NHS Board Meeting
26 January 2022

Lanarkshire NHS Board
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SUBJECT: HEALTHCARE ASSOCIATED INFECTION AND QUALITY ASSURANCE AND IMPROVEMENT PROGRESS REPORT

1. PURPOSE

This paper is coming to the Board:

For approval	☒	For endorsement	☐	To note	☐

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 and provide an update on the Infection Prevention and Control aspect of the Breakthrough Series Collaborative. Further detailed papers on Hand Hygiene will be presented to the Healthcare Quality Improvement and Assurance Committee on 10 February 2022.

2. ROUTE TO THE BOARD

Prepared	☒	Reviewed	☒	Endorsed	☐

This paper has been prepared by the Infection Prevention and Control Team and reviewed by the Director of NMAHPs and will be ratified by the Infection Control Committee (ICC). **Please note**: the usual route is for the paper to go to ICC in the first instance for sign off prior to coming to the Board.

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 Assurance and Improvement 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 2022 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.

4. STRATEGIC CONTEXT

This paper links to the following:

Corporate objectives	☒	AOP	☒	Government policy	☒
Government directive	☒	Statutory requirement	☐	AHF/local policy	☐
Urgent operational issue	☐	Other	☐		

5. CONTRIBUTION TO QUALITY

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

Three Quality Ambitions:

Safe	☒	Effective	☒	Person Centred	☒

Six Quality Outcomes:

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

6. MEASURES FOR IMPROVEMENT

- Annual Operating Plan (AOP) targets for Staphylococcus aureus bacteraemia (SAB) and *Clostridioid*es difficile Infection (CDI) standards for 2019 to 2022 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.

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

There are currently 4 risks recorded on the Infection Prevention and Control Risk register, which is monitored by the Infection Control Committee (ICC). There are 2 high and 2 medium risks as follows:

- IPC staffing (shortfall of 1 wte IPC Clinical Nurse Specialist) –**Medium**
- NHSL electronic surveillance system (NHSL do not have) - **Medium**
- IPC Service Model resource- **High**
- COVID-19 Pandemic- **High**

9. FIT WITH BEST VALUE CRITERIA

This paper aligns to the following best value criteria:

Vision and leadership	☐	Effective partnerships	☐	Governance and accountability	☒
Use of resources	☒	Performance management	☒	Equality	☒
Sustainability Management	☐				

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	☐	Endorse	☒	Identify further actions	☐
Note	☒	Accept the risk identified	☐	Ask for a further report	☐

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 858089)
- Christina Coulombe, Head of Infection Prevention and Control (Telephone number: 01698 366309)
- Karon Cormack, Director of Quality (Telephone number 07779421465)

INFECTION PREVENTION AND CONTROL & QUALITY ASSURANCE AND IMPROVEMENT

January 2022

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 2022 and *Escherichia coli* bacteraemia (ECB) standard for 2019 to 2024 **Appendix 1**

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 **Appendix 1**

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 Committee oversee the Hygiene Groups which include all 3 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, KPIs 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 Annual Work Programme 2021/22, which also incorporates updates from the Antimicrobial Management Team and Property and Support Division (PSSD).

The report also focusses on hand hygiene compliance and monitoring within NHSL and any initiatives required for improvement.

Eddie Docherty, Executive Director of NMAHPs commissioned a Breakthrough Series Collaborative approach to reducing hospital associated infections and improving hand hygiene compliance in Autumn 2020. Planning for the Collaborative was paused during winter 2020 and resumed in April 2021.

2. Assurance of Quality

Lanarkshire Quality Improvement Portal (LanQIP)

Assessment / Care Plan
Blood and Body Fluid Spillages
Control of the Environment
Covid Face Mask
Covid Physical Distance
Covid PPE
CVC
Delegation and Counter Signing
Discharge / Transfer of Care
Early Warning Score
Epilepsy Care Plan
Food, Fluid and Nutrition
Hand Hygiene
Legal Issues
Linen
MDRO
Occupational Exposure
Patient Care Equipmemt
Patient Placement
PEWS
PPE
Professional Record Keeping Standards
PVC
Respiratory
Risk Assessment/Management
Security of Case Notes
Urinary Catheter
Waste
What matters to you

More than 90% of users and content has now been migrated from LanQIP version 1 to LanQIP2.

All nursing audits have been transferred over to the new version including the full suite of Clinical Practice Monitoring Tools, Excellence in Care indicators and Record Keeping Audits. The full list of audits is detailed opposite.

The LanQIP development team have worked closely with nurse directors, senior nurses and charge nurses to develop a comprehensive nursing audit dashboard that allows nursing teams to access their improvement and performance data from the various programmes of audit being carried out in clinical areas.

This dashboard negates the need for some of the manual processes that were previously being carried out by clinical teams to satisfy local reporting demands.

Going forward, the LanQIP developers will continue to work directly with clinical teams to identify existing manual reporting processes which can be automated to free up clinical resource.

Dates are being reviewed with the Quality Improvement Team to review devising hand hygiene reports on the system taken from the nursing audits that would allow IPCT to run off for reporting purposes and for comparison to the quality assurance audits carried out by IPCT.

Hand Hygiene

NHS Lanarkshire continue to strive to monitor and improve hand hygiene compliance across the sites. Hand hygiene has been incorporated into the Breakthrough Series Collaborative including acute and health and social care partnership settings. An NHSL Hand Hygiene change package was devised and the Chiefs of Nursing Services and Associate Nurse Directors were asked to provide input outlining the initiatives introduced within their areas to improve hand hygiene compliance. The document provides an update on initiatives and hand hygiene compliance for the reporting period July –September 2021. The document will be updated for the next ICC meeting February 2022 and HQAIC and NHSL board thereafter.

The hand hygiene product provider for NHSL delivered hand hygiene training sessions in the Critical Care Units across the acute sites throughout June, July and October 2021. Due to the success of this work other areas are now being supported e.g. acute inpatient wards, acute off site beds and community hospitals are all being given support with hand hygiene opportunity and technique. The product provider returned to the UHW site on 08 November 2021 to provide additional training for areas of concern. This approach will continue into the new year and impact evaluated and reported via Hygiene Groups and the ICC.

Adverse Events & Datix
The tables below, show the DATIX and SAERs recorded by IPCT for the reporting period October – December 2022
CDI'S

Date	Reason for Datix	Site	SAER completed
20/10/2021	CDI Death	UHM	Yes
28/10/2021	CDI Death	UHW	Yes
28/10/2021	CDI Death	UHM	No
10/11/2021	Severe CDI	UHH	Confirmation awaited
09/11/2021	Severe CDI	UHH	Confirmation awaited
14/12/2021	CDI Death	UHM	Yes
31/12/2021	Severe CDI	UHH	Confirmation awaited
17/12/2021	Severe CDI	UHH	Confirmation awaited
07/12/2021	Severe CDI	UHH	Confirmation awaited

OTHER

Date	Reason for Datix	Site	SAER
21/10/2021	ECB not referred to IPCT.	UHW	No
21/10/2021	ECB not referred to IPCT	UHW	No
21/10/2021	ECB not referred to IPCT	UHM	No
22/10/2021	Inappropriate patient placement (COVID)	UHW	No
25/10/2021	Patient transferred to UHH with positive COVID result	UHH	No

SAB's

Date	Reason for Datix	Site	SAER
19/10/2021	PVC SAB	UHH	Confirmation awaited
02/11/2021	SAB - Death	UHM	No
08/11/2021	Device SAB - Dialysis line	UHM	No
08/11/2021	SAB - Death	UHM	Confirmation awaited
22/11/2021	PVC SAB	UHH	Confirmation awaited
03/12/2021	PVC SAB	UHM	No
02/12/2021	SAB - death	UHW	Yes
22/11/2021	PVC SAB	UHH	Confirmation awaited
07/12/2021	Contaminant	UHM	N/A
08/12/2021	PVC SAB	UHM	No
20/12/2021	PVC SAB	UHW	Yes
20/12/2021	PVC SAB	UHW	Yes
29/12/2021	Device SAB- temp pacing line	UHM	Confirmation awaited
06/01/2022	Death - SAB on death certificate	UHH	Confirmation awaited
13/01/2022	SAB-Device	UHM	Confirmation awaited

Complaints
All complaints regarding infection prevention and control practices are managed through the Patient Affairs department. For this reporting period there has been 1 complaint regarding infection prevention and control precautions. This complaint was received 13-01-2022 and is still being investigated.

3. Quality Improvement

Infection Prevention & Control Collaborative
Eddie Docherty, Executive Director of NMAHPs commissioned a Breakthrough Series Collaborative approach to reducing hospital associated infections and improving hand hygiene compliance in Autumn 2020. Planning for the Collaborative was paused during winter 2020 and resumed in April 2021.

NHS Lanarkshire has identified that there is a requirement to improve Hospital Acquired Infections such as *Staphylococcus Aureus* Bacteraemia (SAB), *Clostridiodes difficile* Infection (CDI), *Escherichia Coli* Bacteraemia (ECB) and also Hand Hygiene compliance. An Infection Prevention & Control (IPC) Collaborative was established and launched in June 2021 to provide an evidence based framework to support this improvement work.

The IPC Collaborative uses the Institute of Healthcare Improvement (IHI) Breakthrough Series Collaborative approach. The collaborative consists of teams from wards in acute hospitals and teams in both North and South HSCP localities.

There are currently 50 teams across University Hospital Hairmyres (UHH), University Hospital Monklands (UHM), University Hospital Wishaw (UHW) and North and South Health and Social Care Partnerships (H&SCPs) undertaking improvement work.

Each team has had the opportunity to undertake the aEQUIP programme which is the NHS Lanarkshire Quality Improvement education programme which provides staff with the theory and practical application of quality improvement methodology, tools and techniques. Additional cohorts of the aEQUIP programme were put in place during July and August which provided staff with the theory to undertake change in a systematic and evidence based approach with the aim of achieving improvement. Staff either attended the live MS Teams learning sessions or had the opportunity to watch the recording of each session. The sessions ran during the start of the current challenges with increased COVID, planned care and increased staff absence however attendance at the sessions and use of the recordings was good and staff provided very positive feedback.

In addition, each team has a QI Coach who is an Improvement Advisor in the Quality Directorate Improvement Team. The role of the QI Coach is to work with the team to apply the theory into practice and test, measure and evaluate change ideas in their team to make improvements to infection rates in their area. This is a vital role to embed the learning and provide support.

Detailed data is available at team/ward level as well as organisational level on infection measures. The teams have used this data to identify areas for improvements within their own areas. This review of the data has helped the teams to better understand their system as a whole and the part their area plays in the overall NHS Lanarkshire system. Most of the teams have identified a problem area to focus on and these include:

- CAUTI – 6 teams
- PPE – 2 teams
- MRSA/CPE – 1 team
- PVC Compliance – 13 teams
- PICC Line SABs – 1 team

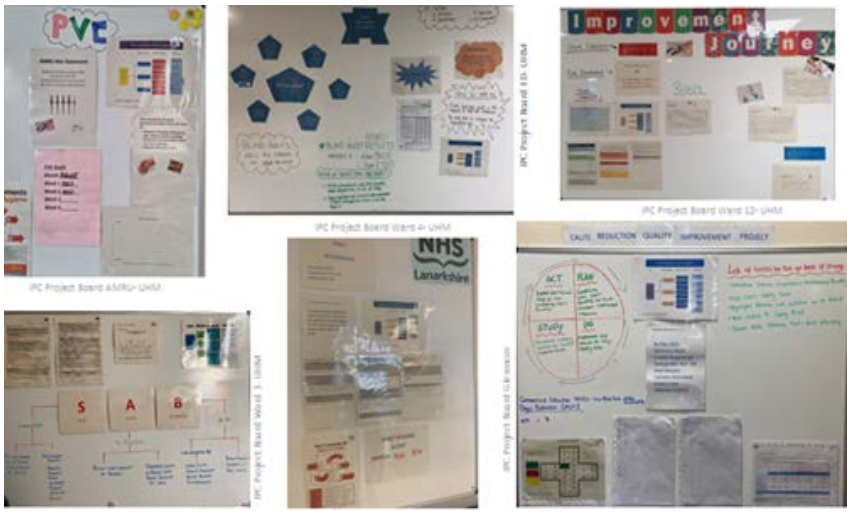
- Hand Hygiene – 6 teams
- Dialysis line SABs – 1 team
- Environment – 2 teams
- ASQ3 Assessments – 1 team
- Antibiotic Therapy – 1 team
- Wound Management – 1 team
- ObservationEquipment – 1 team
- Still to be confirmed - 14 teams (North & South HSCP)

Each team, supported by their Improvement Advisor as QI Coach, is currently working through the stages of the improvement journey.

The teams are using quality improvement methodology such as the Model for Improvement and tools such as process mapping, cause and effect diagrams and force field analysis. The overall programme has a driver diagram. Each team has developed their aim statement and is developing their team level driver diagrams, identifying their measures and drafting their project charters. Some teams have already started identifying and testing change ideas. The Improvement Advisors complete a monthly Flash Report for each Operational Unit.

The collaborative will use the Life QI platform to capture and share information. Life QI is a global web platform where tools, people and data come together to make improvement happen. The software enables teams to run, organise and track all their improvement work in one place. It is used by thousands of healthcare organisations around the world and is the leading improvement project management and analysis platform available.

The IPC Collaborative is also using a project management approach to ensure a high standard of planning is applied to the work. Short term dedicated funding (until Nov 2022) has been identified to provide project manager resource to the Collaborative. A project plan has been developed.



The teams use Visual Management Boards to display their work and to be the focus for staff huddles where the work of the project is discussed and reviewed. Despite the challenges of high activity, high acuity, further covid19 wave and staff absence the first 6 months of the IPC Collaborative have seen teams progress as best they can with this improvement work.

4. Evidence for Quality

Policies/Guidelines/ Standard Operating Procedures (SOPS) Update for Board Report December 2021

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.

All guidelines and SOPs remain within the review timescales with the exception of the following 2, which ICC granted an extension to the review date:

- Guideline on the Viral haemorrhagic fever management & control (expiry date December 2021).

- The Management of Occupational and non-occupational Exposures to Blood Borne Viruses including Needlestick injuries and Sexual Exposures guideline (expiry date April 2020) was granted an extension date to April 2022 at the ICC meeting 06 October 2021

The following 2 guidelines were ratified by the ICC 15 December 2021:

- Infection Related Intelligence Service (IRIS) guideline
- Guideline and SOP for the Management of Patients with loose stools

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
- Decontamination and Disinfection of Equipment and Environment Policy
- Water Management Policy (PSSD) review date extended
- Drinking Water and Ice Machines Policy (PSSD)

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

Appendix 1

Executive Summary

AOP Standards up to Q3 July to September 2021

- NHSL is below the national comparator for Q3 SAB rates;
- NHSL is below the local AOP Standard rate for Q3 SAB rates; the AOP standard was met for this quarter
- NHSL is above the national comparator for Q3 CDI rates;
- NHSL is above the local AOP Standard rate for Q3 CDI rates; the AOP standard was not met for this quarter
- NHSL is above the national comparator for Q3 ECB rates;
- NHSL is above the local AOP Standard rate for Q3 ECB rates; the AOP standard was not met for this quarter.
- MRSA KPI has not been met;
- CPE KPI has not been met;
- Hand Hygiene Local Performance Indicator (IPC QA Audits) has not been met;

NHSL Performance

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.

Staphylococcus aureus Bacteraemia (SAB) Standard

NHSL Performance (Q3 Jul-Sept 2021): HCAI

- NHSL SAB HCAI rate of 15.0 per 100,000 TOBDs; 21 HCAI cases;
- National SAB HCAI rate of 18.3 per 100,000 TOBDs;
- NHSL is below with the national comparator for Q3 SAB rates;
- NHSL is below the local AOP Standard rate for Q3 SAB rates.

Staphylococcus aureus bacteraemia (SAB)

- The AOP target is for HCAI cases only;
- During Jul to Sept 2021, there were 39 SAB cases; 21 HCAI cases and 18 community associated infection (CAI) cases;
- This is an increase of 5 HCAI and a decrease of 2 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 2022.

Chart 1 – HCAI SAB cases (Apr 19 – Sept 2021)

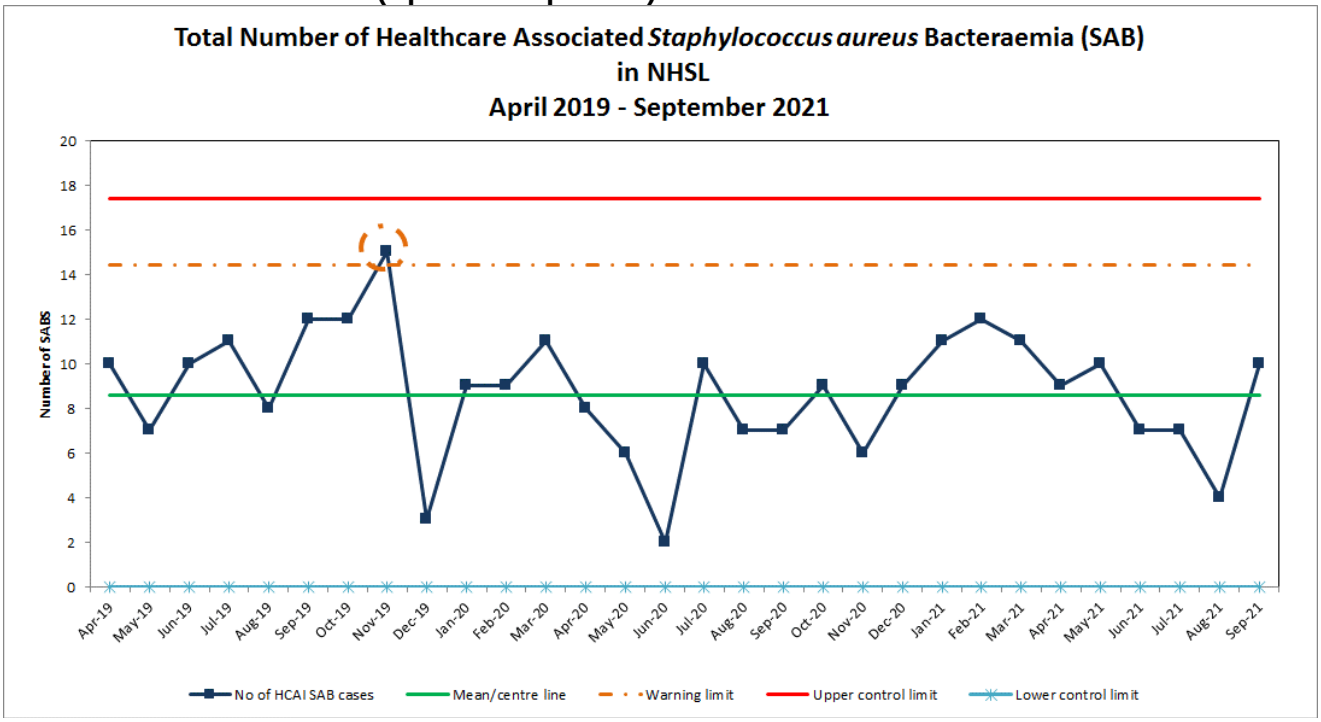


Chart 1 show that NHS Lanarkshire has witnessed a decrease in the number of overall SAB cases from July to Sept 2021. Over this quarter there has been **6** device related infections; 5 PVC infections and 1 CVC non tunnelled infection.

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) Jul - Sept 2021.

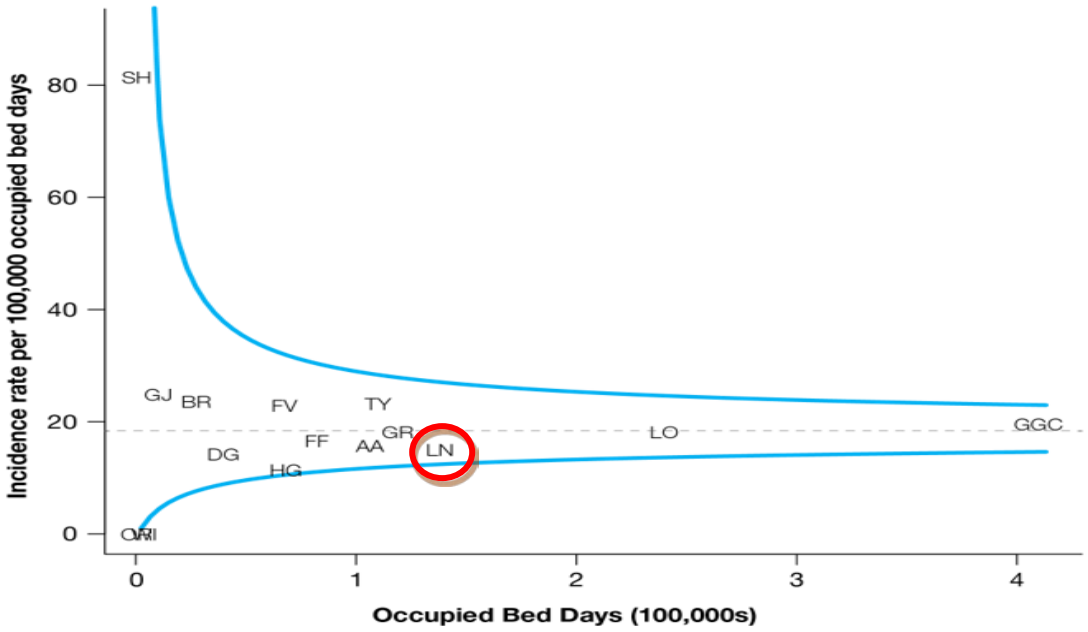
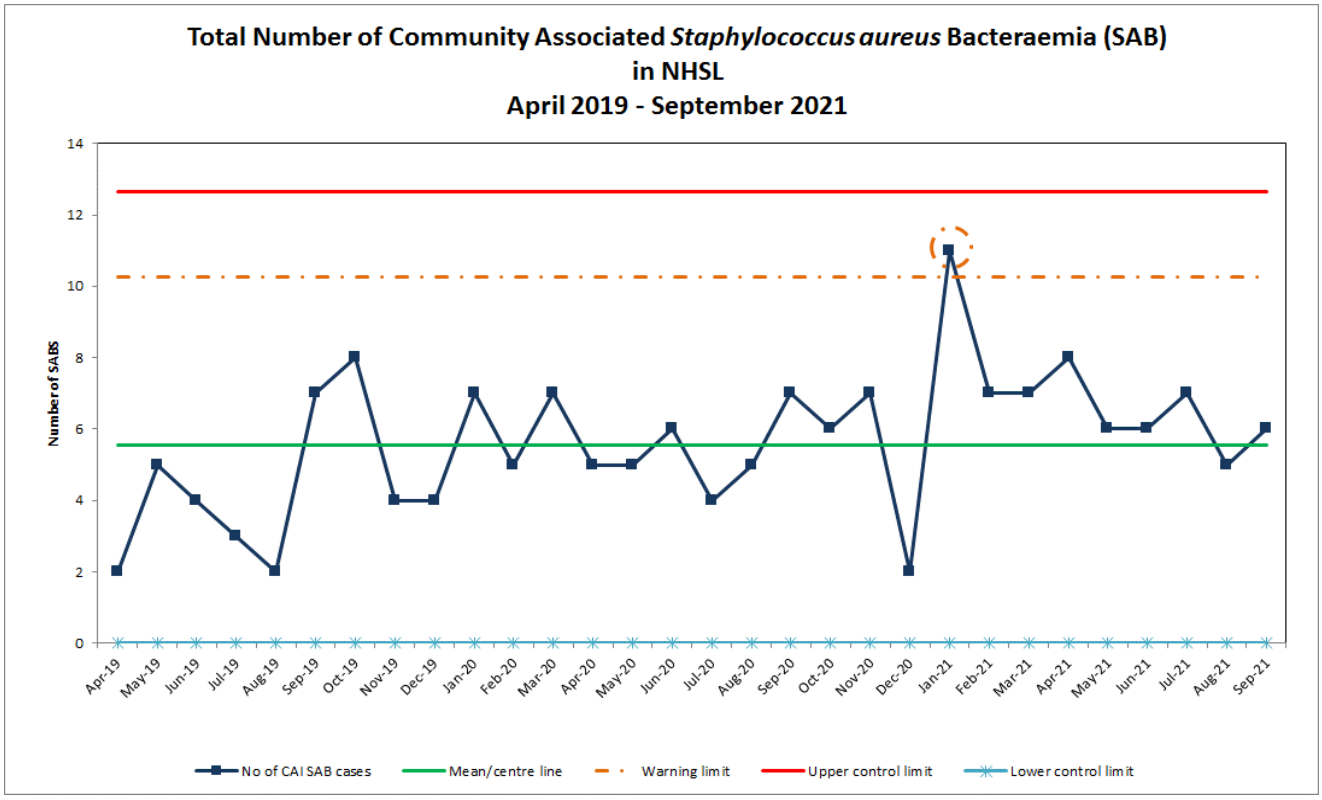


Figure 1 demonstrates that NHSL (LN) remains within the 95% confidence interval for incidence rates for Q3.

Chart 2 – CAI SAB cases (Apr 19 – Sept 2021)



This chart is in statistical control.

Quality improvement and interventions in place to reduce SAB:

- 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;
- 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 June 2021 ICC; and
- The Virtual Breakthrough Series Collaborative will champion work related to device insertion and management.

Risk Management:
There were 3 related SAB deaths between July and September 2021. Two Datix's resulted in a SAER.

Clostridioides difficile* Infection *(CDI)

CDI can be a severe and life-threatening infection which causes diarrhoea. Prevention of CDI is therefore essential and an important patient safety issue.

***Clostridioides difficile* Infection (CDI) Standard**

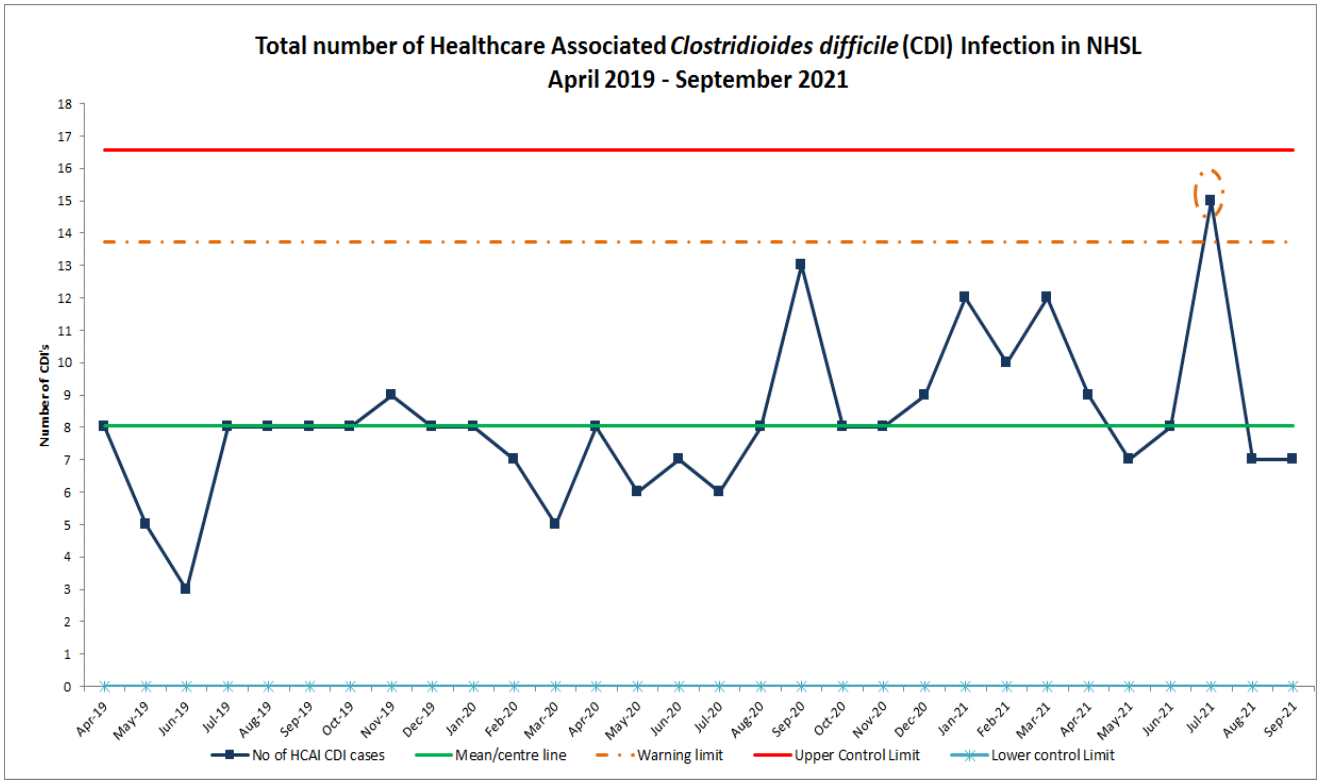
NHSL Performance (Q3 Jul - Sept 2021): HCAI

- NHSL CDI HCAI rate of 20.7 per 100,000 TOBDs; 29 HCAI cases;
- National CDI HCAI rate of 16.7 per 100,000 TOBDs;
- NHSL is above the national comparator for Q3 CDI rates;
- NHSL is above the local AOP Standard rate for Q3 CDI rates.

***Clostridioides difficile* Infection (CDI)**

- During Jul – Sept 2021, there were 38 CDI cases; 29 HCAI cases and 9 CAI cases;
- 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 2022.

Chart 4 – HCAI CDI cases (Apr 19 – Sept 2021)



This chart is in statistical control.

Figure 2: Funnel plot of CDI incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in (Q3) Jul- Sept 2021.

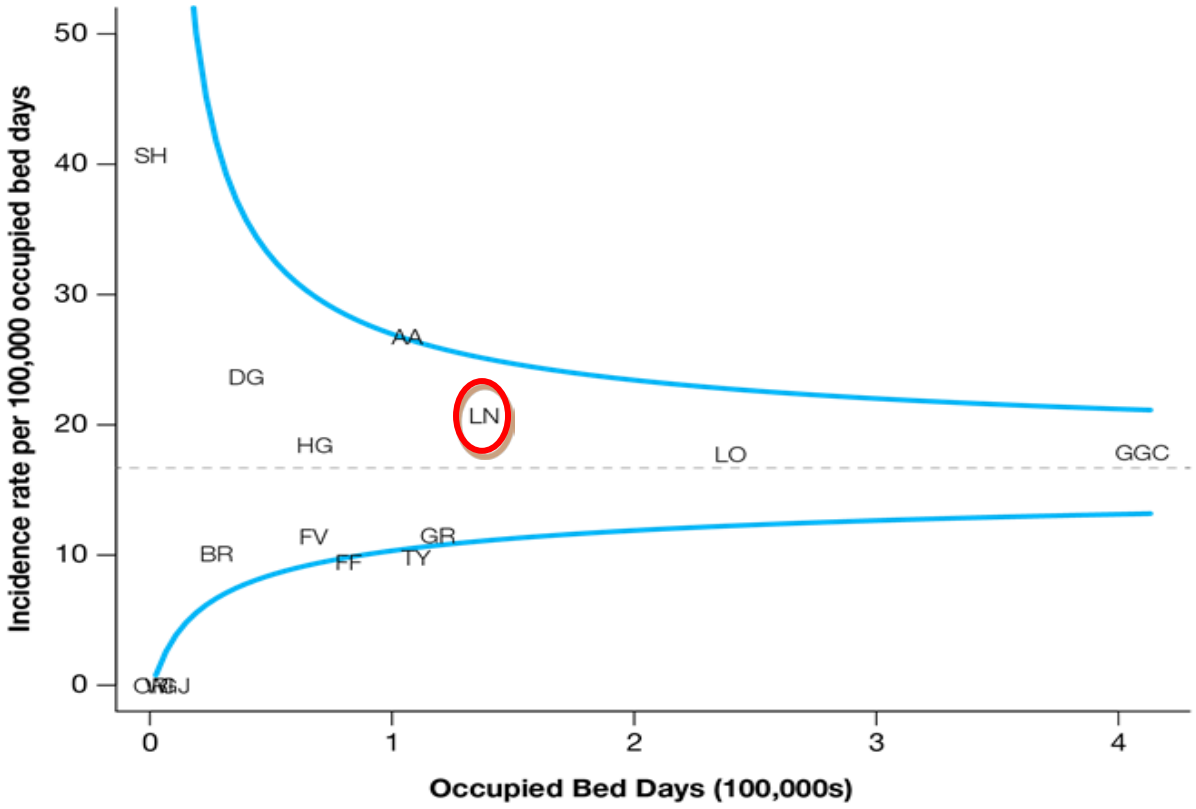
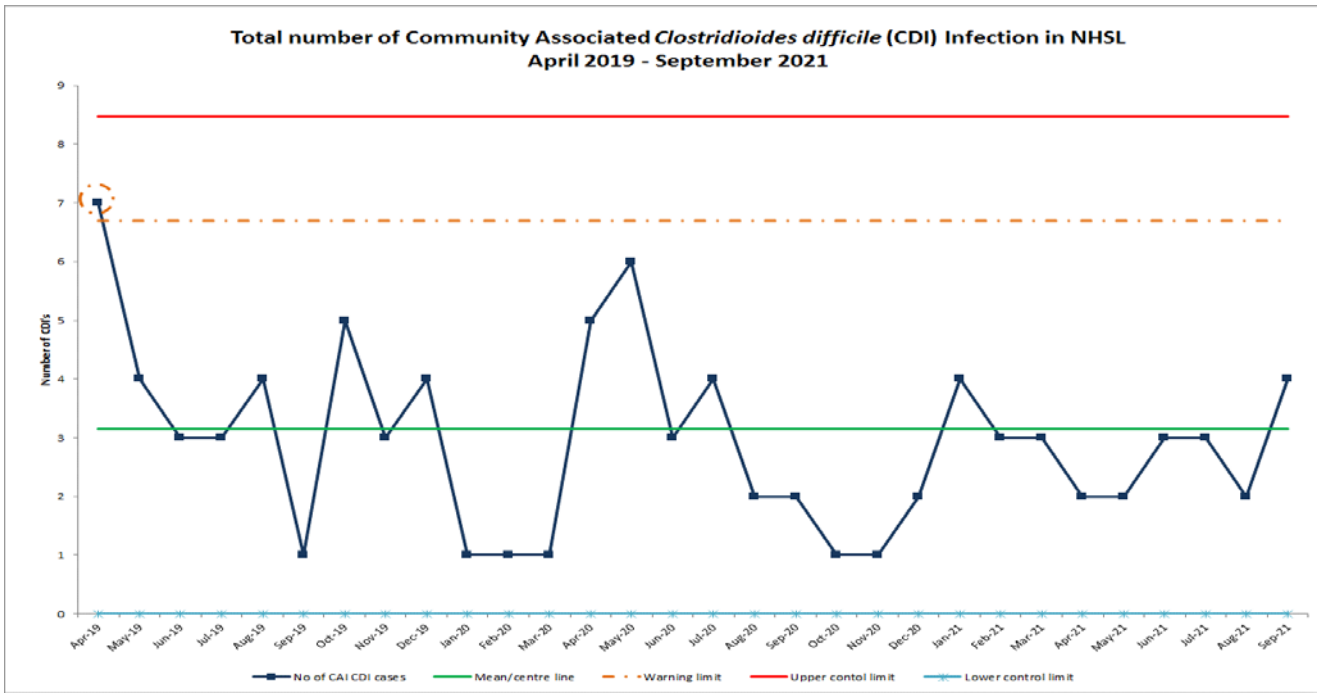


Figure 2 indicates that NHSL (LN) remains within the 95% confidence interval for incidence rates for Q3.

Chart 5 – CAI CDI cases (Apr 2019 – Sept 2021)



This chart is in statistical control.

Quality improvement and interventions in place to reduce CDI:

- Antimicrobial stewardship continues to be a priority in the management of CDI patients;
- All Chiefs and Associate Nurse Directors provide an update on improvement work via their ICC hygiene report.
- 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 requested from ARHAI Scotland to determine the impact of the pandemic has had on AOP Standard rates; and
- The Vale of Leven improvement plan has been 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 ICC.

Risk Management:

There were 2 related CDI deaths between Jul and Sept 2021. One Datix resulted in a SAER.

***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.

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

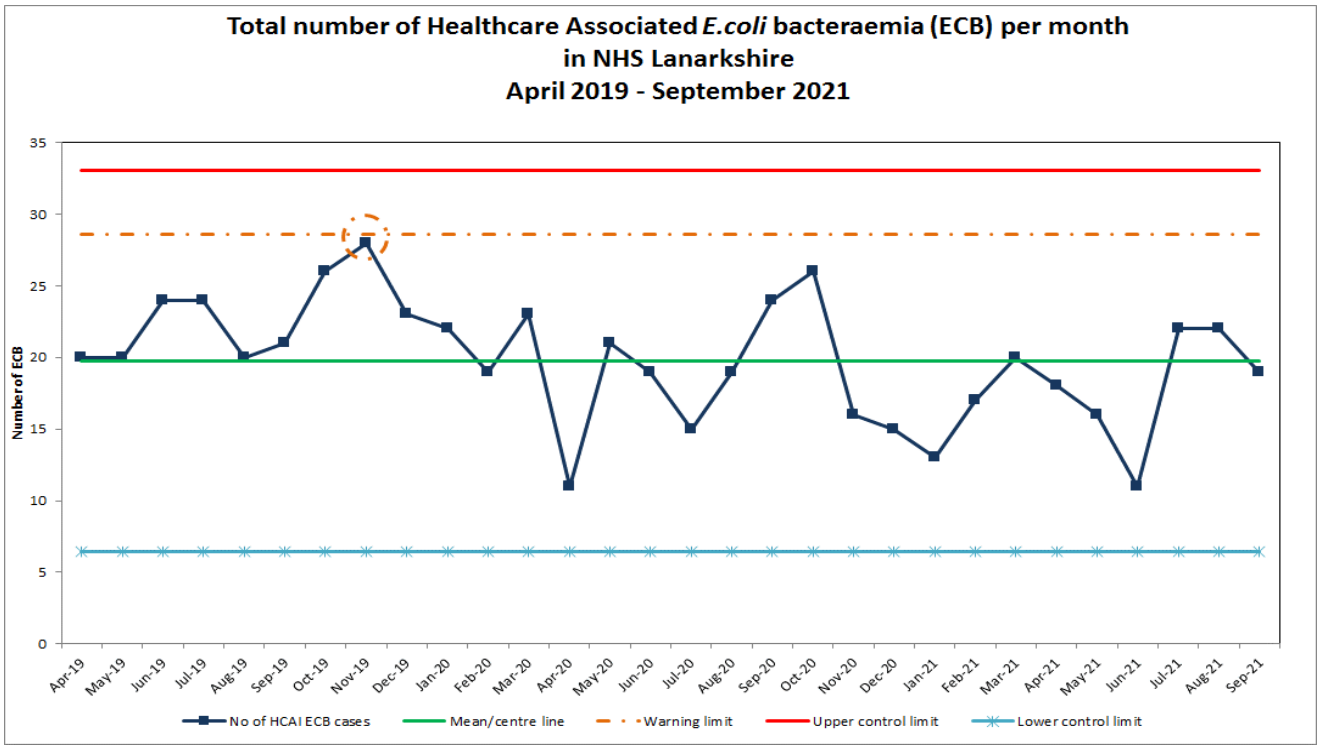
NHSL Performance (Q3 Jul - Sept 2021): HCAI

- NHSL ECB HCAI rate of 45.0 per 100,000 BDs; 63 HCAI cases;
- National ECB HCAI rate of 41.4 per 100,000 TOBDs;
- NHSL is above the national comparator for Q3 ECB rates;
- NHSL is above the local AOP Standard rate for Q3 ECB rates.

***Escherichia coli* Bacteraemia (ECB)**

- During Jul– Sept 2021, there were 146 cases; 63 HCAI cases and 83 CAI cases.
- 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 2022.

Chart 6 – HCAI ECB cases (Oct 2018 – Mar 2021)



This chart is in statistical control.

Figure 3: Funnel plot of ECB incidence rates (per 100,000 TOBD) in healthcare associated infection cases for all NHS boards in Scotland in (Q3) Jul- Sept 2021.

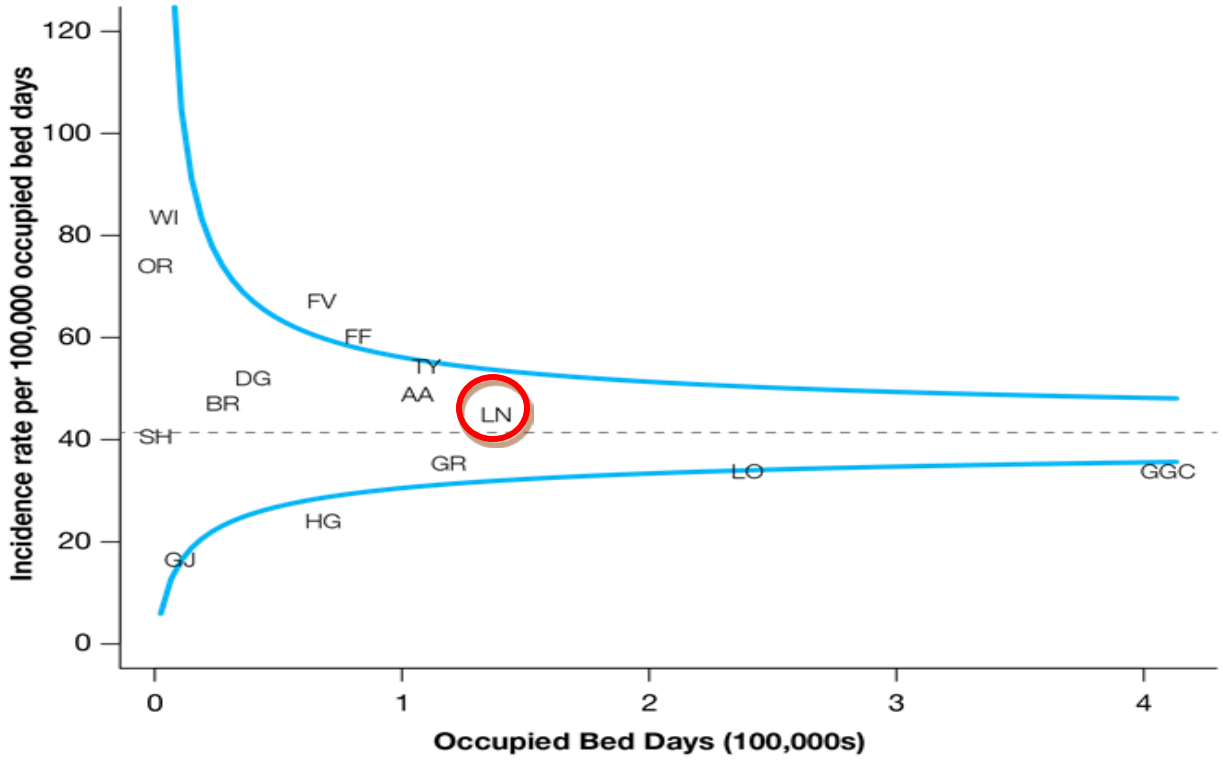


Figure 3 demonstrates that NHSL remains within the 95% confidence interval for incidence rates for Q3.

Surgical Site Infection Surveillance

Epidemiological data for SSI are not included for this quarter due to the pausing of surveillance to support the COVID-19 response.

MRSA & CPE CRA Compliance

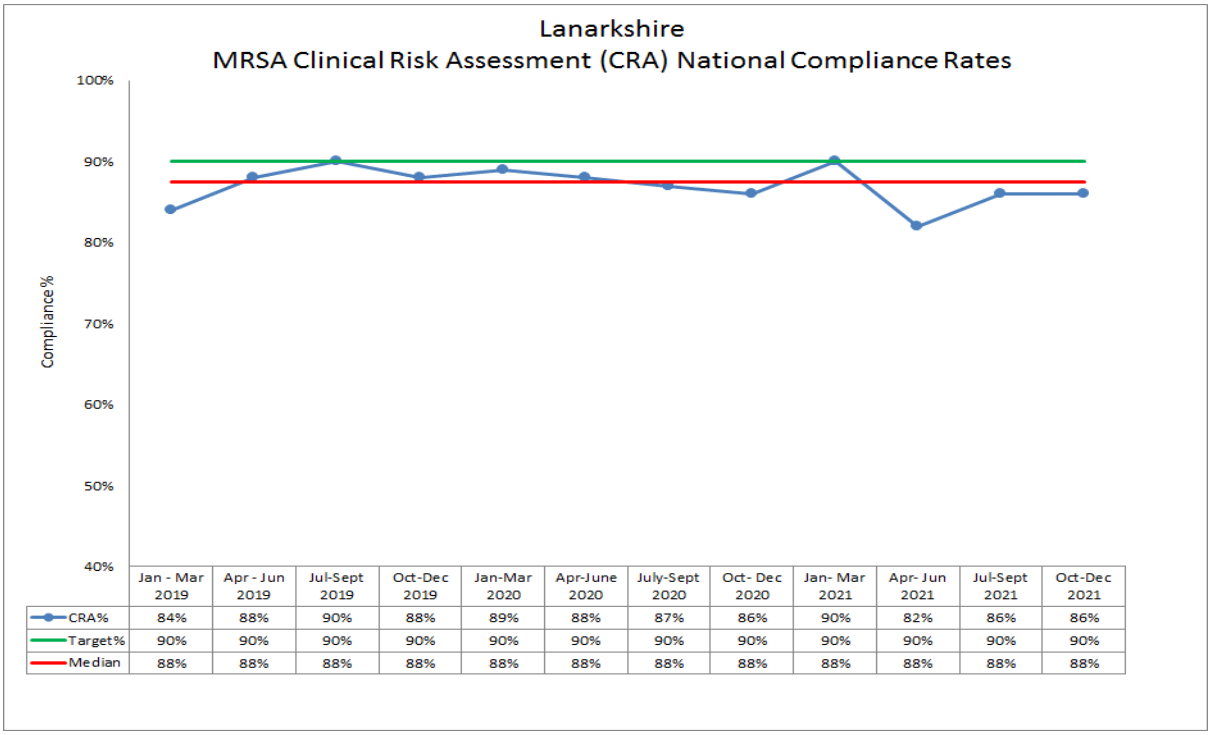
Key Performance Indicator (KPI): To achieve 90% compliance or above. Quarterly reports submitted to HPS.

NHSL Performance (Oct – Dec 2021):

- 86% compliance for MRSA acute inpatient admission CRA completion. (Exclusions: Maternity, Paeds, Mental Health, Psychiatry);
  For this reporting period; MRSA KPI has **not** been met.
- 57% compliance for CPE acute inpatient admission CRA completion
  (For this reporting period; CPE KPI has **not** been met

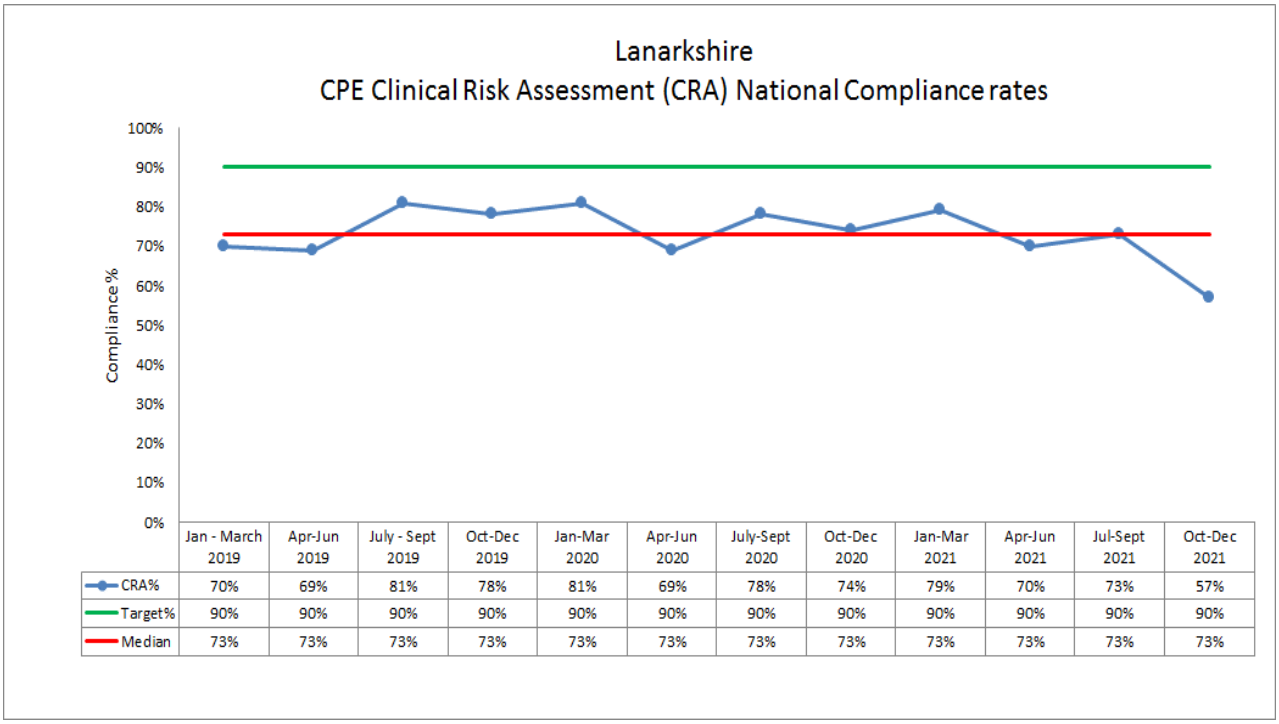
NHS Scotland (Oct - Dec 2021):
Awaiting update from ARHAI Scotland

Chart 7 – NHSL MRSA Screening CRA uptake (Jan 2019 – Dec 2021)



	Jan - Mar 2019	Apr - Jun 2019	Jul-Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-June 2020	July-Sept 2020	Oct- Dec 2020	Jan- Mar 2021	Apr- Jun 2021	Jul-Sept 2021	Oct-Dec 2021
CRA%	84%	88%	90%	88%	89%	88%	87%	86%	90%	82%	86%	86%
Target%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Median	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%

Chart 8 – NHSL CPE Screening CRA uptake (Jan 2019 – Dec 2021)



	Jan - March 2019	Apr-Jun 2019	July - Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	July-Sept 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	Jul-Sept 2021	Oct-Dec 2021
CRA%	70%	69%	81%	78%	81%	69%	78%	74%	79%	70%	73%	57%
Target%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Median	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%	73%

National MRSA Screening Clinical Risk Assessment uptake in comparison with Lanarkshire

As you are aware, an uptake of **90%** with application of the MRSA Screening Clinical Risk Assessment is necessary in order to ensure that the national policy for MRSA screening is as effective as universal screening.

Below is the 4 most recent quarters within NHSL, and for Scotland received from ARHAI Scotland. Q4 data is awaited.

As previously reported, there has been a shift, nationally, in monthly CPE screening uptake monitoring data that is below the median which serves as a historical baseline. This is an indication that CPE screening uptake has decreased during the COVID-19 pandemic. Continuing to undertake and monitor MDRO screening remains critically important to reduce the risk from MDRO.

National MRSA Screening Clinical Risk Assesment uptake in comparison with Lanarkshire Jul-Sept 2021 (Q3)

MRSA Uptake	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Lanarkshire	86%	90%	82%	**86%**
Scotland	82%	83%	84%	81%

National CPE Screening Clinical Risk Assessment uptake in comparison with Lanarkshire.

CPE Uptake	2020 Q4	2021 Q1	2021 Q2	2021 Q3
Lanarkshire	74%	79%	70%	**73%**
Scotland	79%	82%	83%	82%

Red indicates a decrease from the previous quarter; green indicates an increase; black indicates no change. NB this does not indicate statistically significant change.

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.

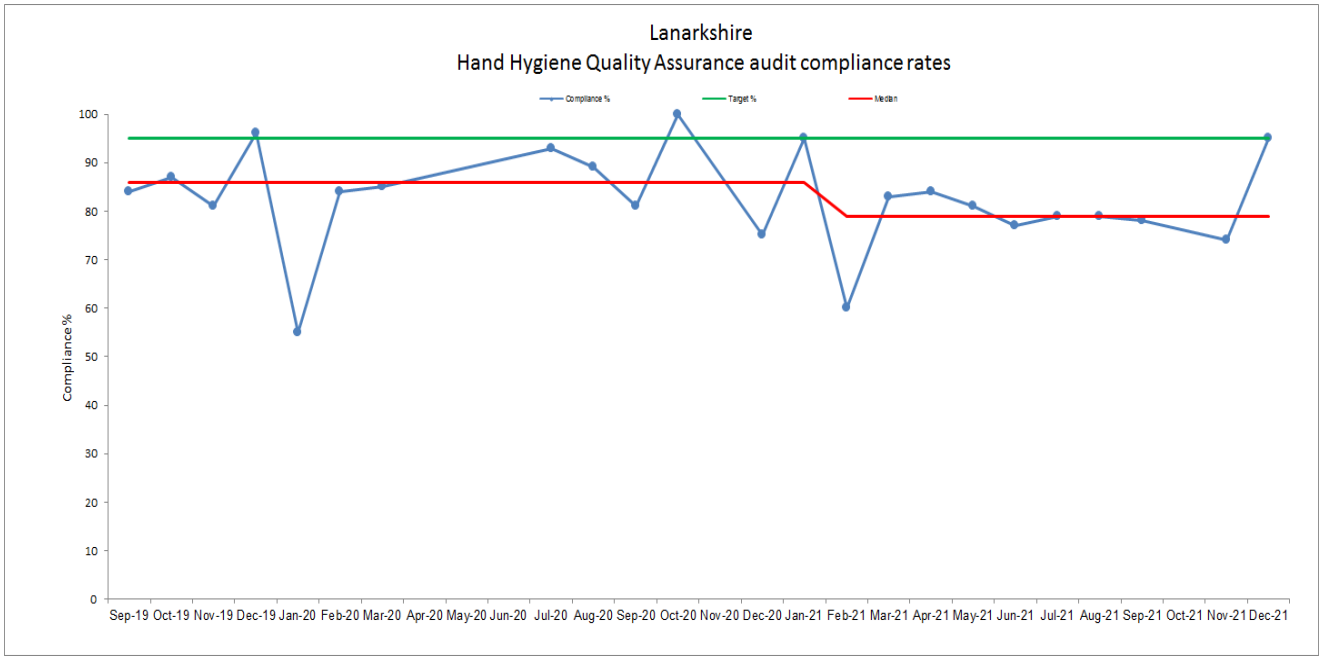
Local Performance Indicator: To achieve 95% compliance or above.

NHSL Performance (Oct - Dec 2021): IPC Quality Assurance HH Audits. (8 audits completed)

- 77% compliance achieved.
- For this reporting period the Local Performance Indicator has **not** been met.

Chart 9 – Hand Hygiene IPC Quality Assurance audits compliance rate Sep 2019 to Dec 2021

Lanarkshire is showing random variation. There were 9 consecutive data points sitting below median therefore we have recalculated. For Q4 (October – December 2021) Lanarkshire is showing 77% compliance; a decrease of 4% from previous quarter.



Staff Group Compliance: Oct - Dec 2021

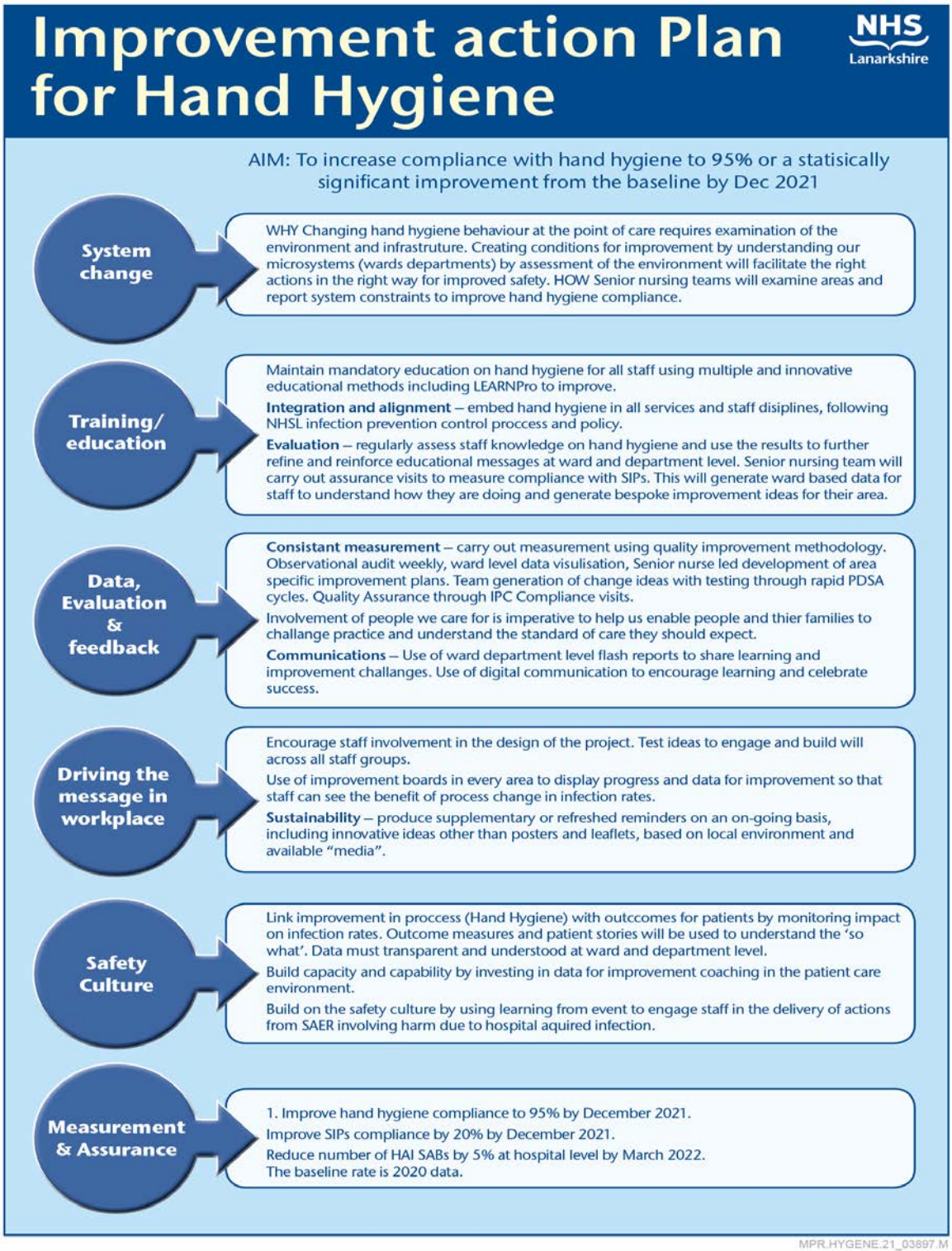
A breakdown of the staff group compliance levels from IPCT audits completed during Oct to Dec 2021 is:

Nursing: 100 nursing staff compliant from 132 observations (76%)
Doctors: 15 medical staff compliant from 20 observations (75%)
Ancillary/Other: 6 ancillary/other staff compliant from 6 observations (100%)
Allied Health Professionals (AHPs): 2 AHPs compliant from 2 observations (100%)

Outbreaks and Incidents
Outbreaks and Incidents are reported via the Hygiene reports to ICC.

Hand Hygiene

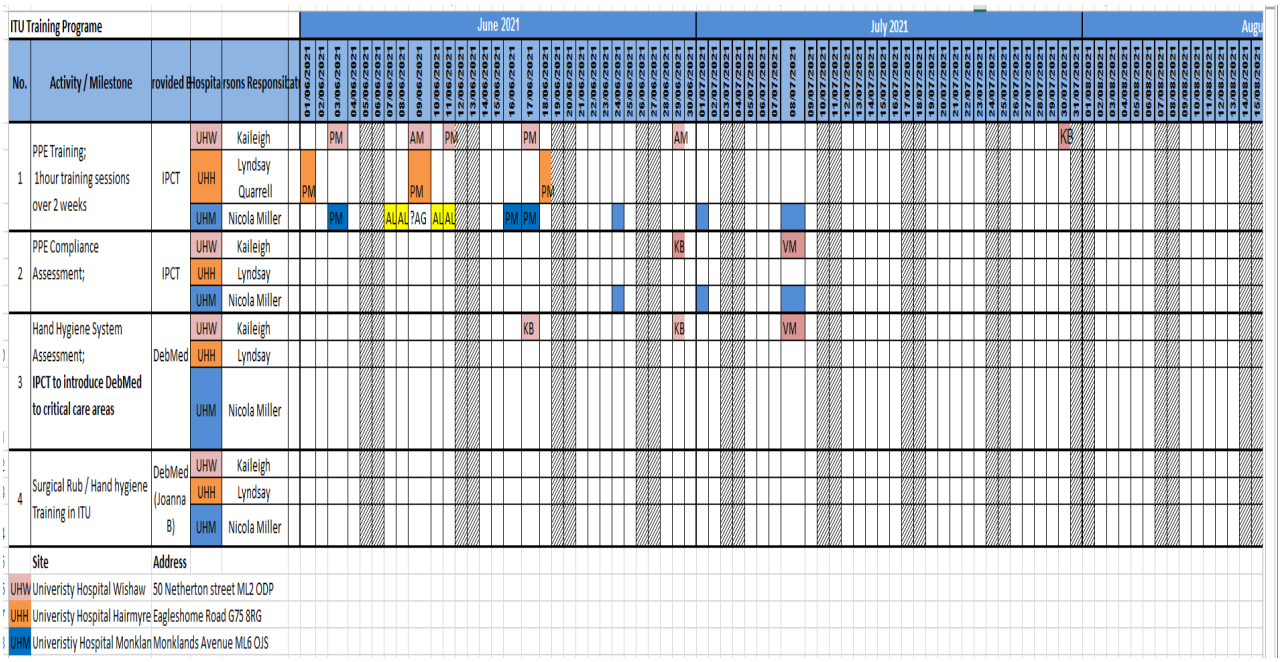
Improvement Action Plan



Hand Hygiene Product provider education sessions

The hand hygiene product provider for NHSL delivered hand hygiene training sessions in the Critical Care Units across the acute sites throughout June and July 2021. These sessions were restarted in October 2021. Due to the success of this work other areas are now being supported e.g. acute inpatient wards, acute off site beds and community hospitals are all being given support with hand hygiene opportunity and technique. The product provider will return to the UHW site on 08 November 2021 to provide additional training for areas of concern. This approach will continue into the new year and impact evaluated and reported via Hygiene Groups and the ICC.

Gantt Chart for IPC Control Measures in ITU



Hand Hygiene Training Kits
IPCT have purchased hand Hygiene training kits for each of the sites, to deliver education sessions. Additional kits have been purchased for use in areas identified to have low compliance

NHS Lanarkshire continue to strive to monitor and improve hand hygiene compliance across the sites, below are details of some of the work being carried out to date.