

NHS Board Meeting
22 February 2023

Lanarkshire NHS Board
Kirklands
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SUBJECT: HEALTHCARE ASSOCIATED INFECTION REPORTING TEMPLATE (HAIRT)

1. PURPOSE

This paper is coming to the Board:

For approval	<input checked="" type="checkbox"/>	For endorsement	<input type="checkbox"/>	To note	<input type="checkbox"/>
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The purpose of this paper is to provide NHSL Board with an update on NHSLs position in regards to the CNO (2019) October 2019: Standards on Healthcare Associated Infection and Indicators for Antibiotic Use.

2. ROUTE TO THE BOARD

Prepared	<input checked="" type="checkbox"/>	Reviewed	<input checked="" type="checkbox"/>	Endorsed	<input type="checkbox"/>
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This paper has been prepared by the Infection Prevention and Control Team and will be ratified by the Infection Control Committee (ICC).

3. SUMMARY OF KEY ISSUES

Please note that performance data contained within the report has been validated nationally by Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland. The Standards on Healthcare Associated Infections and Indicators on Antibiotic Use for Scotland were released on 10 October 2019. NHS Lanarkshire has developed local AOP standards which took effect retrospectively from April 2019.

IPCT work collaboratively with the Quality Department on the delivery of the Infection Prevention and Control Collaborative.

The paper provides an update on the following areas:

- ▶ Quality Improvement
- ▶ Annual Operating Plan (AOP) targets for *Staphylococcus aureus* bacteraemia (SAB) and *Clostridioides difficile* Infection (CDI) standards for 2019 to 2023 and *Escherichia coli* bacteraemia (ECB) standard for 2019 to 2024.
- ▶ Key Performance Indicators (KPI) for Meticillin Resistant *Staphylococcus aureus* (MRSA) Clinical Risk Assessment (CRA) and Carbapenemase-producing *Enterobacteriaceae* (CPE) CRA compliance.
- ▶ Local Performance Indicator for Hand Hygiene.
- ▶ DATIX/SAER (learning outcomes)
- ▶ Outbreaks and incidents/ward closures

4. STRATEGIC CONTEXT

This paper links to the following:

Corporate objectives	<input checked="" type="checkbox"/>	AOP	<input checked="" type="checkbox"/>	Government policy	<input checked="" type="checkbox"/>
Government directive	<input checked="" type="checkbox"/>	Statutory requirement	<input type="checkbox"/>	AHF/local policy	<input type="checkbox"/>
Urgent operational issue	<input type="checkbox"/>	Other	<input type="checkbox"/>		

5. CONTRIBUTION TO QUALITY

This paper aligns to the following elements of safety and quality improvement:

Three Quality Ambitions:

Safe	<input checked="" type="checkbox"/>	Effective	<input checked="" type="checkbox"/>	Person Centred	<input checked="" type="checkbox"/>
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Six Quality Outcomes:

Everyone has the best start in life and is able to live longer healthier lives; (Effective)	<input checked="" type="checkbox"/>
People are able to live well at home or in the community; (Person Centred)	<input checked="" type="checkbox"/>
Everyone has a positive experience of healthcare; (Person Centred)	<input checked="" type="checkbox"/>
Staff feel supported and engaged; (Effective)	<input checked="" type="checkbox"/>
Healthcare is safe for every person, every time; (Safe)	<input checked="" type="checkbox"/>
Best use is made of available resources. (Effective)	<input checked="" type="checkbox"/>

6. MEASURES FOR IMPROVEMENT

- Annual Operating Plan (AOP) targets for *Staphylococcus aureus* bacteraemia (SAB) and *Clostridioides difficile* Infection (CDI) standards for 2019 to 2023 and *Escherichia coli* bacteraemia (ECB) standard for 2019 to 2024.
- Key Performance Indicators (KPI) for Meticillin Resistant *Staphylococcus aureus* (MRSA) Clinical Risk Assessment (CRA) and Carbapenemase-producing *Enterobacteriaceae* (CPE) CRA compliance.

7. FINANCIAL IMPLICATIONS

The organisation carries financial pressures as a direct result of HCAI. The severity of these pressures are dependent on a number of variables including length of stay, associated treatment required etc.

8. RISK ASSESSMENT/MANAGEMENT IMPLICATIONS

The IPC Risk Register, continues to be updated and presented to ICC at each meeting, to date there are **3** risks remaining on the IPC Risk Register (**3** categorised as medium),.

Risks as follows: risks and 1 low risk as follows:

- IPC staffing - **Medium**
- NHSL electronic surveillance system (NHSL do not have an electronic system) - **Medium**
- Decontamination Lead Post Funding not currently accessible – **Medium**

9. FIT WITH BEST VALUE CRITERIA

This paper aligns to the following best value criteria:

Vision and leadership	<input type="checkbox"/>	Effective partnerships	<input type="checkbox"/>	Governance and accountability	<input checked="" type="checkbox"/>
Use of resources	<input checked="" type="checkbox"/>	Performance management	<input checked="" type="checkbox"/>	Equality	<input checked="" type="checkbox"/>
Sustainability Management	<input type="checkbox"/>				

10. EQUALITY AND DIVERSITY IMPACT ASSESSMENT

An Equality and Diversity Impact Assessment (EDIA) has been completed

- Yes Please say where a copy can be obtained
 No Please say why not

There has been no requirement to date to complete an EDIA.

11. CONSULTATION AND ENGAGEMENT

Consultation and contributions have been devised from the following departments/personnel across acute and partnership services:

- Infection Prevention and Control Team (IPCT)
- Property and Support Services Division (PSSD)
- Antimicrobial Management Team (AMT)
- Lanarkshire Infection Control Committee (ICC) and Sub-groups

12. ACTIONS FOR THE BOARD

The Board is asked to:

Approve	<input type="checkbox"/>	Endorse	<input checked="" type="checkbox"/>	Identify further actions	<input type="checkbox"/>
Note	<input checked="" type="checkbox"/>	Accept the risk identified	<input type="checkbox"/>	Ask for a further report	<input type="checkbox"/>

1. Note the report and highlight any areas where further clarification or assurance is required.
2. Confirm whether the report provides sufficient assurance around NHSL performance on HCAI, and the arrangements in place for managing and monitoring HCAI.
3. Support the ongoing development of the Lanarkshire Breakthrough Series Collaborative.

13. FURTHER INFORMATION

For further more detailed information or clarification of any issues in this paper please contact:

- Eddie Docherty, Executive Director of Nursing, Midwifery and Allied Health Professionals (NMAHPs) (Telephone number: 01698 752864)
- Christina Coulombe, Head of Infection Prevention and Control (Telephone number: 01698 366309)

Glossary of terms and definitions [Appendix 1](#)

1. Introduction

This report to the Board provides an update on NHSLs current progress against the Annual Operating Plan (AOP) targets for *Staphylococcus aureus* bacteraemia (SAB), *Clostridioides difficile* Infection (CDI) standards for 2019 to 2023 and *Escherichia coli* bacteraemia (ECB) standard for 2019 to 2024

The report also provides the Board with an update on the Key Performance Indicators (KPI) for Meticillin Resistant *Staphylococcus aureus* (MRSA) Clinical Risk Assessment (CRA) and *Carbapenemase*-producing *Enterobacteriaceae* (CPE) CRA compliance.

The routine monitoring of this work is with scrutiny from the Infection Control Committee (ICC) A dashboard is presented on a bi-monthly basis at the beginning of each meeting, presenting all of the data to the Committee and NHSLs progress on meeting the AOPs.

The ICC oversee the Hygiene Groups which include all three of the acute sites, Health and Social Care Partnerships North and South, and Allied Health Professional's, a report from all of these groups are submitted and discussed on a bi monthly basis at the ICC. All AOPs, national and local KPIs, outbreaks and incidents and hand hygiene aspects as noted above are incorporated into these reports to provide ICC with an overall assurance.

ICC also oversees the Infection Prevention and Control (IPC) Annual Work Programme 2022/23, which also incorporates updates from the Antimicrobial Management Team, Property and Support Division (PSSD) and MRP (Monklands Replacement Project) The 2022/23 IPC Annual Work Programme incorporates the Healthcare Improvement Scotland (HIS) Standards 2022.

Eddie Docherty, Executive Director of NMAHPs commissioned a Breakthrough Series Collaborative approach to reducing healthcare and community associated infections and improving hand hygiene compliance in Autumn 2020. Learning sessions 1 and 2 were held in 2022, and improvement work continues to progressed via the Breakthrough Series Collaborative.

2. Executive summary:

AOP Standards up to Q3 July to September 2022

- Healthcare Associated Infection Summary July - September 2022, included in [table 1](#)
- NHSL HCAI SAB rate of 18.3 for this reporting period is below the national comparator rate of 17.1 for Q3 (this is a **negative** impact). There were 6 HCAI SABs for July, 6 for August and 15 for September 2022, giving a total of 27 for this reporting period. Actions to address HCAI SAB reduction are included in this report in [table 2](#)
- NHSL is above the local AOP Standard rate of 16.1 for Q3 HCAI SAB rates. NHSL is sitting at 18.3; (this is a **negative** impact).
- There were 3 HCAI IV access device (IVAD) associated SAB for July, 3 for August and 4 for September, giving a total of 10 for this reporting period.
- NHSL HCAI ECB rate of 40.7 for this reporting period is above the national comparator rate of 36.2 for Q3 (this is a **negative** impact). There were 18 HCAI ECBs for July, 19 for August and 23 for September 2022, giving a total of 60 for this reporting period. Actions to address HCAI ECB reductions are included in this report in [table 3](#)
- NHSL is above the local AOP Standard rate of 33.5 for Q3 ECB rates. NHSL is sitting at 40.7 (this is a **negative** impact).
- There were 4 HCAI urinary Catheter associated ECB's for July, 3 for August and 4 for September 2022.
- NHSL HCAI CDI rate of 19.7 for this reporting period is above the national comparator rate of 13.1 for Q3 (this is a **negative** impact). There were 10 HCAI CDIs for July, 9 for August and 10 for September 2022, giving a total of 29 for this reporting period. Actions to address HCAI CDI reduction are included in this report in [table 4](#)

- NHS is above the local AOP Standard rate of 14.8 for Q3 CDI rates. NHSL is sitting at 19.7 (this is a **negative** impact)
- Prospective SAB, CDI and ECB data with origin of infection is now available to all staff via IPCT monthly report cards, hosted on the IPC page of First port (NHSL intranet). This ensures frontline clinical teams have access to real time data to inform decisions and actions to reduce healthcare associated infections.
- Surgical Site Infection (SSI) surveillance was paused nationally and locally in March 2020 and remains paused, [table](#)
- All positive and negative impacts have been subject to discussion with the Infection Prevention and Control Team (IPCT) and all issues identified are presented and monitored via the hospital hygiene groups.
- There were 5 CDI DATIX's for this reporting period, (5x CDI Severe Cases) there was one Severe Adverse Event Review (SAER) generated. The learning outcomes are noted in [table 6](#) below
- There were 7 SAB DATIX's for this reporting period, (1 SAB Death, 4 device related and 2 contaminants) Severe Adverse Event Review (SAER) confirmation is awaited. The learning outcomes are noted in [table 6](#) below
- NHSL have not met the Hand Hygiene national target rate of 95% (IPC QI audits), and is reporting a rate of 61% (**negative** impact): [table 7](#)
- The Board's cleaning compliance is 96% and Estates compliance is 94% for July 2022, 96% and 96% for August and 97% and 96% for September 2022. National targets of 90% and over have been met for this reporting period.
- COVID-19 figures. There were 59 Ward closures from January 2022 –December 2022 due to COVID-19. There were 2868 bed days lost during this period: [table 8](#). ARHAI Scotland hospital onset COVID-19 figures [table 9](#).
- Outbreaks and incidents. There were 19 outbreaks in total for October, November and December 2022. Common themes and learning outcomes [table 10](#).
- ARHAI Healthcare Infection Incident Assessment Tool (HIIAT) There were 35 green and 12 red HIIAT's reported to ARHAI Scotland for this reporting period, [table 11](#).
- NHSL has not met the target rate of 90% for the period October – December 2022 and is reporting a MRSA KPI rate of 79% (**negative** impact). NHSL are awaiting the updated national comparison rate for this period. [table 12](#).
- NHSL has not met the target rate of 90% for the period October – December 2022 and is reporting a CPE KPI rate of 70% (**negative** impact). NHSL are awaiting the updated national comparison rate for this period. [table 12](#).
- Healthcare Environment Inspectorate (HEI). There was 1 unannounced inspection conducted at University Hospital Wishaw for January 2023.
- Policies, guidelines and Standard Operating Procedures (SOP), there were 2 IPC guidelines and 3 SOPs ratified by the ICC for this reporting period. There are 2 Health Protection Team (HPT) guidelines that are currently out of date, however this has been highlighted to ICC and communicated to the Director of Public Health. The NHSL policy for the extended use of face masks will no longer be utilised and NHSL will revert to national guidance.
- Close communication with ARHAI Scotland and other external organisations continues.

NHSL Performance

Table 1: Healthcare Associated Infection Summary – July - September 2022.

	July 2022	August 2022	September 2022	NHSL Performance (Q3 July - August 2022): HCAI	Status towards AOP target (based on trajectory to Mar 2023)
Healthcare Associated <i>Staphylococcus aureus</i> bacteraemia (SAB)	6	6	15	<p><i>Staphylococcus aureus</i> Bacteraemia (SAB) Standard</p> <ul style="list-style-type: none"> NHSL SAB HCAI rate of 18.3 per 100,000 TOBDs; 27 HCAI cases; National SAB HCAI rate of 17.1 per 100,000 TOBDs; NHSL is above with the national comparator for Q3 SAB rates; NHSL is above the local AOP Standard rate of 16.1 for Q3 SAB rates. <p><i>Staphylococcus aureus</i> bacteraemia (SAB)</p> <ul style="list-style-type: none"> The AOP target is for HCAI cases only; During July to September 2022, there were 36 SAB cases; 27 HCAI cases and 9 community associated infection (CAI) cases; This is an increase of 3 HCAI and a decrease of 5 CAI SAB cases in total from the previous quarter; NHSL will be expected to achieve a target of <=91 HCAI SAB cases (a rate of 16.1 per 100,000 TOBDs by end of March 2023. (validated data for October – December 2022 awaited). 	Above AOP target of 16.1: NHSL 18.3
Hospital acquired IV access device (IVAD) associated SAB	3	3	4		Not applicable (NA)
Healthcare Associated <i>Clostridioides difficile</i> infection (CDI)	10	9	10	<p><i>Clostridioides difficile</i> Infection (CDI)</p> <ul style="list-style-type: none"> During July – September 2022, there were 35 CDI cases; 29 HCAI cases and 6 CAI cases; This is an increase of 7 HCAI cases and a decrease of 2 CAI CDI cases in total from the previous quarter. NHSL will be expected to achieve a target of <=84 HCAI CDI cases (a rate of 14.8 per 100,000 TOBDs by end of March 2023 (validated data for October - December 2022 awaited). 	Above AOP target of 14.8: NHSL 19.7
Healthcare Associated <i>Escherichia coli</i> bacteraemia (ECB)	18	19	23	<p><i>Escherichia coli</i> Bacteraemia (ECB) Standard</p> <p>NHSL Performance (Q3 July – September 2022): HCAI</p> <ul style="list-style-type: none"> NHSL ECB HCAI rate of 40.7 per 100,000 BDs; 60 HCAI cases; National ECB HCAI rate of 36.2 per 100,000 TOBDs; NHSL is above the national comparator for Q3 ECB rates; NHSL is above the AOP Standard rate of 33.5 for Q3 ECB rates. <p><i>Escherichia coli</i> Bacteraemia (ECB)</p>	Above AOP target of 33.5: NHSL 40.7

	July 2022	August 2022	September 2022	NHSL Performance (Q3 July - August 2022): HCAI	Status towards AOP target (based on trajectory to Mar 2023)
				<ul style="list-style-type: none"> During July – September 2022, there were 154 cases; 60 HCAI cases and 94 CAI cases. This is a decrease of 3 HCAI and an increase of 22 CAI cases in total from the previous quarter. NHSL will be expected to achieve a target of <=189 HCAI ECB cases (a rate of 33.5 per 100,000 TOBDs by end of March 2023 (validated data for October - December 2022 awaited). 	
Healthcare associated urinary catheter associated ECB	4	3	4		NA
Hand Hygiene	Oct 9 audits carried out	Nov 8	Dec 8	<p>Local Performance Indicator: To achieve 95% compliance or above.</p> <p>NHSL Performance (October - December 2022): IPC Quality Assurance HH Audits. (17 audits completed; 9 audits in October; 8 in November and 0 audits carried out by IPCT in December 2022.</p> <ul style="list-style-type: none"> 60% compliance achieved for this reporting period the Local Performance Indicator has not been met. <p>Staff Group Compliance: October - December 2022</p> <p>A breakdown of the staff group compliance levels from IPCT audits completed during October to December 2022 is:</p> <p>Nursing: 127 nursing staff compliant from 208 observations (61%) Doctors: 18 medical staff compliant from 39 observations (46%) Midwifery: 8 midwifery staff compliant from 12 observations (67%) Pharmacist: 0 pharmacist staff observed Ancillary/Other: 8 ancillary/other staff compliant from 14 observations (57%) Allied Health Professionals (AHPs): 13 AHPs compliant from 18 observations (72%): 2 of 2 Occupational Therapist (100%) were compliant; 7 of 11 Physiotherapists were compliant. (64%); 1 of 1 Dietetics were compliant (100%) and 3 of 4 Radiographer were compliant (75%).</p>	Below national target rate of 95%
National Cleaning compliance (Board wide)	96%	96%	97%		<ul style="list-style-type: none"> Compliance level 90% and above - Compliant Between 70% and 90% - Partially compliant

	July 2022	August 2022	September 2022	NHSL Performance (Q3 July - August 2022): HCAI	Status towards AOP target (based on trajectory to Mar 2023)
					<ul style="list-style-type: none"> Below 70% - Non-compliant
National Estates compliance (Board wide)	94%	96%	96%		<ul style="list-style-type: none"> Compliance level 90% and above - Compliant Between 70% and 90% - Partially compliant Below 70% - Non-compliant

Table 2: *Staphylococcus aureus* bacteraemia (SAB)

When *Staphylococcus aureus* (*S. aureus*) breaches the body's defence mechanisms it can cause a wide range of illness from minor skin infections to serious infections such as bloodstream infections.

<i>Staphylococcus aureus</i> bacteraemia (SAB)				
SAB	July 2022	August 2022	September 2022	
Total	8	12	16	
Hospital	2	5	6	
Healthcare	4	1	9	
Community	2	6	1	

HCAI Aim for Hospital and Healthcare is Aim is 16.1 (91 cases) per 100,000 total occupied bed days (TOBDs) by March 2023.

NHS Lanarkshire has witnessed a decrease in the number of overall SAB cases from July to September 2022. Over this quarter there has been 12 device related infections; 4 PVC infections; 2 Dialysis line – infections; 2 PICC/Midline infections; 2 Urinary catheter infections; 2 Central venous catheters (CVC) infections. In summary more than half of all healthcare associated SAB cases are device related infections.

Quality improvement and interventions in place to reduce SAB:

- Local teams are provided with this data on a monthly basis and also at Hygiene Groups for discussion. Improvement strategies are being progressed via the Breakthrough Series Collaborative and local improvement groups with support from IPC. More work needs to be done to assure HQAIC that improvements are being made in relation to the insertion and management of lines. This is a substantial risk which must be monitored, managed and improved.
- SAB rates and sources are discussed at Hygiene and Clinical Governance meetings with clinical staff; all Chiefs and Associate Nurse Directors have been asked to provide an update on improvement work to date to the December 2022 ICC.
- Monthly Report Cards for AOP rates are shared with clinical teams and data continues to be available on LanQIP for local intelligence and improvement use.
- Standard Operating Procedure (SOP) Manual for Invasive Devices Chapter 1 – Peripheral Venous Cannula (PVC) and associated practices: Chapter 1 contains research based guidance on the insertion, care and maintenance of Peripheral Vascular Cannulae (PVC). This resource will be promoted during the IPC Breakthrough Series Collaborative work streams.
- The Renal SAB improvement group has been re-established following an increase in SAB cases (not all

- dialysis line or fistula related),
- A case for additional fistula theatre sessions has been tabled at UHM HMT and further work is required in this areas to promote a ‘think fistula first’ approach to dialysis management;
 - The Virtual Breakthrough Series Collaborative will continue to champion work related to device insertion and management.
- Risk Management:
- There was 1 SAB death between July and September 2022. System wide learning is communicated via existing governance groups and reviewed in line with the DATIX/ Severe Adverse Event Review (SAER) process as noted below.

Figure 1: Funnel plot of SAB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in (Q3) July – September 2022.

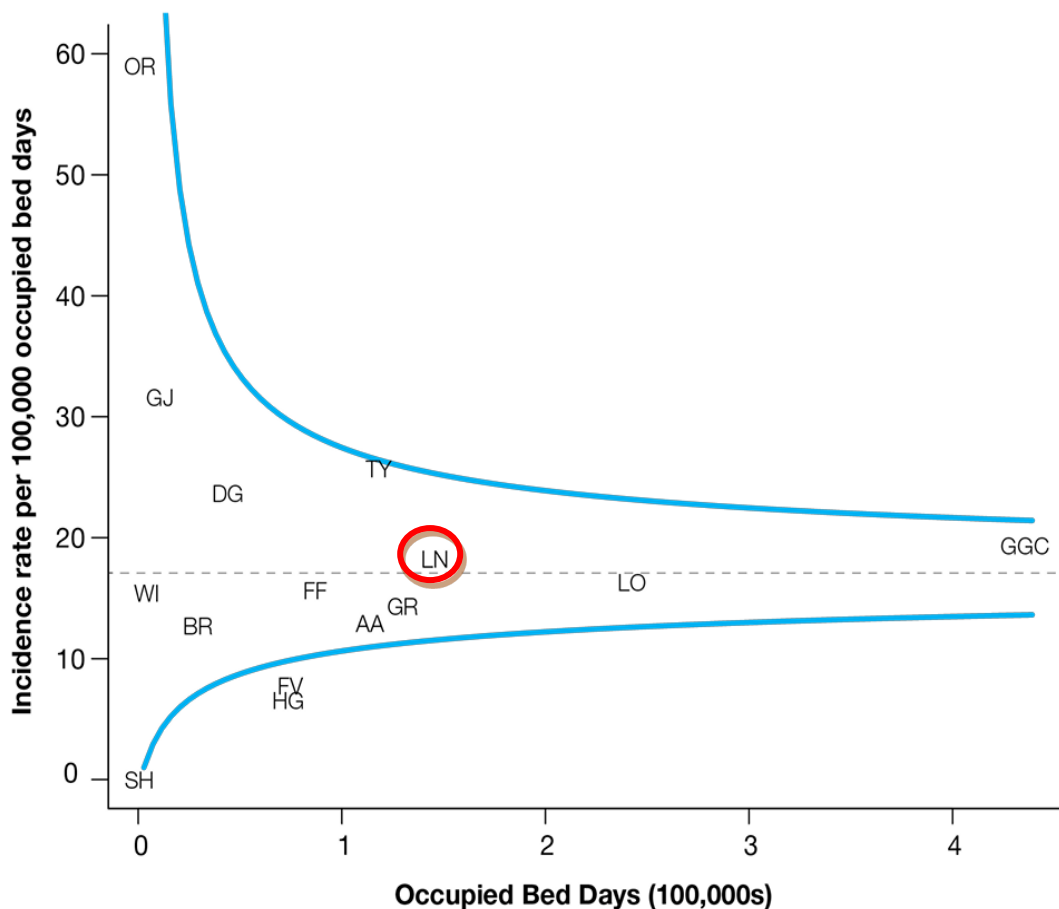


Figure 1 demonstrates that NHSL (LN) remains within the 95% confidence interval upper limit for incidence rate for Q3 2022 (positive impact).

Table 3: *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. This can be as a result of an infection such as:

- urinary tract;
- surgery; and

- inappropriate use of medical devices.

<i>E.coli</i> bacteraemia (ECB)			
ECB	July 2022	August 2022	September 2022
Total	50	50	54
Hospital	8	8	12
Healthcare	10	11	11
Community	32	31	31

HCAI Aim for Hospital and Healthcare is Aim is 33.5 (189 cases) per 100,000 total occupied bed days (TOBDs) by March 2023.

Quality improvement and interventions in place to reduce ECB:

- Healthcare Associated ECB number of cases is currently stable and in statistical control.
- SPC charts for healthcare associated infection cases are produced monthly and include in hospital hygiene and IPC report cards.
- Hospital level data of entry point of bacteraemia is also available via hospital hygiene reports. This provides prospective information to Senior Charge Nurses to assist reduction of cases that may be amenable to improvement methodology.

Although CAI-ECB is not an AOP Standard, harm reduction in all aspects of care merits investigation to improve outcomes where applicable. As such, an improvement action plan was developed and taken via the Infection Control Committee following the first exception and again following the second and third. The ICC have commissioned, as an addition to the IPC Breakthrough Series Collaborative, a board wide ECB improvement group met in October 2022. Actions/Improvements will be progressed via the ICC.

Figure 2: Funnel plot of ECB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in (Q3) July – September 2022.

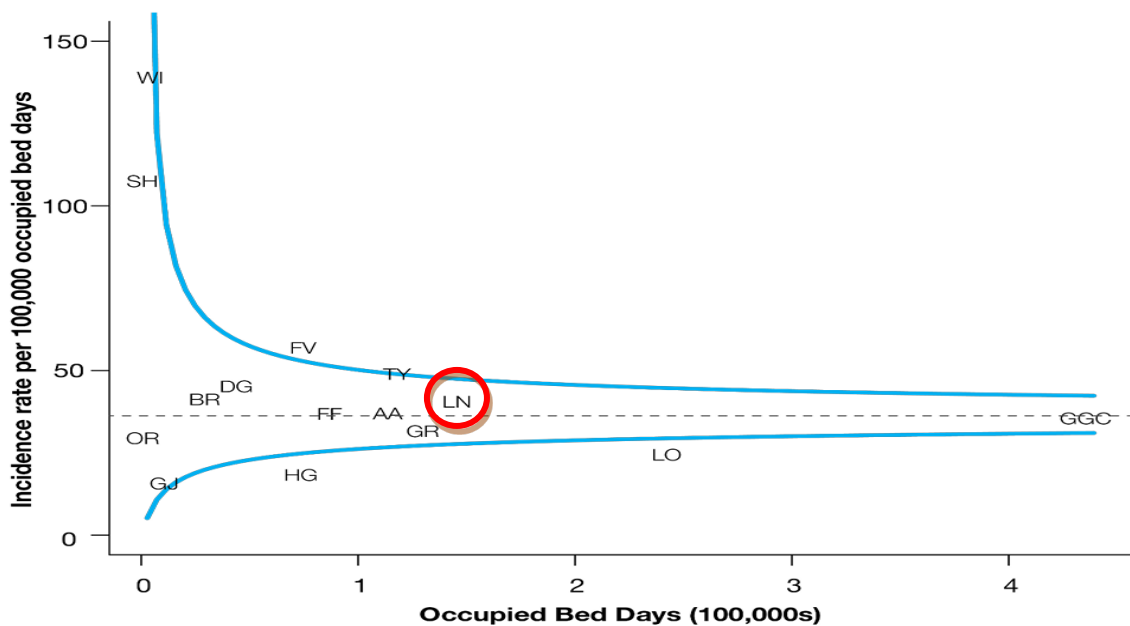


Figure 2 demonstrates that NHSL (LN) remains within the 95% confidence interval upper limit incidence rate for Q3 2022 (positive impact)

Table 4: *Clostridioides difficile* Infection (CDI):

C. difficile can be part of the normal gut flora and can occur when patients receive broad-spectrum antibiotics which eliminate other gut flora, allowing *C. difficile* to proliferate and cause infection. This is the predominant source of infection in GGC. *C. difficile* in the environment can form resilient spores which enable the organism to survive in the environment for many months, and poor environmental cleaning or poor hand hygiene can lead to the organism transferring to other patients, leading to infection. Another route of infection is when a patient receives treatment to regulate stomach acid which affects the overall pH of the gut allowing the organism to proliferate and cause infection.

<i>Clostridioides difficile</i> infection (CDI)			
CDI	July 2022	August 2022	September 2022
Total	13	10	12
HAI/Healthcare	10	9	10
Unknown	0	0	0
Community	3	1	2

HCAI Aim for Hospital and Healthcare is Aim is 14.8 (84 cases) per 100,000 total occupied bed days (TOBDs) by March 2023.

Quality improvement and interventions in place to reduce CDI:

- Healthcare Associated CDI number of cases is currently stable and in statistical control.
- SPC charts for healthcare associated infection cases are produced monthly and included in hospital hygiene and IPC report cards.
- Antimicrobial stewardship continues to be a priority in the management of CDI service users;
- All Chiefs and Associate Nurse Directors provide an update on improvement work via their ICC hygiene reports.
- Information is provided to wards to advise of the requirement for prompt and clear identification of patients with loose stools and appropriate action to be taken;
- Support with data analysis and interpretation has been supported by ARHAI Scotland to determine the impact of the pandemic has had on AOP Standard rates;
- The Vale of Leven improvement plan has been resurrected and reviewed and an update on all areas where there was no assurance of compliance has been requested from Chief Medics, IPCT and Chief Nurses. Updates will be monitored through the Infection Control Committee (ICC)

There was 1 related CDI death in July 2022. System wide learning communicated via existing governance groups and all were reviewed in line with the DATIX/ Severe Adverse Event Review (SAER) noted below.

Actions taken:

Senior Managers and site Triumvirates/Quadrivirates for all areas receive the IPCT report cards on a monthly basis and a receive the daily IPCT briefing update informing of all SAB, CDI and ECB from point of care to board level.

Cases in hospital: All patient cases are reviewed by IPCT and advice is given regarding isolation and Transmission Based Precautions (TBPs). IPCNs visit the ward and discuss the infection and what this means for the patient.

Any ward with 2 cases of an HAI in a 28 day period is visited by IPCT and the Senior Charge Nurses (SCN) is assisted with the completion of the Antimicrobial Resistant Healthcare Associated Infections (ARHAI) Trigger tool. Any clusters (2) are sent to the reference lab for sample typing. Each site receives monthly IPC report cards which displays Statistical Process Control (SPC) charts, which means control

limits are continually monitored. This process informs actions taken as required and demonstrates any resulting improvements.

Figure 3: Funnel plot of CDI incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in (Q3) July - September 2022.

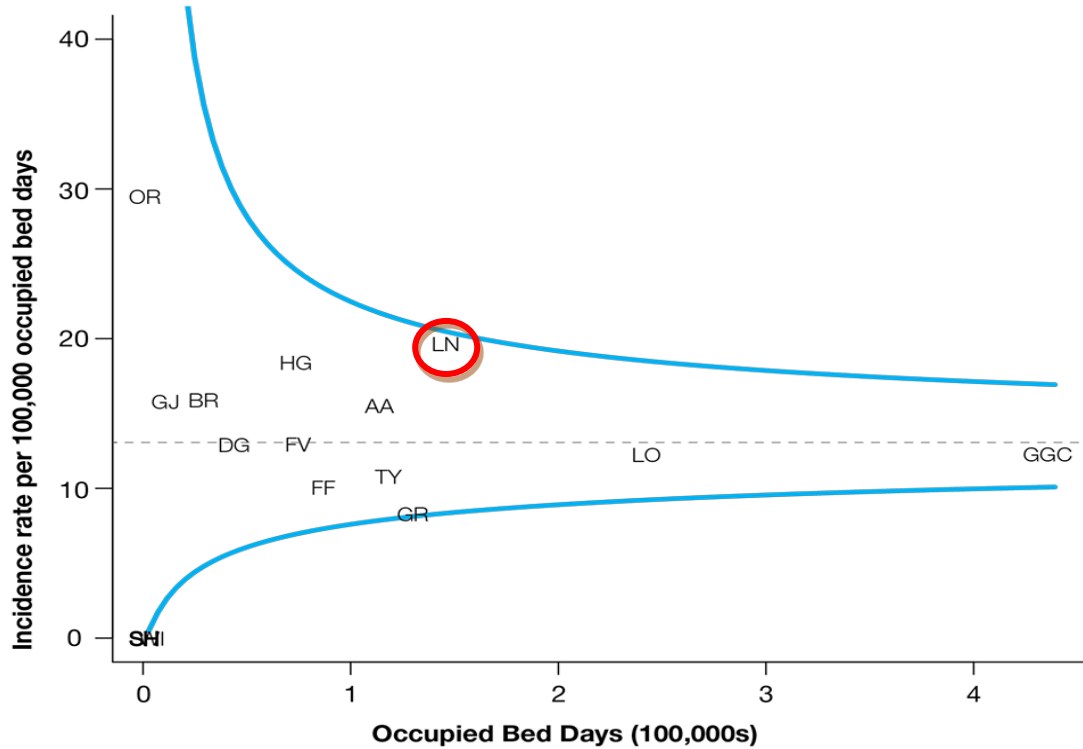


Figure 3 demonstrates that NHSL (LN) remains within the 95% confidence interval upper limit incidence rate for Q3 2022 (positive impact)

Table 5: Surgical Site Infection (SSI) Surveillance

Surgical Site Infection (SSI) Surveillance
National and local Surveillance was paused in March 2020 and remains paused.

The process utilised by IPCT for completing a DATIX for CDI/SAB to align with SAER process is as follows:

- IPCT to complete DATIX within 48 hours of notifying the clinical team.
- IPCT to complete a summary of the situation outline:
 - Title of issue – e.g. severe CDI (raised markers)
 - Date of positive sample
 - Date identified as issue e.g. date of CDI/SAB death, date severe CDI
 - Summary of the management of the case e.g. SAB treated with IV antibiotics for 14 days, CDI treated with antibiotics, IPCT precautions in place
- IPCT to complete a summary of known breach of policy (if known)
- IPCT to complete a summary of concerns re care (if known)

- IPCT to state that the review tool completion is in progress to assist with the briefing note. Sent to the Senior Charge Nurses (SCN), Charge Nurses (CN), Consultant, IPCT, Microbiologist, and the Antimicrobial Pharmacist. Date for completion 7 days from sending out.
- SCN to contact the IPCT for completion of the Briefing note.
- Review tool once complete can be provided to the Risk Facilitator to be attached to the DATIX.

Table 6: DATIX and SAERs recorded by IPCT for the reporting period October – December 2022

CDI's				
Date	Reason for Datix	Site	SAER completed	Learning outcomes
27/10/2022	CDI Severe case	UHW	Not required	There were no recommendations from this review.
27/10/2022	CDI Severe case	UHH	Not required	Medical Staff - To use CDI severity stickers daily as per guidance. Medical Staff to escalate to Maximal Therapy. To monitor Blood Biochemistry more often especially during initial treatment phase.
08/11/2022	CDI Severe case	UHW	Yes	Community Acquired no further learning
30/11/2022	CDI Severe case	UHW	Confirmation awaited	Confirmation awaited
01/12/2022	CDI Severe case	UHW	Not required	There were no recommendations from this review.
SAB's				
Date	Reason for Datix	Site	SAER completed	Learning outcomes
04/10/2022	Device – Central Venous Catheter	UHW	Confirmation awaited	Confirmation awaited
05/10/2022	Contaminant	UHW	Not required	N/A
07/10/2022	SAB Death	UHW	Not required	Confirmation awaited
02/11/2022	Contaminant	UHW	Not required	N/A
29/11/2022	SAB Device – PVC	UHM	Confirmation awaited	Confirmation awaited
11/12/2022	SAB Device - PVC	UHM	Not required	There were no recommendations from this review.
19/12/2022	SAB Device – PVC	UHM	Confirmation awaited	Confirmation awaited
Other				
Date	Reason for Datix	Site	SAER completed	Learning outcomes
14/10/2022	Inappropriate patient placement	UHH	Confirmation awaited	Learning from all areas would be desired to avoid any further miscommunication
26/10/2022	Inappropriate patient placement	UHH	Confirmation awaited	There were no recommendations from the review.

Table 7: Hand Hygiene:

Hand Hygiene is a term used to describe the decontamination of hands by various methods including routine hand washing and/or hand disinfection which includes the use of alcohol gels and rubs. Hand Hygiene is recognised as being the single most important factor in the prevention of infection wherever care is delivered.

IPC Hand Hygiene quality assurance monitoring
NHSL Board

All IPC hand hygiene quality assurance audits were suspended for September 2022. This was as a result of a request from executive nursing level due to pressures on sites. There were no IPC quality assurance audits

carried out for December 2022 due to resource issues. Areas with low compliance rates are monitored via the hospital hygiene groups.

	Feb 2022	Mar 2022	April 2022	May 2022	June 2022	July 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
Board Total IPC QA Audits	80	*	*	64	70	61	60	*	61	59	*

*No Quality Assurance Hand Hygiene Audits carried out by IPCT

Estate and Cleaning Compliance (per hospital)

The data is collected through audit by both the Domestic Services Team and PSSD's independent auditors using the Domestic Monitoring National Tool, and areas chosen within each hospital are randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 90%, a re-audit is scheduled. Estates compliance assesses whether the environment can be effectively cleaned; this can be a combination of minor non-compliances such as missing screwcaps, damaged sanitary sealant, scratches to woodwork etc. The results of these findings are shared with Maintenance / PFI providers for repair. Similar to the cleaning audit, scores below 90% trigger a re-audit.

Facilities Monitoring Scores		
Date	Domestic %	Estates%
Jul-22	96.14%	94.37%
Aug-22	95.99%	95.85%
Sep-22	96.85%	95.71%
Oct-22	96.76%	96.25%
Nov-22	96.92%	96.44%
Dec-22	96.30%	96.64%

Breakthrough Series Collaborative (BSC)

The aim of the BSC is to drive improvement across the organisation to enable healthcare workers to create an environment to facilitate and support the reduction of preventable infections associated with healthcare delivery. The BSC Steering Group have met and there has now been 2 learning sessions held, the aim of which have been to share good practice and support operational teams in the delivery of quality improvement projects.

Table 8: COVID-19 - Update

In total since March 2020 – December 2022 there has been 52,716 COVID-19 inpatient referrals to IPCT.

As well as the IPCNs providing advice and expertise to the local clinical teams, the IPCT monitor all COVID-19 positive cases to assist with the provision of overall case numbers, ITU admissions and deaths.

Ward closures due to COVID-19												
There were 59 ward closures due to COVID-19 for the period January 2022 – December 2022.												
Month	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Ward Closures	10	6	14	1	0	4	3	3	6	6	2	4
Bed Days Lost	664	602	595	4	0	270	47	70	296	103	38	179

Impact on hospital services

A risk stratification was devised in conjunction with the hospital management team, this is used when looking at utilising blocked beds and patient placement to relieve bed pressures and increase patient flow.

Table 9: ARHAI Scotland’s Report on Probable and definite hospital onset COVID-19 cases (first positive specimen of COVID-19 episode taken on day eight of inpatient stay or later), by onset status and NHS board: specimen dates up to 25 December 2022.

NHS board	Probable hospital onset cases (n)	Definite hospital onset cases (n)	Total probable and definite hospital onset COVID-19 cases (n)
Ayrshire & Arran	587	1,361	1,948
Borders	98	311	409
Dumfries & Galloway	61	177	238
Fife	191	791	982
Forth Valley	249	611	860
Golden Jubilee	11	15	26
Grampian	234	703	937
Greater Glasgow & Clyde	1,572	4,045	5,617
Highland	126	441	567
Lanarkshire	740	1,452	2,192
Lothian	972	2,218	3,190
Orkney	5	21	26
Shetland	3	4	7
Tayside	453	993	1,446
Western Isles	11	26	37
Scotland	5,313	13,169	18,482

Table 10: Outbreaks or Incidents in October, November and December 2022:

Outbreaks and incidents across NHSL are identified primarily through our local surveillance system, microbiology colleagues or from the ward. Clusters of infections of specific organisms are identified based on appendix 13 of the National Infection Prevention & Control Manual (NIPCM) to enable timely patient management to prevent any possible spread of infection. The identification of outbreaks is determined following discussion with the Infection Control Doctor/Microbiologist. In the event of a possible or confirmed outbreak/incident a Problem Assessment Group (PAG) or Incident Management Team (IMT) meeting is held with staff from the area concerned, and actions are implemented to control further infection and transmission.

Month	Hospital	Organism	Patients	Staff	Bed days lost	Learning outcomes
Oct 2022	University Hospital Hairmyres	COVID-19	10	5	2	*the following control measures were undertaken
	University Hospital Hairmyres	COVID-19	24	7	16	*
	Health and Social Care Partnership	COVID-19	3	2	0	*

Month	Hospital	Organism	Patients	Staff	Bed days lost	Learning outcomes
	(North)					
	Health and Social Care Partnership (North)	COVID-19	12	2	33	*
	University Hospital Hairmyres	COVID-19	14	1	27	*
	University Hospital Hairmyres	COVID-19	11	3	25	*
	University Hospital Wishaw	COVID-19	8	0	2	*
November 2022	University Hospital Monklands	COVID-19	15	1	27	*
	University Hospital Hairmyres	COVID-19	17	10	11	*
December 2022	University Hospital Wishaw	COVID-19	14	4	25	*
	University Hospital Wishaw	COVID-19	9	0	0	*
	University Hospital Monklands	COVID-19	6	2	108	*
	Airbles Road, Strathclyde ward.	COVID-19	2	0	N/A	*
	University Hospital Wishaw	COVID-19	4	0	N/A	*
	University Hospital Hairmyres	COVID-19	7	3	23	*
	Health and Social Care Partnership (North)	COVID-19	9	2	28	*
	University Hospital Wishaw	COVID-19	8	6	23	*
	University Hospital Wishaw	Influenza A	6	2	6	*
		University Hospital Wishaw	COVID-19	4	0	N/A

*** Control measures undertaken**

- Multidisciplinary Clinical reviews were undertaken
- IPC education and support was provided to ward staff
- Daily reviews of ongoing situations

- Enhanced cleaning was carried out in wards affected by clusters/outbreaks in line with the National Infection prevention and Control Manual (NIPCM)

Impact on hospital services

As noted above a risk stratification was devised for COVID-19 cases by IPCT in conjunction with the hospital management team. All other outbreaks are reviewed by the Microbiologist and the hospital management team, to ensure safe patient placement.

Table 11: The ARHAI Healthcare Infection Incident Assessment Tool (HIIAT)

<p>The HIIAT is a tool used by boards to assess the impact of an outbreak or incident. The tool is a risk assessment and allows boards to rate the outbreak/incident as RED, AMBER, or GREEN. ARHAI are informed of all incidents who onward report to the Scottish Government Health and Social Care Directorate (SGHSCD).</p>
<p>COVID-19: HIIAT GREEN: 9 reported for October ,8 for November and 18 for December 2022 (COVID-19) HIIAT AMBER: 0 reported for October, 0 for November and 0 for December 2022 (COVID-19) HIIAT RED: 5 reported for October, 3 for November and 4 for December 2022 (COVID-19)</p>
<p>Other organisms: HIIAT GREEN: 0 reported for October, 1 for November (Tuberculosis) and 2 for December 2022 (Influenza A). HIIAT AMBER: 0 reported for October, 0 for November and 0 for December 2022 HIIAT RED: 0 reported for October, 1 for November and 0 for December 2022</p>

Table 12: Multi-drug resistant organism (MDRO) screening:

As part of the national mandatory requirements, each board is expected to screen specific patients for resistant organisms. These are Carbapenemase producing Enterobacteriaceae (CPE) and MRSA. Assessment to screen depends on a clinical risk assessment performed on all admissions to indicate whether the patient requires to be screened. On a quarterly basis we assess compliance of completing this risk assessment to provide assurance of effective screening and report this nationally. The national expectation of compliance is 90%.

Data collection for Q4 (October – December 2022) is complete, however is not yet validated by ARHAI.

Last validated quarter July-Sept 2022(Q3)			Lanarkshire 76% compliance rate for CPE screening	Scotland 78%
			Lanarkshire 87% compliance rate for MRSA screening	Scotland 78%
Current local Quarter Oct-Dec 2022 (Q4)			Lanarkshire 70% compliance rate for CPE screening	Scotland tbc
			Lanarkshire 79% compliance rate for MRSA screening	Scotland tbc

Local results have been prospectively feedback to the ward areas audited this quarter to encourage improved compliance with CRA completion.

Healthcare Environment Inspectorate (HEI)

There were no Healthcare Environment Inspections (HIS) carried out for this reporting period, however there was a was a HIS Acute Hospital Safe Delivery of Care Inspection conducted at University Hospital Wishaw from Monday 16 –Wednesday 18 January 2023. Formal feedback is awaited from the inspection.

Evidence for Quality

Policies/Guidelines/ Standard Operating Procedures (SOPS) Update for Board Report August-September 2022

The Infection Prevention and Control Team are currently reviewing utilising the national policies/guidelines and Standard Operating Procedures for most of the Infection Control documents. All current documents are reviewed in line with the Vale of Leven Requirements (2 yearly). The process is as follows; prior to the renewal date (usually 6 months before) the guidelines and SOPs would be sent to the ICC for comment, all comments are then collated. The Governance Review Group (GRG) in conjunction with the key stakeholders meet, review and agree content. The final documents are then sent to ICC for ratification, uploaded onto Firstport and staff are informed via the Safety Brief.

There are 5 IPC/PSSD policies hosted on the Corporate website and the process utilised by the Corporate Policies department is followed for informing that these documents are up for renewal, and the process noted above is also utilised. The 5 policies are:

- Hand Hygiene
- Face Mask Policy for the wider use of Face Masks and Face Coverings in Health and Social Care and Care Homes (this will now be removed and national guidance will be utilised).
- Decontamination and Disinfection of Equipment and Environment Policy (under review by Decontamination Governance Group)
- Water Management Policy (PSSD) (updated new review date June 2024).
- Drinking Water and Ice Machines Policy (updated and ratified electronically by ICC)

All guidelines and SOPs remain within the review timescales with the exception of the following 2:

- Guideline on the Viral haemorrhagic fever management & control (expiry date December 2021). Due to the timescale taken to complete this review, the Head of Infection Prevention and Control has arranged to meet with the Director of Public Health to request that the responsibility for reviewing the HPT/Guidelines and SOPs reverts back to HPT.
- The Management of Occupational and non-occupational Exposures to Blood Borne Viruses including Needlestick injuries and Sexual Exposures guideline (expiry date April 2020). Due to the timescale taken to complete this review, the Head of Infection Prevention and Control has arranged to meet with the Director of Public Health to request that the responsibility for reviewing the HPT/Guidelines and SOPs reverts back to HPT.

The following guidelines and SOPs were reviewed and ratified at ICC meeting 12 October 2022:

- Guideline and SOP for the Control and Treatment of Scabies
- Guideline and SOP for the Management and Treatment of Influenza
- The following SOP was ratified at ICC meeting 13 December 2022

Guideline for Variant Creutzfeldt-Jakob disease. NHSL will utilise the updated National guidance.

The following guidelines and SOPs were reviewed and ratified at ICC meeting 13 December 2022:

- **Standard Operating Procedure for the management and treatment of patients with *Clostridioides difficile* Infection (CDI)**

The link to the National Infection Control Manual is hosted on the IPC page of First port.

Appendix 1: [Healthcare Associated infection reporting guidance, glossary, definitions and targets.](#)

Glossary of abbreviations	
AOP	Annual Operating Plan
ARHAI	Antimicrobial Resistance Healthcare Associated Infection
CDI	<i>Clostridioides difficile</i> infection
CPE	Carbapenemase Producing Enterobacteriaceae
CVC	Central Venous Catheter
ECDC	European Centre for Disease Control
HAI	Hospital Acquired Infection
HCAI	Healthcare Associated Infection
HEI	Healthcare Environment Inspectorate
HIIAT	Healthcare Infection Incident Assessment Tool
HPV	Hydrogen Peroxide Vapour
IMT	Incident Management Team
IPCAT	Infection Prevention and Control Audit Tool
IPCN	Infection Prevention and Control Nurse
IPCT	Infection Prevention and Control Team
IVAD	Intravenous/Intravascular Access Device
MRSA	Meticillin Resistant <i>Staphylococcus aureus</i>
NES	NHS Education for Scotland
PAG	Problem Assessment Group
PEG	Percutaneous Endoscopic Gastrostomy
PICC	Peripherally Inserted Central Catheter
PVC	Peripheral Vascular/Venous Catheter
SAB	<i>Staphylococcus aureus</i> bacteraemia
SAER	Severe Adverse Event Review
SG	Scottish Government
SGHSCD	Scottish Government Health and Social Care Directorate
SICPs	Standard Infection Control Precautions
SSI	Surgical Site Infection
UCC	Urinary Catheter Care
UTI	Urinary Tract Infection

Definitions

SPC	Statistical Process Control: An analytical technique that plots data over time. It helps us understand variation and in so doing, guides us to take the most appropriate action. SPC is a good technique to use when implementing change as it enables us to understand whether changes made have resulted in an improvement.
S. aureus and E. coli bacteraemias	<p><i>Definition of a bacteraemia</i></p> <p>Bacteraemia is the presence of bacteria in the blood. Blood is normally a sterile environment, so the detection of bacteria in the blood (most commonly accomplished by blood cultures) is always abnormal. It is distinct from sepsis, which is the host response to the bacteria. Bacteria can enter the bloodstream as a severe complication of infection, (like pneumonia, meningitis, urinary tract infections (UTI) etc.), during surgery, or due to invasive devices such as peripheral vascular catheters (PVC), Hickman lines, urinary catheters etc. Transient bacteraemias can result after dental procedures or even brushing of teeth although this poses little or no threat to the person in normal situations.</p> <p>Bacteraemia can have several important health consequences. The immune response to the bacteria can cause sepsis and septic shock which has a high mortality rate. Bacteria</p>

	<p>can also spread via the blood to other parts of the body (haematogenous spread), causing infections away from the original site of infection, such as endocarditis (infection of the heart valves) or osteomyelitis (infection of the bones). Treatment for bacteraemia is with antibiotics for many weeks, in some circumstances however, cases such as <i>S. aureus</i> bacteraemia, usually 14 days of antibiotic therapy is required.</p>
<p>Healthcare Associated Infection</p>	<p>Positive blood culture obtained from a patient who has been hospitalised for ≥ 48 hours. If the patient was transferred from another hospital, the duration of in-patient stay is calculated from the date of the first hospital admission.</p> <p>If the patient was a neonate / baby who has never left hospital since being born. OR The patient was discharged from hospital in the 48 hours prior to the positive blood culture being taken. OR A patient who receives regular haemodialysis as an out-patient. OR Contaminant if the blood aspirated in hospital. OR If infection source / entry point is surgical site infection (SSI). <i>[This will be attributed to hospital of surgical procedure]</i></p> <p>Healthcare Associated Infection</p> <p>Positive blood culture obtained from a patient within 48 hours of admission to hospital and fulfils one or more of the following criteria:</p> <p>Was hospitalised overnight in the 30 days prior to the positive blood culture being taken. OR Resides in a nursing, long-term care facility or residential home. OR IV, or intra-articular medication in the 30 days prior to the positive blood culture being taken, but excluding IV illicit drug use. OR Had the use of a registered medical device in the 30 days prior to the positive blood culture being taken, e.g. intermittent self-catheterisation or Percutaneous Endoscopic Gastrostomy (PEG) tube with or without the direct involvement of a healthcare worker (excludes haemodialysis lines see HAI). OR Underwent any medical procedure which broke mucous or skin barrier, i.e. biopsies or dental extraction in the 30 days prior to the positive blood culture being taken. OR Underwent care for a medical condition by a healthcare worker in the community which involved contact with non-intact skin, mucous membranes or the use of an invasive device in the 30 days prior to the positive blood culture being taken, e.g. podiatry or dressing of chronic ulcers, catheter change or insertion.</p>
<p>Community Acquired Infection</p>	<p>Positive blood culture obtained from a patient within 48 hours of admission to hospital who does not fulfil any of the criteria for healthcare associated bloodstream infection.</p>

<p>Healthcare Associated Infection (HCAI) Surveillance</p>	<p>NHSL has systems in place to monitor key targets and areas for delivery. The surveillance and HCAI systems and ways of working allow early detection and indication of areas of concern or deteriorating performance.</p>
<p><i>Staphylococcus aureus</i> bacteraemia (SAB)</p>	<p>All blood cultures that grow bacteria are reported nationally and it was found that <i>S. aureus</i> became the most common bacteria isolated from blood culture. As <i>S. aureus</i> is an organism that is found commonly on skin, it was assumed (nationally) that bacteraemias occurred because of the presence of a device such as a PVC, and as such a national reduction strategy was initiated and became part of the then HEAT targets in 2006. The target was a national reduction rather than a Board-specific reduction however the latest target set for 2019-2022 is Board-specific, based on the NHS Boards current infection rates.</p> <p>NHSL Approach to SAB Prevention and Reduction</p> <p>All <i>S. aureus</i> bacteraemia are monitored and reported by the IPCT. Investigations to the cause of infection consist of examining the patients notes, microbiology, biochemistry and haematology reports to identify potential causes of the infection; from this, in most cases, a provisional cause is identified and this is discussed further with the clinical team responsible for the management of the patient to assist further with the investigation. Any issues identified during the investigations, such as incomplete care bundle* etc. is highlighted at this time, and where appropriate, a DATIX report is generated. Once a conclusion has been agreed, the information is discussed with the Infection Control Doctor and outcomes agreed. This information is part of mandatory reporting and is submitted to ARHAI quarterly.</p> <p>* Care “bundles” are simple sets of evidence-based practices that when implemented collectively, improve the reliability of their delivery and patient outcomes. There are several care bundles in use within GGC, e.g. PVC, Central Venous Catheter (CVC), SSI and Urinary Catheter Care (UCC). Compliance with these bundles is monitored via the IPC Audit Tool (IPCAT) and if there is an outbreak or incident.</p> <p>Information on patients with SABs is available to the Directorate/ Division via the IPCT monthly report cards and the hygiene groups reports. The analysis of the data and subsequent SAB reports enable the IPCT to identify trends in particular sources of infections such as Hickman line infections etc. and it also enables the IPCT to identify areas requiring further support. The data also influences the elements contained in the IPC Annual Work Plan.</p> <p>Continual monitoring and analysis of local surveillance data, enables the IPCT and local teams to identify and work towards ways to reduce infections associated with IVADs. All SABs are reviewed and investigated fully and highlighted to the patients’ clinicians, nursing staff and management colleagues. Where appropriate, a DATIX is generated for infections so learning is shared and discussed at local clinical governance meetings.</p>
<p><i>Escherichia coli</i> bacteraemia (ECB)</p>	<p><i>E. coli</i> is one of the most predominant organisms of the gut flora, and for the last several years the incidence of <i>E. coli</i> isolated from blood cultures, i.e. causing sepsis, has increased to the point that it is the most frequently isolated organism in the UK. As a result of this, the HAI Policy Unit has now included <i>E. coli</i> as part of the AOP targets. The most common cause of ECB is from complications arising from UTIs, hepato-biliary infections (gall bladder infections) and infections associated with urinary catheters. It should be acknowledged that there is limited number of possible interventions to target ECB because infections are often spontaneous and not</p>

	<p>associated with health care or health care interventions.</p> <p>NHSL approach to ECB prevention and reduction All ECB's are monitored and reported by the IPCT. Investigations to the cause of infection consist of examining the patients notes, microbiology, biochemistry and haematology reports to identify potential causes of the infection; from this, in most cases, a provisional cause is identified and if necessary discussed with the Infection Control doctor and /or clinical team to confirm the source of infection. This information is part of mandatory reporting and is submitted to ARHAI quarterly.</p>
<p><i>Clostridioides difficile</i> infection (CDI)</p>	<p>Reporting to ARHAI of <i>C. difficile</i> infections has been mandatory for several years in NHS Scotland.</p> <p><i>C. difficile</i> can be part of the normal gut flora and can occur when patients receive broad-spectrum antibiotics which eliminate other gut flora, allowing <i>C. difficile</i> to proliferate and cause infection. This is the predominant source of infection in GGC. <i>C. difficile</i> in the environment can form resilient spores which enable the organism to survive in the environment for many months, and poor environmental cleaning or poor hand hygiene can lead to the organism transferring to other patients, leading to infection. Another route of infection is when a patient receives treatment to regulate stomach acid which affects the overall pH of the gut allowing the organism to proliferate and cause infection.</p> <p>NHSL Approach to CDI Prevention and Reduction Similar to our SAB and ECB investigation, patient history is gathered including any antibiotics prescribed over the last several months. Discussions with the clinical teams and microbiologists assist in the determination and conclusion of the significance of the organism, as occasionally the isolation of the organism can be an incidental finding and not the cause of infection. Data is shared with the antimicrobial pharmacist and cases are discussed at the Antimicrobial Management Group to identify inappropriate antimicrobial prescribing. IPCNs undertake daily reviews of all patients identified with CDI until the patient is 48 hours asymptomatic. The patient is then monitored weekly for 30 days from the initial date of infection.</p>
<p>Surgical Site Infection (SSI) Surveillance</p>	<p>SSI criteria is determined by using the European Centre for Disease Control (ECDC) definitions. Any infection identified is investigated fully and information gathered including the patients' weight, duration of surgery, grade of surgeon, prophylactic antibiotics given, theatre room, elective or emergency, primary theatre dressing, etc. can provide additional intelligence in reduction strategies. The IPCT closely monitor infection rates, and any increased incidence of SSIs are prospectively reported to management and clinical teams, and Incident Management Team (IMT) meetings are held.</p>