within the IPCT has reduced further since the last Board update. However, following successful interviews, two candidates have been offered and accepted the 2.0wte vacant Infection Prevention & Control Nurse posts. A service review is progressing which may identify options for a different skill mix within the IPCT. This reflects national work reviewing IPCT skill mix with opportunities to attract staff from different backgrounds to roles within Infection Control.

12.0 Personal Protective Equipment (PPE)

12.1 NHS Borders current guidance for staff in relation to PPE use goes above and beyond national guidance. Following a recommendation from the PPE Committee, Gold Command has approved NHS Borders aligning PPE guidance for staff with current national guidance.

12.2 The PPE Committee has developed an implementation plan with input from Staffside and is currently preparing for implementation of this change in guidance.

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 out with 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:

Clostridioides difficile :**http://www.nhs24.com/content/default.asp?page=s5_4&articleID=2139§ionID=1**

Staphylococcus aureus :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§ionID=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.diff* 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 infectionsand *Staphylococcus aureus (*including MRSA*)* bacteraemiacases are 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 BORDERS BOARD REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
MRSA	1	0	0	0	0	0	0	0	0	0	0
MSSA	2	2	0	1	4	4	0	4	3	2	2
Total SABS	3	2	0	1	4	4	0	4	3	2	2

Clostridioides difficile infection monthly case numbers

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Ages 15-64	0	1	0	1	0	0	0	0	0	0	0
Ages 65 plus	2	0	1	2	2	1	0	0	0	0	2
Ages 15 plus	2	1	1	3	2	1	0	0	0	0	2

Hand Hygiene Monitoring Compliance (%)

	June 2020*	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
AHP	-	100	100	100	100	100	98.1	100.0	98.0	98.8	98.8
Ancillary	-	100	100	96	100	100	91.9	94.9	96.7	99.3	92.6
Medical	-	98.8	98.6	100	100	100.0	100.0	92.3	95.0	97.0	92.4
Nurse	-	99.4	99.4	99.5	100	98.7	99.6	99.6	98.5	97.7	99.3
Board Total	**-**	**99.5**	**99.5**	**98.8**	**100.0**	**99.7**	**97.4**	**96.7**	**97.1**	**98.2**	**95.8**

*Self audit hygiene data reporting paused due to prioritisation of COVID-19 related work

Cleaning Compliance (%)

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Board Total	95.8	96.6	97.0	93.3	96.3	96.3	96.2	97.4	95.3	95.4	95.1

Estates Monitoring Compliance (%)

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Board Total	99.2	98.7	99.8	98.8	98.1	98.2	98.0	98.2	99.6	98.1	98.7

BORDERS GENERAL HOSPITAL REPORT CARD

Staphylococcus aureus bacteraemia monthly case numbers

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
MRSA	0	0	0	0	0	0	0	0	0	0	0
MSSA	0	1	0	0	2	2	0	2	2	2	1
Total SABS	0	1	0	0	2	2	0	2	2	2	1

Clostridioides difficile infection monthly case numbers

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Ages 15-64	0	0	0	1	0	0	0	0	0	0	0
Ages 65 plus	0	0	0	0	1	1	0	0	0	0	2
Ages 15 plus	0	0	0	1	1	1	0	0	0	0	2

Cleaning Compliance (%)

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Board Total	97.3	97.1	96.4	96.1	95.5	96.3	95.4	96.5	96.0	96.7	97.3

Estates Monitoring Compliance (%)

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Board Total	99.3	99.8	99.6	99.4	99.0	99.1	98.1	99.1	98.8	99.1	98.5

NHS COMMUNITY HOSPITALS REPORT CARD

The community hospitals covered in this report card include:

- **Haylodge Community Hospital**
- **Hawick Community Hospital**
- **Kelso Community Hospital**
- **Knoll Community Hospital**

Staphylococcus aureus **bacteraemia monthly case numbers**

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
MRSA	0	0	0	0	0	0	0	0	0	0	0
MSSA	0	0	0	0	0	1	0	0	0	0	0
Total SABS	0	0	0	0	0	1	0	0	0	0	0

Clostridioides difficile **infection monthly case numbers**

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Ages 15-64	0	0	0	0	0	0	0	0	0	0	0
Ages 65 plus	1	0	0	0	0	0	0	0	0	0	0
Ages 15 plus	1	0	0	0	0	0	0	0	0	0	0

NHS OUT OF HOSPITAL REPORT CARD

Staphylococcus aureus **bacteraemia monthly case numbers**

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
MRSA	1	0	0	0	0	0	0	0	0	0	0
MSSA	2	1	0	1	2	1	0	2	1	0	1
Total SABS	3	1	0	1	2	1	0	2	1	0	1

Clostridioides difficile **infection monthly case numbers**

	June 2020	July 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021
Ages 15-64	0	1	0	0	0	0	0	0	0	0	0
Ages 65 plus	1	0	1	2	1	0	0	0	0	0	0
Ages 15 plus	1	1	1	2	1	0	0	0	0	0	0

Appendix A

Definitions and Supplementary Information

Staphylococcus aureus Bacteraemia (SAB)

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:

Staphylococcus aureus : 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

NHS Boards carry out surveillance of *Staphylococcus aureus* blood stream infections, known as bacteraemia. These are a serious form of infection and there is a national target to reduce them. The number of patients with MSSA and MRSA bacteraemia 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* bacteraemia can be found at:

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

Clostridioides difficile infection (CDI)

Clostridioides 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 *Clostridioides 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 *Clostridioides difficile* infections can be found at:

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

Escherichia coli bacteraemia (ECB)

Escherichia coli (*E. coli*) is a bacterium that forms part of the normal gut flora that helps human digestion. Although most types of *E. coli* live harmlessly in your gut, some types can make you unwell. When it gets into your blood stream, *E. coli* can cause a bacteraemia. Further information is available here:

https://www.gov.uk/government/collections/escherichia-coli-e-coli-guidance-data-and-analysis

NHS Borders participate in the HPS mandatory surveillance programme for ECB.This surveillance supports local and national improvement strategies to reduce these infections and improve the outcomes for those affected. Further information on the surveillance programme can be found here:

https://www.hps.scot.nhs.uk/a-to-z-of-topics/escherichia-coli-bacteraemia-surveillance/

Hand Hygiene

Information on national hand hygiene monitoring can be found at:

http://www.hps.scot.nhs.uk/haiic/ic/nationalhandhygienecampaign.aspx

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/

Cleaning and the Healthcare Environment

Keeping the healthcare environment clean is essential to prevent the spread of infections. NHS Boards monitor the cleanliness of hospitals and there is a national target to maintain compliance with standards above 90%.The cleaning compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national cleanliness compliance monitoring can be found at:

http://www.hfs.scot.nhs.uk/online-services/publications/hai/

Healthcare environment standards are also independently inspected by the Healthcare Environment Inspectorate. More details can be found at:

http://www.nhshealthquality.org/nhsqis/6710.140.1366.html