



# INFECTION PREVENTION & CONTROL ANNUAL REPORT

1 April 2018 – 31 March 2019

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## The Team

### IPC Nursing Team

- Linda Thomas, IPC Clinical Nurse Specialist
- Carol Whitefield, IPC Clinical Nurse Specialist
- Lee Macready, IPC Clinical Nurse Specialist
- Sandra Burke, IPC Clinical Nurse Specialist
- Julie Burns, IPC Clinical Nurse Specialist
- Kaileigh Begley, IPC Clinical Nurse Specialist
- Lyndsay Quarrell, IPC Nurse
- Nicola Miller, IPC Nurse
- Alison Gold, IPC Nurse

### Administrative Team

- Pauline Ferula, Administrative Lead
- Letitia McCafferty, Team Secretary
- Clare Penrice, Data Co-ordinator



### Surveillance Team

- Liz Young, Lead Surveillance Nurse
- Kelly McGee, Surveillance Nurse

### Management Team

- Irene Barkby, Executive Director Nursing Midwifery and Allied Health Professionals (NMAHPs)
- Emer Shepherd, Head of Infection Prevention and Control (IPC)
- Babs Gemell, Scrutiny and Assurance Manager
- Clare Mitchell, Senior Nurse
- Sarah Whitehead, IPC Doctor

### Decontamination

- Lorna Barbour, Clinical Nurse Specialist

## Introduction

Healthcare associated infections (HCAs) can develop either as a direct result of healthcare interventions such as medical or surgical treatment, or from being in contact with a healthcare setting and pose a significant threat to patient safety.

The surveillance programmes in place across NHS Scotland currently includes:

- *Staphylococcus aureus* bacteraemias (SABs)
- Meticillin resistant *staphylococcus aureus* (MRSA)
- Meticillin sensitive *staphylococcus aureus* (MSSA)
- *Clostridium difficile* infection (CDI)
- *Escherichia coli* bacteraemia (EColi)

HCAs cover any infection contracted:

- As a direct result of treatment in, or contact with, a health or social care setting
- As a result of healthcare delivered in the community
- Outside a healthcare setting (for example, in the community) and brought in by patients, staff or visitors and transmitted to others (for example, norovirus)

The purpose of this annual report is to provide an overview of IPC activities in the past 12 months and to highlight service achievements.



## Key Achievements 2018-2019

- \* The 2018/2019 AOP Target for CDIs was achieved for the third consecutive year with a rate of 0.24 (119 cases) against a national target rate of no more than 0.32 per 100,000 OCB.
- \* The 2018/2019 AOP Target for SABs was not achieved however NHSL improved SAB performance by reducing the overall number of cases by 3% against 2017/2018 position (down by 5 cases) and also a 15% reduction (17 cases) in the number of HCAI SABs.
- \* There was an unannounced follow-up inspection carried out by the Health Improvement Scotland (HIS) Environmental Inspection team on 24 January 2019 in the University Hospital Wishaw. The original inspection was carried out by HIS on 22 August 2018 which highlighted 3 Requirements and 2 Recommendations. There were no concerns or escalations during both inspections.
- \* It's a hand hygiene rap...A new hand hygiene video was produced featuring various staff from across the organisation including the Chief Executive and members of the IPCT. The rap video takes a fun approach in aiming to remind staff and the public of the importance of good hand hygiene. The rap video was promoted and widely shared to staff and the public via various social media routes such as Facebook, Twitter, Instagram and YouTube.
- \* A hand hygiene and a 'Sock it to Sepsis' awareness week took place between 24-28 September 2018. There were various promotional stands with members of the IPCT providing key information on both topics to staff, patients and public. Members of the team also attended two primary schools in North and South Lanarkshire (Woodhead Primary School and Staines Primary School) with interactive sessions with the children on the importance of hand hygiene. An 'Afternoon Tea' event was also held during the week with around 130 delegates in attendance. The event was well received in having key note speakers talking on both subjects together with a member of public telling their sepsis story.
- \* In January 2019, an intravenous device stakeholder event was held as part of the development and testing phases of the NHS Lanarkshire Safety Manual. Work progresses into 2019-2020 to complete this work. On completion, NHSL will be the first NHS Board to have developed a manual on this topic.
- \* The Infection Prevention & Control Nursing Team attended the Infection Prevention Society (IPS) International Conference in October 2018 and displayed seven posters presentations demonstrating the work and projects undertaken. One of which was short listed for the best poster award however was not chosen.
- \* Two members of the IPCT were selected to deliver oral presentations at the Infection Prevention Society (IPS) International Conference in October 2018. Carol Whitefield and Linda Thomas delivered excellent presentations and received fantastic feedback from members of the IPS board.
- \* Emer Shepherd, Head of Infection Prevention and Control has been awarded the Vale of Leven Scholarship from the NMAHP Directorate at Stirling University. The scholarship will part fund completion of a research study exploring early recognition and optimal care of patients who pose an infection risk to others and will be completed by late spring 2019.
- \* The IPCT have been involved in reducing the potential infection risk associated with the built environment, this is an ongoing process both within MRRP and the wider NHSL estate.
- \* 95% of the NHS LICC annual work plan was achieved.

## Financial Cost of Healthcare Associated Infection

The outcomes of an HCAI include extended length of patient stay and extended length of treatment. There is currently a lack of robust information in relation to the actual financial cost of HCAs across NHS Scotland.

In a bid to establish a cost specific to NHSL, the IPCT, in collaboration with colleagues from finance, have calculated the financial cost for cases of HCAI specifically SABs and CDIs to NHSL.

It should be noted that the length of the patient stay may or may not be extended due to infection and may vary due to other contributing factors e.g. some patients with CDI may require more than one course of treatment. Also the actual cost of antibiotic treatment has not been factored into the data as there is a variance in cost depending on types of antibiotics used.

The financial costs noted should be considered with caution as these are purely based on the average of an inpatient stay and number of days required to treat a patient with a SAB or CDI.

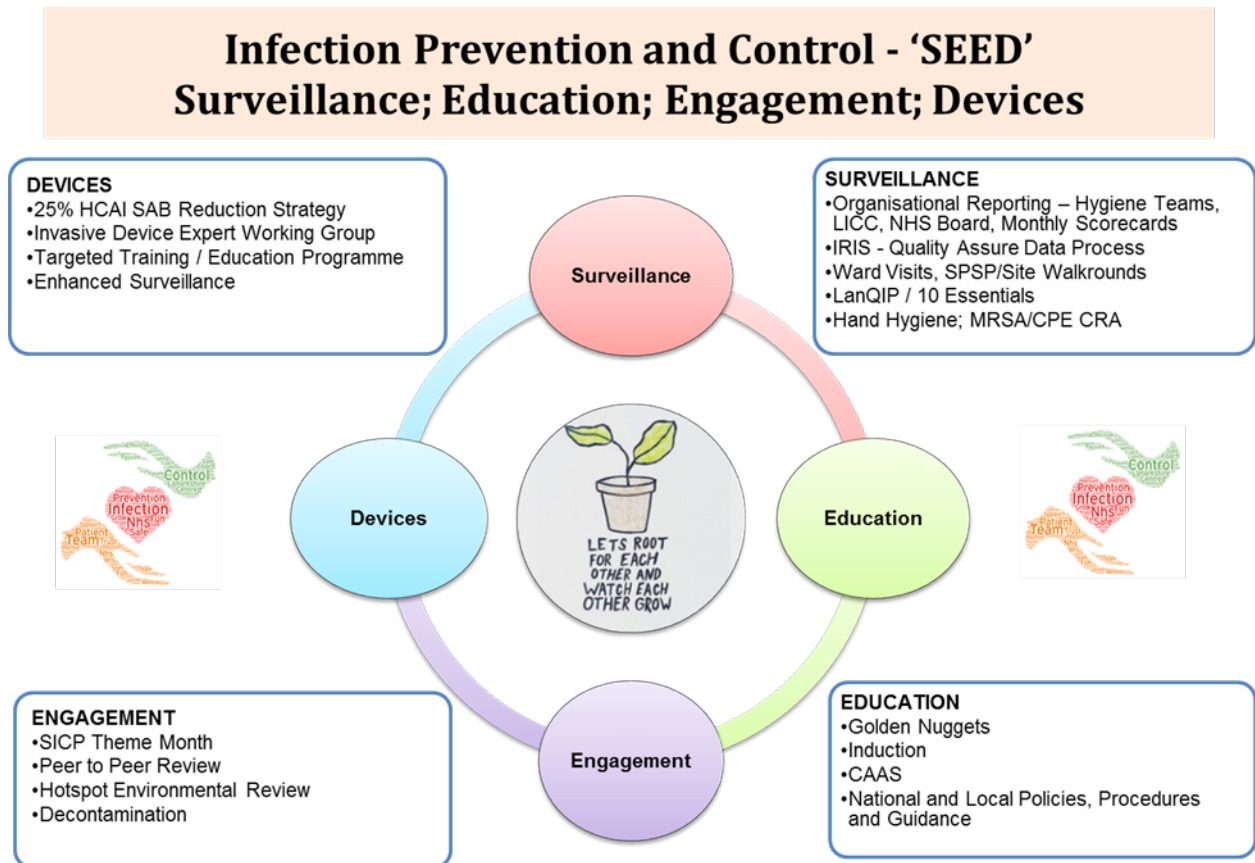
Using data from finance to cost an average inpatient stay for 24 hours against the average number of days required to treat a SAB (14 days of antibiotic treatment) and CDI (approximately 10 days of treatment) the IPCT have produced a table demonstrating potential costs incurred for 2017/2018 versus 2018/2019.

	Average Cost for 24 Hour Patient Stay	Expected Course of Treatment (=days)	Number of HCAI Cases	Total cost for HCAI Cases
SAB Cases 2018/2019	£567	14 days	95	£754,110
CDI Cases 2018/2019	£567	10 days	56	£317,520
<b>TOTAL COSTS 2018/2019</b>				<b>£1,071,630</b>
SAB Cases 2017/2018	£567	14 days	112	£889,056
CDI Cases 2017/2018	£567	10 days	54	£306,180
<b>TOTAL COSTS 2017/2018</b>				<b>£1,195,236</b>

(Calculation=average cost for 24 hour patient stay x expected course of treatment x number of HCAI cases)

## Monitoring Programme

The role of an IPCT in healthcare is to prepare for, prevent, detect and manage outbreaks of infection. In order to achieve this, a key focus on prevention of infection is paramount – the greater the emphasis on prevention, the less time spent controlling.



### SEED Topics Completed

- Peripheral Venous Cannula (PVC) Insertion and Maintenance Bundle Audit - April/May 2018
- Commode Reviews - June 2018
- Staff Planned & Unplanned Leave Challenges no SEED completed - July/August 2018
- Patient Equipment and Norovirus / Influenza - September/October 2018
- 5 New IPC DATIX Sub-Category Promotion - December 2018
- Norovirus / Influenza - January / February 2019
- PVC/Central Venous Cannula (CVC) Insertion and Maintenance Bundle Audit - March / April 2019



## Infection Related Intelligence Service

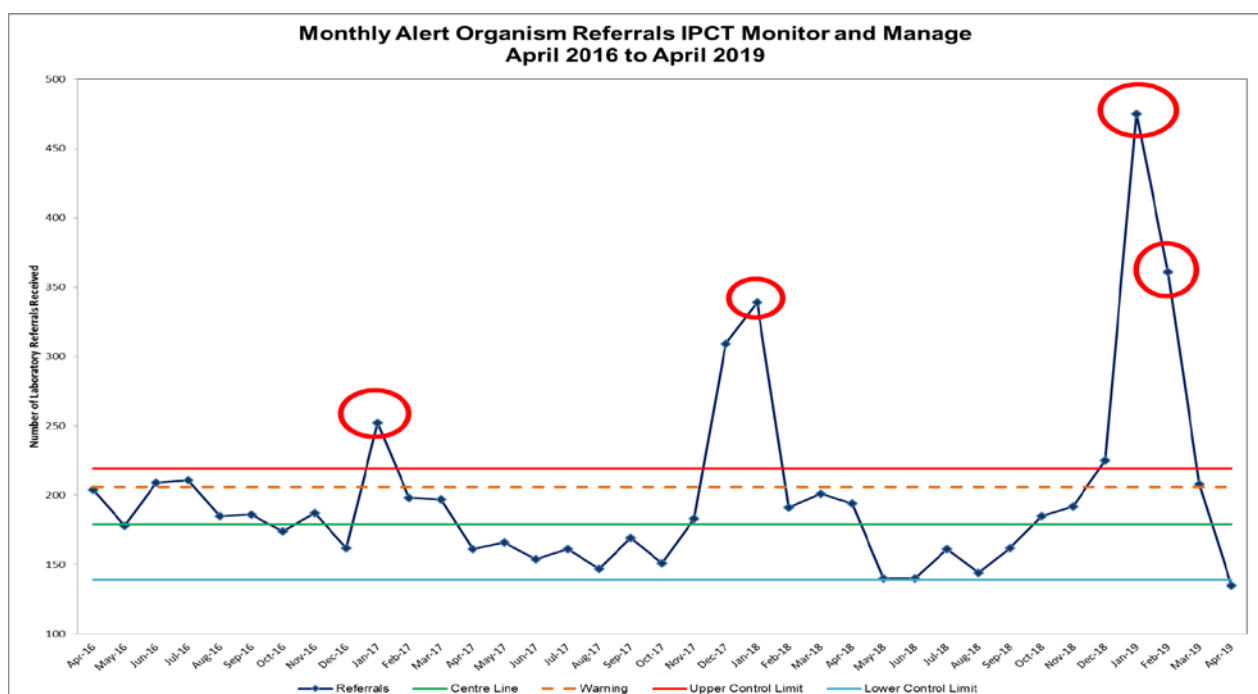
Every NHS Board in Scotland is mandated by the Standards for Healthcare Associated Infection (2015) to have robust and effective surveillance systems of alert organisms and conditions in place. NHSL has had a bespoke surveillance system in place since 2016.

During the winter of 2018/19, the IPCT experienced a significant increase in the number of patients referred to the service with confirmed or suspected Influenza. The IPCT dealt with 622 positive influenza cases in 2018/2019 in comparison to 463 positive cases in 2017/2018. This year saw the introduction of point of care testing (POCT) for influenza in emergency receiving areas across NHSL. Of the 622 influenza cases, 484 cases (78%) originated from POCT samples. In addition to confirmed cases, there were 312 (50%) referrals received to the IPCT for suspected influenza cases in January 2019.

In order to ensure the IPC service responded to the demand for advice and support, the IPCT extended working hours to provide advice out of hours and over weekends. The IPCT worked closely with colleagues to provide up to date status reports on the numbers of suspected and confirmed influenza cases. Successful and timely management of these cases using the IRIS allowed safe and effective management of all influenza and norovirus cases over the winter period despite significant challenges with patient placement at times.

The IPC Pink Star alert across NHSL and H&SCPs is now fully embedded with good awareness amongst front line staff in relation to the meaning of the alert and the requirement for effective patient placement.

Throughout 2018/2019, there were a total of 2,587 alert organisms (up by 227 from last year) referred via the laboratory to the IPCT to monitor and manage within an acute setting and 738 via General Practitioner (GP) samples and other non-acute areas received. The following chart provides an overview of the alert organisms:



This chart is in statistical control. There are out of statistical control episodes indicated (red circles) these were due to numbers of confirmed Influenza cases.

## Staphylococcus aureus bacteraemia

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.

### AOP Target:

- All Scottish NHS Boards are required to achieve the SAB AOP Target of 24 cases or less per 100,000 OBD by 31 March 2019. The target did not change from the previous year. NHSL did not achieve the SAB AOP Target for 2018/2019.
- NHSL achieved a rate of 0.33 against a national requirement of 0.24.
- Despite not achieving the standard, NHSL had a 3% reduction on the number of SAB cases against last year's performance and a further 15% reduction in the number of HCAs.

### S.aureus bacteraemia

- 155 SAB cases
- 0.33 annual incidence rate of SAB per 100,000 OBDs.

### MRSA bacteraemia

- 7 MRSA cases
- 0.001 annual incidence rate of SAB per 100,000 OBDs

### MSSA bacteraemia

- 148 MSSA cases
- 0.32 annual incidence rate of SAB per 100,000 OBDs



57 HAI Cases



41 HCAI Cases

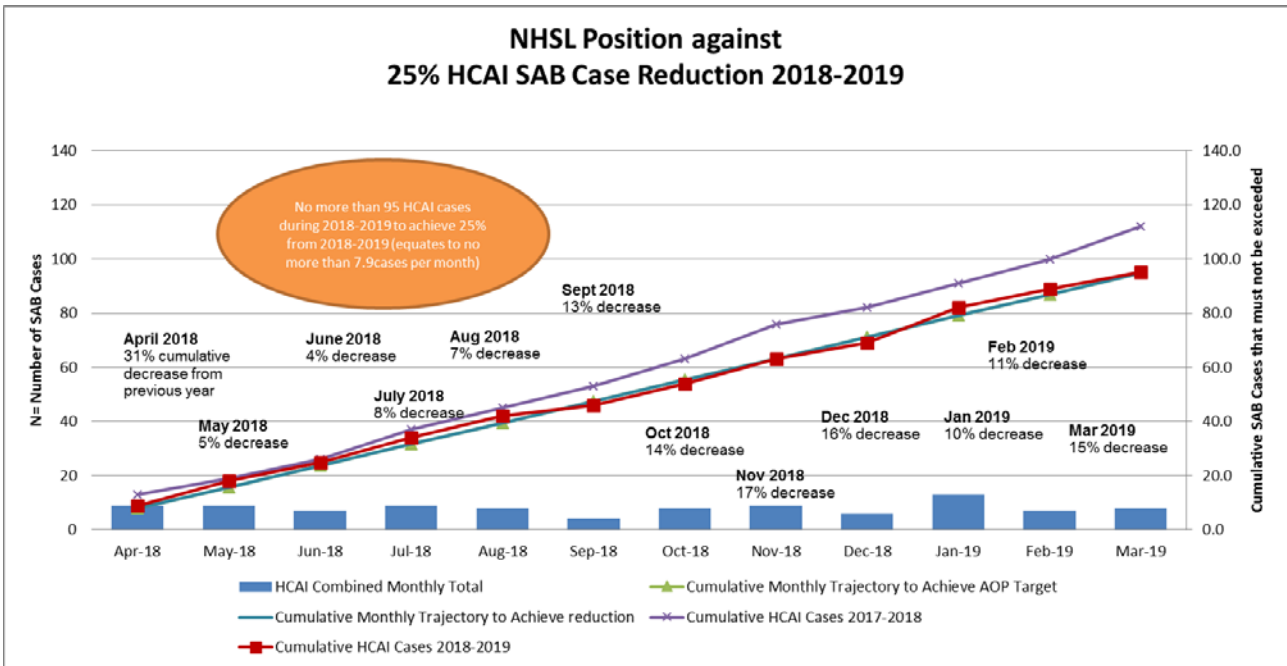
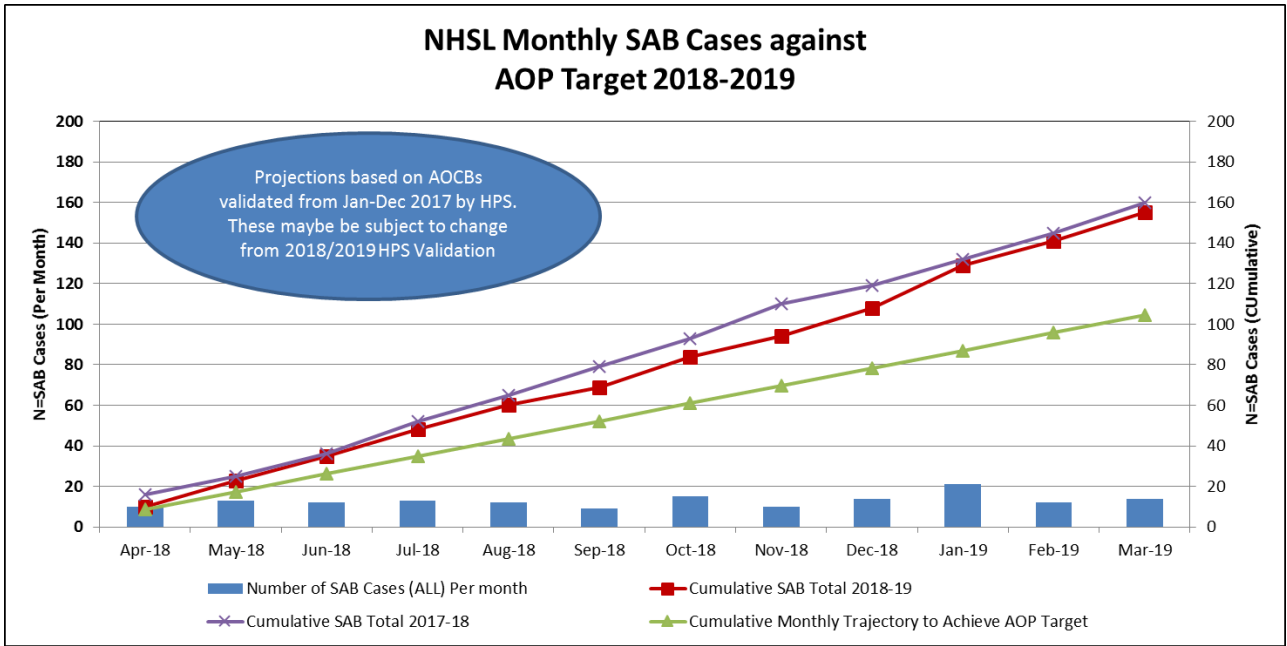


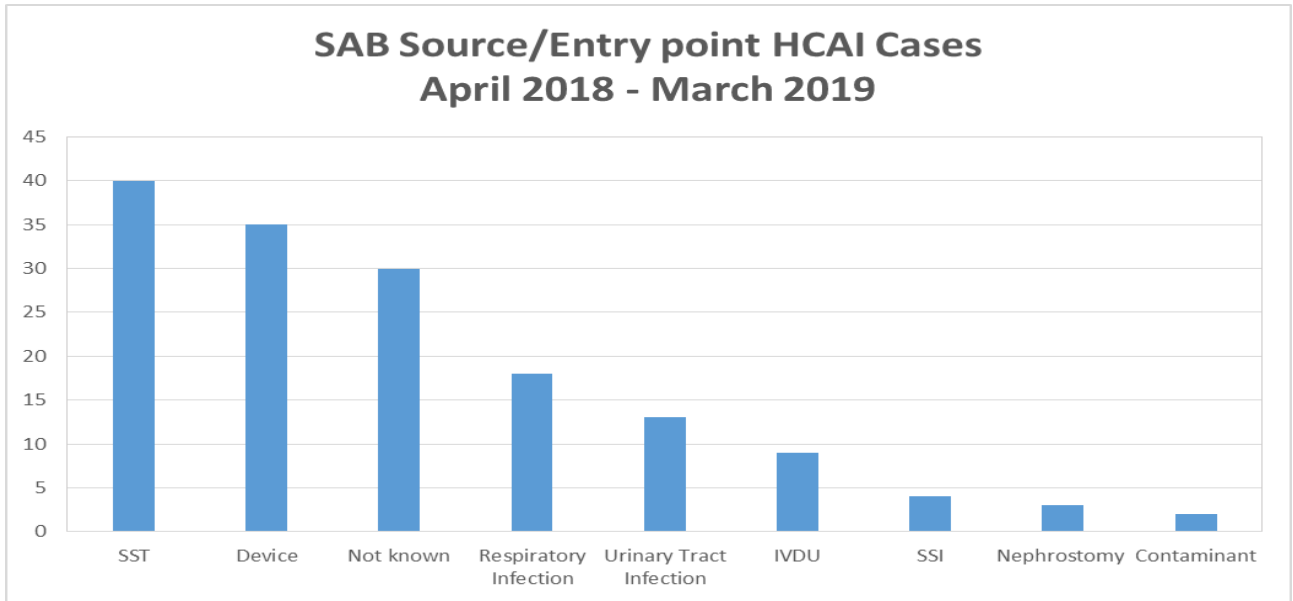
57 CAI Cases



### Quality Improvement and interventions to reduce S.aureus infections:

- SAB multi-disciplinary reviews for patients with a SAB noted on the death certificate is completed. Clinical teams are involved and the outcomes/lessons learned/actions from each review and taken forward via the respective hospital hygiene meetings.
- IPC support into the Renal Working Group at UHM in aiming to continue to drive down the number of renal related SABs. The Scottish Renal Registry Report 2017 (a year behind providing validated data) confirms that NHSL is not an outlier.
- Providing additional data relating to source of SAB at each hospital hygiene group to enable sites to initiate improvement work & days between information available.
- UHW Neonatal Unit carry out weekly reviews of PVC/CVC insertion & maintenance bundle documentation. Staff are progressing with the review of this work with the support of the Improvement Midwife.
- A Safety Manual for Infection Prevention and Control has been tested with key stakeholders throughout the organisation. Part 1 of the Safety Manual concentrates on Vascular Access Device Safety (VADS) to support staff to safely insert and maintain devices.





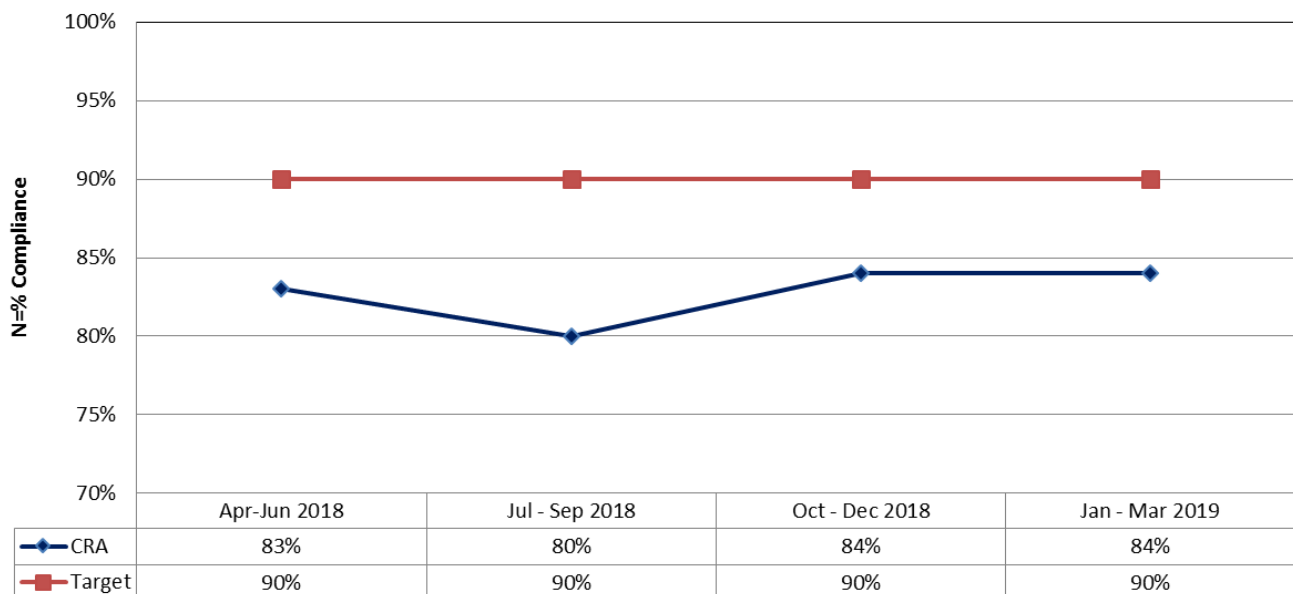
## MRSA Acute Inpatient Admission Screening

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 against 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 to be 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.

### AOP Target:

- NHSL Overall compliance was 83% against a national requirement of 90% or above. This is a reduction of 8% from last year's performance.
- There were a total of 355 patient nursing notes reviewed and 295 had the CRA completed. Of the 295 patients who had a CRA completed, 80 patients required to be swabbed for MRSA which equates to 27%.
- The acute sites have been undertaking improvement work within receiving wards during the activity year and into 2019/2020 to improve the local compliance levels.

**NHSL MRSA Clinical Risk Assessment National Compliance  
January to December 2018**

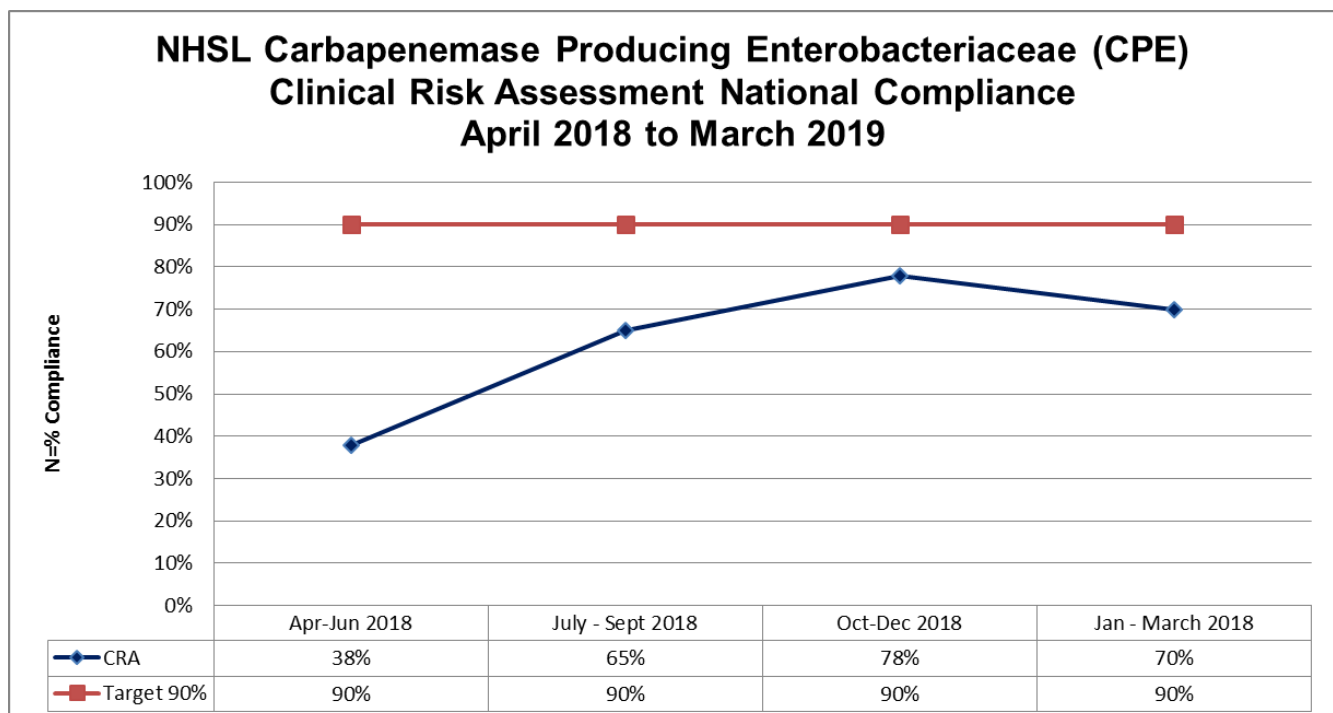


## Carbapenemase producing enterobacteriaceae

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.

### AOP Target:

- NHSL Overall compliance was 63% against a national requirement of 90% or above.
- There were a total of 355 patient nursing notes reviewed and 222 had the CRA completed. Of the 355 patients who had a CRA completed, 2 patients required to be swabbed for CPE which equates to 6%.
- The acute sites have been undertaking improvement work within receiving wards during the activity year and into 2019/2020 to improve the local compliance levels.



## Clostridium difficile Infection

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.

### AOP Target:

- All Scottish NHS Boards are required to achieve the CDI AOP Target of 32 cases or less per 100,000 OBD in the aged 15 and over age group by 31 March 2019.



NHSL achieved the CDI AOP Target 2018/2019 for the third consecutive year with a rate of 0.24.

### Patients 15 years =>

- 119 CDI cases
- 0.24 annual incidence rate of CDI per 100,000 OBDs



53 HCAI Cases



63 CAI Cases



3 Unknown Source

### Patients aged 65 years =>

- 79 CDI cases
- 0.24 annual incidence rate of CDI per 100,000 OBDs

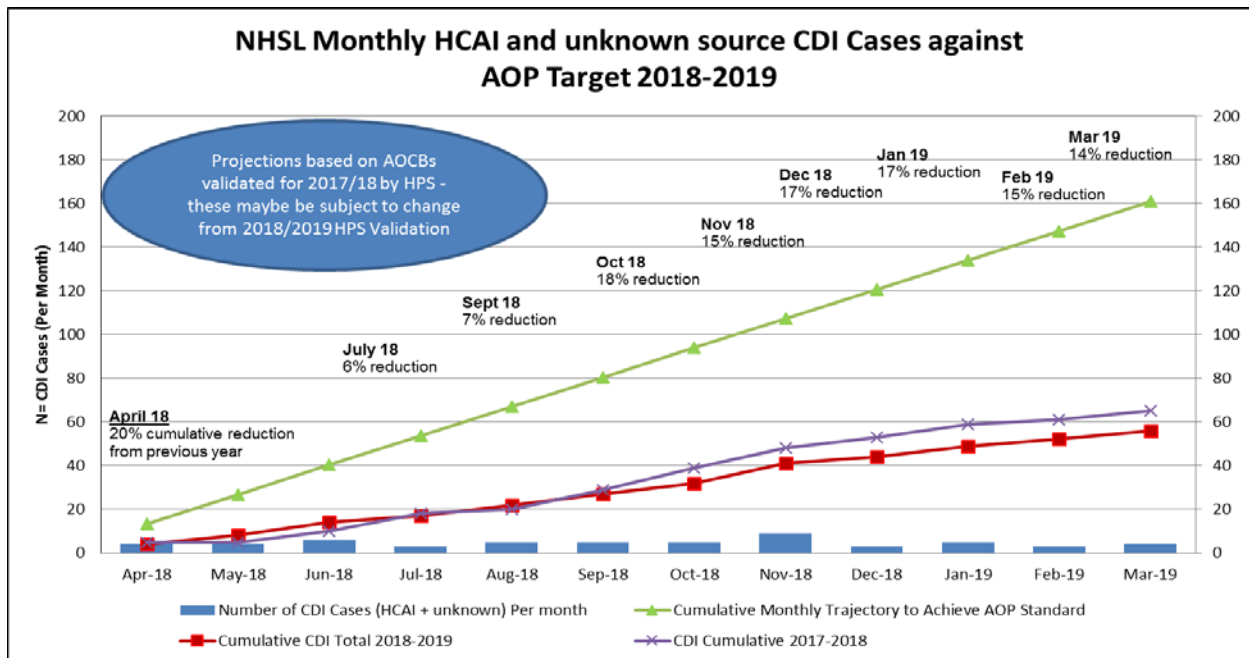
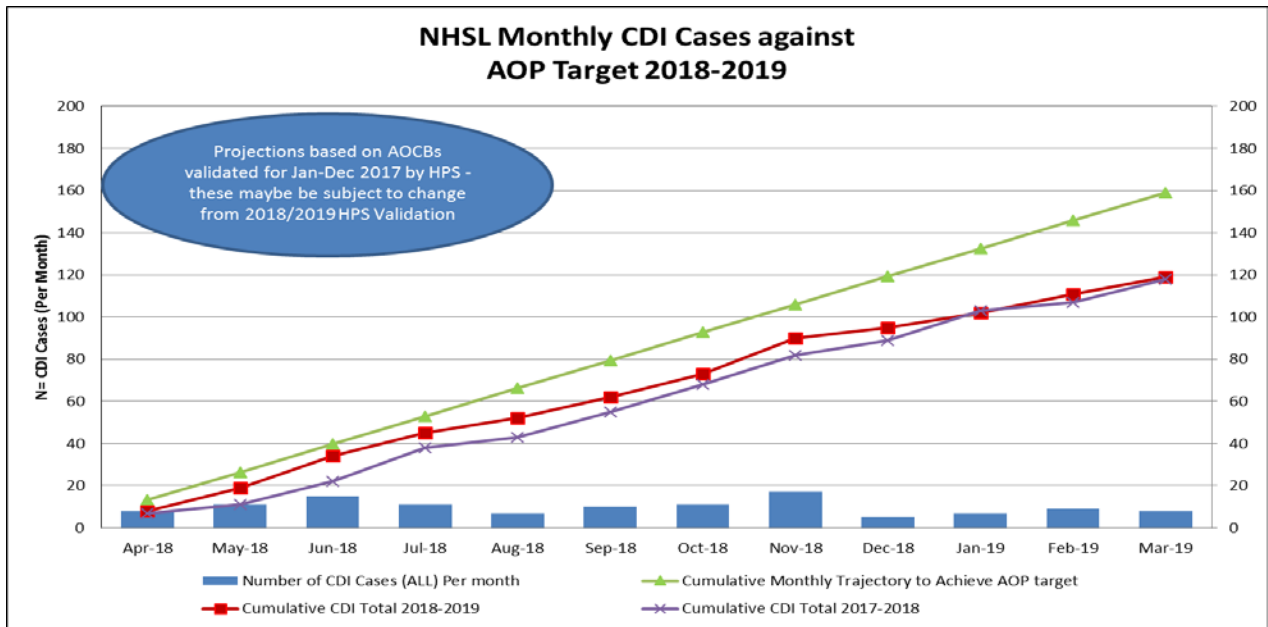
### Patients aged 15 to 64

- 40 CDI cases
- 0.29 annual incidence rate of CDI per 100,000 OBDs



### Quality Improvement and interventions to reduce CDIs:

- Multi-disciplinary severe CDI case review to support improvement in assessment / detection for early intervention and patient management.
- Promotion of the Antimicrobial Stewardship Workbook to raise awareness and promote best practice.
- Management of Loose Stools information was provided to all wards by the IPCT to refresh actions, management and precautions to be taken.
- Prompt recognition of diarrhoeal patients and isolation.
- Antimicrobial stewardship continues to be a priority in the management of CDI patients.
- Improved information by Microbiology when electronic laboratory report sent out to clinical staff.





## Surgical Site Infection

SSI is one of the most common HCAI and can cause increased morbidity and mortality. It is estimated on average to double the cost of treatment, mainly due to the resultant increase in length of stay. SSI can have a serious consequence for patients affected as they can result in increased pain, suffering and in some cases require additional surgical intervention.

### Caesarean Section

1475 Procedures carried out  
52 SSIs following procedure  
3.5% Infection Rate

### Hip Arthroplasty

421 Procedures carried out  
4 SSIs following procedure  
1% Infection Rate

### Colorectal (large bowel) Surgery

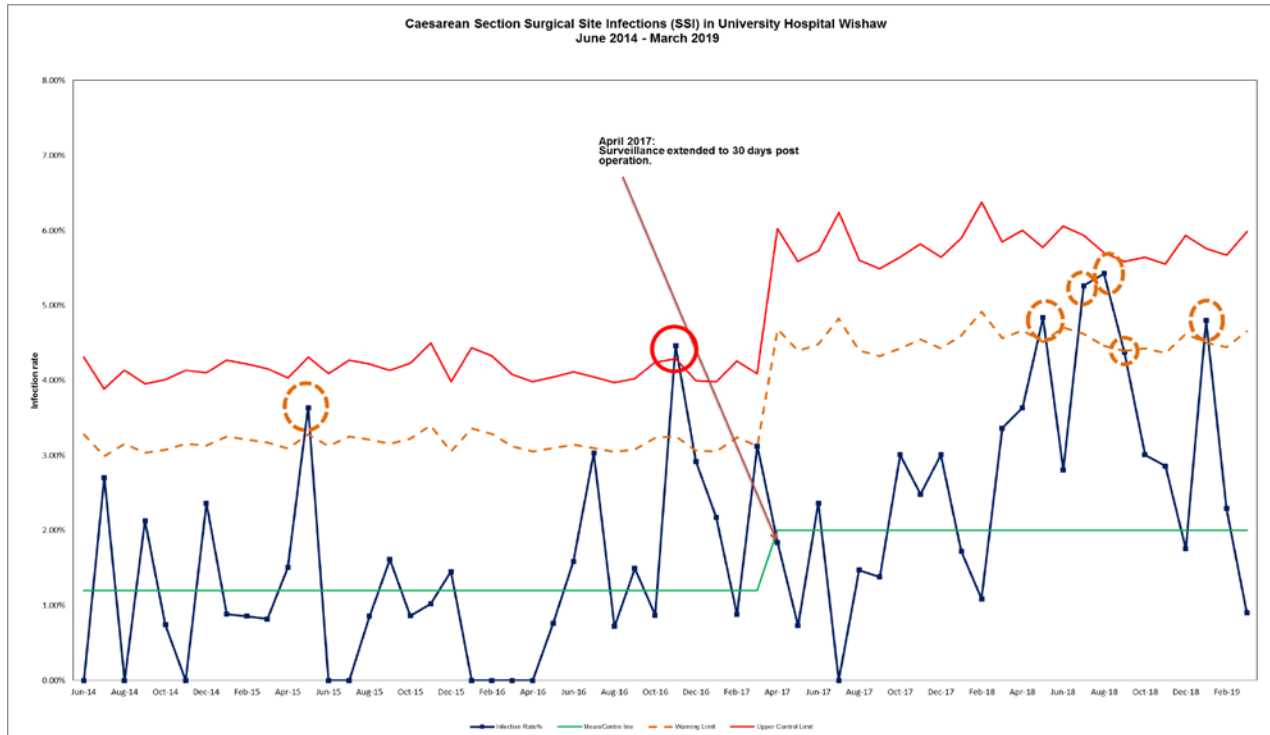
275 Procedures carried out  
21 SSIs following procedure  
7.6% Infection Rate

### Vascular Surgery

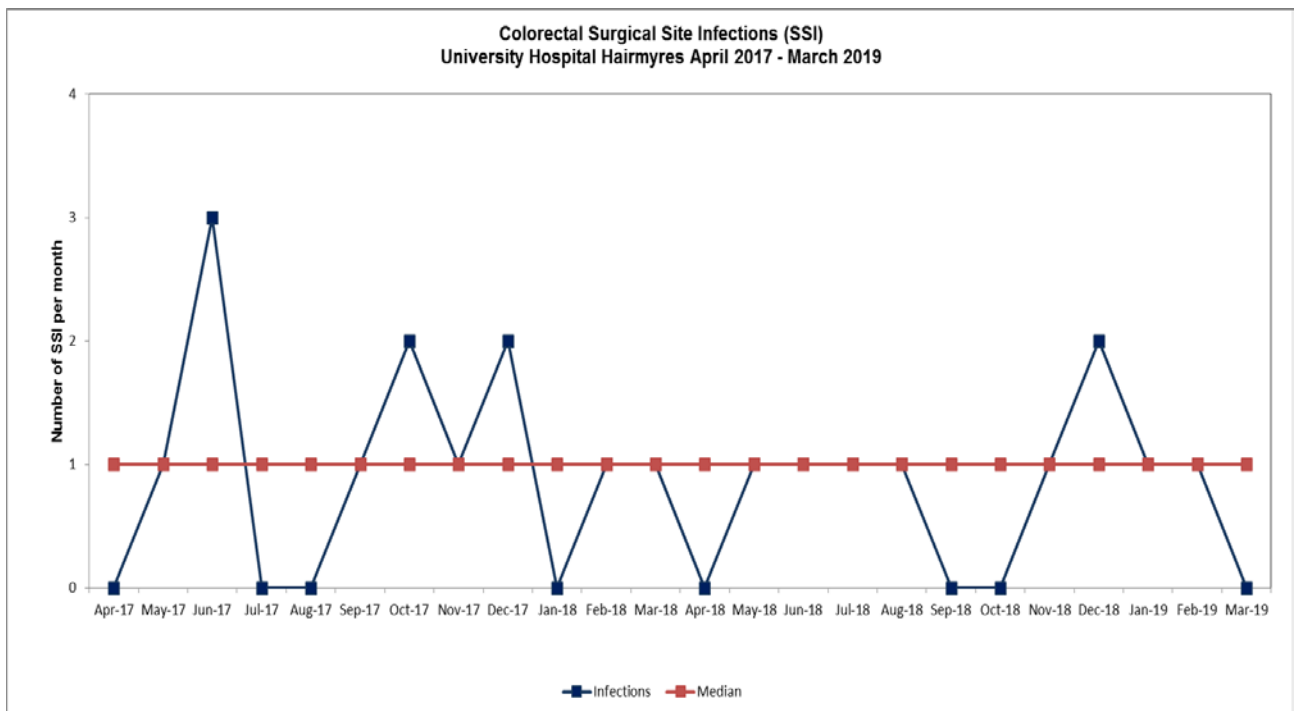
232 Procedures carried out  
14 SSIs following procedure  
6% Infection Rate

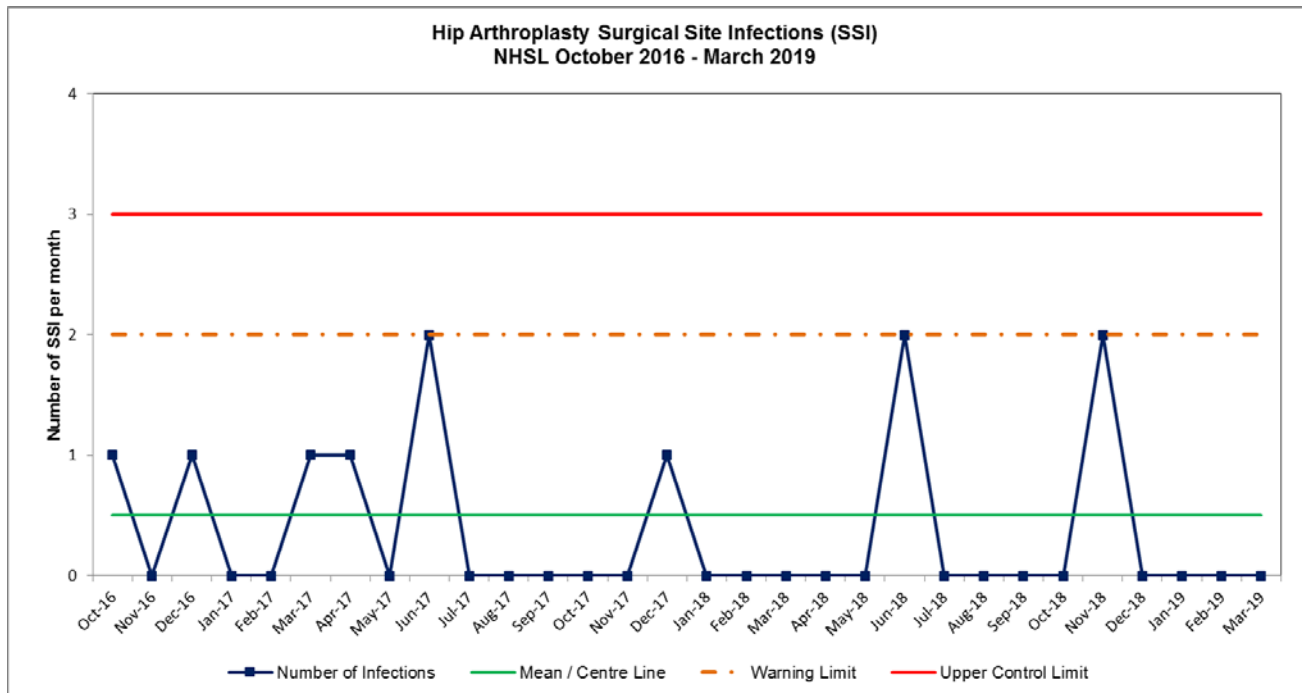
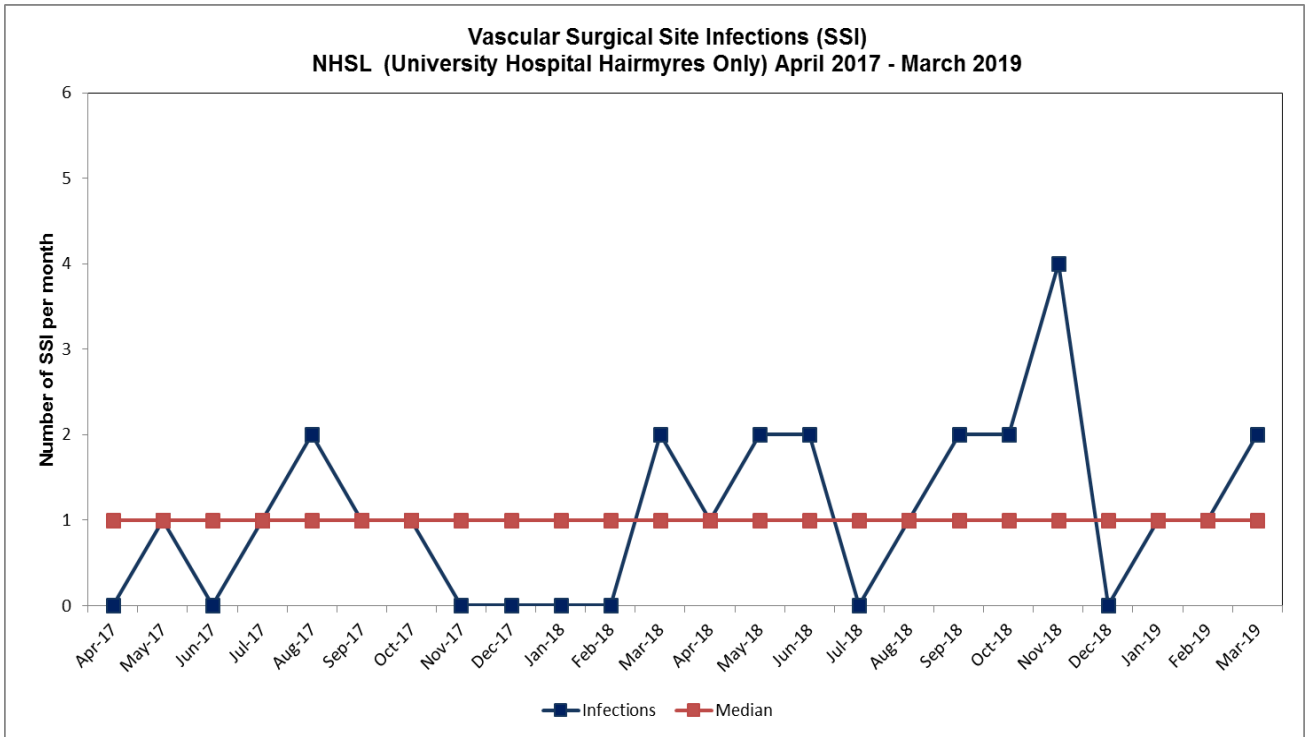
### Quality Improvement and interventions to reduce SSIs:

- The IPC Surveillance Nurses (IPCSN) continue to attend the University Hospital Hairmyres Theatre Patient Safety Meeting and Maternity Clinical Effectiveness Group to present SSI data to establish any areas of improvement with clinicians and nursing staff.
- NHSL has access to SSI surveillance reports within NSS Discovery at board level, this method of reporting allows comparison of patients' outcome with Scotland overall and other NHS boards.
- The IPCSN liaises with the relevant clinician responsible for the patient following detection of an SSI to discuss the findings of the review, an electronic copy is also sent to the clinician.
- Quarterly SSI surveillance reports comprising Statistical Process Charts (SPC) are used to provide feedback to clinicians.
- The IPCSNs provided SSI surveillance information to the Senior Midwife for inclusion in the Best Start Midwives pack.



This chart is in statistical control. The chart has been changed to a more sensitive 'p' chart which takes account of the denominator, i.e. the number of operations, therefore the warning and upper control limits vary. The Centre Line has been recalculated as the surveillance system changed in April 2017 (monitoring is now to day 30 not day 10). There are just 21 results at the new Centre Line - 25 results are required to denote the true natural variation.



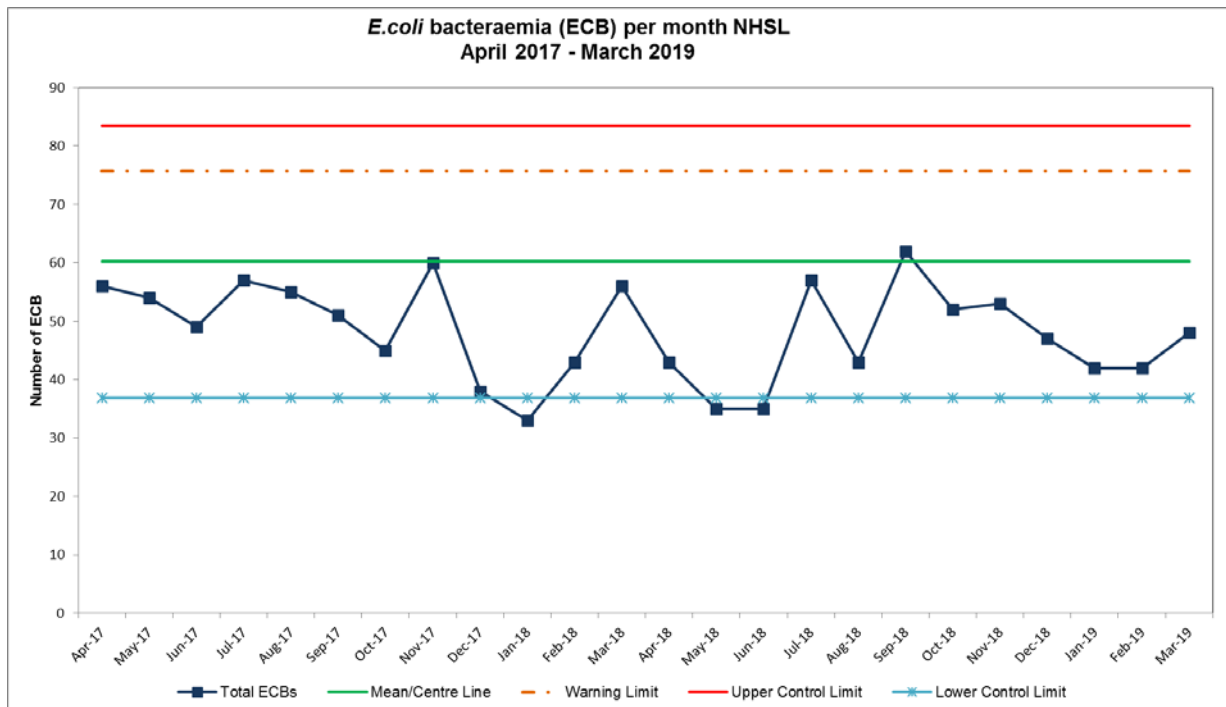




## Escherichia coli Bacteraemia (ECBs)

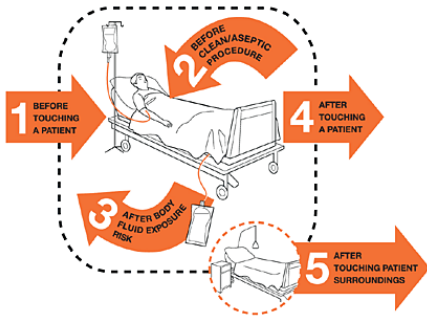
Gram-negative bacteria continue to be an emerging threat in healthcare and last year, the number of cases of bacteraemia reported increased in Scotland. These infections predominantly originate from community sources with a rate of 47.5 cases per 100,000 population. In NHSL, the majority of cases of HCAI in 2018/2019 were lower urinary tract infections, a trend replicated across NHS Scotland with over half of the total cases of bacteraemia reported as lower urinary tract infections originating in the community.

### Total 559 Cases of EColi Bacteraemia during 2018/2019



## Hand Hygiene

Hand Hygiene is recognised as being the most effective cornerstone of IPC in healthcare and quality of care in healthcare settings. During the activity year, the Hand Hygiene Policy was refreshed and ratified by the LICC.

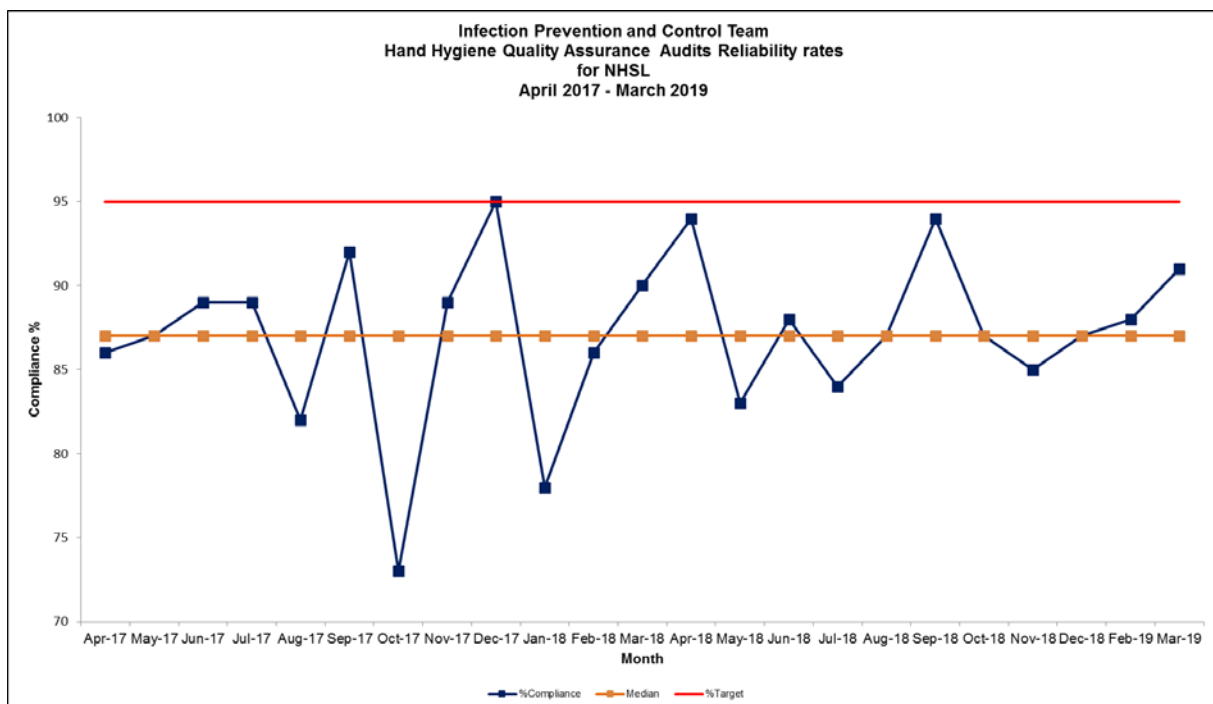


Hand Hygiene is a term used to describe the decontamination of hands by various methods including routine hand washing and/or hand disinfection which includes the use of alcohol gels and rubs.

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 88% during 2018/2019 against the national compliance level of 95% or above. A breakdown of compliance levels by staff group of hand hygiene assurances reviews carried out by the IPCT.

- **NHS Lanarkshire overall compliance: 88% (1444 of 1642 staff assessed)**
- Nursing: 87% (1012 of 1161 staff were compliant)
- Medical: 85% (174 of 204 staff were compliant).
- Ancillary/Other: 90% (141 of 157 staff were compliant).
- Allied Health Professionals: 92% (121 of 131 staff were compliant)



# Outbreak Management

## 32 Separate Outbreak Situations in 2018-2019

In 2018/2019 there was an increase in the number of healthcare associated outbreaks of infection with a total of 32 outbreaks managed by the IPCT and frontline staff in comparison to 27 outbreaks in 2017/2018 (an increase of 16%).



6 UHM – 1 ward closure; 5 room restrictions



7 UHH – 2 ward closure; 5 room restrictions



14 UHW – 3 ward closure; 11 room restrictions



5 North H&SCPs – 4 ward closures; 1 room restriction



0 South H&SCPs



148 Patients affected

58 staff affected



10 Full Ward Closures

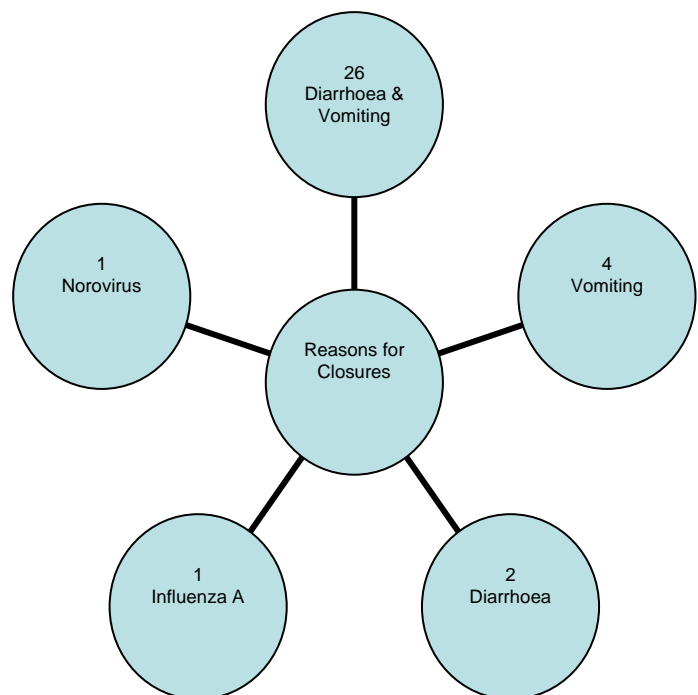


22 Room restrictions



### Interventions to support reduction of outbreaks:

- Completion of winter preparedness events across acute and H&SCPs
- IPCT Attendance at Winter Planning forums to raise awareness
- Engaging with staff to work proactively in managing patients / isolation / cohort to minimise effect
- Apply learning from IMT and / or Outbreak Management De briefs
- Increased Surveillance Prevention Update Daily (SPUD) as per IPC Winter Plan.



## Training and Education

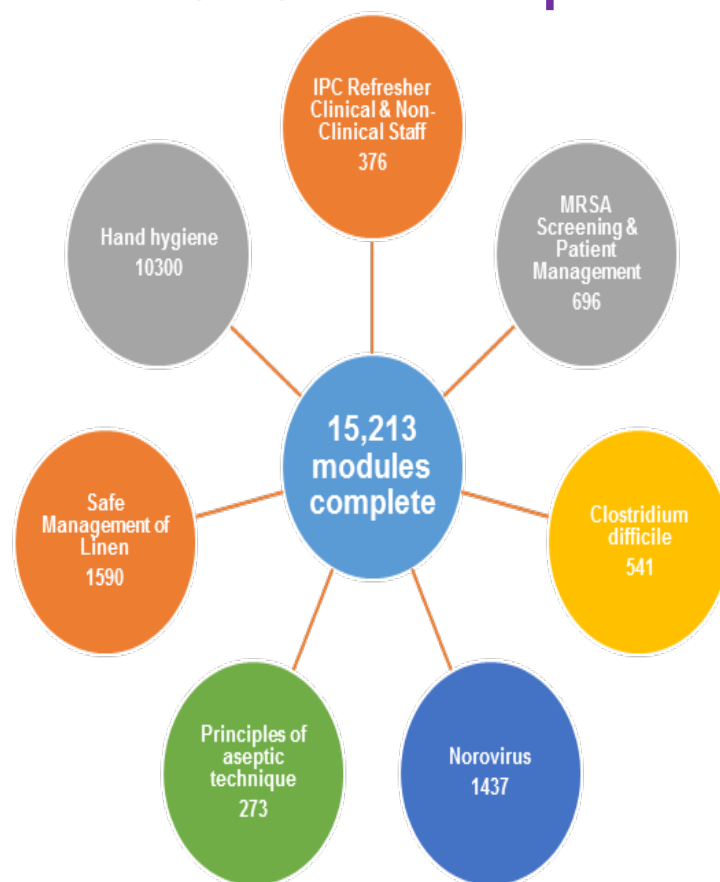


### IPCT Training & Education Sessions

The organisation has 12,300 staff members (clinical and non-clinical roles). Throughout 2018/2019, 77 training and educational sessions were completed by the IPCT. The training topics consisted of:

- Topic specific Golden Hour / Golden Nugget (ward based training)
- Hand hygiene
- Corporate Induction
- Medical Induction
- Newly Qualified Nurse Induction
- Healthcare Support Worker (HCSW) Induction
- Sepsis Awareness
- Winter Preparedness Roadshows
- Attention to Detail Week – Acute Hospital
- CAAS – IPC update
- Public Patient Forum Input

### NHSL Staff Learnpro Modules Completed

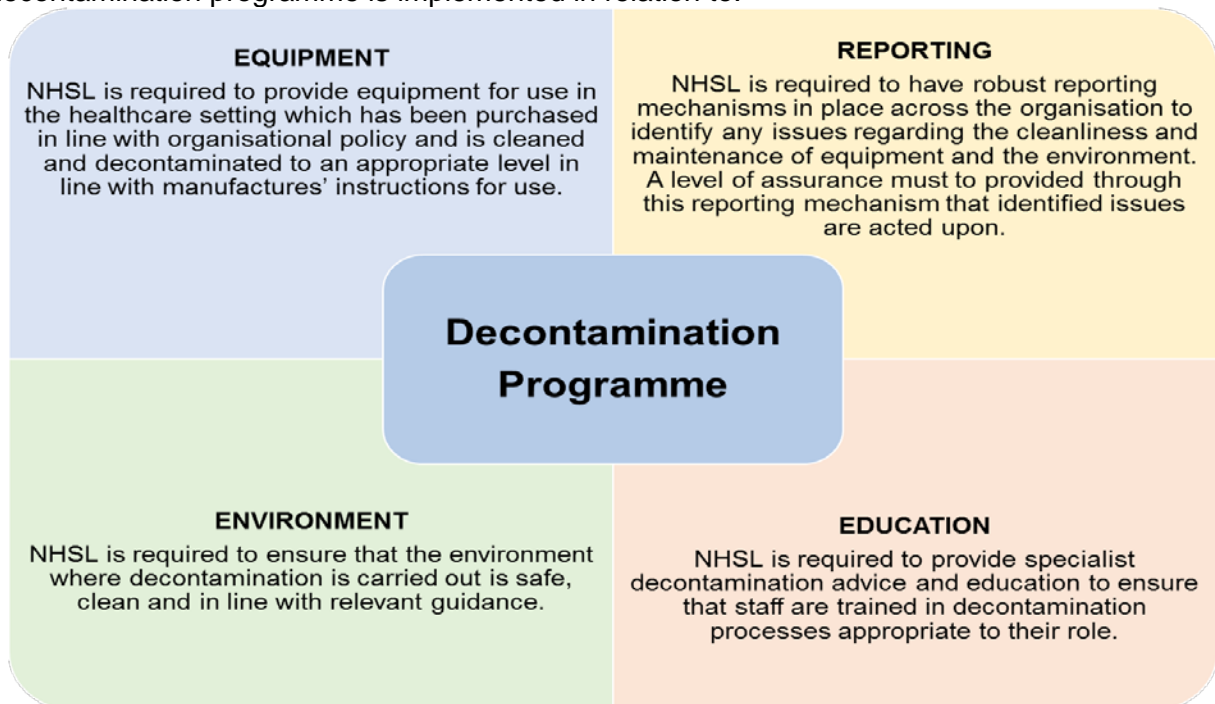




## Decontamination

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 Clinical Nurse Specialist (DCNS) plays a significant role in ensuring that a decontamination programme is implemented in relation to:



### Quality improvement and interventions to implement the decontamination programme:

- Attendance at the NHSL Decontamination Environmental Monitoring Group (DEMG) to provide an update on all activities undertaken to improve decontamination standards.
- Working with radiology, sonography and nursing staff to improve decontamination of semi-critical probes used in radiology, maternity, urology and Ear Nose Throat services.
- Working with endoscopy staff, main theatre staff and procurement to secure the installation of an electronic tracking and traceability system in line with national guidance.
- Attendance at the monthly surgical operating group to discuss all aspects of decontamination and sterilisation of reusable medical devices.
- Attendance at national decontamination groups to represent NHSL.
- Working with the peri-operative senior nurse and the IPCT data co-ordinator to develop a quality dashboard to provide feedback to staff in relation to compliance with agreed quality and safety measures relevant to specific areas.
- Working with local groups and Health Facilities Scotland (HFS) to ensure appropriate independent validation of all automated decontamination equipment across the organisation.
- Working with senior nurses across the public dental service to ensure compliance with all national guidance for local decontamination units.

## LICC Sub-Groups

<b>Governance Review Group (GRG)</b>	<ul style="list-style-type: none"> <li>• The policy review group changed its name to Governance Review Group in December 2018 to take account of the fact that the majority of policies were being changed to Guidelines and Standard Operating procedures (SOPs).</li> <li>• These supplement the information provided in the National Infection Prevention &amp; Control manual chapters 1-3.</li> <li>• As outlined in the HAI Standards (2015) the GRG provides a systematic review of all IPC policies, guidelines and SOPs at least every two years. This follows a strict consultation process prior to ratification at the LICC.</li> <li>• Changes and updates are communicated to staff via the Staff brief, Hygiene committees and training sessions.</li> </ul>
<b>Decontamination Expert Advisory Group (DEMG)</b>	<ul style="list-style-type: none"> <li>• There have been 5 DEMG meetings between April 2018 and March 2019.</li> <li>• The new Health Facilities Scotland (HFS) Authorising Engineer (Decontamination) (AE(D)) was appointed to NHS Lanarkshire (NHSL) in July 2018. Since appointment the AE(D) and the DCNS have commenced a programme of visits to review the automated disinfection and sterilisation equipment in use across NHSL.</li> <li>• A review of current annual validation services for Automated Washer Disinfectors and Sterilisers in use in NHSL has been undertaken and agreement reached to move to HFS as the new providers to give independent annual validation of equipment.</li> <li>• An evaluation of cleaning products has been carried out and approval given to change from Actichlor to Clinell disinfection and sporicidal wipes. A roll out programme has been co-ordinated and is underway across all 3 acute sites and health and social care partnerships.</li> <li>• An evaluation of hand hygiene products has been carried out and approval given to change to Debmed (SC Johnston) products. A roll out programme has been co-ordinated and is underway across all 3 acute sites and health and social care partnerships.</li> <li>• Work is ongoing to produce a Decontamination Quality Dashboard to provide an overview of compliance against national standards for sterile services, Local Decontamination Units and Endoscopy Decontamination Units. This dashboard will be used to drive improvement in all areas.</li> </ul>
<b>Water Safety Group (WSG)</b>	<ul style="list-style-type: none"> <li>• An Annual audit was undertaken by the AE for water and the results and actions for improvement are being managed through the WSG. Actions for improvement are few and relatively minor in nature, and the formed action plan was managed through the WSG.</li> <li>• NHSL AE (Water) completed a review of water management procedures at Private Finance Initiative (PFI) sites for the first time. The findings were positive with recommendations tracked through the WSG.</li> <li>• There were no legionella positive samples reported in 2018/2019.</li> <li>• NHSL WSG continues to work closely with national groups to ensure lessons learned are reflected in good practise within NHSL.</li> </ul>
<b>Antimicrobial Management Committee (AMC)</b>	<ul style="list-style-type: none"> <li>• NHSL AMC participation in national Scottish Antimicrobial Prescribing Group (SAPG) Penicillin Allergy, Nurse Stewardship and '3 Day Review' work streams.</li> <li>• NHSL Antimicrobial Pharmacist successful attainment of Scottish Quality &amp; Safety Fellowship (cohort 11) status.</li> <li>• Local safety initiatives including a focus on Allergy Awareness at ward level</li> </ul>

	<p>as part of NHS Quality week (UHH &amp; UHM), and safer Intra-venous to oral step down during 'attention to detail week' (UHW).</p> <ul style="list-style-type: none"> <li>• Antimicrobial training delivered to new and existing medical, nursing and pharmacy staff at induction and other relevant clinical forums throughout the year.</li> <li>• AMC led sessions at individual GP practice and locality GP forum level meetings signposting materials to further drive improvement in antimicrobial prescribing across NHS.</li> <li>• Antimicrobial evening educational events for local community pharmacists co-hosted with the Scottish Royal Pharmaceutical Society and NHS Education for Scotland (NES) focusing on Effective Antimicrobial Stewardship and Early Sepsis identification and management respectively.</li> <li>• Local based practice research abstract submitted to national infection conference – Targeted teaching improves confidence in antimicrobial prescribing in Advanced Nurse Prescribers. Abstract on Advanced Nurse Antimicrobial stewardship poster presentation at International Forum of Quality and Healthcare Conference, Glasgow, March 2019.</li> <li>• NHS front line clinical staff participation in national antimicrobial research - An exploratory study of Barriers &amp; Enablers to Anti-Microbial Stewardship in Hospitals (BEAMS).</li> <li>• Antimicrobial Awareness campaign material information delivered to healthcare staff and members of public across 6 separate locations as part of NHS winter road show awareness initiative.</li> <li>• NHS Antibiotic poster and NHS stewardship promotion campaign shortlisted for Antibiotic guardian awards (<a href="http://www.antibioticguardian.com">www.antibioticguardian.com</a>).</li> <li>• IPCT/Antimicrobial Management Team collaborative input into the NEXTGEN Careers Fair for 420 school leavers.</li> <li>• Successful 'Fleming Fund' application for involvement in SAPG led antimicrobial stewardship initiative to Ghana scheduled in 2019/2020.</li> </ul>
<b>UHH Hygiene Group</b>	<ul style="list-style-type: none"> <li>• UHH have continued to improve on their Flu jab uptake for staff with 54.9% of staff vaccinated across the hospital and 58.9% within priority areas measured.</li> <li>• There has been a great deal of work undertaken over this year to improve the functionality, the governance and the operational aspects of the site Hospital Hygiene Meeting. This has included review of the agenda and work to improve the reports presented. There is now a robust log in place to ensure all action plans are monitored and signed off appropriately.</li> <li>• PVC Awareness Month took place in August 2018 across the hospital. There was a different focus every week, with buzz sessions and a short talk at the Onion every morning. This was a very successful approach to raising awareness of PVC care.</li> <li>• UHH have implemented a new initiative to improve consistency around their HEI systems and processes – the HEI Model Ward. Ward 9 was the first ward chosen. The aim is to work together to identify and implement best practice in HEI within the ward. The implementation group was made up of clinical staff, the IPCT and members of ISS (service provider) involved in keeping the ward clean. All aspects of the ward environment was reviewed and how the groups of staff communicated and interacted was also revised to ensure all worked together to achieve a 'Model Ward' environment. This approach will be rolled out across the hospital in the year ahead.</li> </ul>
<b>UHM Hygiene Group</b>	<ul style="list-style-type: none"> <li>• There has been an increased presence of Senior Charge Nurses at the local Hygiene meeting. This allows a greater focus on the site to enhance the delivery of the local work plan.</li> <li>• All Renal related SABs are reviewed with improvement work taken forward via the Renal Services Group.</li> </ul>

	<ul style="list-style-type: none"> <li>• Infection Prevention &amp; Control week took place this year and included workshops on hand hygiene, Introduction of Clinell wipes, Bed Cleaning and Outbreaks. There was positive feedback received from staff.</li> <li>• Hand hygiene compliance is variable across the site. The Infection Prevention and Control Team continue to provide assurance through audits.</li> <li>• HEI Senior Charge Nurse mini walk rounds are rolling out across the site from July 2019.</li> <li>• HEI programme of audit has been circulated for comments for the management team to carry out on a monthly basis. This is a multi-disciplinary team approach to monitoring standards across the site.</li> </ul>
UHW Hygiene Group	<ul style="list-style-type: none"> <li>• HEI unannounced inspection in August 2018, this inspection focused on: Standard 6: Infection prevention and control policies, procedures and guidance; Standard 7: Insertion and maintenance of invasive devices; and Standard 8: Decontamination. The inspection team visited 13 clinical areas. Subsequent feedback and report indicated the site to had 3 requirements and 2 recommendations. Site action plan generated and focussed work has progressed throughout the year to ensure completion of this action plan.</li> <li>• HEI Mock inspections continue with completion of two inspections in July and December 2018 covering 12 wards. The Mock inspection in December 2018 was a follow up inspection to review the requirements and recommendations from the HIS HEI unannounced inspection in August 2018 (as detailed above). There continues to be good engagement with the ward and department teams during inspections. Staff were welcoming with leadership clearly visible. This was extremely worthwhile, well received in terms of the approach together with the key learning and improvements identified from the findings. The inspection process will continue into 2019/2020.</li> <li>• Attention to detail was held in October 2018. This was an extremely successful event with full site engagement, approx. 500 staff attended with positive feedback. Plan to replicate this event annually. Key topics included: Optimal PVC care and prevention of SABs; Optimal urinary catheter care and prevention of CAUTI; Safe and clean environment, this included patient equipment and environmental cleanliness; winter preparedness; Safe management of linen.</li> <li>• An agreement reached with SECRO in relation to cleaning of patient chairs and bed tables. All tables and chairs are the responsibility of SERCO, the agreement included cleaning of blood and body fluids. Training of SERCO staff was delivered by IPCT.</li> <li>• World Sepsis Day promotional site event carried out 13 September 2018.</li> <li>• Focussed PVC SAB prevention work continues on site, examples of this include the bedside handover, safety briefs, and nursing handovers, stay safe stay connected work, and ward specific designed posters to monitor daily PVC bundle compliance. This has increased compliance within surgical receiving ward from 32% to 100%.</li> <li>• SOP Terminal cleans devised via IPCT, PSSD and SERCO to ensure clear, robust process is available for all staff. This was launched at December 2018 hospital hygiene meeting and supported with education session for all staff.</li> <li>• Daily HEI monitoring continues via hospital cover, process well embedded and details included in directorate hygiene reports. Continue to test MEG audit tool for these audits. Further testing of this audit tool planned for 2019/2020.</li> <li>• Site 'Safe Management of Linen' Audits completed during March/April 2019 via senior nurses and SCNs. Collaborative work also planned with Robert O'Hara to progress and assist with site improvement work. West of Scotland</li> </ul>

	<p>Laundry audit template shared with teams to provide simple mechanism to audit laundry compliance. SICPs laundry audits increased to monthly to assist with site compliance. All wards/depts. to progress completion of laundry learnpro module.</p> <ul style="list-style-type: none"> <li>• Changeover of hand hygiene and cleaning products, all areas now have new dispensers and wall mounted products positioned in the clinical area.</li> <li>• Removal of decontamination sinks within preparation rooms plan to test removal and refurbishment in one ward and ensure IPCT are satisfied with new structure. Once complete and IPCT satisfied a site work plan will be devised and aim for completion by September 2019.</li> </ul>
<p><b>North H&amp;SCP Hygiene Group</b></p>	<ul style="list-style-type: none"> <li>• Unannounced inspections carried out by the IPCT continue, the reports show an improving picture with action plans raised when required to address any issues.</li> <li>• The hygiene group has matured over the last year with improved staff and team engagement. This is shown through improved reporting from all areas.</li> <li>• The development of a local process has improved the uptake and recording of the Safe management of linen Learnpro module within HSCP North.</li> </ul>
<p><b>South H&amp;SCP Hygiene Group</b></p>	<ul style="list-style-type: none"> <li>• The Hygiene Group continues to meet monthly.</li> <li>• Auditing and reporting processes continue to improve. Logging data onto LanQIP has been refined to reflect team names held in localities. Risk assessments have been completed for SICP monitoring audit programme which will reflect the rationale for some audits being submitted as N/A for some teams. This will give the ability to quality assure the data being submitted.</li> <li>• South Hygiene Group action log reflects areas of improvement and reflective learning. This is shared widely through the membership of the group.</li> </ul>

## Glossary of Terms

ABHR	Alcohol Based Hand Rub
AMC	Antimicrobial Management Committee
AMR	Antimicrobial Resistant
BD	Beckton Dickinson
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	Clostridium difficile Infection
CMT	Corporate Management Team
CPE	Carbapenemase Producing Enterobacteriaceae
CRA	Clinical Risk Assessment
CVC	Central Venous Cannula
DCNS	Decontamination Clinical Nurse Specialist
DEMG	Decontamination Environmental Monitoring Group
ECB	Escherichia coli Bacteraemia
ECDC	European Centre for Disease Control
Ecoli	Escherichia coli
ERAS	Enhanced Recovery After Surgery
FAPPC	Feedback of Antibiotic Prescribing to Primary Care
GP	General Practitioner
H&SCPs	Health and Social Care Partnerships
HAI	Healthcare Associated Infection
HCAI	Healthcare Associated Infection
HCSW	Healthcare Support Worker
HIS	Health Improvement Scotland
HPC	Health Protection Committee
HPS	Health Protection Scotland
IDEAG	Invasive Device Expert Advisory Group
IMT	Incident Management Team
IPC	Infection Prevention and Control
IPCSN	Infection Prevention and Control Surveillance Nurses
IPCT	Infection Prevention and Control Team
IPS	Infection Prevention Society
IRIS	Infection related intelligence service
LDP	Local Delivery Plan
LICC	Lanarkshire Infection Control Committee
MRSA	Meticillin resistant staphylococcus aureus
MSSA	Meticillin sensitive staphylococcus aureus
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
PDP	Personal Development Plan
PMS	Patient Management System

PRG	Policy Review Group
PVC	Peripheral Venous Cannula
PVL	Panton-Valentine Leukocidin
SAB	Staphylococcus aureus 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	Vancomycin resistant enterococci
WHO	World Health Organisation
WSG	Water Safety Group