



Liverpool Women's
NHS Foundation Trust

Infection Prevention & Control Annual Report 2021 - 2022

Dr Tim Neal, Director of Infection Prevention & Control

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TABLE OF ABBREVIATIONS

ANTT	Aseptic Non Touch Technique
BAF	Board Assurance Framework
CCG	Clinical Commissioning Group
CPE	Carbapenamase-Producing Enterobacteriales
CQC	Care Quality Commission
DIPC	Director of Infection Prevention and Control
HCA	Health Care Act
HCAI	Health Care Associated Infection
HII	High Impact Intervention
PHE	Public Health England
IPC	Infection Prevention & Control
IPCG	Infection Prevention and Control Group
IPCN	Infection Prevention and Control Nurse
IPCT	Infection Prevention & Control Team
IPS	Infection Prevention Society
LWFT	Liverpool Women's NHS Foundation Trust
MRSA & MSSA	Meticillin Resistant (Sensitive) Staphylococcus Aureus
NICERS	New Infection Control environmental reporting system
NLMS	National Learning Management System
NUMIS	Nursing & Midwifery Information System
OLM	Oracle Learning Management System
SI	Serious Incident
SEC	Safety and Effectiveness Committee
SWSG	Strategic Water Safety Group
SSI	Surgical Site Infection
TNA	Training Needs Analysis

1 Summary of Key Achievements and Main Findings

1.1 Key Achievements 2021-2022

The Trust was compliant with the prescribed *C.difficile* and *bacteraemia* targets

Table 1: Trust Attributable Infections

Organism	Target/Trajectory	April 2019 - March 2020	April 2020 - March 2021	April 2021 - March 2022
<i>Clostridioides difficile</i> infection (CDI)	0	0	0	0
Meticillin resistant <i>Staphylococcus aureus</i> (MRSA) sepsis	0	1	1	0
Meticillin sensitive <i>Staphylococcus aureus</i> (MSSA) sepsis	Adult = 0 No target for NICU	5	1	1
<i>E.coli</i> sepsis	50% reduction by March 2022(national not Trust target)	8	8	4
<i>Klebsiella</i>	50% reduction by March 2022(national not Trust target)	0	0	0
<i>Pseudomonas</i>	0	0	0	0

1.2 Main Findings

The Global Coronavirus pandemic has disrupted much of the normal working of the Trust in the reported year. The IPCT has been instrumental to devising pathways and safe systems to allow the Trust to provide services to its priority patients and mutual aid to other local organisations. In addition to the workload generated by Covid-19 the IPCT has continued to oversee education, guidelines as the Trust transitions to the Governments 'Living with Covid Strategy'

1.2.1 Education

The IPCT has maintained current induction and mandatory training.

1.2.2 Guidelines

The two documents have been developed in the year
IPC for Seasonal Infections Winter 2021 – 2022
Management of Investigation of Cases and Outbreaks of COVID

1.2.3 Infection Prevention and Control Audits and Clinical Practice Audits

55 (100%) Infection Prevention and Control Audits and 542 (97%) clinical practice ward audits (including 5 moments for hand hygiene and Saving Lives High Impact Intervention

audits) have been completed in accordance with the Trust plan. No community midwives' audits were completed.

1.2.4 MRSA

34 adult patients were identified in the Trust with MRSA, 31 were identified by pre-emptive screening. one neonate was identified with MRSA colonisation.

1.2.5 C. difficile

There have been no Trust acquired *C.difficile* infections in 2021-22 (Target = zero)

1.2.6 Bacteraemia

There were 3 MSSA bacteremia's in 2021-22, all in adult patients (1 Trust Attributable)

13 neonates had significant Gram-negative sepsis (5 congenital) and 7 neonates had significant Gram-positive infections (4 congenital).

There were 8 *E. coli* bacteraemias in 2021-22 (4 Trust attributable). A 50% reduction from previous years

There were 2 *Klebsiella pneumoniae* bacteraemias in 2021 – 22 (0 Trust Attributable)

There were no glycopeptide resistant enterococcal bacteremias in 2021-22

1.2.7 Surgical Site Infection Surveillance

The IPC team continue to review surgical site infections (SSI for a two-month period twice yearly). SSI rates remain below the Trust threshold of 5%, at around 2 - 3%.

2 Infection Prevention & Control Team Members

During 2021-22 the Infection Prevention and Control team (IPCT) has been supported by a seconded Neonatal Nurse, a fixed term Gynaecology Nurse and an Interim Infection Prevention and Control Practitioner (until July 2021).

Miss K Boyd

Infection Prevention & Control Analyst (part time 0.80 WTE - 30 hours/week Infection Prevention and Control Analyst, 0.20 WTE - 7.5 hours/week Policy Officer for the Governance team)

Mrs D Fahy

Infection Prevention & Control Nurse - (0.60 WTE – 22.50 hours/week) Until May 2021, (Left the Trust).

Dr T J Neal

Consultant Microbiologist – Infection Prevention & Control Doctor and Director of Infection Prevention and Control (DIPC) (2 sessions / week worked on LWFT site)

Mrs Anne-Marie Roberts

Interim Infection Prevention and Control Practitioner (0.9 WTE– 34.5 hrs) – (changed to a permanent Infection Prevention and Control Practitioner (1 WTE – 37.5 hours) in July 2021)

Mrs Eleanor Walker

Seconded Link Neonatal Nurse (0.40 WTE – 15 hours)

Mrs Jenny McLaughlin

Fixed term Infection Nurse (0.80 WTE – 30 hours) – (changed to Permanent Infection Prevention and Control Nurse (0.80 WTE – 30 hours)

The IPCT is represented at the following Trust Committees:

Huddle	Daily
Covid-19 Oversight Meeting	Weekly
Covid-19 Command meetings	Weekly
Safety and Effectiveness Committee	Monthly
Infection Prevention & Control	Quarterly
Water Safety Group	Quarterly
Strategic Water Safety Group	Quarterly
Medicines Management	Monthly
PLACE	Ad-hoc
Building Planning	Ad-hoc
Health and Safety Committee	Quarterly
Nursing and Midwifery Forum	Monthly
Maternity Quality Meeting	Monthly
Education Governance Meeting	Quarterly
Cleaning National Standards	Ad Hoc

The Team is managed by the Deputy Director of Nursing and Midwifery.

There are no Trust costs associated with the Infection Prevention and Control doctor and DIPC.

3 Role of the Infection Prevention & Control Team

The following roles are undertaken by the IPC team: -

- Education
- Surveillance of hospital infection
 - Surgical Site data collection
 - National bacteraemia data reporting
 - PHE data reporting
- Investigation and control of outbreaks
- Development, implementation and monitoring of Infection Prevention and Control policies
- Audit
- Assessment of new items of equipment
- Assessment and input into service development and buildings / estate works
- Patient care/ incident reviews

Infection Prevention and Control advice is available from the Infection Prevention & Control team and 'on-call' via the DIPC or duty Microbiologist at Liverpool Foundation Trust

4 Infection Prevention and Control Group

The IPC Group meets quarterly and is chaired by the Chief Nurse. The group receives regular reports on Infection Prevention and Control activities from clinical and non-clinical divisions/departments.

Reports received include those from:

- Estates and Operational Services

- Health and Safety
- Occupational Health
- Decontamination
- Divisions/departments
- Link Group
- Water Safety group
- Infection Prevention and Control team members

The Terms of Reference of the IPCG are included as **Appendix A**

The IPCT report quarterly to IPCG and the DIPC reports quarterly to SEC which also receive minutes of the IPCG meetings. The Quality Committee receives minutes from SEC. The Trust Board also receives an annual presentation and report from the DIPC.

Trust IPC issues, processes and surveillance data are relayed to the public via Infection Prevention and Control posters, patient information leaflets, the Trust website (copy of this report) a notice board in the main reception which is updated on a monthly basis and departmental notice boards in ward areas.

Throughout the year many changes in practice have been initiated, facilitated, supported or mandated through the work of the IPCT and IPCG. Some of these are on a large scale, such as input of the IPCT into large capital projects undertaken by the Trust (see section 9.2) however many appear smaller and take place in the clinical areas as a consequence of audit, observations and recommendations. These interventions equally contribute to the provision of clean and safe care in the organisation. The IPCT examined its effectiveness throughout the year. The following detail some of the changes facilitated throughout the year.

- ANTT e-learning and training and assessment of ANTT in clinical practice commenced 26th April 2021
- IPC audits moved from NICERS to Microsoft Team and Power BI with the update of HII and addition of mattress audits. Audits then integrated into a new hospital audit programme of audits.
- National IPC training incorporated into LWFT Mandatory Training programme (Dec 2010)
- National guidance regarding IPC and respiratory infections (including covid-19) incorporated into clinical practice.
- Inclusion of 'donning and doffing of PPE' and 'Coronavirus -Every action counts hierarchy of controls' videos as yearly mandatory training.

5 External Bodies

5.1 Health Care Act & Care Quality Commission

The Health Care Act (HCA) was published in October 2006 and revised in January 2008 and January 2011 as the Health and Social Care Act. This code of practice sets out the criteria by which managers of NHS organisations are to ensure that patients are cared for in a clean environment where the risk of HCAI is kept as low as possible.

The Health Care Act action plan is a standing item on the IPCG agenda which monitors progress. There is one outstanding standard of the HCA with which the Trust is not fully compliant. This relates to surveillance software however as this action has been outstanding for so many years the DIPC has decided not to pursue this further.

5.2 Liverpool Clinical Commissioning Group (CCG) Assurance Framework

Assurance data is reported monthly to the CCG and Quarterly at IPCG it incorporates performance data, exception reporting audit data and screening compliance.

5.3 Mandatory Surveillance

The Trust submits data on MRSA, MSSA, *E.coli*, *Clostridioides difficile*, *Klebsiella* and *Pseudomonas* infections by the 15th day of each month to the Public Health England via an online Health Care Associated Infection Data Capture System. HCAI data is also submitted each month for the Trust Quality Report and Corporate Information.

6 Education

6.1 Mandatory training and Induction:

Mandatory training in Infection Prevention and Control is a requirement for all Trust staff including clinical, non-clinical staff and contractors. The IPCT update the training package annually and ensure that it reflects best practice, national recommendations and issues identified as non-compliant in the previous year. All staff receives training in Infection Prevention and Control every three years via electronic learning and a Hand Hygiene Assessment. The electronic package is incorporated into the NLMS and linked to OLM.

Training continues to be provided by the IPCT for medical staff which includes consultants, trainees and ad-hoc mandatory training for corporate services. Three formal teaching sessions have been delivered by the DIPC throughout 2021-2022

The IPCT has provided 19 general training sessions in 2021-2022 (Including, the use of standard precautions, and Audit/NUMIS/ad hoc hand hygiene training)

Although the majority of mandatory training is delivered by the IPC team a number of Link Staff also provide training including hand hygiene within their areas.

6.2 Link Staff

The IPC link staff meetings are held twice yearly at the end of the Professional Development days. The programme is organised to reflect current initiatives, implementation of new guidance and reinforcement of any non-compliance relating to IPC. The number of attendees on each development day was 11 and 4, Link Staff meetings and Professional Development days are included in the TNA provision for Link Staff.

6.3 ANTT Training

Sixteen ANTT training sessions were provided in 2021-22 by the Infection prevention and control team. ANTT e-learning was purchased in Oct 2021; Each department has ANTT assessors who have been trained to assess ANTT in clinical practice. ANTT was added to the core clinical competencies and ANTT e-learning training and assessment in clinical practice commenced in April 2021. Results of ANTT training and assessment can now be viewed on Power BI. ANTT training and assessment was streamlined for all clinical staff to yearly training and assessment.

6.4 Donning and Doffing of Personal Protective Equipment (PPE) Training

In 2021-22 IPC staff completed 3 face to face donning and doffing training sessions. In June 2021 a 'donning and doffing video' and the 'Coronavirus- Every Action Counts – Hierarchy of control video' were added to yearly mandatory training for staff.

6.5 Guidelines/Policies

No new IPC policies have been required. The below Policies SOP have been reviewed in line with the Trust policy process.

- Novel IPC Guidance
- Management and investigation of cases and outbreaks of COVID SOP creation
- PPE quick reference SOP
- Reusable visor SOP
- Aseptic Non-Touch technique SOP
- Use and Disposal of Sharps SOP
- Seasonal and Pandemic Influenza SOP
- Management of Known Suspected or at Risk Creutzfeldt Jacob Disease SOP
- Prevention of Wound Infections SOP
- Personal Protective Equipment SOP
- Peripheral Cannula and Ongoing Care SOP
- Management of Norovirus SOP
- Management of Inpatients with Vial Infection rashes SOP
- Management of Hepatitis A and E SOP
- Management of Diarrhoea SOP
- Management of Blood Borne Viruses SOP
- Linen SOP
- Isolation and Barrier Nursing SOP
- Effective Hand Hygiene SOP
- Communal Refrigerator in healthcare Settings SOP
- Carbapenemase Producing Enterobacterales (CPE) SOP
- MRSA Policy
- Management of Diarrhoea caused by Clostridioides difficile Policy
- Isolation and Barrier Nursing SOP
- Management of Diarrhoea SOP
- Management of Pulmonary Tuberculosis SOP

7 Audits

7.1 ICNA Trust audit programme

The IPCT continue to use the updated IPS audit tools. The audit programme for the year is established and agreed by the IPCG. Clinical practice audits (PPE, and Hand Hygiene) are completed with a minimum frequency of twice yearly by ward/clinical staff. 5 moments for hand hygiene audits are completed by ward/clinical staff monthly.

The IPS Clinical Practice audits, Saving Lives audits and monthly '5 moment's' audits are entered onto the NICERS system allowing oversight of results and compliance by local managers. A total of 30 PPE audits (93%) and 44 Hand Hygiene audits (80%) have been carried out by ward department staff and have been reviewed by the IPCT. Clinical Practice audits scores range from 92-100%.

312 Saving Lives High Impact Intervention (HII) audits have been carried out by ward department staff and have been reviewed by IPCT. Saving Lives scores range from 80 – 100%.

A total of 156 (99%) 5 moments for Hand Hygiene audits have been carried out by ward department staff and have been reviewed by the IPCT. Hand Hygiene audit scores range from 99 - 100%.

The Infection Prevention and Control environmental audits are carried out a minimum of twice a year in each clinical area unannounced by the IPC team. A total of 55 Infection Prevention and Control audits in 21 clinical areas have been undertaken. Individual department scores, main themes of non-compliance and areas of improvement are recorded and available on Power BI.

2021-22 IPC audit scores range from 77 - 100%

Community midwives are expected to complete a combined self-assessment of environmental and clinical practice elements twice per year. The Community Team Leaders are responsible for entering the data. For the period April 2021-2022 no self-assessments were completed.

IPC Team have collaborated with the Head of Corporate Nursing to streamline IPC audits and the other audits which include IPC aspects (accreditation, KPI, mattress audits) into a new Trust wide audit programme.

Mattress audits

Mattress audits are completed in all areas in the Trust. The audit examines cleanliness and mattress integrity.

58 mattress audits were completed by departments during 2021-22 (782 individual mattresses audited) with scores ranging from 80-100%. Results are available on Power BI and reported through the Divisional report to IPCG. Local areas have ownership for replacement and condemning of any mattress not fit for purpose. There is a system in place for the provision and storage of replacement mattresses across the Trust.

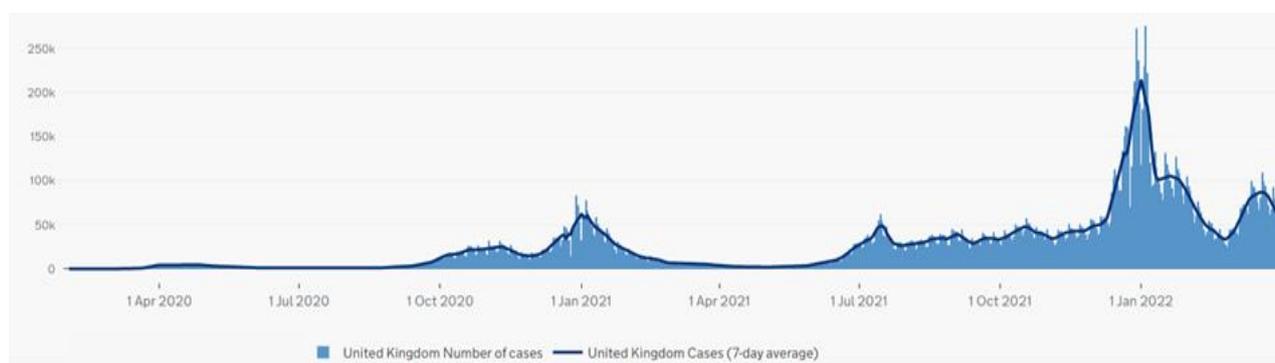
8 Covid-19 Pandemic

On 31 December 2019, the World Health Organization (WHO) was informed of a cluster of cases of pneumonia of unknown cause detected in Wuhan City, Hubei Province, China.

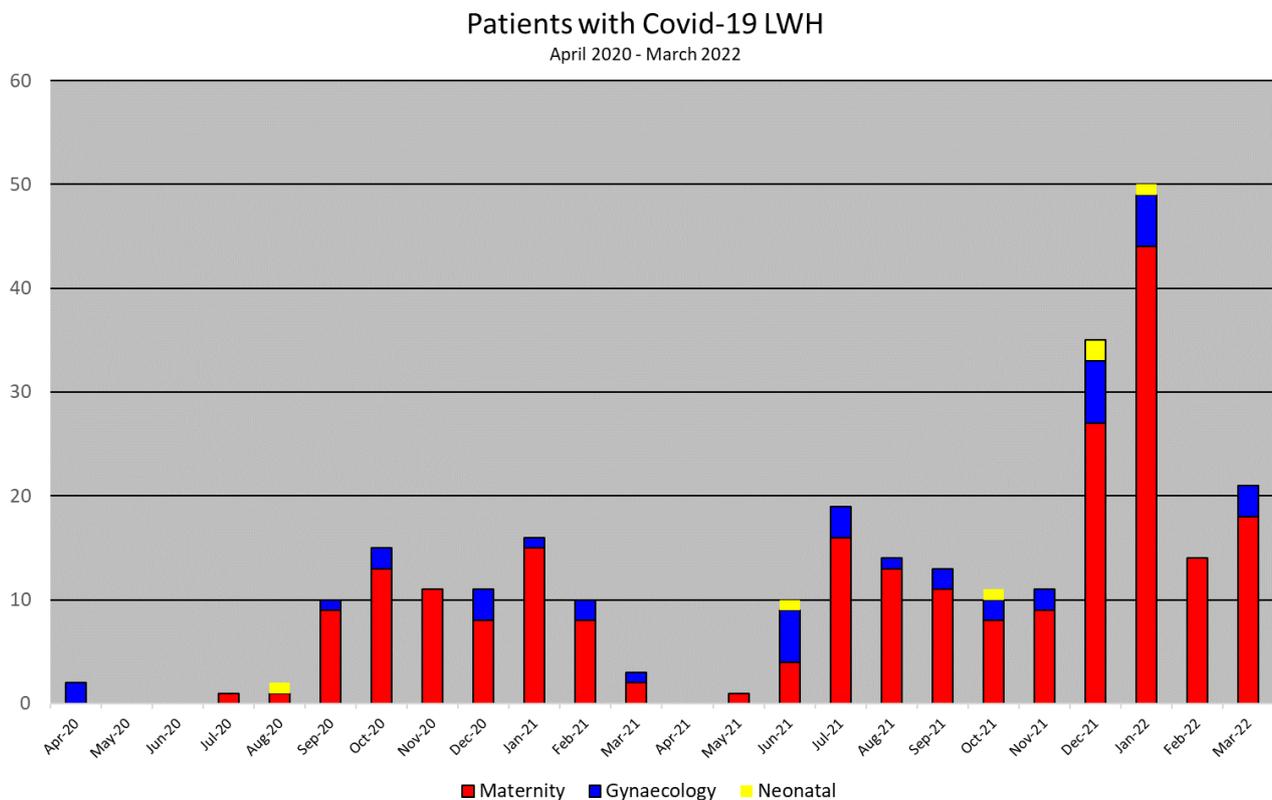
On 12 January 2020, it was announced that a novel coronavirus had been identified in samples obtained from cases. This virus is referred to as SARS-CoV-2, and the associated disease as COVID-19.

The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January 2020, and a pandemic on 11 March 2020.

The first case in the UK was confirmed on 31st January 2020 and between then and the end of March 2022 the UK recorded over 21 million cases and approximately 170,000 deaths.



LWH has managed 280 inpatients with Covid-19 infection since the commencement of the pandemic, 199 in 2021-22. The majority of patients have been maternity patients. There were a further 241 patients identified by screening prior to planned surgery or procedures.



Hospital Onset Covid-19 infection (HOCl) is categorised by the time from admission against national criteria which were introduced in the summer of 2020.

- Community-Onset (CO) - positive specimen date <=2 days after hospital admission or hospital attendance;
- Hospital-Onset Indeterminate Healthcare-Associated (HO.iHA) - positive specimen date 3-7 days after hospital admission;
- Hospital-Onset Probable Healthcare-Associated (HO.pHA) - positive specimen date 8-14 days after hospital admission;
- Hospital-Onset Definite Healthcare-Associated (HO.dHA) - positive specimen date 15 or more days after hospital admission.

There was one nosocomial (healthcare acquired) case of COVID-19 in 2021-22.

All other patients with COVID-19 cared for at LWH were community onset cases determined pre-admission or on admission. There have been no patient COVID-19 infection outbreaks.

Throughout the pandemic the Trust has implemented national guidance both on PPE (to ensure the safety of staff) and infection control to reduce the risk of transmission in the

hospital. The IPC team worked closely with other stakeholders to devise pathways for the safe placement of patients.

In 2021-22 during the Covid-19 pandemic the following processes were put in place / continued: -

- Review of IPC Team and substantive posts agreed
- IPC overview at Oversight & scrutiny committee, Command & control and daily huddle on Microsoft Teams
- Covid -19 audits continued to measure and improve compliance
- Assurance provided against national Board Assurance Framework (BAF)
- Updates to local IPC Covid-19 guidance

8.1 COVID Audits

In 2021 – 2022 the IPC completed COVID audits throughout the Trust to review compliance in the following areas: -

- PPE
- Correct hand Hygiene
- PPE Signage
- Staff knowledge
- Correct Barrier Nursing
- Environmental Cleanliness
- Social Distancing

Overall compliance was 95% and any noncompliance was addressed at the time of audit with staff involved.

8.2 COVID staff outbreaks

The Trust reported no staff outbreaks of Covid-19 infection in 2021-22

9 Infection Prevention and Control and the Environment

9.1 Water Safety

The Trust has a local Water Safety Group which meets quarterly to assure compliance with the Trust Water Safety Plan (planned preventative maintenance, flushing compliance, rectification of system defects and surveillance). In addition to reporting to the Trust IPC Group the WSG reports to a regional strategic WSG chaired by the DIPC and attended by the Independent Authorising Engineer (water).

The average weekly water flushing compliance for 2021-2022 was 93% (range 74-90%).

Water sampling (surveillance) is undertaken in accordance with the timetable outlined in the water safety plan. Positive results are managed in accordance with national guidance.

9.2 Building Projects & Design Developments

The team remain reliant on the Estates department and the Divisions alerting and involving the team in impending projects via the Infection Prevention and Control group meetings.

2021-22 projects requiring IPC Team involvement included:

- Major refurbishment FMU move to floor 2 completed November 2021
- Imaging / Colposcopy department – major refurbishment to move bone density room and colposcopy rooms and extend and incorporate CT scanner.
- Aintree Obstetric / Gynaecology Outpatient Department merge
- Changes made to facilitate social distancing trust wide in relation to COVID-19 pandemic

10 Surveillance of Infection

Hospital infection (or possible infection) is monitored in the majority of the hospital by 'Alert Organism Surveillance' this involves scrutiny of laboratory reports for organisms associated with a cross infection risk e.g., MRSA, *Clostridioides difficile* etc.

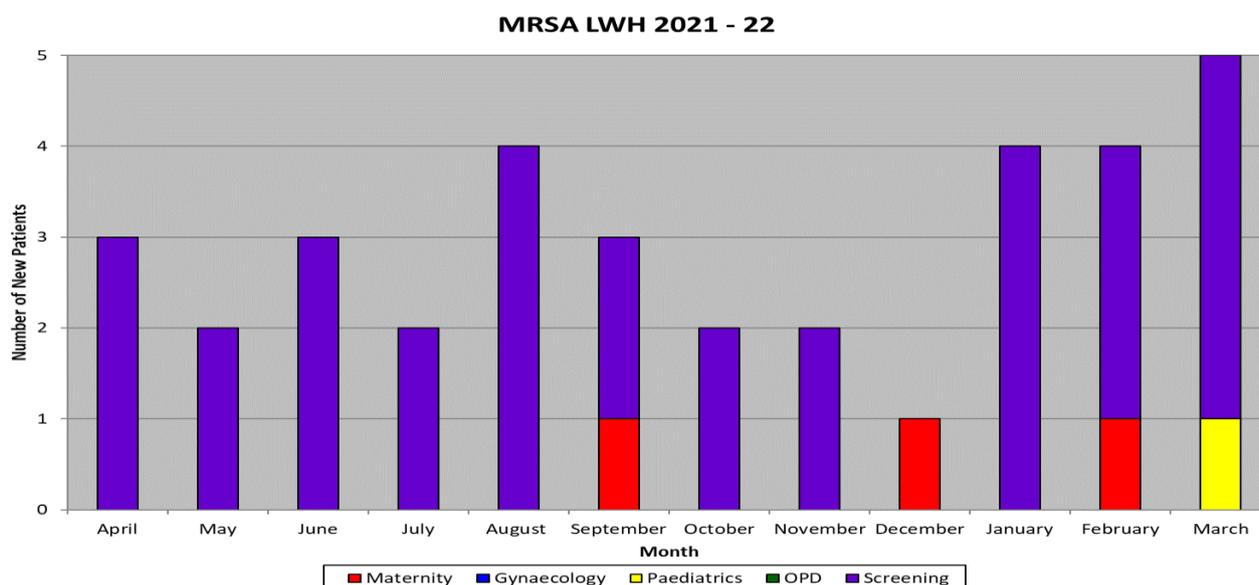
On the Neonatal Unit, which houses most of the long-stay patients, surveillance is undertaken by both 'Alert Organism' and by prospective routine weekly surveillance of designated samples. The IPCT examines results of these samples and action points are in place for the unit based on these results.

Surveillance of bacteraemias (blood stream infections) for both national mandatory and in house schemes is also undertaken. National mandatory reporting of blood stream infections includes *Klebsiella* and *Pseudomonas* in addition to *E.coli* and *S.aureus*.

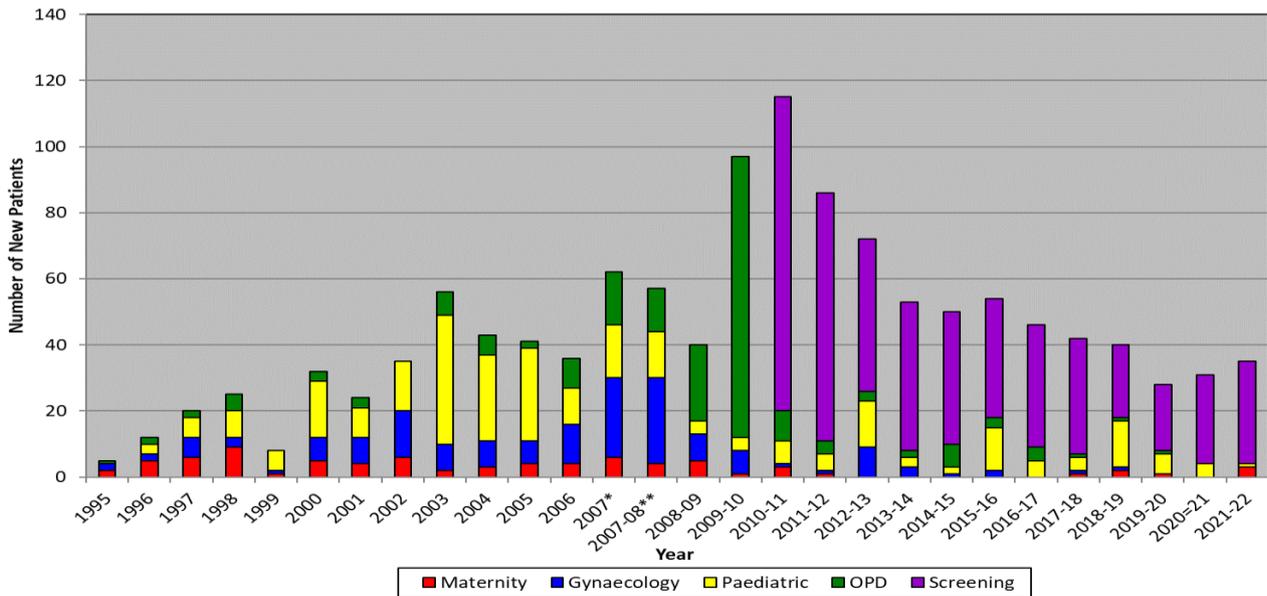
10.1 Alert Organism Surveillance

10.1.1 MRSA

The total number of patients identified carrying Meticillin Resistant *Staphylococcus aureus* (MRSA) in the Trust during the year 2021-22 was 35. Thirty one of the 34 adult patients were identified by routine screening either on, or prior to, admission. Three maternity patients had MRSA in surgical wounds, these cases were not linked. The patient identified with MRSA on the neonatal unit was colonised on admission. The charts below show the number of new patients identified with MRSA and the annual totals for the period 1995 – 2022.



MRSA LWH 1995-2022



As outlined in previous Annual Reports the Government had established targets for screening such that all elective admissions and all eligible emergency admissions to hospital should be screened for carriage of MRSA.

In the period April 2021 to March 2022, 4267 adult patients were screened for MRSA carriage: 31 (0.7%) were positive.

During the period of this report 1 neonate was identified with MRSA a decrease from 4 the previous year. There were no clusters or other epidemiological linking of adult or neonatal patients with MRSA.

10.1.2 Clostridioides difficile

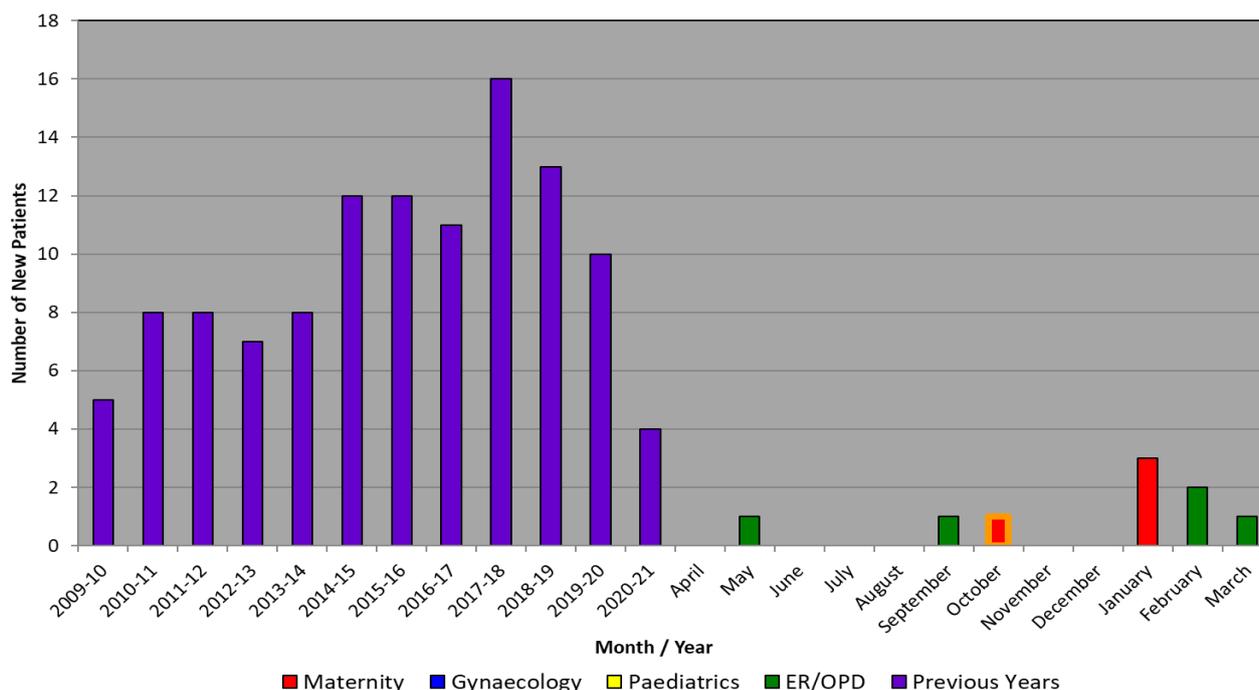
Mandatory reporting of this disease commenced in January 2004 and includes all patients over 2 years old. Historically the number of cases at LWFT has been low. The prescribed trajectory for this disease for the Trust in 2021-22 was one.

During the period April 2021 – Mar 2022 there were no patients identified with *C.difficile* infection in the Trust. The last reported positive *C.difficile* patient in LWH was in 2017-18

10.1.3 Group A Streptococcus

In the period April 2021 to March 2022, 9 patients were identified with Group A Streptococcus as detailed below. This is an increase on the number reported in 2020-21 but is in line with annual numbers reported pre-pandemic. All patients with Group A Streptococcal infection are reviewed. One patient had Group A streptococcal puerperal sepsis (bacteraemia), review of this case identified good care and no preventable factors. Two patients presenting to the maternity service in January 2022 were infected with the same strain of Group A streptococcus this most likely represents cross infection although a specific transmission event was not identified.

Group A Streptococcus 2009 - 2022



10.1.4 Glycopeptide Resistant Enterococcus (GRE)

There were no GRE bacteraemia's reported.

10.1.5 Carbapenemase Producing Enterobacteriales

The screening for multidrug - resistant organisms was incorporated into National guidance and in 2014 LWH commenced screening patients in high-risk groups for Carbapenemase producing Enterobacteriales (CPE). In June 2016 the screening process was extended. All patients who have been an inpatient in any other hospital within the preceding 12 months require screening. Meditech facilitates the risk assessment.

Month	Screening Compliance
Apr 21 - June 21	81%
July 21 – Sept 21	90%
Oct 21 – Dec 21	92%
Jan 22 – Mar 22	85%

The main theme of non-compliance identified has been missed screens on patients who are direct transfers from another hospital having been an inpatient for more than 24 hours. This issue has been addressed with Ward Managers, IPCT Link staff and clinical staff in the relevant areas.

10.1.6 Routine Neonatal Surveillance

Nearly all infection on the Neonatal unit is, by definition, hospital acquired although a small proportion is maternally derived. Routine weekly colonization surveillance has continued this year on the Neonatal unit. Results are shown in Appendix B

As colonisation is a precursor to invasive infection the purpose of this form of surveillance is to give an early warning of the presence of resistant or aggressive organisms and to ensure current empirical antimicrobial therapy remains appropriate. Action points are embedded in the Neonatal unit and IPC policies linked to thresholds of colonisation numbers to limit spread of resistant or difficult to treat organisms.

As well as resistant or aggressive organisms focus has remained on both *Pseudomonas aeruginosa*. and *Staphylococcus aureus* as potential serious pathogens. The median number of babies colonized with *Pseudomonas* each week was 1, (an increase from last year), and with *S.aureus* was 3 (unchanged from last year).

10.2 Bacteraemia Surveillance

10.2.1 Neonatal Bacteraemia

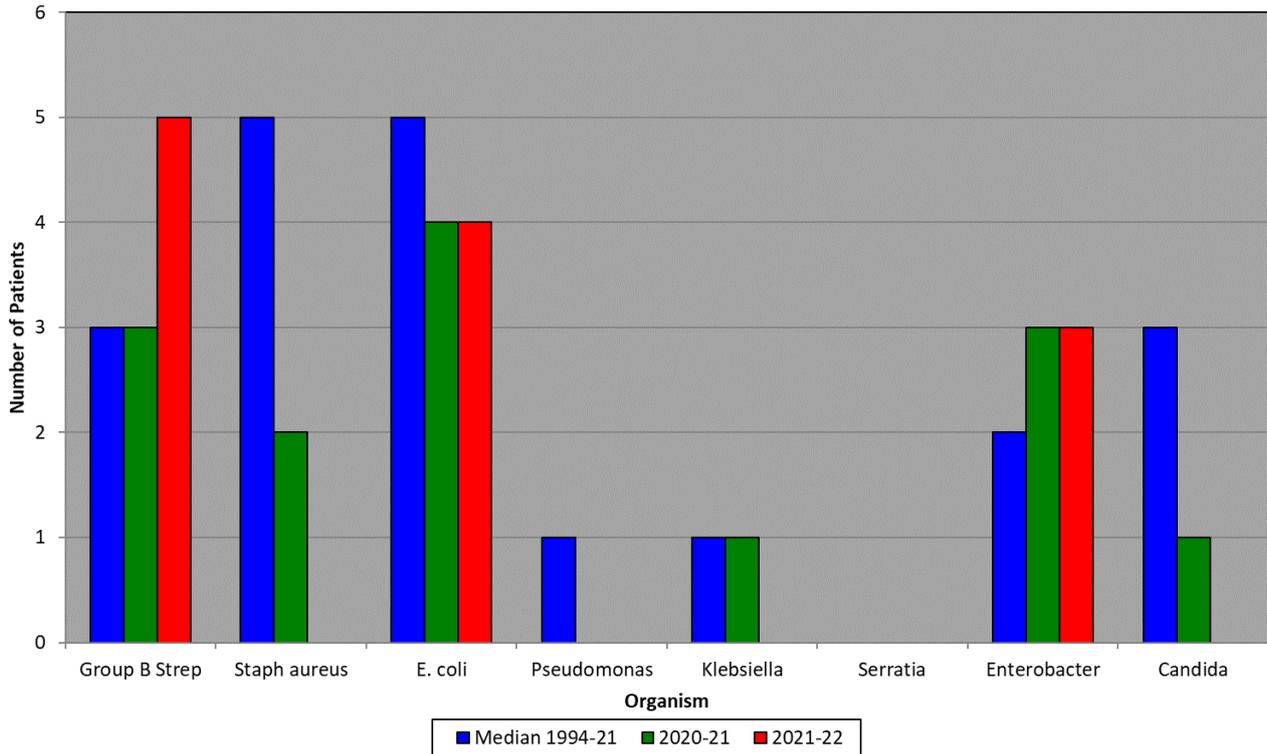
As always, the commonest organism responsible for Neonatal sepsis was the common skin organism, coagulase-negative staphylococcus (CoNS). In the period April 2022 – March 2022 13 babies (10 in 2020-21 and 9 in 2019-20) had infections with Gram-negative organisms, 5 of these infections (1 *E. coli*, 1 *Moraxella sp*, 1 *Chrysiomonas sp*, 1 *Pantoea sp*, and 1 *Citrobacter sp*) occurred in the first 5 days of life and were congenitally acquired. The remaining 8; (3 *E. coli*, 3 *Enterobacter sp*, 1 *Citrobacter sp* and 1 *Stenotrophomonas sp*) occurred after 5 days of life.

There were 7 episodes of infection with significant Gram-positive pathogens (5 in 2020-21 and 12 in 2019-20); 4 of these infections (2 Group B Streptococcus, 1 *S.pneumoniae* and 1 *L.monocytogenes*) were congenitally acquired and 3 (all Group B Streptococcus) occurred after day 5.

All non-coagulase-negative Staphylococcal sepsis on the unit is subject to a review to determine the focus of infection, precipitating causes and the appropriateness of care.

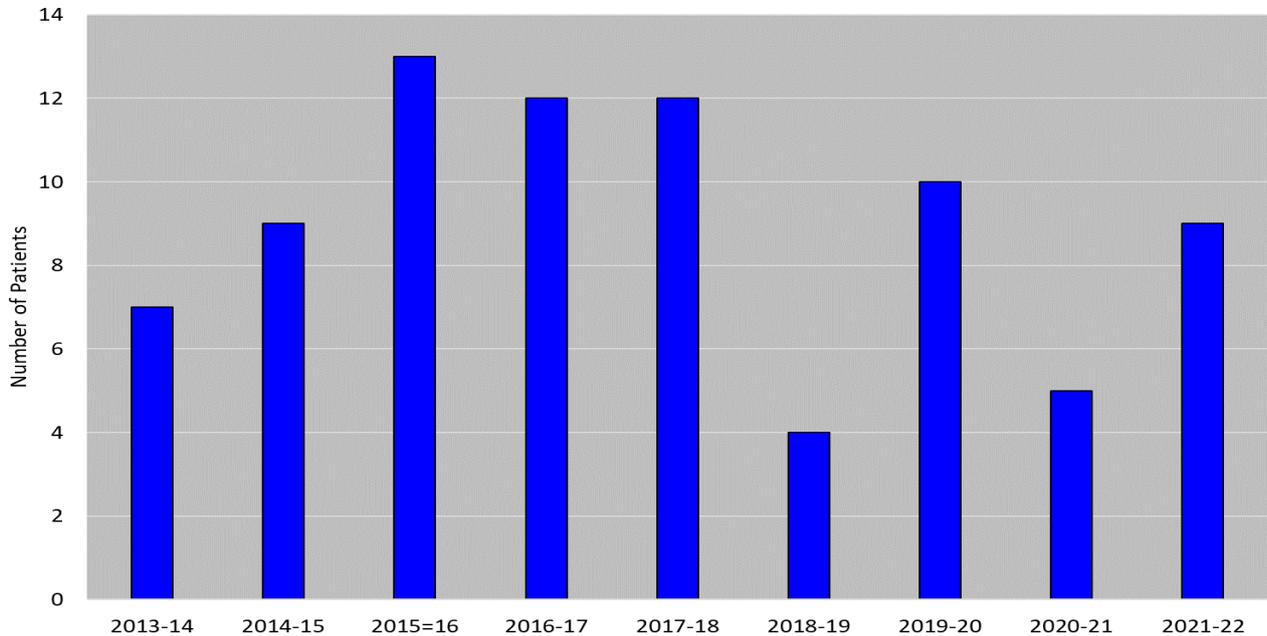
The bar chart below describes the pattern of ‘definite-pathogen’ Neonatal bacteraemia in the current year in comparison to last year and the median value for each organism for preceding years. There is considerable variability in the figures from year to year (probably reflecting the complexity of pathogen host relationship in this group). Of note there were no *S.aureus* bacteraemias in neonates in the reporting year and no *Pseudomonas* sepsis has been reported since 2017-18.

Bacteraemia NICU (Non-CoNS)



The IPCT have been monitoring the number of Neonatal infections classified as ‘congenital’ i.e., presenting in the first 5 days of life. 9 babies this year had congenital infection.

Congenital Infections

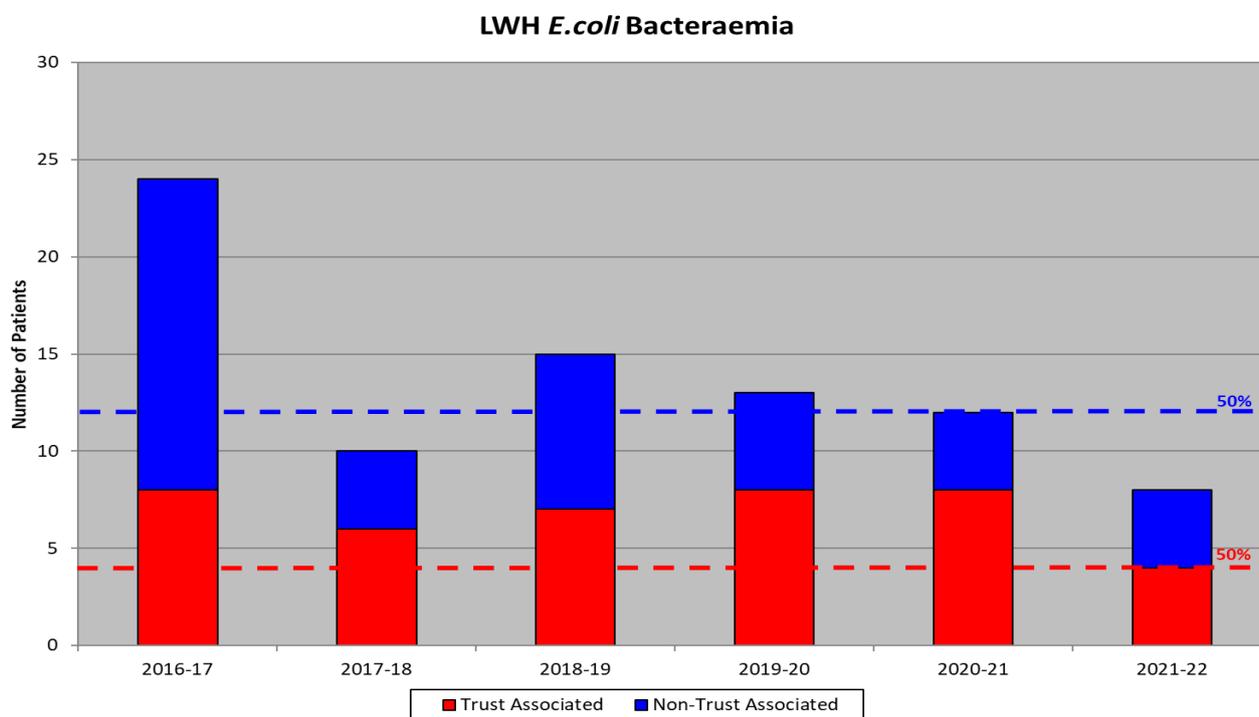


10.2.2 Adult Bacteraemia Surveillance

There have been no MRSA bacteraemias in adult patients in the period April 2021 to March 2022, however there were three MSSA bacteraemia.

There is a national ambition to reduce Gram-negative bacteraemia (particularly *E. coli*) by 50%. Although this is not a specific Trust target the IPCT have been working with regional

groups facilitated by the CCG to reduce *E. coli* sepsis. In 2021-22 the Trust reported 8 *E. coli* bacteraemia's (4 Neonates (1 congenital) and 4 adults) compared to 12 in 2020-21 and 13 in 2019-20. Both the total number of *E. coli* bacteraemia's and those categorised as Trust associated (defined by time from admission) are reduced this year.



The IPCT expect clinical areas to undertake an RCA of all significant bacteraemias to establish any elements of sub-optimal care. A regular multidisciplinary meeting is held with members of the maternity and gynaecology divisions to review all infective pathology.

In addition to the mandatory surveillance the IPCT has been collecting clinical data on bacteraemic adults in the Trust; 28 patients were identified with positive blood cultures from 414 cultures submitted (6.8%). 10 (35% of positives, 2.4% of total) of these were contaminated with skin organisms. Details of the 18 significant bacteraemias are provided in Appendix C

10.3 Surgical Site Surveillance

Potential Surgical Site Infections are discussed at monthly review meetings where any themes are highlighted and fed back to Divisions through 'Lessons of the week' information.

Given the static nature of the wound infection rate over several years, and the favourable Trust position when benchmarked against other organisations in the national GIRFT survey, a decision was taken to reduce continuous prospective wound surveillance to twice yearly surveillance; (July - August and January – February).

SSI rates for Maternity and Gynaecology divisions remain between 2-3%, being lower than the 5% Trust target.

11 Health & Wellbeing

The Trust Health & Wellbeing Department report monthly to the IPCG including vaccination updates. Staff have historically been screened for TB, Hepatitis B and Rubella immunity. Guidance on Measles, Chicken pox, HIV and Hepatitis C have been incorporated for all 'new starters' and a catchup exercise is in place for staff already employed. The IPCG supports the Health & Wellbeing team in ensuring that workers in designated areas have appropriate vaccinations and immunity.

12 Infection Control Team Work Plan

12.1 Infection Control Team Work Plan 2021-2022

<u>Work Plan</u>	<u>Completion Date</u>	<u>Comments</u>
Covid-19 Planning <ul style="list-style-type: none"> Advise and support management and care of patients with Covid-19 Work within Trust structures to support the Trust reset plan Maintain and update the Board assurance framework related to Covid-19 	Ongoing Ongoing Ongoing	Completed Completed Completed
Training <ul style="list-style-type: none"> Continue all Trust mandatory & induction training Continue to support link staff personal development Link staff to be given allocated time and working alongside managers across the areas 	Ongoing Ongoing Ongoing	
Audit <ul style="list-style-type: none"> Continue to audit in line with the IPS Audit programme Ensure Trust Covid audit is undertaken to provide assurance to Trust Investigate the potential for having a new Audit system and link to Power BI 	Ongoing Ongoing Nov 20	Completed Completed
Reporting <ul style="list-style-type: none"> Investigate the potential for having more robust way of pulling CPE data for percentages 	Ongoing	Completed
Engage <ul style="list-style-type: none"> More engagement with the Link Staff Back to basics with Infection Control processes and policies with staff 	Ongoing Ongoing	Completed Completed
Surveillance <ul style="list-style-type: none"> Continue 'Alert Organism' surveillance focused on resistant pathogens Continue to monitor cases mandatorily reportable infections Undertake a comprehensive review surgical site infections Implement actions identified through RCA of bacteremia's and C.difficile infections Work with the CCG and Trust Sepsis lead to deliver their target reduction in Gram-negative sepsis. Send Business case to Head of Governance for ICNET surveillance system 	Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing	Completed Completed Completed Completed

Health Act & NICE

- Review compliance and evidence
- Review and ensure Trust maintains its compliance with current NICE guidance relating to infection, infection control, sepsis and antimicrobial stewardship.

Ongoing
Ongoing

Infection Control Teamwork Plan 2022-2023

<u>Work Plan</u>	<u>Completion Date</u>	<u>Comments</u>
Covid-19 Planning <ul style="list-style-type: none"> Advise and support management and care of patients with Covid-19 Work within Trust structures to support the Trust reset plan and 'Living with covid' guidance Maintain and update the Board assurance framework related to Covid-19 	Ongoing Ongoing Ongoing	Completed Completed Completed
Training <ul style="list-style-type: none"> Continue all Trust mandatory & induction training Review and continue to support IPC Link staff role and professional development Link staff to be given allocated time and working alongside managers across the areas 	Ongoing Ongoing	
Audit <ul style="list-style-type: none"> Continue to audit in line with the IPS Audit programme 	Ongoing	
Reporting <ul style="list-style-type: none"> Continue to support the new Trust wide audit programme Investigate robust way of pulling CPE data 	Ongoing Ongoing	
Engage <ul style="list-style-type: none"> Continue active engagement with Link staff, managers, and matrons Encourage Link staff to accompany IPC Team on IPC environmental audits for professional development 	Ongoing Ongoing	
Surveillance <ul style="list-style-type: none"> Continue 'Alert Organism' surveillance focused on resistant pathogens Continue to monitor cases mandatorily reportable infections Implement actions identified through RCA of bacteremia's and C.difficile infections Work with the CCG and Trust Sepsis lead to deliver their target reduction in Gram-negative sepsis. 	Ongoing Ongoing Ongoing Ongoing	

Health Act & NICE

- Review compliance and evidence
- Review and ensure Trust maintains its compliance with current NICE guidance relating to infection, infection control, sepsis and antimicrobial stewardship.

Ongoing
Ongoing

13.1 Appendix A – Terms of Reference - Infection Prevention and Control Group Terms

**INFECTION PREVENTION AND CONTROL GROUP
TERMS OF REFERENCE**

Constitution:	The Group is established by the [Effectiveness and Safety Committee and will be known as the Infection Prevention and Control group.
Duties:	<p>The Group is responsible for: providing assurance to the Trust Board in relation to those systems and processes it monitors and ensure compliance with external agency’s standards e.g.: CQC etc.</p> <ol style="list-style-type: none"> 1. Agree and disseminate the systems and processes for effective Infection Prevention and Control. 2. Develop the strategic direction of Infection Prevention and Control, ensuring that the team is resourced sufficiently to achieve improvement in performance. 3. Review and approve the work of the Infection Prevention & Control team members in line with Trust objectives through the IPCG team work plan. 4. Review and endorse all policies relating to Infection Prevention & Control and evaluate their implementation. 5. Receive and review regular reports of infection incidents or outbreaks and ensure that reports are forwarded to appropriate external authorities. 6. Ensure that lessons identified from incidents, outbreaks, or reports from external organisations are actioned by relevant Divisions in the organisation. 7. Implement a regular reporting timetable including comprehensive Division reports and reports from support services at regular intervals. 8. Ensure that effective Infection Prevention and Control is being delivered in Divisions and monitor evidence of prevention and control practice. 9. Promote and facilitate the education of staff of all grades in hand hygiene Infection Prevention & Control and related topics <p>Receive, discuss and endorse the annual Infection Prevention & Control report produced by the Infection Prevention & Control team</p>

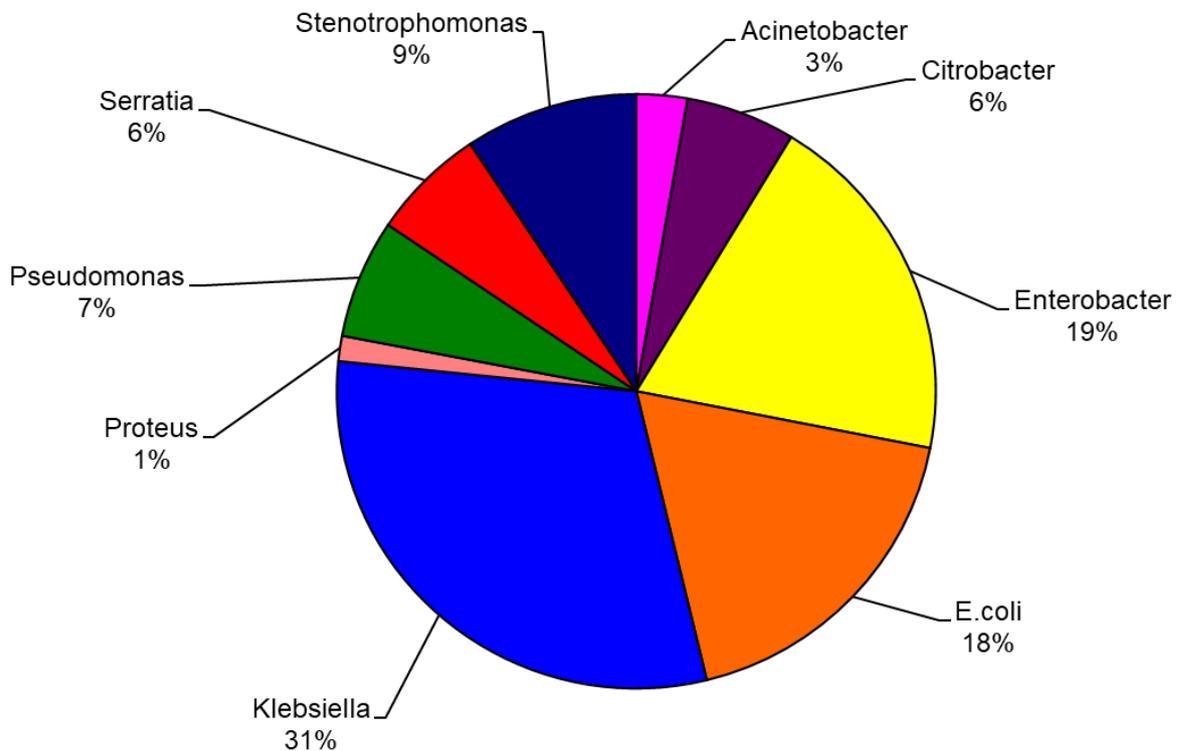
	prior to submission to the Safety and Effectiveness Committee and Trust Chief Executive.
Membership:	<p>The Group membership will be appointed by the SEC and will consist of:</p> <ul style="list-style-type: none"> • The Chair – Director of Nursing, Midwifery or Representative of CEO • Director of Infection Prevention and Control • Infection Prevention & Control practitioner • Trust Decontamination Lead • Representative of Public Health England • Estates or Patient Facilities Manager • Health and Safety Advisor • Occupational Health Nurse • Deputy Director of Nursing and Midwifery • Head of Nursing Gynaecology Division • Head of Midwifery Maternity • Head of Nursing Neonates • Head of Nursing Clinical Support Division • Antibiotic Pharmacist • Representative from Clinical Commissioning Group • Safety Lead from Family Health Division • Safety Lead from Gynaecology Division • Safety Lead from Clinical Support Division <p>Members can participate in meetings by two-way audio link including telephone, video or computer link (excepting email communication). Participation in this way shall be deemed to constitute presence in person at the meeting and count towards the quorum</p> <p>The Effectiveness and Safety Committee will appoint a member of the Group as Chair of the Group and another member to be Vice Chair from the outset. The Vice Chair will automatically assume the authority of the Chair should the latter be absent.</p>
Quorum:	<p>A quorum shall be 6 members including: Chair (or approved Deputy) IPCN or DIPC Representative from each Division Representative from Facilities Department</p>
Voting:	<p>Each member will have one vote with the Chair having a second and casting vote, if required. Should a vote be necessary a decision will be determined by a simple majority.</p>
Attendance:	<p>a. Members Members will be required to attend a minimum of 75% of all meetings.</p> <p>b. Officers Other officers and staff of the Trust will be invited to attend the</p>

	<p>meeting as appropriate when an issue relating to their area of operation or responsibility is being discussed.</p> <p>Representatives from partner organisations or other external bodies may be invited to attend as appropriate. Such representatives will not have voting rights.</p>
Frequency:	Meetings shall be held [4] times per year. Additional meetings may be arranged from time to time, if required, to support the effective functioning of the Trust.
Authority:	The Group is authorised by the SEC to investigate any activity within its Terms of Reference. It is authorised to seek any information it requires from any employee and all employees are directed to cooperate with any request made by the Group.
Accountability and reporting arrangements:	<p>The Group will be accountable to the SEC</p> <p>The minutes of Group will be formally recorded and submitted to the SEC. The Chair of the Group shall draw to the attention of the SEC any issues that require disclosure to it or require executive action.</p> <p>The Group will report to the SEC annually on its work and performance in the preceding year.</p> <p>Trust standing orders and standing financial instructions apply to the operation of the Group.</p>
Reporting Committees/Groups	<p>The sub-committees/groups listed below are required to submit the following information to the Infection Prevention and Control Group:</p> <p>a) Chairs Report [and/or] minutes of meetings; and</p> <p>b) an Annual Report setting out the progress they have made and future developments.</p> <p>The following sub committees/groups will report directly to the Committee:</p> <ul style="list-style-type: none"> • Local Water Safety Group • Link Staff Meeting / Professional Development Day
Monitoring effectiveness:	The Group will undertake an annual review of its performance against its duties in order to evaluate its achievements.
Review:	These terms of reference will be reviewed at least annually by the SEC.
Reviewed by Infection prevention and Control Group:	30/04/2021
Review date:	30/04/2022
Document owner:	<p>Marie Forshaw, Director of Nursing and Midwifery</p> <p>Email: marie.forshaw@lwh.nhs.uk</p> <p>Tel: 01517024010</p>

13.2 Appendix B - Neonatal Colonisation Surveillance

Organism	2011/12	2012-13	2013/14	2014/15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Acinetobacter	1	3	3	6	3	3	3	3	3	3	3
Citrobacter	6	6	4	3	4	7	4	6	3	4	6
Enterobacter	21	21	17	14	17	22	19	18	23	20	19
E.coli	23	20	30	27	21	22	28	23	20	26	18
Klebsiella	38	32	34	39	41	35	31	34	39	33	31
Proteus	0	3	1	1	1	1	1	0	2	1	1
Pseudomonas	6	11	5	4	3	3	4	6	3	5	7
Serratia	2	2	2	1	3	2	5	3	2	3	6
Stenotrophomonas	3	2	4	4	7	5	5	7	5	5	9

Percentage Colonisation 2021-22



13.3 Appendix C - Adult Bacteraemia Surveillance 2021-2022

28 Positive blood cultures

10 Coagulase-negative staphylococcus or other contaminant.

18 Pathogens

Directorate	Organism	Potentially Hospital Associated	Likely Source
Gynaecology	<i>Clostridioides sordelli</i>	N	Endometritis
	<i>Group B Strep</i>	N	RPOC
	<i>E.coli</i>	N	Kidney Infection
	<i>E.coli</i>	N	Genital Tract
Maternity	MSSA	Y	Cannula
	Group B Streptococcus	N	Chorioamnionitis
	E.coli	Y	Chorioamnionitis
	Group B Streptococcus	N	Chorioamnionitis
	MSSA	N	UTI
	Group B Streptococcus	Y	Chorioamnionitis
	Klebsiella Pneumoniae	N	Urine
	E.coli	Y	Chorioamnionitis
	Group A Streptococcus	N	Sepsis
	Klebsiella Pneumoniae	N	Urine
	Group B Streptococcus	N	Genital Tract
	Group B Streptococcus	N	Genital Tract
	Strep Aginosus	N	? Abscess
	Group B Streptococcus / MSSA	N	Genital Tract