

NHS Board
25 October 2023

Lanarkshire NHS Board
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**SUBJECT: INFECTION PREVENTION AND CONTROL (IPC) ANNUAL REPORT
2022/23**

1. PURPOSE

This paper is coming to the NHS Board

For Approval	<input type="checkbox"/>	For Assurance	<input type="checkbox"/>	For Noting	<input checked="" type="checkbox"/>
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2. ROUTE TO THE NHS BOARD

This paper has been:

Prepared	<input checked="" type="checkbox"/>	Reviewed	<input type="checkbox"/>	Endorsed	<input checked="" type="checkbox"/>
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by the Infection Prevention and Control Team (IPCT) and reviewed and endorsed NHS Lanarkshire (NHSL) Infection Control Committee (ICC)

3. SUMMARY OF KEY ISSUES

The IPC Annual report for 2022/23 ([Appendix 1](#)) was approved by the Infection Control Committee (ICC) 09 August 2023.

The paper provides an update on the following areas:

- IPCT staffing.
- Outbreaks alert organism referrals to the Infection Prevention and Control Team (IPCT), IPC risks and hand hygiene compliance rates from 01 April 2022-31 March 2023.
- The Annual Operating Plan (AOP) for *Escherichia Coli* Bacteraemia (ECB) 2022/23 which was set at 33.5 was not achieved., NHSL achieved 40.8 for 2022/23
- The AOP for *Staphylococcus aureus* bacteraemia (SAB) 2022/23 which was set at 16.1 was not achieved., NHSL achieved, NHSL achieved 17.2 for 2022/23
- The AOP for *Clostridiodes difficile* Infection (CDI) 2022/23 which was set at 14.8 was not achieved., NHSL achieved 17.9 for 2022/23
- The Key Performance Indicators (KPI)for Methicillin-resistant *Staphylococcus aureus* (MRSA) and Carbapenemase Producing *Enterobacterales* (CPE) compliance of 90% and above was not achieved for 2022/23, NHSL achieved 89 % compliance for MRSA screening Clinical Risk Assessment (CRA) completion and 81% for CPE CRA completion.

- The Hand Hygiene local compliance rate of 95% was not met utilising the IPCT Quality Assurance Hand Hygiene Audits, NHSL achieved 66%. The Standard Infection Prevention and Control (SICPs) Nursing audits identified that the compliance rate had been met.
- There were 40 separate outbreak incidents over NHSL for 2022/23, which resulted in 31 ward closures, 8 room restrictions and 1 bay closed. In total 373 patients and 83 staff were affected by the outbreaks.
- IPCT delivered education sessions throughout 2022/23
- Initiatives and improvement work was undertaken throughout the year with an aim to achieve AOPs and improve Hand Hygiene compliance rates.

4. STRATEGIC CONTEXT

This paper links to the following:

Corporate objectives	<input checked="" type="checkbox"/>	ADP	<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

The Infection Prevention and Control Team continue enhanced surveillance and data collection to assist with the improvement and delivery of the Annual Operating Plans (AOPs) and Hand Hygiene compliance.

7. FINANCIAL IMPLICATIONS

There are no financial implications with regards to the Infection Prevention and Control Annual report 2022/23, however the organisation carries financial pressures as a direct result of Healthcare Associated Infections (HCAIs).

8. RISK ASSESSMENT/MANAGEMENT IMPLICATIONS

There were 5 risks recorded on the IPC Risk register for 2022/23 as follows:

- Transmission of COVID-19 from asymptomatic patients: closed 05-08-2022.
- IPC Specialist Nursing support for MRP closed 30-11-2022.
- Alert organism and alert surveillance system closed 02-08-2023.
- Decontamination Lead closed 02-08-2023.

To date there remains 1 on risk on the IPC risk register

- Failure to deliver on IPC national and local objectives due to increasing demand on current service model: open 20-06-2020, increased from medium to high 13-04-2023 then downgraded from high to low 20-07-2023 (this is due to 2 Senior IPC Nurses and 2 IPC Nurses being appointed).

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 type="checkbox"/>	Performance management	<input checked="" type="checkbox"/>	Equality	<input checked="" type="checkbox"/>
Sustainability	<input type="checkbox"/>				

10. EQUALITY AND DIVERSITY / FAIRER SCOTLAND DUTY IMPACT ASSESSMENT

Has an E&D /FSD Impact Assessment has been completed?

Yes
No

11. CONSULTATION AND ENGAGEMENT

Consultation and contributions have been sought and provided by the following departments/personnel:

- Infection Prevention and Control Team (IPCT)
- Antimicrobial Management Team (AMT)
- Infection Control Committee (ICC)

12. ACTIONS FOR THE NHS BOARD

The NHS Board are asked to:

Approve	<input type="checkbox"/>	Gain Assurance	<input type="checkbox"/>	Note	<input checked="" type="checkbox"/>
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13. FURTHER INFORMATION

For further information about any aspect of this paper, please contact;

Name: Eddie Docherty
Designation: Executive Director of Nursing
Telephone: 0169875286

Appendix 1



INFECTION PREVENTION & CONTROL

ANNUAL REPORT

1 April 2022 – 31 March 2023

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Infection Prevention and Control Team

Infection Prevention and Control Team

IPC Nursing Team

- Lyndsay Quarrell, Infection Prevention and Control(IPC) Nurse Specialist 1.0 wte
- Alison Gold, IPC Clinical Nurse Specialist 1.0 wte
- Kelly McGee, IPC Clinical Nurse Specialist 1.0 wte
- Lorna Barbour, IPC Clinical Nurse Specialist, 1.0 wte
- Vicky Macdonald IPC Nurse 1.0 wte
- Lisa McLelland, IPC Nurse 0.6 wte
- Lorna Murdoch, IPC Nurse 1.0 wte
- Christine Wands, IPC Nurse 1.0 wte
- Kevin Scullion, IPC Nurse 1.0 wte
- Claire Maclean, IPC Nurse 1.0 wte

Administrative Team

- Pauline Ferula, IPC Business Manager, 1.0 wte
- Clare Penrice, IPC, Data Manager 0.6 wte
- Derek Cameron, IPC Secretary 1.0 wte
- Alison Downie, IPC Secretary 1.0 wte
- Emma O'Hare, IPC administrative Support, NHSL Bank

Management Team

- Eddie Docherty, Executive Director of Nursing Midwifery and Allied Health Professionals (NMAHPs) 1.0 wte
- Christina Coulombe, Head of IPC 1.0 wte
- Kaileigh Begley, Senior Nurse IPC 0.8 wte (until August 2022)
- Nicola Miller, Senior Nurse, IPCT, 0.8 wte
- Lee Macready, Senior Nurse, IPCT, 0.8 wte
- Carlos Varon Lopez, IPC Doctor 1.0 wte (sessions: 6)

Care Home Assurance Team

- Julie Burns, Senior Nurse IPC, 1.0 wte
- Sandra Burke, IPC Clinical Nurse Specialist 1.0 wte
- Jennifer MacVicar, IPC Clinical Nurse Specialist 1.0 wte
- 2 x wte IPC Nurses

Monklands Replacement Project

- Linda Thomas, Deputy Chief Nurse, for IPC, MRP, 1.0 wte

Executive Summary

Monklands Replacement Project (MRP)

The Head of Infection Prevention and Control (HoIPC) continues to support the MRP work in collaboration with the Deputy Chief Nurse for MRP/IPC Lead. Over the past year MRP was focused on developing the Outline Business Case (OBC) with input from clinical and non-clinical stakeholders, design associates and public representation at design development workshops. MRP has achieved supported status from the Independent Gateway Review panel, NHSScotland Assure Key Stage Assurance review (KSAR) and NHSScotland Design Assessment Process (NDAP) team. With supported status and agreement from NHSL Board MRP was permitted to submit the OBC to Scottish Government for approval to proceed.

IPC Breakthrough Series Collaborative

The IPC Breakthrough Series Collaborative (BSC) launched on 2 June 2021 to provide a quality improvement approach to support a reduction in *Escherichia coli* bacteraemia, *Staphylococcus aureus* bacteraemia (SAB) and *Clostridioides difficile* infection (CDI) to achieve Healthcare Associated Infection (HCAI) Annual Operating Plan (AOP) Standards. The collaborative concluded June 2023. The Head of Improvement is in the process of preparing a report highlighting the improvements achieved as part of the BSC, this will be presented to the Infection Control Committee.

Business as Usual (BAU) Key Deliverables

- The Infection Prevention & Control Team (IPCT) continues to work towards improving surveillance, prevention and control of HCAI across Lanarkshire through collaborative joint working;
- During 2022-2023, the IPCT were not able to work at full capacity due to staff sickness, maternity leave and unfilled vacancies.

IPC absences 01 April 2022-31 March 2023

Start Date	End Date	No of Weeks
01/04/2022 00:00:00	31/03/2023 00:00:00	52.14

Roster Location	Skill Mix	In Post Avg WTE	Total Leave WTE	Annual Leave WTE	Total Sick WTE	Short Term Sick WTE	Long Term Sick WTE	Study Leave WTE	Maternity Leave WTE	All Other Leave WTE	Excess WTE	Over time WTE	Bank WTE
NHSL HAI Infection Control (E&M) (PAIAW)	Registered	10.44	4.34	1.58	1.84	0.14	1.70	0.10	0.57	0.25	0.12	0.01	0.00

- National Hand Hygiene audit reporting discontinued in September 2013, however auditing in Lanarkshire continues and has shown room for improvement across the majority of professions.
- Lanarkshire continues to comply with national mandatory surveillance requirements albeit there remains a pause on Caesarean Section, Hip Arthroplasty and Vascular and large Bowel Surgical Site Infection surveillance.
- *Escherichia coli* bacteraemia (ECB) enhanced surveillance continued during 2022-2023. The end of March 2023 Annual Operating Plan (AOP) Standard was not achieved.

- The SAB rate for Lanarkshire has also fluctuated during 2022 - 2023. The end of March 2023 AOP Standard was not achieved.
- *Clostridioides difficile* infection (CDI) rates have varied during this reporting period. The end of March 2023 AOP Standard was also not achieved.
- During 2022- 2023 outbreaks that occurred were contained with no spread to other wards and staff demonstrated great commitment and effort.
- A number of wards and bays were temporarily closed to admissions and transfers due to COVID-19 (SARS CoV-2). There was a similar picture in most larger mainland boards across Scotland.
- Over fourteen thousand IPC related education and training modules were completed by staff during 2022-2023.
- Lanarkshire remains GREEN in the National Cleaning Specification monitoring reports; and
- The Healthcare Environment Inspectorate inspected University Hospital Wishaw in January 2023. The focus of the Inspection was on Safe Delivery of patient care. There was 1 requirement relating to IPC as follows:
 - NHS Lanarkshire will ensure that all staff carry out hand hygiene at appropriate moments and use personal protective equipment in line with current guidance.
 The action log was updated as follows:
 - NHS Lanarkshire continues to support best practice in hand hygiene with further educational sessions to be delivered by external agency who will also provide assurance of compliance All areas will be inspected to ascertain requirements for additional storage for PPE.

NHS Lanarkshire AOP Standards for HCAI 2019 to 2024/National KPIs/Local Standards

Standards		Benchmarking		2021/2024 Target	2022/2024 Target
		National rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2024 (100,000 TOBDs)	NHSL rate Year end March 2024 (100,000 TOBDs)
Gram-negative bacteraemia standard <i>E. coli</i> Bacteraemia	Reduction of 25% in healthcare associated <i>E. coli</i> bacteraemia by 2023/24,	38.4	44.7	33.5	33.5
<i>Staphylococcus aureus</i> bacteraemia (SAB) standard	Reduction of 10% in the national rate of healthcare associated SAB from 2019 to 2024, with 2018/19 used as the baseline for the SAB reduction target	16.8	17.9	16.1	
<i>Clostridioides difficile</i> infection (CDI) standard	Reduction of 10% in the national rate of healthcare associated CDI from 2019 to 2024, with 2018/19 used as the baseline for the CDI	14.7	16.5	14.8	

	reduction target				
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Escherichia coli bacteraemia (ECB) (Gram-negative bacteraemia Standard)

Measure & Data: Rate of HCAI ECB per 100,000 total occupied bed days. Data published by Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) quarterly, Standard calculated against quarterly rolling year, three-month time lag.

Local Trajectory to achieve national standard of 25% reduction over five years from the NHSL end March 2019 baseline (benchmark)

2019/20	44.7 to reduce to 33.5
2020/21	41.0 to reduce to 33.5
2022/23	to reduce to 33.5
2023/24	to reduce to 33.5

Escherichia coli Bacteraemia (ECBs)

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL ECB HCAI rate of 40.8 per 100,000 TOBDs; 242 HCAI cases;
- National ECB HCAI rate of 35.7 per 100,000 TOBDs;
- NHSL is above the national comparator for 2021/2023 HCAI ECB rates;
- NHSL is above the local AOP Standard rate (33.5) for 2022/2023 ECB rates.

Staphylococcus aureus bacteraemia (SAB) Standard

Measure & Data: Rate of HCAI SAB per 100,000 total occupied bed days. Data published by ARHAI Scotland quarterly, Standard calculated against quarterly rolling year, three-month time lag.

Local Trajectory to achieve national standard of 10% reduction over three years from the NHSL end March 2019 baseline (benchmark)

2019/20	17.9 to reduce to 16.1
2020/21	to reduce to 16.1
2021/23	to reduce to 16.1
2023/24	to reduce to 16.1

Staphylococcus aureus Bacteraemia (SAB)

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL SAB HCAI rate of 17.2 per 100,000 TOBDs; 102 HCAI cases;
- National SAB HCAI rate of 18.2 per 100,000 TOBDs;
- NHSL is below the national comparator for 2021/2023 HCAI SAB rates; and
- NHSL is above the local AOP Standard rate (16.1) for 2022/2023 HCAI SAB rates.

Clostridioides difficile Infection (CDI) Standard

Measure & Data: Rate of HCAI CDI per 100,000 total occupied bed days. Data published by ARHAI Scotland quarterly, Standard calculated against quarterly rolling year, three-month time lag.

Local Trajectory to achieve national standard of 10% reduction over three years from the NHSL end March 2019 baseline (benchmark)

2019/20	16.5 to reduce to 14.8
2020/21	to reduce to 14.8
2021/22	to reduce to 14.8
2022/2023	to reduce to 14.8

Clostridioides difficile Infection (CDI)

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL CDI HCAI rate of 17.9 per 100,000 TOBDs; 106 HCAI cases;
- National CDI HCAI rate of 13.6 per 100,000 TOBDs;
- NHSL is above the national comparator for 2022/2023 HCAI CDI rates; and
- NHSL is above the local AOP Standard rate (14.8) for 2022/2023 HCAI CDI rates.

National Key Performance Indicators

MRSA & CPE CRA Compliance

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

NHSL Performance (April 2022 - March 2023):

- 89% compliance for MRSA acute inpatient admission CRA completion (3% increase in compliance from April 2022 – March 2023). (Exclusions: Maternity, Paeds, Mental Health, Psychiatry);
- For this reporting period; MRSA KPI has **not** been met.
- 81% compliance for CPE acute inpatient admission CRA completion (14% increase in compliance from April 2022-March 2023); and
- For this reporting period; CPE KPI has **not** been met.

Local Standards

Hand Hygiene IPC Quality Assurance Audit

NHSL performance in 2022/2023:

Achieved 66% against a national requirement of 95% (decrease of 13% from 2021/2022).

Surgical Site Infections (SSIs)

NHSL performance in 2022/2023

Epidemiological data for SSI are not included due to the temporary suspension of all mandatory and voluntary SSI surveillance to support the COVID-19 response in March 2020.

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

Outbreak Incidence

NHSL performance in 2022/23

- 40 separate outbreak incidents; 5 in University Hospital Monklands (UHM); 15 in University Hospital Wishaw (UHW); 7 in University Hospital Hairmyres (UHH); 13 in the Health & Social Care Partnerships (H&SCPs).
- 31 ward closures; 8 room restrictions; and 1 bay closed.
- 373 patients; 83 staff affected.

These figures have reduced since the reporting period 2021-2022 reported last year.

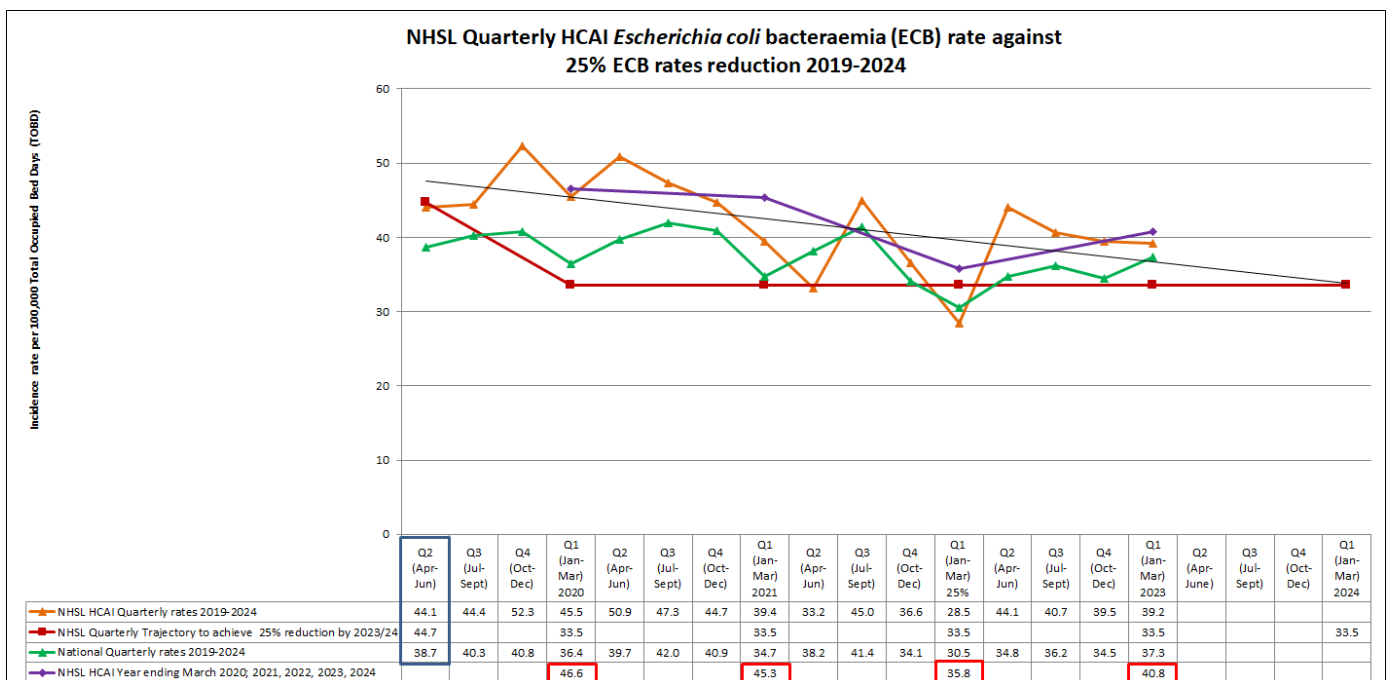
Escherichia coli bacteraemia (ECB)

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, inappropriate use of medical devices. Sometimes however, the source of the bacteraemia isn't known.

E. coli is currently the most common cause of bacteraemia in Scotland. As a result, the Scottish Government Health and Social Care Directorate (SGHSCD) requested an in-depth analysis of the epidemiology of *E. coli* bacteraemia.

Standards		Benchmarking		2021/2024 Target	2023/2024 Target
		National rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2024 (100,000 TOBDs)	NHSL rate Year end March 2024 (100,000 TOBDs)
Gram-negative bacteraemia standard	Reduction of 25% in healthcare associated <i>E. coli</i> bacteraemia by 2023/24, 2018/19 should be used as the baseline for <i>E. coli</i> bacteraemia reduction	38.4	44.7	33.5	33.5





563 Total Cases



242 HCAI Cases



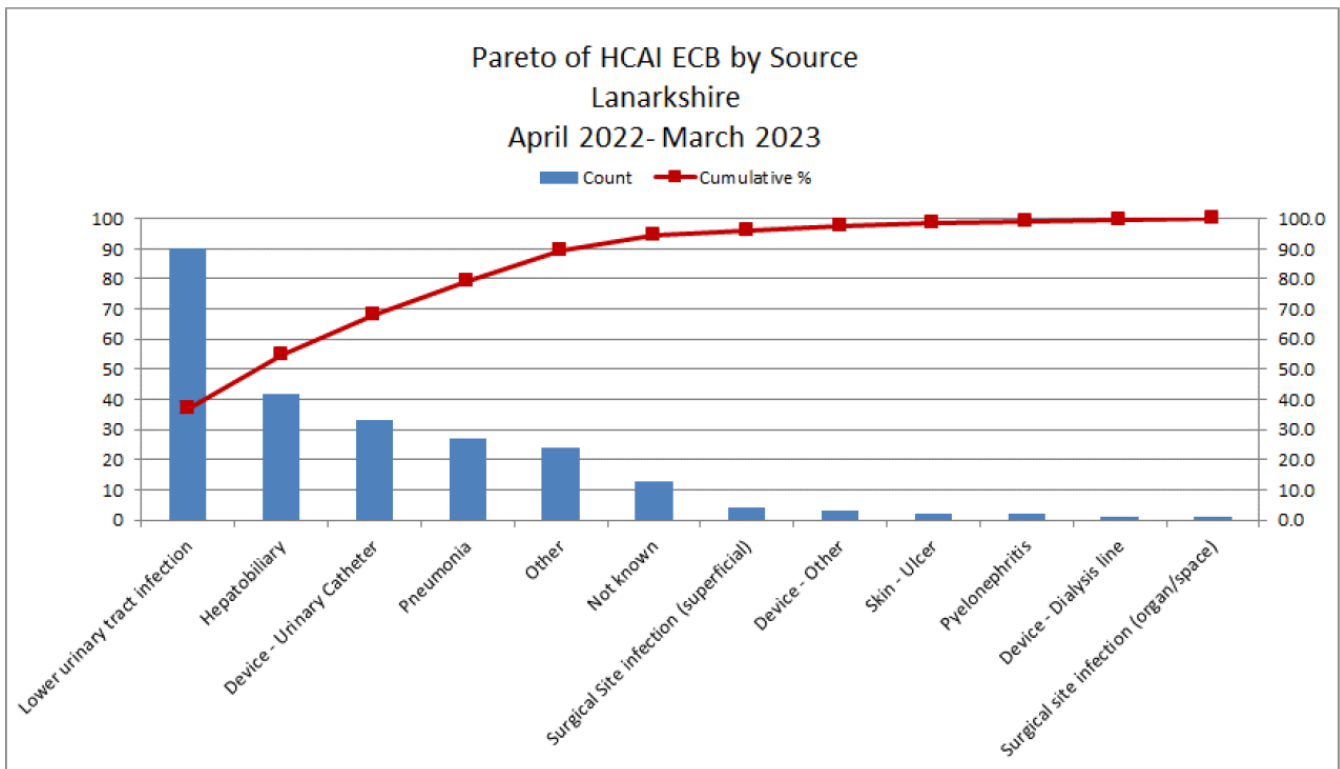
321 CAI Cases

(53 HCAI cases above target of 189 cases)

Escherichia coli bacteraemia Standard

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL ECB HCAI rate of 40.8 per 100,000 TOBDs; 242 HCAI cases;
- National ECB HCAI rate of 35.7 per 100,000 TOBDs;
- NHSL is above the national comparator for 2022/2023 HCAI ECB rates; and
- NHSL is above the local AOP Standard rate for 2022/2023 ECB rates.





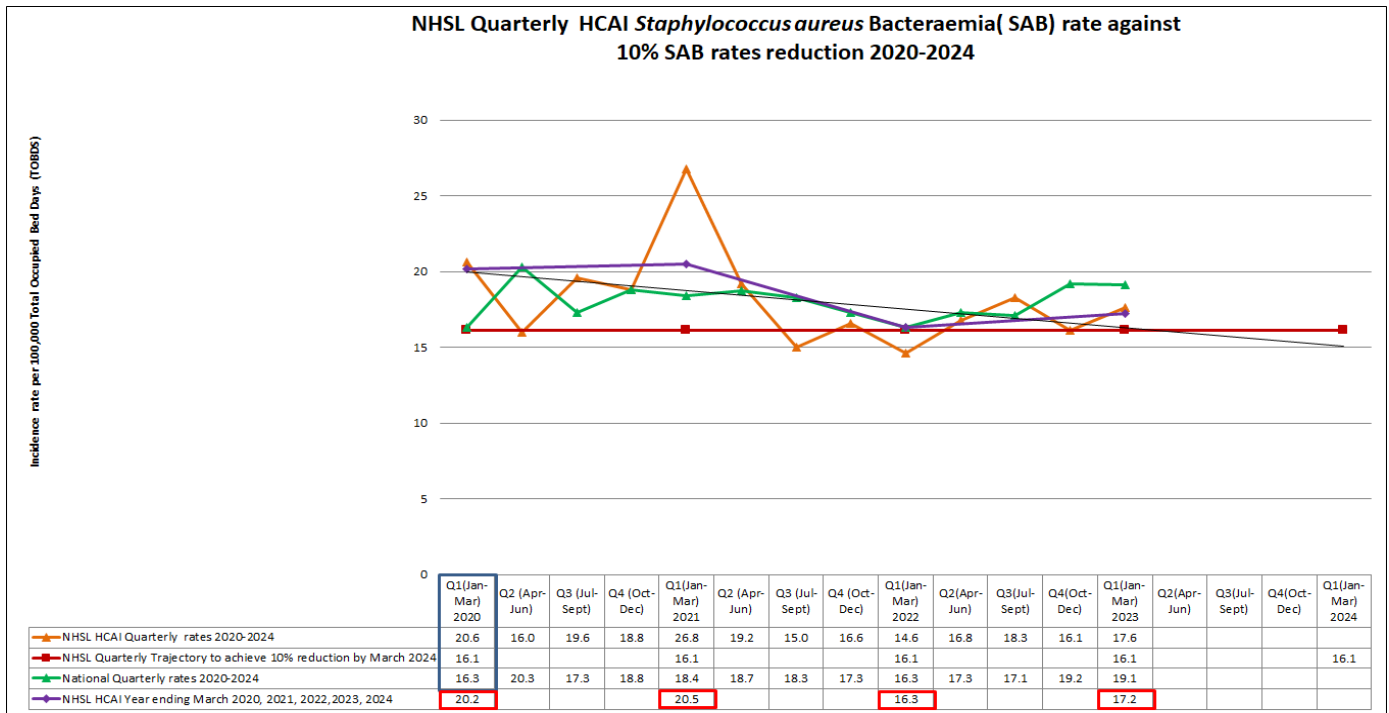
Quality Improvement and interventions to reduce ECB infections:

- Monitoring of compliance with the National Infection Prevention and Control Manual Chapter 1: Standard Infection Control Precautions (SICPs) by the clinical teams.
- Monthly data score cards are sent by IPCT to clinical teams detailing number of ECBs.
- ECB data is a standard Agenda item on all Hygiene Groups.
- A full review of the ECB data is currently underway across all sites. Areas for improvement specifically related to lower urinary tract infection and Hepatobiliary.

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 bacteraemia or bloodstream infection.

Standards		Benchmarking		2021/2024 Target	2023/2024 Target
		National rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2024 (100,000 TOBDs)	NHSL rate Year end March 2024 (100,000 TOBDs)
Staphylococcus aureus bacteraemia (SAB) standard	Reduction of 10% in the national rate of healthcare associated SAB from 2019 to 2024, with 2018/19 used as the baseline for the SAB reduction target	16.8	17.9	16.1	



153 Total Cases



102 HCAI Cases



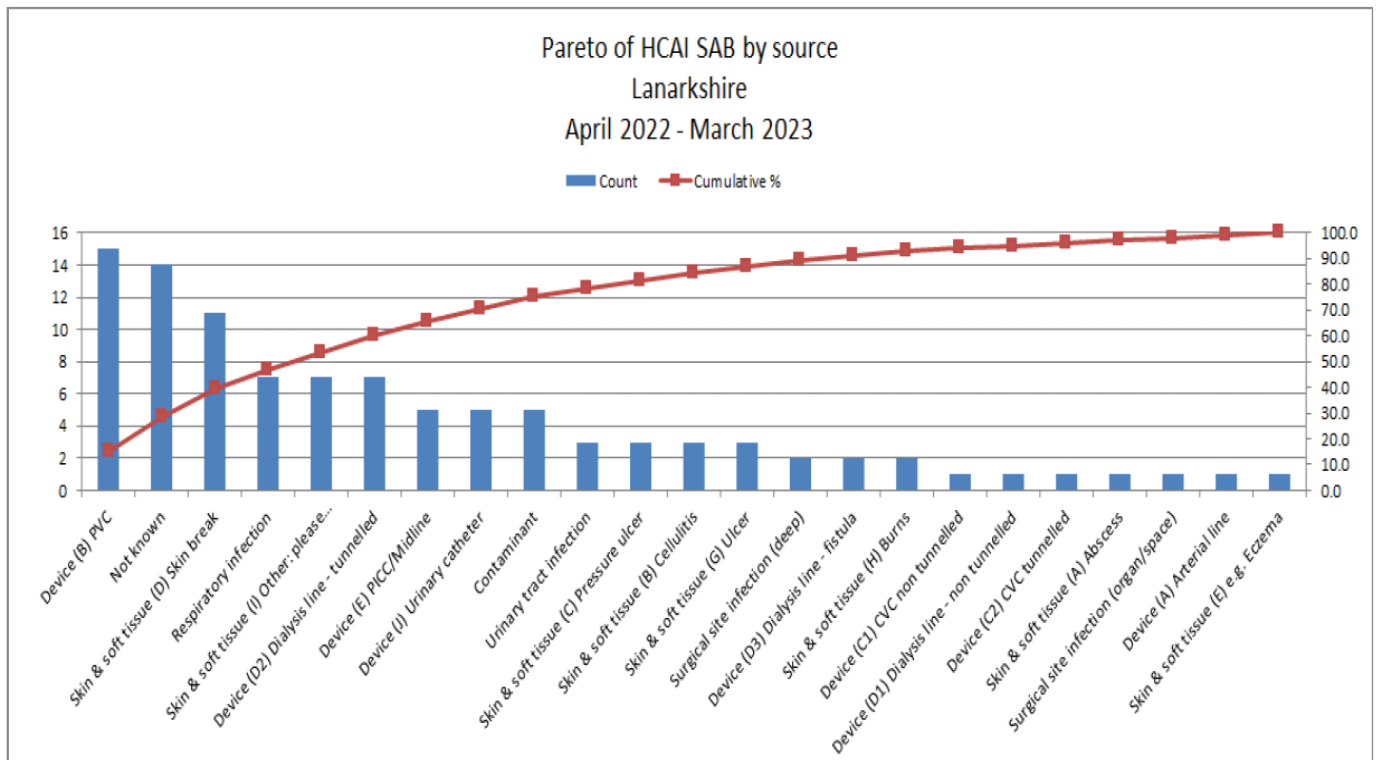
51 CAI Cases

(11 HCAI case above target of 91 cases)

Staphylococcus aureus bacteraemia Standard

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL SAB HCAI rate of 17.2 per 100,000 TOBDs; 102 HCAI cases.
- National SAB HCAI rate of 18.2 per 100,000 TOBDs.
- NHSL is below the national comparator for 2022/2023 HCAI SAB rates; and
- NHSL is above the local AOP Standard rate for 2022/2023 HCAI SAB rates.



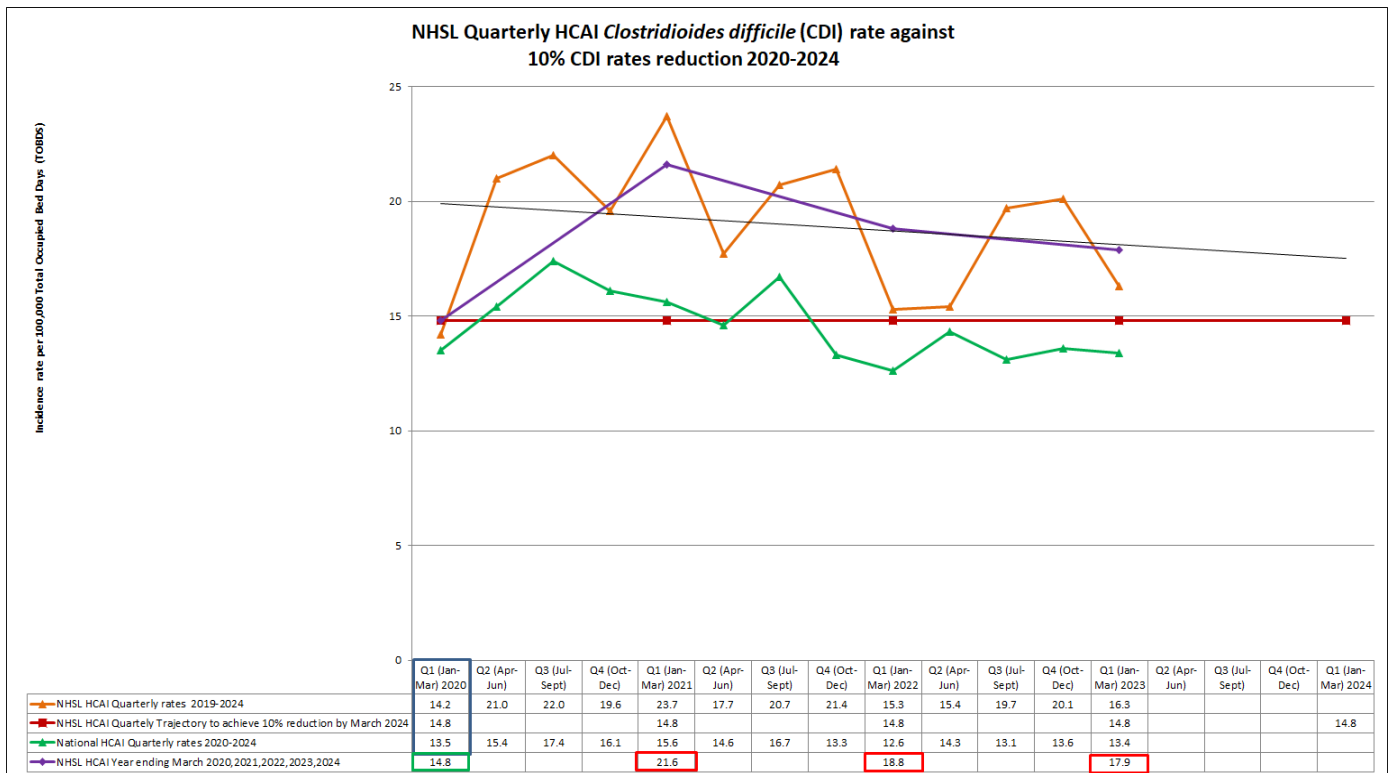
Quality Improvement and interventions to reduce *S. aureus* Bacteraemia (SAB):

- Monitoring of compliance with the National Infection Prevention and Control Manual Chapter 1: Standard Infection Control Precautions (SICPs) by the clinical teams.
- Monitoring of compliance with Meticillin resistant *Staphylococcus Aureus* Clinical Risk Assessment.
- Monthly data score cards to clinical teams detailing number of SAB and source.
- SAB data is a standard Agenda item on all Hygiene Groups.
- A Datix is completed for a device related infection or when SAB is noted on the death certificate to allow the commissioner to determine if a SAER is required. All learning is taken through the Hygiene Groups The review team report into the Hygiene Groups and they will oversee any actions and share any learning points within the group.

Clostridioides difficile Infection (CDI)

CDI is a significant HCAI, which usually causes diarrhoea and contributes to a significant burden of morbidity and mortality. Prevention of CDI is therefore essential and an important patient safety issue.

Standards		Benchmarking		2021/2024 Target	2023/2024 Target
		National rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2019 (100,000 TOBDs)	NHSL rate Year-end Mar 2024 (100,000 TOBDs)	NHSL rate Year end March 2024 (100,000 TOBDs)
Clostridioides difficile infection (CDI) standard	Reduction of 10% in the national rate of healthcare associated CDI from 2019 to 2024, with 2018/19 used as the baseline for the CDI reduction target	14.7	16.5	14.8	



130 Total Cases



106 HCAI Cases



24 CAI Cases

(22 HCAI cases above target of 84 cases)

Clostridioides difficile Standard

NHSL Performance (April 2022 - March 2023): HCAI

- NHSL CDI HCAI rate of 17.9 per 100,000 TOBDs; 106 HCAI cases.
- National CDI HCAI rate of 13.6 per 100,000 TOBDs.
- NHSL is above the national comparator for 2022/2023 HCAI CDI rates; and
- NHSL is above the local AOP Standard rate for 2022/2023 HCAI CDI rates.



Quality Improvement and interventions to reduce CDIs:

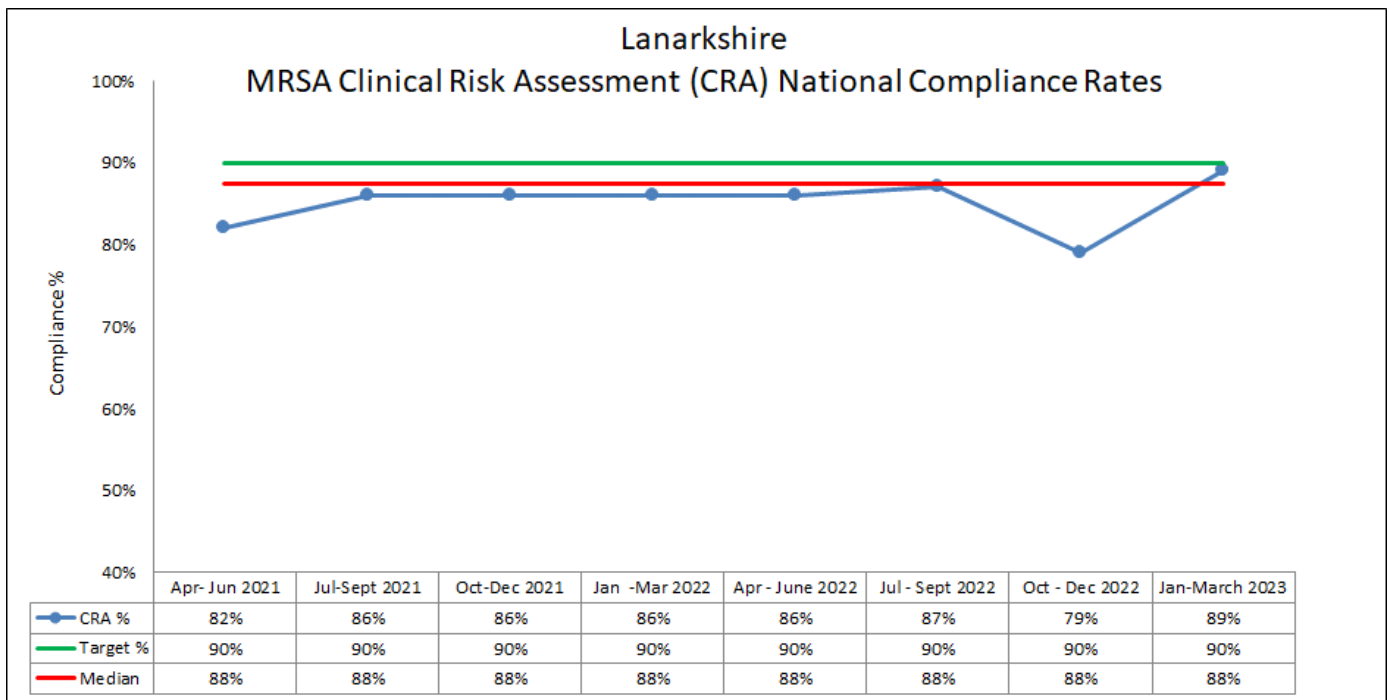
- Monitoring of compliance with the National Infection Prevention and Control Manual Chapter 1: Standard Infection Control Precautions (SICPs) by the clinical teams.
- Management of Loose Stools information provided to all wards by the IPCT to refresh actions, management and precautions to be taken.
- Prompt recognition of diarrhoeal patients and isolation.
- Monthly data score cards to clinical teams detailing number of CDI.
- CDI data is a standard Agenda item on all Hygiene Groups.
- Refresh of the Vale of Leven improvement plan commissioned by the ICC.
- Support from ARHAI Scotland to understand the impact of the pandemic on local and national AOP Standards.
- A Datix is raised for all CDI related deaths and severe cases to allow the commissioner to determine if a SAER is required. All learning is taken through the Hygiene Groups.
- Antimicrobial stewardship continues to be a priority in the management of CDI.

MRSA Acute Inpatient Admission Screening

A national MRSA acute inpatient admission screening policy has been in place in Scotland since March 2012. An MRSA clinical risk assessment (CRA) is completed for all acute inpatient admissions and the screening policy identifies a subset of patients at high risk of MRSA colonisation or infection on admission to hospital. These patients are then screened in line with national guidelines for MRSA screening. This method of screening reduces the number of patients that require being laboratory tested for MRSA and allows high risk patients to be pre-emptively isolated in a single room whilst the results of the test are awaited.

Key Performance Indicators (KPI) for Meticillin Resistant *Staphylococcus aureus* (MRSA) for Clinical Risk Assessment (CRA)

- NHSL overall compliance was 89% against a national requirement of 90% or above. This is an increase of 3% from last year's performance; and
- There were a total of 119 patient nursing notes reviewed and 106 had the CRA completed. Of the 106 patients who had a CRA completed, 12 patients required to be swabbed for MRSA which equates to 11%.

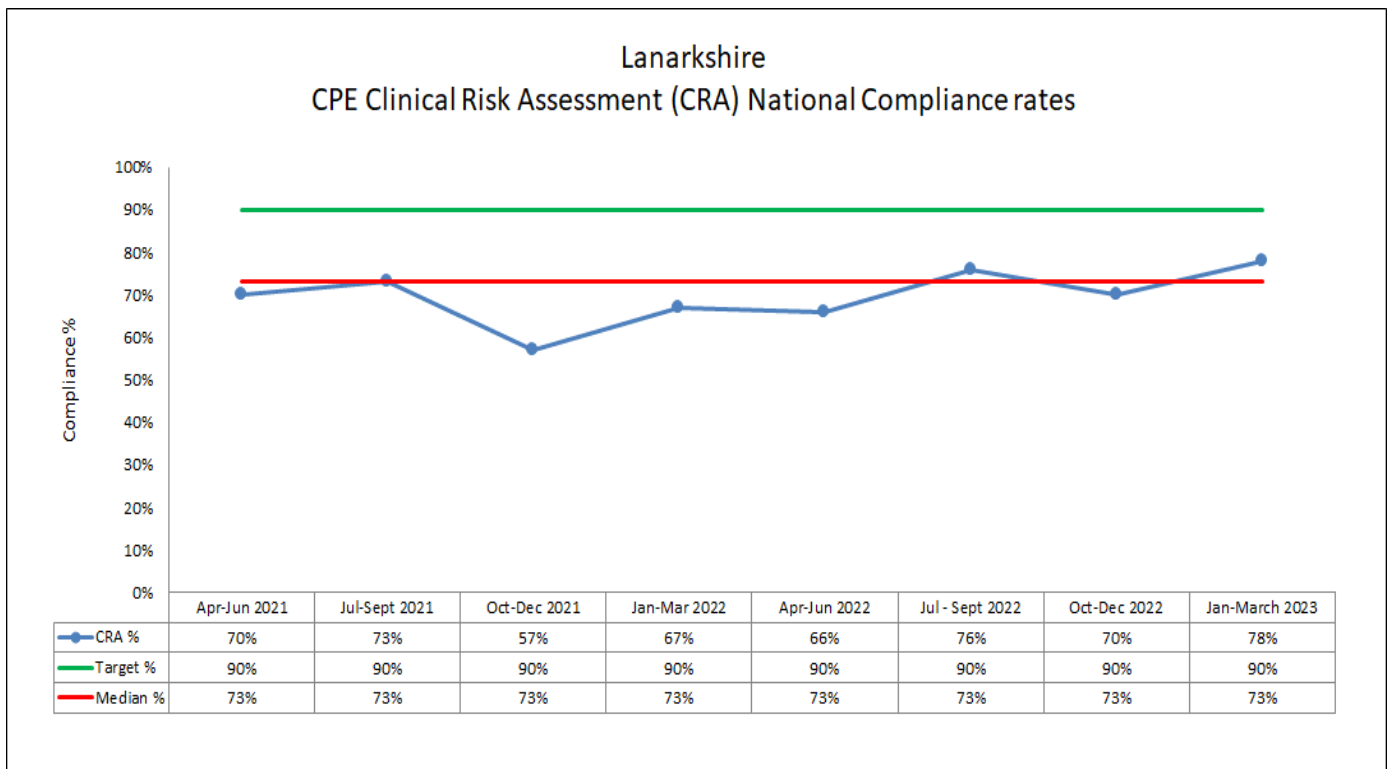


Carbapenemase producing *Enterobacteriaceae*

A national Carbapenemase producing *Enterobacteriaceae* (CPE) acute inpatient admission screening policy was fully implemented across NHSL since May 2018. A CPE CRA is completed for all acute inpatient admissions and against the screening policy identifies a subset of patients at high risk of CPE colonisation or infection on admission to hospital. These patients are then screened in line with national guidelines for CPE screening. This method of screening reduces the number of patients that require to be laboratory tested for CPE and allows high risk patients to be pre-emptively isolated in a single room whilst the results of the test are awaited.

Key Performance Indicators (KPI) for Clinical Risk Assessment (CRA) for Carbapenemase-producing *Enterobacteriaceae* (CPE) CRA compliance.

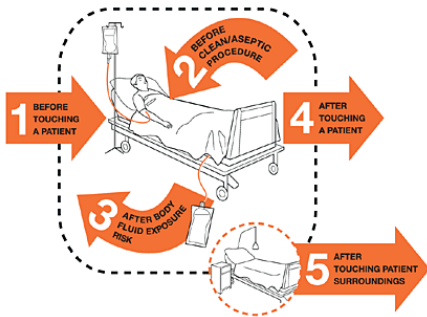
- NHSL overall compliance was 81% against a national requirement of 90% or above. This is an increase of 14% from last year's performance; and
- There were a total of 119 patient nursing notes reviewed and 96 had the CRA completed. Of the 96 patients who had a CRA completed, 0 patients were required to be swabbed for CPE.



Local Standards

Hand Hygiene

Hand Hygiene is recognised as being the most effective cornerstone of IPC in healthcare.

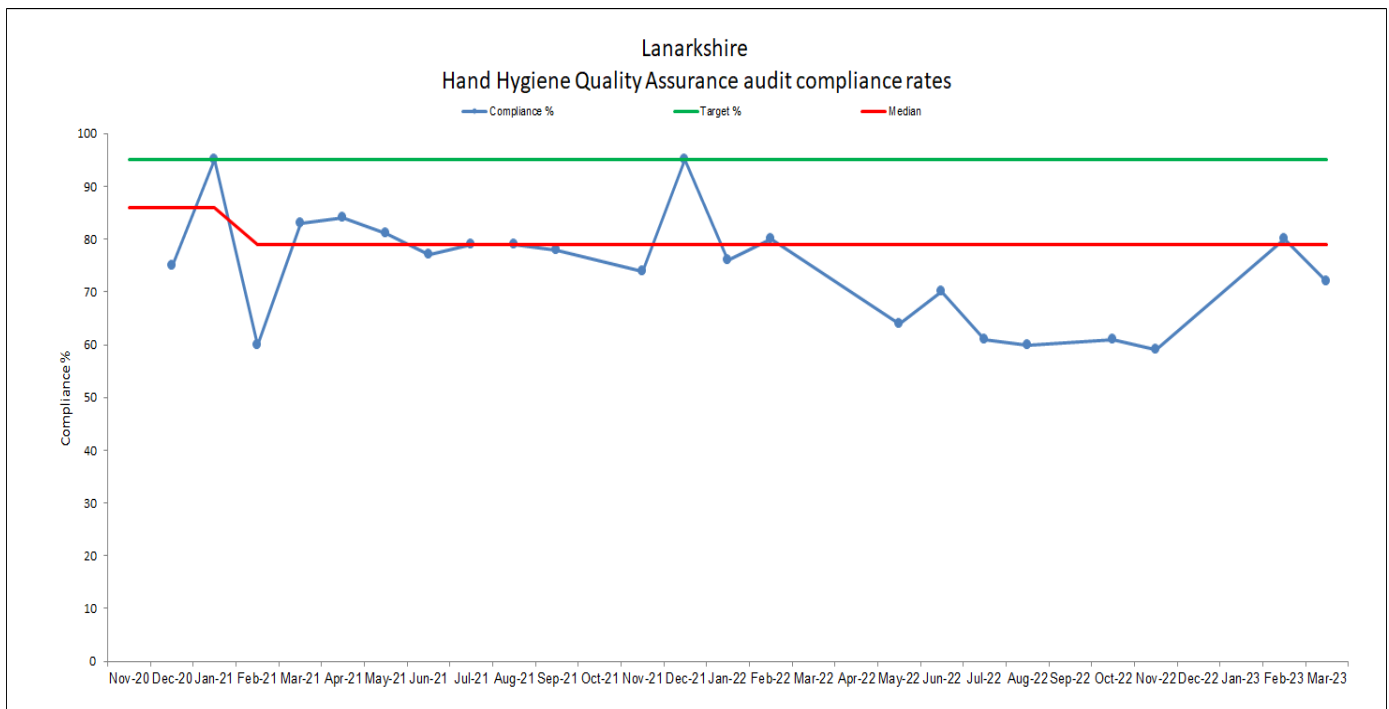


Hand Hygiene is a term used to describe the decontamination of hands by various methods including routine hand washing and/or hand disinfection which includes the use of alcohol gels and rubs.

The 5 Moments for Hand Hygiene (as shown in the diagram) approach defines the key opportunities when health-care workers should perform hand hygiene.

NHSL has reached an overall compliance level of 66% during 2022/2023 against the board compliance level of 95% or above. Below is a breakdown of compliance levels by staff group of hand hygiene quality assurance reviews carried out by the IPCT. Please note the data source is from IPC quality assurance hand hygiene audits; clinical teams will carry out separate local hand hygiene compliance audits however these are not included in the data below. Please note that this year in response to Board wide pressures the audit programme was paused for a period of time to allow both IPC staff and clinical staff to focus on the pandemic and delivery of patient care during this challenging time.

- **NHS Lanarkshire overall compliance: 66% (651 of 987 staff assessed)**
- Nursing: 66% (454 of 691 staff were compliant).
- Medical: 67% (106 of 159 staff were compliant).
- Ancillary/Other: 47% (23 of 49 staff were compliant); and
- Allied Health Professionals: 77% (68 of 88 staff were compliant).



Surgical Site Infection

Epidemiological data for SSI are not included due to the temporary suspension of all mandatory and voluntary SSI surveillance to support the COVID-19 response in March 2020.

Outbreak Management

40 Separate Outbreaks in 2022-2023

In 2022/2023 there was a decrease in the number of healthcare associated outbreaks of infection with a total of **40** outbreaks (**36** COVID-19 Outbreaks, **2** Norovirus outbreaks, **1** Influenza and **1** MRSA outbreaks) managed by the IPCT and frontline staff in comparison to **66** outbreaks in 2021/2022.



5 UHM – 4 ward closures; 1 bay restrictions.



7 UHH – 7 ward closures; 0 room restriction.



15 UHW – 8 ward closure; 7 room restrictions.



2 South H&SCPs – 2 ward closures; 0 room restrictions.



11 North H&SCPs - 10 Ward closures, 1 room restrictions.

- 373 patients; 83 staff affected.

Total Number of IPCT Referrals 2022-2023

There were 7981 IPC referrals for April 2022-March 2023.

UHM - 2359 referrals

UHW - 2192 referrals

UHH - 2119 referrals

H&SCP non acute - 1311 referrals

Healthcare Infection Incident Assessment Tool (HIIAT)- COVID-19 Reporting

During April 2022 to March 2023 there were 28 RED, 0 AMBER and 153 GREEN HIIATs relating to COVID-19 sent to ARHAI Scotland.

Red HIIATS for COVID 19

- 5 red HIIATS** for University Hospital Wishaw (UHW).
- 12 red HIIATS** for University Hospital Hairmyres (UHH).
- 6 red HIIATS** for University Hospital Monklands (UHM).
- 1 red HIIAT** for Airbles Road.
- 1 red HIIAT** for Coathill Hospital.
- 1 red HIIAT** for Stonehouse Hospital, Lockhart Unit.
- 1 red HIIAT** for Ward 24 Mental Health (UHM).
- 1 red HIIAT** for Udston Hospital.

Amber HIIATS for COVID 19

- 0 amber HIIATS** for UHW.
- 0 amber HIIATS** for UHM.
- 0 amber HIIATS** for UHH.

Green HIIATS for COVID 19

- 43 green HIIATS** for UHW.
- 34 green HIIATS** for UHH.
- 37 green HIIATS** for UHM.

- 1 green HIIAT** for Coathill.
- 2 green HIIAT** for Beckford Lodge.
- 1 green HIIAT** for Coathill Glenmore ward.
- 1 green HIIAT** for Kello Hospital.
- 5 green HIIAT** for Lady Home Hospital.
- 3 green HIIATS** for Stonehouse Hospital.
- 2 green HIIATS** for Victoria Hospital.
- 3 green HIIATS** for Wester Moffat.
- 21 green HIIAT** for Mental Health UHW, UHH, UHM, Beckford Lodge, Cleland, Coathill, Kirklands & Udston.

Healthcare Infection Incident Assessment Tool (HIIAT)- Non-COVID-19 Reporting

During April 2022 to March 2023 there were 2 RED, 1 AMBER and 8 GREEN HIIATs relating to other organisms sent to ARHAI Scotland.

Red HIIAT

1 red HIIAT for UHM regarding *Aspergillus* (Ward 16).

1 red HIIAT for UHM regarding *Staphylococcus aureus* (RDU A).

Amber HIIAT

1 Amber HIIAT for UHH regarding *Pseudomonas* & VRE (Intensive Care)

Green HIIATs

1 Green HIIAT for Udston Hospital regarding *Influenzavirus A* (Brandon Ward)

1 Green HIIAT for UHH regarding *Influenzavirus A* (Ward 14)

1 Green HIIAT for UHH regarding *Gastrointestinal Bacteria* (Ward 14)

1 Green HIIAT for UHH regarding *Microbacterium Tuberculosis* (ICU)

1 Green HIIAT for UHH regarding *Enterobacter agglomerans* (MDU)

1 Green HIIAT for UHH regarding *Enterobacter agglomerans* (Ward 1)

1 Green HIIAT for UHW regarding *Influenzavirus A* (Ward 5)

1 Green HIIAT for UHW regarding *Influenzavirus A* (Ward 6)



31 Full Ward Closures

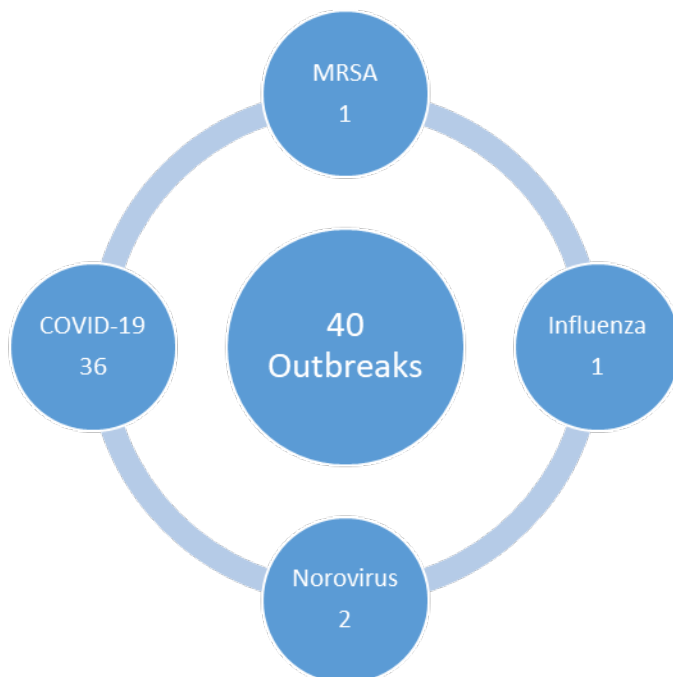


9 Room restrictions



373 Patients affected

83 Staff affected



Interventions to support Clinical teams:

- Winter preparedness posters prepared and distributed to all inpatient areas in NHSL.
- IPCT COVID-19 education sessions delivered as and when required across all of health.
- IPCT engagement with staff to work proactively in managing patients / isolation / cohort to minimise effect.

COVID-19 Response

In December 2019 a novel coronavirus was identified in Wuhan City, China. Early cases were likely infected via an animal source in a 'wet market', however as the cases increased evidence confirmed human to human transmission. The World Health Organisation (WHO) declared a public health emergency of international concern in January 2020. In response to this emerging situation UK preparedness commenced to engage and prepare the public and healthcare teams initially to contain the virus then to manage the ongoing situation. On the 11 March 2020, WHO declare a Global Pandemic advising 'all countries can still change the course of the pandemic if they detect, test, treat, isolate, trace and mobilise people in their response'.

IPCT Response 2022/23

- Guidance changes and updates for staff.
- National planning, consultation and guidance development.
- PPE training.
- Pathway planning i.e. respiratory, surgical, dental etc.
- Remobilisation and Recovery support for all services.
- Care Home Support.
- Liaising with wider community organisations – Social Work/Care Inspectorate/GPs/community nursing teams.
- Support for operating theatres/endoscopy units with post AGP follow time relating to pathway.
- Outbreak management – PAG/IMTs.

IPC Resource April 2022 to March 2023

- There were 10.42 wte IPCT Nursing staff in post for this reporting period, 1.84% sick leave was recorded.
- There was 0.57 IPCN on Maternity Leave.
- The post for the Decontamination Lead 1x1.0 has not been filled due to issues regarding funding. This was highlighted as a risk and placed on the IPC risk register. This has since been removed from the risk register due to funding being unavailable. The roles and responsibilities will be incorporated in to the responsibilities of the IPC Nurses.

IPC Risk Register

There were 5 risks recorded on the IPC risk register for this reporting period as follows:

Closed

- Transmission of COVID-19 from asymptomatic patients: Open 19-01-2022 and **closed** 05-08-2022.
- IPC Specialist Nursing support for MRP: open 17-12-2020 and **closed** 30-11-2022.
- Alert organism and alert surveillance system: open 20-06-2020 and **closed** 02-08-2023.
- Decontamination Lead: open 01-03-2022 and **closed** 02-08-2023.

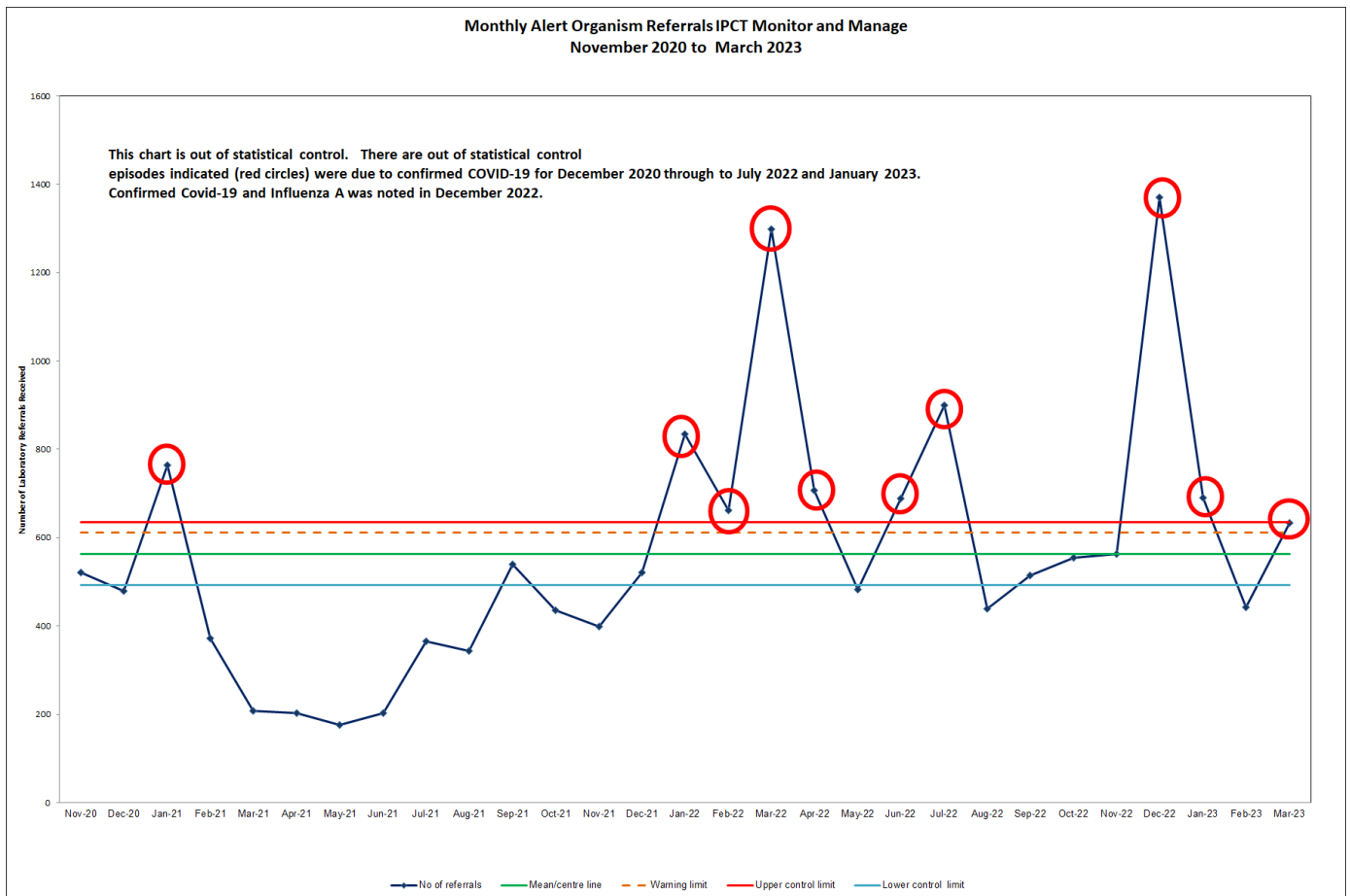
Open

- Failure to deliver on IPC national and local objectives due to increasing demand on current service model: open 20-06-2020, increased from medium to high 13-04-2023 then downgraded from high to low 20-07-2023 (this is due to 2 Senior IPC Nurses and 2 IPC Nurses being appointed).

Infection Related Intelligence Service

Every NHS Board in Scotland is mandated by the Standards for Healthcare Associated Infection (2022) to have robust and effective surveillance systems of alert organisms and conditions in place. NHS Lanarkshire has had a bespoke surveillance system in place since 2016; this system is person dependent and not an electronic surveillance system.

Throughout 2020-2023, there were a total of 5235 alert organisms (up 2004 alerts from previous year) referred via the laboratory to the IPCT to monitor and manage within an acute setting and 1311 via General Practitioner (GP) samples and other non-acute areas received. The following chart provides an overview of the alert organism referral number.



This chart is out of statistical control. There are out of statistical control episodes indicated (red circles) were due to confirmed COVID-19 for December 2020 through to July 2022 and January 2023. Confirmed Covid-19 and Influenza A was noted in December 2022.

Healthcare Improvement Scotland (HIS) Inspections

HIS Announced/unannounced inspections 2022-23

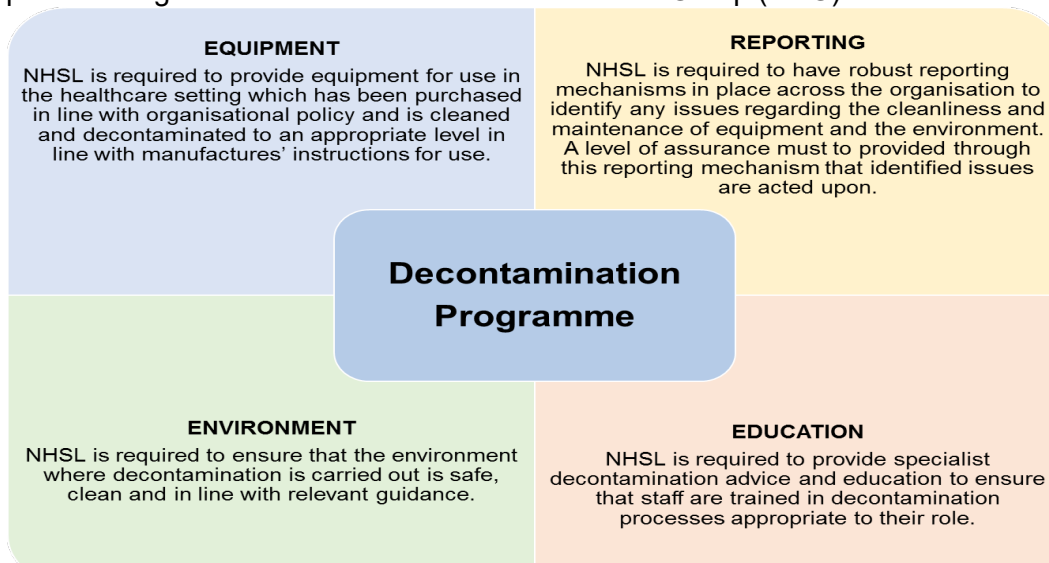
HIS confirmed in November 2021 that a programme of hospital inspections would commence, focussing on the delivery of safe patient care, although the inspection of the Mental Health Units in Scotland would be Infection Prevention and Control focussed. HIS will utilise the Healthcare Improvement Scotland Infection Prevention and Control Standards, for Health and Social Care Standards for Mental Health Unit inspections. The Healthcare Improvement Scotland Quality Assurance Framework will also be utilised.

NHS Lanarkshire has undergone **1** unannounced inspection for this reporting period as follows:

University Hospital Wishaw underwent an unannounced inspection undertaken 16-18 January 2022. The inspection focus was on the safe delivery of patient care. There was 1 infection Prevention and Control related requirement identified as noted above.

Decontamination

The HPS definition of decontamination is that there is a combination of processes used to reduce the number of infections that cross from one person to another – cross infection – from medical instruments, equipment or the environment. Decontamination is the term used that means cleaning, disinfection and sterilisation. The Decontamination Environmental Monitoring Group (DEMG) reviewed the remit of the group and the Terms of Reference were updated and the title of the group was changed to the Decontamination Assurance Group (DAG).



Quality improvement and interventions to implement the decontamination programme:

- The Terms of Reference for the DAG were reviewed to ensure the membership includes the appropriate stakeholders and the remit of the group is clear.
- Decontamination Assurance Group (DAG) resumed quarterly meetings for this reporting period, however a review of the group has highlighted that current processes in place are suffice and that a review of the purpose of the group is required. The Decontamination of Equipment and Environment Policy was reviewed, and updated November 2022.
- An Authorising Engineer for Decontamination is employed by NHSL to provide support if required.

Training and Education

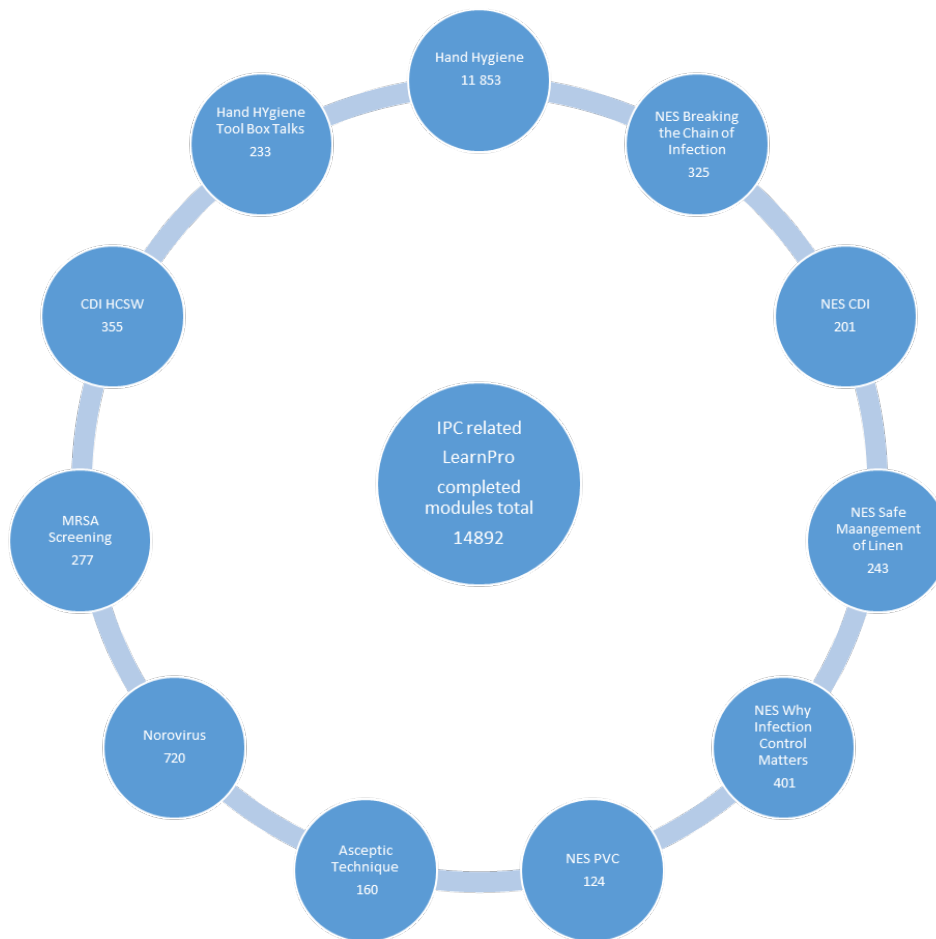


IPCT Training & Education Sessions

The organisation has 14,898 staff members (clinical and non-clinical roles). Throughout 2022/2023, various training and educational sessions were completed by the IPCT.

- COVID-19 specific ward based training
- PPE training including donning and doffing
- Hand hygiene training sessions
- Winter Preparedness

NHSL Staff Learnpro Modules Completed



Celebrating Success 2022-2023

The COVID-19 pandemic continued to have an impact on the delivery of care. Healthcare delivery has been completely transformed as we strive to preserve the lives and wellbeing of our communities, our patients, service users, residents and staff. Working collaboratively has never been more important, as together, teams have had to navigate changing parameters and find common ground to maintain safety and quality.

The IPC team continue to deliver a full advisory service to Acute and Health and Social Care partnerships.

Looking forward 2023-24

- IPC will be promoting “Stay Safe Stay connected” over the week of 07 August 2023. The posters will be rolled out to wards. IPCT will wear t-shirts promoting with the “Stay Safe Stay Connected” logo over the week whilst delivering education sessions to ward staff.
- Feedback on the event will be provided to the hygiene groups and at ICC meeting October 2023.
- A hand Hygiene Campaign will be launched Autumn 2023.
- IPCT have recruited 2 Senior Nurses and 2 Band 6 IPC Nurses.

Operational Service Delivery

NHS Lanarkshire will continue to make progress in the prevention and control of infection and the management of HCAI during 2023-2024, and respond quickly and effectively to developments and changes in national strategy. This will form a strong base from which to move forward on the challenges of the next twelve months as set out in the IPC Annual Work Programme 2023-2024. Particular focus will be placed on achieving the current Annual Operating Plan Standards and Local Standards for Hand Hygiene and Multi Drug Resistant Organisms (MDRO) clinical risk assessment compliance by the end of March 2024.

Glossary of Terms

ABHR	Alcohol Based Hand Rub
AMC	Antimicrobial Management Committee
AMR	Antimicrobial Resistant
AOP	Annual Operating Plan
BSI	Blood Stream Infection
AE	Authorising Engineer
ENT	Ear, Nose, Throat
VADs	Vascular Access Device Safety
PFI	Private Finance Initiative
GRG	Governance Review Group
HFS	Health Facilities Scotland
POCT	Point of Care Testing
CAAS	Care Assurance Accredited Scheme
CAI	Community Associated Infection
CDI	<i>Clostridioides difficile</i> Infection (CDI)
CMT	Corporate Management Team
CPE	<i>Carbapenemase Producing Enterobacteriaceae</i>
CRA	Clinical Risk Assessment
CVC	Central Venous Cannula
DAG	Decontamination Assurance Group
DCNS	Decontamination Clinical Nurse Specialist
ECB	<i>Escherichia coli</i> Bacteraemia
ECDC	European Centre for Disease Control
Ecoli	<i>Escherichia coli</i>
ERAS	Enhanced Recovery After Surgery
GP	General Practitioner
H&SCPs	Health and Social Care Partnerships
HAI	Hospital Associated Infection
HCAI	Healthcare Associated Infection
HCSW	Healthcare Support Worker
HIS	Health Improvement Scotland
HPC	Health Protection Committee
HPS	Health Protection Scotland
IMT	Incident Management Team
IPC	Infection Prevention and Control
IPCT	Infection Prevention and Control Team
IRIS	Infection related intelligence service
LDP	Local Delivery Plan
ICC	Infection Control Committee
MRSA	<i>Meticillin resistant staphylococcus aureus</i>
MSSA	<i>Meticillin sensitive staphylococcus aureus</i>
NES	National Education for Scotland
NHS	National Health Service
NHSL	NHS Lanarkshire
NMAHPS	Nursing, Midwifery and Allied Health Professionals
NPPS	National Point Prevalence Survey
NSS	National Services Scotland
OBDs	Occupied Bed Days
PVC	Peripheral Venous Cannula
PVL	<i>Panton-Valentine Leukocidin</i>
SAB	<i>Staphylococcus aureus</i> bacteraemia
SAPG	Scottish Antimicrobial Pharmacy Group

SEED	Surveillance, Education, Engagement, Devices
SICPs	Standard Infection Control Precautions
SIPCEP	Standard Infection Prevention and Control Education Pathway
SOP	Standard Operating Procedure
SPC	Statistical Process Chart
SPSP	Scottish Patient Safety Programme
SPUD	Surveillance Prevalence Update Daily
SSIs	Surgical Site Infections
TBPs	Transmission Based Precautions
UHH	University Hospital Hairmyres
UHM	University Hospital Monklands
UHW	University Hospital Wishaw
UTI	Urinary Tract Infection
VRE	<i>Vancomycin resistant enterococci</i>
WHO	World Health Organisation