

Infection Prevention & Control Annual Report 2020-2021

Dr Tim Neal, Director of Infection Prevention & Control

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TABLE OF ABBREVIATIONS

BAF	Board Assurance Framework
CCG	Clinical Commissioning Group
CPE	Carbapenamase-Producing Enterobacteriaceae
CQC	Care Quality Commission
DIPC	Director of Infection Prevention and Control
HCA	Health Care Act
HCAI	Health Care Associated Infection
PHE	Public Health England
IPC	Infection Prevention & Control
IPCC	Infection Prevention and Control Committee
IPCN	Infection Prevention and Control Nurse
IPCT	Infection Prevention & Control Team
IPS	Infection Prevention Society
IPS LWFT	Infection Prevention Society Liverpool Women's NHS Foundation Trust
IPS LWFT MRSA & MSSA	Infection Prevention Society Liverpool Women's NHS Foundation Trust Meticillin Resistant (Sensitive) Staphylococcus Aureus
IPS LWFT MRSA & MSSA NHSE/I	Infection Prevention Society Liverpool Women's NHS Foundation Trust Meticillin Resistant (Sensitive) Staphylococcus Aureus NHS England/Improvement
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IPS LWFT MRSA & MSSA NHSE/I NLMS NUMIS OLM SI SS	Infection Prevention Society Liverpool Women's NHS Foundation Trust Meticillin Resistant (Sensitive) Staphylococcus Aureus NHS England/Improvement National Learning Management System Nursing & Midwifery Information System Oracle Learning Management System Serious Incident Safety Senate

1 Summary of Key Achievements and Main Findings

1.1 Key Achievements 2020-2021

The Trust was compliant with the prescribed C.difficile target

Table 1: Trust Attributable Infections

Organism	Target/Trajectory	April 2018 - March 2019	April 2019 - March 2020	April 2020 - March 2021
Clostridium difficile infection (CDI)	0	0	0	0
Meticillin resistant Staphylococcus aureus (MRSA) sepsis	0	0	1	1
Meticillin sensitive Staphylococcus aureus (MSSA) sepsis	Adult = 0 No target for NICU	2	5	1
E.coli sepsis	50% reduction by March 2021 (national not Trust target)	7	8	8

1.2 Main Findings

The advent of 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 and practice to ensure the risk of all infection is minimised in the organisation.

1.2.1 Education

The IPCT has maintained current induction and mandatory training. The IPCT has contributed to local training as required and identified.

1.2.2 Guidelines

The SOPs have been developed in year Novel Coronavirus IPC SOP PPE SOP Reusable visor –COVID-19 Enhanced cleaning during COVID-19

1.2.3 Infection Prevention and Control Audits and Clinical Practice Audits

43 (100%) Infection Prevention and Control Audits 248 (83%) clinical practice ward audits (including 5 moments for hand hygiene) and 18 community midwives' audits have been completed in accordance with the Trust plan.

1.2.4 MRSA

27 adult patients were identified in the Trust with MRSA, all were identified by pre-emptive screening. 4 neonates were identified with MRSA colonization.

1.2.5 C. difficile

There have been no Trust acquired *C.difficile* infections in 2020-21 (Target = zero)

1.2.6 Bacteraemia

One neonatal MRSA bacteraemia was reported in 2020-21 There were 2 MSSA bacteraemias in 2020-21 (1 Neonate, 1 adult)

10 neonates had significant Gram-negative sepsis (3 congenital) and 5 neonates had significant Gram-positive infections (3 congenital).

There were 12 E.coli bacteraemias in 2020-21 (8 Trust attributable).

There were no glycopeptide resistant enterococcal bacteremias in 2019-20

1.2.7 Surgical Site Infection Surveillance

A decision was made for the IPC team to review surgical site infections twice yearly (1st July 2020 to 31st Aug 2020 and 1st Jan 2021-28th Feb 2021). In both periods the infection rate remained below 2%

2 Infection Prevention & Control Team Members

During 2020-21 the Infection Prevention and Control team (IPCT) has been supported by a seconded Midwife, a seconded Neonatal Nurse, A fixed term Gynaecology Nurse and an Interim Infection Prevention and Control Midwife.

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)

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 Control Practitioner (0.9 WTE- 34.5 hrs)

Mrs Eleanor Walker

Seconded Link Neonatal Nurse (0.40 WTE – 15 hours)

Mrs Anne Thompson

Seconded Link Midwife (0.40 WTE – 14.5 hours)

Mrs Jenny McLaughlin

Fixed term Infection Nurse (0.80 WTE – 30 hours)

The IPCT is represented at the following Trust Committees:

Covid-19 Oversight Meeting	Weekly
Covid-19 Command meetings	Weekly
Safety Senate	Monthly

Effectiveness Senate Infection Prevention & Control Water Safety Group Multi Trust Water Safety Group PLACE Building Planning Health and Safety Committee Nursing and Midwifery Forum Monthly Quarterly Twice yearly Quarterly Ad-hoc Ad-hoc Quarterly Monthly

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 Committee

The IPC Committee meets quarterly and is chaired by the Director of Nursing and Midwifery. The committee 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 IPCC are included as Appendix A

The IPCT report quarterly to IPCC and the DIPC reports quarterly to Safety Senate (SS) which also receive minutes of the IPCC meetings. The Quality committee (QC) receives minutes from SS. 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 IPCC. Some of these are on a large scale, such as input of the IPCT into large capital projects undertaken by the Trust (see section 8.2) 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.

- IPCT more visible within areas
- Weekly COVID audits undertaken throughout the Trust and available on Power Bi
- Purchase of ANTT e-learning and training of ANTT assessors in clinical practice
- MRSA clearance regime PGD
- Discussions to move all audits from NICERS to Microsoft Team and Power BI with the update of HII and addition of mattress audits.

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 IPCC 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 bi-monthly at IPCC it incorporates performance data, exception reporting audit data and screening compliance.

5.3 Mandatory Surveillance

The Trust submits data on MRSA, MSSA, *E.coli, Clostridium 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. Four formal teaching sessions have been delivered by the DIPC throughout 2020-21

The IPCT has provided 31 general training sessions in 2020-21 (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 IP&C 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 14 (35%) and 12 (30%), Link Staff meetings and Professional Development days are included in the TNA provision for Link Staff.

6.3 ANTT Training

Twenty seven training sessions were provided in 2020-21 by the Infection prevention and Control team. ANTT e- learning was purchased in Oct 2021; ANTT assessors have been trained to assess ANTT in clinical practice. ANTT is due to be added to the core clinical competencies by May 2021 and results of ANTT training and assessment can now be viewed on Power BI. It has been agreed ANTT training and assessment would be streamlined for all clinical staff to yearly training and assessment.

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

With the outbreak of COVID-19 in 2020 IP&C staff completed 45 donning and doffing training session's trust wide. The team also assisted with the Health and Safety Team with Face Fit Test Training.

6.5 Guidelines/Policies

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

- Novel IPC Guidance
- Management and investigation of cases and outbreaks of COVID SOP creation
- PPE quick reference SOP
- Reusable visor 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 IPCC. 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 66 (89%) Clinical Practice audits have been carried out by ward department staff and have been reviewed by the IPCT. Clinical Practice audits scores range from 90 -100%.

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 182 (81%) Hand Hygiene audits have been carried out by ward department staff and have been reviewed by the IPCT. Hand Hygiene audit scores range from 90 - 100%.

A common theme of non-compliance with documentation on the VIAAD chart has been identified within High Impact intervention (HII) ongoing Cannula care audits. The IPCT have given feedback to relevant departments and local action plans have been implemented. IPC Team worked with the K2 Athena administration team to include and mandate VIP score fields within the system. Since the introduction of K2 Athena in Family Health division there has been an improvement in the documentation of VIP scores improving compliance scores within these audits.

IPC Team continue to use a streamlined overarching Infection Prevention and Control audit which encompasses The IPS Environmental, Ward, Kitchen, Linen and Waste audits. The Infection Prevention and Control audits are carried out twice a year in each clinical area unannounced by the IP&C team. A total of 43 Infection Prevention and Control audits (reviewing the general environment and clinical practice) in 21 clinical areas have been undertaken. Individual department scores, main themes of non-compliance and areas of improvement are recorded and available on NICERS - and emailed to Matrons and Ward 2020 -2021 IPC audit scores range from 85 - 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. From the period April 2020 - Mar 2021 16 self-assessments have been completed.

In 2020 - 21 there remain insufficiencies within NICERS in regard to clinical staff viewing compliance percentages, the ability to print reports and due to server issues the NICERs system has become very slow and in need of an update. All other data is still visible within the system. IPC team are working with the Information Team to produce a new IPC system involving Microsoft Teams and Power BI to replace NICERS which should be available for use in May 2021

Mattress audits

Mattress audits are completed in all areas in the Trust. The audit examines cleanliness and mattress integrity. Results are reported through the Divisional report to IPCC. The audits are forwarded to IP&C team but 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 and that this was the cause of the outbreak. 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 and between then and the end of March 2021 the UK recorded over 4 million cases.



The first confirmed case from LWH testing was on 29th March 2020 a further 204 cases occurred, in 3 distinct waves, between then and the end of March 2021.

LWH has performed 23K COVID tests resulting in 204 confirmed COVID positive

Inpatients – 85 (80 adult 5 neonates) Parent testing – 8 Partner testing- 36 Preadmission screening- 75



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

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

There were 3 nosocomial (healthcare acquired) cases of COVID-19 One neonatal case was categorised as HO.pHA (support person was COVID-19 positive) One neonatal case was_categorised as HO.iHA (mother was COVID-19 positive The adult case was categorised as HO.iHA .

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

Throughout the pandemic the Trust 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. During the COVID-19 pandemic the following processes were also put in place:-

- Increasing the number of staff within the IPC team to ensure there is sufficient cover over a 7 day period
- IPC overview at COVID-19 command and control meetings and oversight committee
- Increased training across the Trust in regards to PPE (Donning and Doffing)

- IPC local guidance produced in line with changing PHE guidance
- A process was set up for areas to order swabs and packs via Haematology Lab.
- Worked with the Information team to set up reporting of COVID-19 swab results
- Daily communications to all staff via communications Team
- Daily advice and support in relation to procurement, COVID-19 swabs, staff queries
- Creation of SOP's in regards to reusable Visors and PPE quick reference guides
- An COVID -19 audit tool was devised to measure and improve compliance.
- Assurance was provided against a national Board Assurance Framework (BAF) specifically for Covid-19.

The Trust assessed its response against the standards outlined in each iteration of the Covid-19 Board Assurance Framework produced by NHSE/I. The BAF was reviewed and approved on two occasions by the Trust Board and was submitted to NHSE/I for external validation.

8.1 COVID Audits

In June 2020 the IPC started to undertake 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

Initially 40 audits were undertaken in June 2020 with percentages ranging from 83% - 100%. This is now an ongoing audit and percentages for the remainder of the year are shown below.

Dates	Results
July 20 - Sept 20	82%
Oct 20 - Dec 20	92%
Jan 21 - Mar 21	96%

8.2 COVID staff outbreaks

The Trust reported 2 staff outbreaks of Covid-19 infection. One was associated primarily with an external event attended by Trust staff and the other involved community staff. Both were reported on the national system and both were managed in line with national, PHE & NHSE guidance.

9 9.0 Infection Prevention and Control and the Environment

9.1 Water Safety

The Water Safety group has met in line with its terms of reference. The Trust has an appointed Authorising Engineer (water) to support the Water Safety group. The Trust Executive Management group has agreed that the Trust participate in a Multi-Trust Water Safety group which includes representatives of 4 neighbouring Trusts and allows standardisation of policies and procedures involving safe water practices. The Multi-Trust Water Safety group is reviewing a common Water Safety plan. Water testing for *Pseudomonas aeruginosa* in augmented care areas has been performed in accordance with national guidance and results have been compliant with expected standards.

The Trust has installed a Hydrop Compass Water system to complete flushing records electronically. All areas have nominated a minimum of 3 staff members to evaluate and flush the outlets, with an escalation process if not completed.

The average flushing compliance for 2020-21 was 82% the range was between 75 - 94%.

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 committee meetings.

2020-21 projects requiring IPC Team involvement included:

- Neonatal Unit: Major refurbishment and extension, involved weekly planning meetings. Phase 2 completed February and Phase 3 completed August 2020.
- FMU / Colposcopy department
- 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, *Clostridium 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 Methicillin Resistant *Staphylococcus aureus* (MRSA) in the Trust during the year 2020-21 was 31. All the adult patients were identified by routine screening either on, or prior to, admission. The charts below show the number of new patients identified with MRSA and the annual totals for the period 1995 – 2021.





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 2020 to March 2021, 3536 adult patients were screened for MRSA carriage; 27 (0.8%) were positive.

During the period of this report 4 babies were identified with MRSA a decrease from 6 the previous year. There were no clusters or other epidemiological linking of adult or neonatal patients with MRSA.

There was one MRSA bacteraemia in a neonatal patient in the reported year (See section 10.2.1).

10.1.2 Clostridium 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 2020-21 was one.

During the period April 2020 – Mar 2021 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 2020 to March 2021, 4 patients were identified with Group A Streptococcus as detailed below. This is significant reduction on previous years. All patients with Group A Streptococcal infection are reviewed, none of the 4 patients presented with serious invasive disease. There was no identified transmission of Group A Streptococci in the Trust.





10.1.4 Glycopeptide Resistant Enterococcus (GRE)

There were no GRE bacteraemia's reported.

10.1.5 Carbapenemase Producing Enterobacteriaceae

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 Enterobacteriaceae (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. CPE screening compliance is audited weekly by the IPCT Overall compliance – 78%

Month	Screening Compliance
Apr 20 - June 20	88%
July 20 – Sept 20	75%
Oct 20 – Dec 20	69%
Jan 21 – Mar 21	79%

The main theme of non-compliance identified has been missed screens on patients who are direct transfers from another hospital. 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 0, and with *S.aureus* was 3 (both 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 2020 – March 2021 10 babies (9 in 2019-20, and 5 in 2018-19) had infections with Gram-negative organisms, 3 of these infections (2 *E.coli* and 1 *Enterobacter cloacae*) occurred in the first 5 days of life and were congenitally acquired. The remaining 7; 2 *E.coli*, 1 Klebsiella, 2 Enterobacter, 1 Acinetobacter and 1 unidentified infections occurred after 5 days of life.

There were 5 episodes of infection with significant Gram-positive pathogens (12 in 2019-20 and 4 in 2018-19); 3 of these infections (Group B streptococcus) were congenitally acquired and the remainder (1 *S.aureus* and 1 MRSA) were late onset.

There was one candidaemia in a baby at 81 days of age.

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 MRSA bacteraemia was subject to specific review with a multidisciplinary team and concluded that this organism was most probably a contaminant rather than a true infection.

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 complex of pathogen host relationship in this group). No Pseudomonas sepsis has been reported since 2017-18 although in the current year 1 baby had a contaminated blood culture which included a mixture of organisms including pseudomonas (not reported).



Bacteraemia NICU (Non-CoNS)

The IPCT have been monitoring the number of Neonatal infections classified as 'congenital' ie presenting in the first 5 days of life. 5 babies this year had congenital infection.



10.2.2 Adult Bacteraemia Surveillance

There have been no MRSA bacteraemias in adult patients in the period April 2020 to March 2021, however there was one 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 2020-21 the Trust reported 12 *E.coli* bacteraemias (4 Neonates (2 congenital) and 8 adults) compared to 13 in 2019-20 and 15 in 2018-19. The number of *E.coli* bacteraemias assessed as Trust associated has remained static. Although not compliant with the national reduction target this is in line with regional and national data which is also showing a general increase. One *E.coli* bacteraemia was subject to a SI review panel as it was associated with an intra-operative bladder injury. One Klebsiella bacteraemia (neonatal) was reported in 2020-21 which on review was considered a contaminant.



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; 20 patients were identified with positive blood cultures from 274 cultures submitted (7.3%). 4 (20% of positives, 1.5% of total) of these were contaminated with skin organisms. Details of the 16 significant bacteraemias are provided in Appendix C

10.3 Surgical Site Surveillance

Surgical Site Surveillance recommenced 1st May 2018. The IPCT worked collaboratively with Maternity and Gynaecology divisions. Potential Surgical Site Infections are discussed at monthly review meetings. IPCT have participated in the GIRFT Surgical site Infection (SSI) survey in 2019. Data was uploaded to the GIRFT SSI database. The trusts overall SSI rate was 2.2%. Details of GIRFT are provided in Appendix D.

Given the static nature of the wound infection rate over a number of 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 2020 and January - February 2021.

Between July 2020 – August 2020:

- The Trust SSI rate for caesarean sections was 0.48%
- The Trust SSI rate for Gynaecology abdominal surgery was 0.84%

Between the January – February 2021:

- Trust SSI rate for caesarean sections was 1.6%
- There were no Gynaecology SSI's during this period

11 Health & Wellbeing

The Trust Health & Wellbeing Department report monthly to the IPCC 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 catch up exercise is in place for staff already employed. The IPCC 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 2020-21

	Work Plan	Completion Date	<u>Comments</u>
Covid	-19 Planning		
•	Advise and support management and care of patients with Covid-19	Ongoing	
•	Work within Trust structures to support the Trust reset plan	Ongoing	
•	Maintain and update the Board assurance framework related to Covid-19	Mar 21	Completed
Traini	ng	a .	
•	Continue all Trust mandatory & induction training	Ongoing	
•	Continue to support link staff personal development	Ongoing	
• •	Link staff to be given allocated time and working alongside managers across the areas	Ongoing	
Audit	Continue to sudit in line with the IPS Audit programme	Mar 21	Completed
	Ensure Trust Covid audit is undertaken to provide assurance to Trust	Mar 21	
	Investigate the potential for having a new Audit system and link to Power Bl	Nov 20	Completed
Toam	investigate the potential for naving a new Addit system and link to rower bi		Completed
•	Business continuity for IPC team in view of a further Pandemic	Apr 21	Completed
•	Better IT devices and processes to make the team paperless	Mar 21	Completed
Enga			Completed
engag •	More engagement with the Link Staff	Onaoina	
•	Back to basics with Infection Control processes and policies with staff	Ongoing	
Surve	illance	0 0	
•	Continue 'Alert Organism' surveillance focused on resistant pathogens	Ongoing	
•	Continue to monitor cases mandatorily reportable infections	Ongoing	
•	Undertake a comprehensive review surgical site infections	Ongoing	
•	Implement actions identified through RCA of bacteremia's and C.difficile infections	Ongoing	
•	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	00120	Action abandoned

Hea	th Act & NICE		
•	Review compliance and evidence	Ongoing	
•	Review and ensure Trust maintains its compliance with current NICE guidance relating to infection,	Ongoing	
	infection control, sepsis and antimicrobial stewardship.		

12.2 on Control Team Work Plan 2021-22

Work Plan	Completion Date	<u>Comments</u>
Covid-19 Planning		
 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		
Training		
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 		
Audit		
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 		
Reporting		
 Investigate the potential for having a more robust way of pulling CPE data for percentages 		
Engage		
More engagement with the Link Staff		
 Back to basics with Infection Control processes and policies with staff 		
Surveillance		
 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		

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.

13 Appendices

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

INFECTION PREVENTION AND CONTROL COMMITTEE TERMS OF REFERENCE

Constitution:	The Committee is established by the Trust Board and will be known as the Infection Prevention and Control Committee.
Duties:	The Committee 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.
	 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.
	 Review and approve the work of the Infection Prevention & Control team members in line with Trust objectives through the IPCC team work plan.
	 Review and endorse all policies relating to Infection Prevention & Control and evaluate their implementation.
	 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.
	 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.
	 Promote and facilitate the education of staff of all grades in hand hygiene Infection Prevention & Control and related topics
	Receive, discuss and endorse the annual Infection Prevention & Control report produced by the Infection Prevention & Control team prior to submission to the Safety Senate Committee and Trust Chief

	Executive.
Membership:	The Committee membership will consist of:
Membership:	 The Committee membership will consist or: The Chair – Director of Nursing, Midwifery or Representative of CEO Director of Infection Prevention and Control Infection Prevention & Control Nurse 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 Nursing Gynaecology Division 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 Safety Lead from Gynaecology Division Safety Lead from Clinical Support Division Safety Lead from Gynaecology Division Safety Lead from Gynaecology Division Safety Lead from Gynaecology Division Safety Lead from Clinical Support Division
Quorum:	Chair (or approved Deputy) IPCN or DIPC Representative from each Division Representative from Facilities Department
Voting:	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?
Attendance:	 a. Members Members will be required to attend a minimum of 75% of all meetings. Safety Leads and external representatives will be required to attend a minimum of 50% of all meetings. b. Officers The DIPC / Director of Nursing, Midwifery shall normally attend meetings. Other officers and staff of the Trust will be invited to attend the meeting as appropriate when an issue relating to their area of

	operation or responsibility is being discussed.
	Representatives from partner organisations or other external bodies may be invited to attend as appropriate. Such representatives will not have voting rights.
Frequency:	Meetings shall be held a minimum of [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 Committee is authorised by the Trust 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 Committee
Accountability and reporting arrangements:	 The Committee will be accountable to the Chief Executive and Trust Board. The minutes of the Committee will be formally recorded and submitted to the Quality Committee (QC). The Chair of the Committee shall draw to the attention of the QC any issues that require disclosure to it, or require executive action. The Committee will report to the Board annually on its work and performance in the preceding year. Trust standing orders and standing financial instructions apply to the operation of the Infection Prevention and Control Committee.
Monitoring effectiveness:	The Infection Prevention and Control Committee / IPC Team 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 Infection Prevention and Control Committee.
Reviewed by [Committee/ Subcommittee/Group]:	Infection Prevention and Control Committee
Approved by [name of establishing Committee]:	Infection Prevention and Control Committee
Review date:	April 2020
Document owner:	Director of Nursing and Midwifery

Organism	2010/11	2011/12	2012-13	2013/14	2014/15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Acinetobacter	2	1	3	3	6	3	3	3	3	3	3
Citrobacter	2	6	6	4	3	4	7	4	6	3	4
Enterobacter	15	21	21	17	14	17	22	19	18	23	20
E.coli	30	23	20	30	27	21	22	28	23	20	26
Klebsiella	31	38	32	34	39	41	35	31	34	39	33
Proteus	4	0	3	1	1	1	1	1	0	2	1
Pseudomonas	9	6	11	5	4	3	3	4	6	3	5
Serratia	4	2	2	2	1	3	2	5	3	2	3
Stenotrophomonas	3	3	2	4	4	7	5	5	7	5	5

13.2 Appendix B - Neonatal Colonisation Surveillance

Percentage Colonisation 2020-21



13.3 Appendix C - Adult Bacteraemia Surveillance 2020-21

20 Positive blood cultures

4 Coagulase-negative staphylococcus or other contaminant.

16 Pathogens

Directorate	Organism	Potentially Hospital Associated	Likely Source		
Gynaecology	Clostridium sp	N	Cellulitis		
	E.coli	N	UTI		
Maternity	Acinetobacter sp.	Ν	Non- significant isolate		
	<i>Klebsiella</i> sp.	Y	Endometritis		
	E.coli	N	UTI		
	E.coli	Y	Chorioamnionitis		
	E.coli	Y	Endometritis		
	S.aureus	N	Pelvis		
	Group B Streptococcus	N	Chorioamnionitis		
	E.coli	Y	UTI		
	Group B Streptococcus	N	Chorioamnionitis		
	Clostridia sp.	N	Bowel		
	E.coli	N	UTI		
	Group B Streptococcus	N	Chorioamnionitis		
	E.coli	N	Chorioamnionitis		
	E.coli	Y	Chorioamnionitis		

13.4 Appendix D – GIRFT Report

The 5 next steps outlined in the GIRFT report:

(1) Assess their benchmarked position compared to the national average and the top quartile when reviewing the reported infection rates. **Complete**

(2) Review with local audit office and participating GIRFT SSI Champions in your trusts to confirm that that data submitted and processed by GIRFT was correct. Inform the GIRFT SSI Team at a.ridgeon@nhs.net, if any inconsistency in the data submitted is identified so that the GIRFT SSI team can revise the data accordingly. **Complete**

(3) Once the results have been verified, we recommend careful review of the case notes of each SSI case identified by a nominated lead within each clinical specialty. Where possible, identify potential improvements to clinical pathways and patient pre- or post-operative care which may reduce risks of SSI's. This can be explored with the GIRFT clinical leads during their visits. **Complete**

(4) For specialty departments in the lowest quartile of trusts for SSI rates (as demonstrated in this datapack), we will be asking GIRFT national clinical leads and regional hub managers to follow up and support you in the steps taken to learn from the findings. They will also be able to share with your trust examples of good practice in other trusts where it may be of benefit. **N/A**

(5) Ensure that the information from the datapack is presented and discussed in the appropriate trust forums (clinical governance meetings, morbidity and mortality meetings) so that each speciality involved in the survey can discuss and learn from the findings of the survey. Clinical leads of each surgical department should nominate a clinician in the department to lead this. **Complete**

Maternity Infection meeting date:	22/05/2020
Gynaecology Infection meeting date:	29/05/2020
Safety Senate Date:	14/08/2020
Infection Control Committee date:	07/08/2020
	Maternity Infection meeting date: Gynaecology Infection meeting date: Safety Senate Date: Infection Control Committee date: