MANCHESTER UNIVERSITY NHS FOUNDATION TRUST

BOARD OF DIRECTORS (PUBLIC)

Report of:	Chief Nurse and Director of Infection Prevention and Control (DIPC) – Professor Cheryl Lenney
Paper prepared by:	Assistant Chief Nurse (ACN) and Clinical Director of Infection Prevention and Control (CDIPC) – Julie Cawthorne
Date of paper:	June 2020
Subject:	**Annual Infection Prevention and Control Report 2019/20**
Purpose of Report:	Indicate which by ✓ **(tick as applicable-please do not remove text)** • Information to note ✓ • Support • Accept • Resolution • Approval ✓ • Ratify
Consideration against the Trust's Vision & Values and Key Strategic Aims:	Staff and Patient Experience Staff and Patient Safety
Recommendations:	The Board of Directors are asked to receive the Annual Report for April 2019 to March 2020 and approve for publication
Contact:	Name: Julie Cawthorne (ACN/CDIPC) Tel: 0161 276 4042

MANCHESTER UNIVERSITY NHS FOUNDATION TRUST

Group Management Board – DATE

Infection Prevention and Control (IPC) Annual Report 2019/2020

1. Executive Summary

1.1 The Trust has a statutory responsibility to be compliant with the Health and Social Care Act 2008 (Department of Health, 2010). A requirement of this Act is for the Board of Directors to receive an annual report from the Director of Infection Prevention and Control. This report details Infection Prevention and Control activity from April 2019 to March 2020 outlining our key achievements and an assessment of performance against national targets for the year.

1.2 This year has been one of exceptional challenges beginning with a national outbreak of *Listeria monocytogenes* that occurred in April 2019 involving nine in-patients in total across several hospitals in England including two people who were cared for at the Manchester Royal Infirmary. In the final quarter of 2020, the Trust united in action to respond to the COVID-19 pandemic. In both instances the trust has demonstrated a timely and unified response to protect patients and staff.

1.3 The Trust has maintained the standards of Infection Prevention and Control and a zero tolerance to Healthcare Associated Infections (HCAI) as confirmed in the contents of this report.

1.4 Professor Cheryl Lenney, Chief Nurse, was designated to the post of Director of Infection Prevention and Control (DIPC) for MFT and Chaired the Group Infection Control Committee (GICC).

2. Key Achievements and Challenges

2.1 The Wythenshawe Hospital Microbiology Laboratory was transferred and integrated to the Oxford Road Campus (ORC) in August 2019 and the Clinical Microbiology Teams are in the process of integration at the time of writing this report.

2.2 The Infection Prevention and Control/Tissue Viability (IPC/TV) Nursing Team was integrated in April 2019. In January 2020 the Team expanded to welcome the IPC and TV Teams from Trafford Local Care Organisation (TLCO).

2.3 The Trust IPC/TV Nursing Team provided IPC advice and Guidance to St Ann's Hospice across the three North West Hospice sites: The Neil Cliffe Centre (based at Wythenshawe Hospital), Heald Green, and Little Hulton through a Service Level Agreement (SLA).

2.4 There were eight Trust-attributable Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia cases (four in MRI, two in CSS and two in Wythenshawe Hospital), reported to Public Health England (PHE) during 2019/2020, and six community-attributable cases reported. This was a reduction from 2018/19 when there were 10 Trust-attributable

bacteraemia reported. All incidents of MRSA bacteraemia were investigated, reviewed locally and actioned as appropriate supported by the IPC Team.

2.5 A total of 194 *Clostridium difficile* infection (CDI) cases were reported during 2019/2020: 145 (74.7%) of which were trust-attributable against a trajectory of 173. Following monthly external case reviews, there were 24 lapses in care identified. Due to the pandemic 47 cases between January and March 2020 were not reviewed by the Clinical Commissioning Group (CCG). Advice from PHE was that these cases be recorded as unknown.

2.6 In November 2016, the Department of Health announced ambitions to halve the number of GNBSI by 2020/21. This objective was amended in January 2019 to a 25% reduction by April 2022 and a 50% reduction by April 2024. The threshold for GNBSI was set at 228 for 2019/2020 which was based on a 15% reduction to achieve the national reduction objective. The Trust exceeded the threshold by 20%.

2.7 All incidents of Catheter Associated Urinary Tract Infection **(**CAUTI) that occurred in patients across MFT were monitored, investigated and reviewed at Hospital/MCS Harm Free Care meetings. Lessons learned and actions were incorporated into local Infection Control work plans. Actions to reduce incidents of CAUTI included; a review of the Adult Urinary Catheterisation and Catheter Care Policy, Urinary Catheter Care Integrated Care Pathway (ICP) and catheter Passport and standardising catheter fixation devices and catheter bags supported by ward based training on appropriate usage.

2.8 A total of 30 Vancomycin-resistant Enterococci VRE bacteraemia were reported during 2019/2020. This compares to 27 reported during the previous year: an 11% increase. The majority of incidents were spread in time and location across the organisation. Individual incidents of VRE bacteraemia were investigated and addressed at the Hospital/MCS Infection Control Accountability Review meetings.

2.9 The Healthcare Associated Infection (HCAI) objectives compared to the Shelford Group demonstrated that the Trust performance was rated; seventh for MRSA bacteraemia; third for CDI, second for GNBSI and seventh for Meticillin-sensitive *Staphylococcus aureus* (MSSA)

2.10 The Trust has experienced an on-going Carbapenemase producing Enterobacteriaceae (CPE) outbreak since 2009 with *Klebsiella pneumonia* as the most frequently isolated organism.The mean number of monthly CPE acquisitions during 2019/2020 was 27**,** compared to an average of 31 cases per month in 2018/2019. This represents a 12% reduction.

2.11 The Trust is at the forefront of developing the evidence base for the management and control of patients with CPE. This is reflected in the research published over the past 12 months by members of the IPC team (Professor Cheryl Lenney, Chief Nurse/DIPC; Dr Andrew Dodgson, Consultant Microbiologist, Infection Control Doctor (ORC) and Head of Service; Mrs Julie Cawthorne, Assistant Chief Nurse, IPC/TV /Clinical DIPC; Dr Ryan George, Senior Surveillance Officer, IPC/TV).

2.12 The Trust Surgical Site Infection **(**SSI) programme was led by the Trust Clinical Lead for SSI Professor Ferdinand Serracino-Inglot and reported to the Trust GICC. The IPC/ TV team seconded a nurse to support the programme. As a result of the secondment of the Trust was able to extend SSI surveillance to include two additional surgical specialities in the national Surgical Site Infection Surveillance Service. In addition, the SSI nurse reviewed the data

collection submitted for Orthopaedic and Cardiac surgery. Findings identified under reporting of data in both specialities. This issue will be addressed prior to the resumption of the SSI programme which was suspended due to the pandemic

2.13 The Trust participated in the National Getting it Right First Time (GIRFT) audit between May 2019 and October 2019, led by Professor Ferdinand Serracino-Inglot, 12 out of the 13 assigned specialities took part. The denominator data was submitted in December 2019. The Trust's results have been received and are currently being reviewed.

2.14 A national outbreak of *Listeria monocytogenes* occurred in April 2019 involving nine in-patients in total across several hospitals in England. Two of these were treated at the MRI. In accordance with national reporting the Trust notified the Greater Manchester Health Protection Unit (GMHPU) of these cases and co-operated fully with the investigation.

2.15 There was confirmed microbiological evidence linking all nine cases to sandwiches produced by one company and its meat products supplier who supplied sandwiches to 43 NHS organisations in England. The supply of sandwiches from the Company was withdrawn across the Trust on the 25th May 2019 following advice from PHE as a precautionary measure and an alternative supplier was identified.

2.16 As a proactive measure the Chief Nurse/DIPC requested a trust-wide unannounced audit against the standards included in the Trust Policy for Food Safety and Hygiene in the Clinical Environment (2018). The results of the audit demonstrated that there is variance in practice regarding the management of food brought in for patients by their relatives/visitors to in-patient areas. The recommendations of the audit were addressed through a Task and Finish Group.

2.17 The Environmental Health Officer (EHO) from Manchester City Council (MCC) made an unannounced visit to the Sodexo Catering Preparation Facilities at The Oxford Road Campus ORC on 15th May 2019. The food service retained its five star rating and no major issues were raised. There were no actions for the Trust following this visit. The EHO returned to the Trust five days later and focused on food service by clinical ward staff. Seven recommendations were subsequently made to the Trust of which three were notified as a requirement. The requirement included, additional training for staff and the registration of the Trust as a food provider.

2.18 The Trust invited the EHO to work in partnership to develop an extended food handling policy for food handlers in the clinical environment that included appropriate legislative actions and training needs for Level 1 and Level 2 food handlers. A subject matter expert from the Food Standards Agency (FSA) was engaged to advise and support on the written policy.

2.19 The Trust has registered as a Food provider with the EHO and is awaiting the final report from PHE for the national outbreak.

2.20 The timing, extent and severity of 'seasonal' influenza activity can vary. It occurs mainly during an eight to ten week period during the winter and usually peaks between December and March, although activity can persist as late as May. This year 2019/20 Influenza season was associated with reduced activity in comparison to the preceding 2018/19 season in terms of cases in the community and admissions to the Trust.

2.21 In anticipation of the 2019/20 flu season the Trust policy for The Management of Patients with Influenza was updated to reflect changes in anti-viral therapy and advice on offering vaccination to long-stay in-patients who may not have had the opportunity to be vaccinated through their General Practitioner.

2.22 Contingency plans were made for escalation including; Identification of dedicated cohort areas/wards if there are high numbers of patients admitted with flu and plans to extend laboratory hours to enable rapid turnaround of results.

2.23 The Department of Health (DH) set a national uptake target for vaccination of all frontline Healthcare Workers (HCWs) at 80% for the 2019-20 season. Achieving the 80% target was also expected in relation to the National Health and Wellbeing Flu Vaccination CQUIN target.

2.24 The Chief Nurse/DIPC, was the board champion for the flu campaign and also a flu champion and launched the campaign by vaccinating board colleagues' members on the 30th September 2019. Photographs of the event were published across MFT.

2.25 The Campaign to vaccinate frontline HCW's built on the successes from last year and incorporated lessons learned. A range of activities were implemented to make it easier for staff to gain access to the vaccine this included starting early with advanced communication in July 2019, an increased pool of Flu Champions, (280 compared to 170 for the previous year; and an enhanced engagement plan called 'Spot the Dot' – vaccinated staff were given a yellow sticker to be placed on their identity card making it fun and easy to see who has had their vaccine and to encourage conversations with staff who have not had their vaccines yet.

2.26 The Campaign was a great success; the Trust achieved a 79.4% uptake of flu vaccination amongst frontline healthcare workers.

2.27 During the containment phase of the COVID-19 pandemic (January 2020 to February 2020) the Consultant Virologists and IPC Team liaised with clinical colleagues in all emergency access areas to advise and support on: The identification of potential isolation facilities across all emergency access areas (for adults and children), to manage cases of suspected COVID-19 who needed to be assessed; The installation and management of Assessment POD's for testing members of the public who were suspected to have COVID-19; Isolation rooms for patients who needed to remain hospitalised whilst awaiting test results; Guidelines and training for staff on the use of Personal Protective Equipment (PPE).

2.28 A number of specific actions were undertaken by the IPC Team during the March 2020 phase of the COVID-19 pandemic, these are summarised below:

- The IPC Team interpreted frequently changing national guidance to produce local policies for clinical staff including; guidance on isolation/cohorting/collection and transport of high consequence infectious diseases (HCID) samples
- The Team consistently updated advice on PPE undertaking risk assessments and developing standard operating procedures to rise to the challenges of shortages in the national provision of PPE including; decontamination of face visors/fit checking of single use FFP3 respirators/use of coveralls instead of gowns
- Provision of expert advice and support at strategic and operational meetings and engaging with Clinical Teams from a wide range of specialities throughout each stage of the pandemic

- Training and education on the use of PPE for a range of staff in the acute and community setting and training to upskill staff that were deployed to clinical areas
- The IPC Nursing Team provided training for senior leaders to enable them to role model and cascade on the spot advice for staff working in clinical settings. Feedback from these sessions indicated that they were well received. This information will be used to inform practice in the future
- A wide range of educational materials were developed to support staff including videos, posters and frequently asked questions. These resources were available on the Trust COVID-19 Intranet page and the IPC intranet page
- During the period of national shortages of PPE, the IPC Team provided advice on procurement of PPE from alternative suppliers and liaised with local partnerships for example, the University of Manchester to design and provide face visors using 3D printers. Further work was also undertaken with local companies to source supplementary PPE
- The Manchester Partnership PHE Laboratory based at ORC Trust was the first centre outside of London to test for COVID-19. The Laboratory capacity was increased to provide testing for the trust and the North West region. 24 hour working was introduced to cope with capacity and reduce the turnaround time of results
- The IPC Team worked in conjunction with colleagues from Information Technology to provide real time surveillance data regarding COVID-19 in-patients. This information was used to inform internal and external reports
- The IPC Nursing Service was extended to provide additional on-site support to the Trust across 7 days

2.29 The IPC/TV Team provided support to the Nightingale Hospital North West including advice on planning and training on the principles of IPC, based on the Trust existing policies and procedures. The team has continued to maintain a service since the facility was opened.

2.30 This year the IPC nursing team provided quarterly study days for the Infection Prevention Link Workers, who acted as Champions in their wards and departments raising awareness on current infection prevention and control practices and supporting the implementation of policies, guidelines and best practice. The study days included practical sessions and lectures delivered by microbiologists, guest speakers and members of the IPC Team.

2.31 Over the last 12 months the IPC Team supported the participation in two national initiatives focusing on infection prevention and control. These included the World Health Organisation (WHO) clean care for all– it's in your hands: raising awareness that hand hygiene, along with IPC principles is critical to achieve quality of care and patient safety across all levels of the health sector.

2.32 During International Infection Control week in October 2019 the IPC Team and Education teams produced a mobile roadshow which visited all the Wards and Departments across the sites raising awareness of local Infection Control issues, hand hygiene and use of (PPE) to all members of the Multidisciplinary Team.

2.33 The programme of works to upgrade the Trust's Endoscope Decontamination Suites (EDS) continued, the Children's Hospital theatres, MRI Outpatients Department, Elective Treatment Centre, Main Endoscopy, and Withington and Trafford Hospital Suites have all been completed. At the time of writing the Wythenshawe EDS is overdue a major upgrade and this is being progressed by a Task and Finish group alongside the Endoscopy Unit upgrade.

2.34 A set of risk-mitigation work streams were established to address ongoing issues these included: Replacement and life cycling of existing facilities, additional equipment to cope with demand for decontamination of nasendoscopes at Trafford Hospital, replacement of the Steris contract servicing both at Wythenshawe and Trafford Hospitals and the appointment of a Trust Decontamination Lead.

2.35 The Patient Led Assessment of the Care Environment (PLACE) assessments, were undertaken across all Trust sites and four Manchester Local Care Organisation (MLCO) sites. The assessments were the first to be conducted under the updated standards, and the first co-ordinated as MFT. The scores were equal to or above the national average on the acute sites except for six out of 28 areas (the greatest difference was less than 3% against the national average). The scores for the MLCO sites identified one site as consistently below the national average.

2.36 The Trust wide Antimicrobial Stewardship Committee (AMC) was a subgroup of the GICC and was responsible for developing, implementing and monitoring the Antimicrobial Stewardship Programme and reporting progress to the GICC. This year the AMC became affiliated with the Greater Manchester Antimicrobial Resistance (AMR) strategy group and the Antimicrobial Stewardship (AMS) groups and continues to work with these groups to ensure there is a coordinated approach to the AMR strategy across Manchester healthcare services.

2.37 A point prevalence audit was undertaken in March 2020. This audit was designed to determine the level of compliance with the Trust wide Antimicrobial prescribing guidelines (on Microguide) and determine actions required to address non-compliance. 518 patients prescribed antimicrobials across MFT were audited against a defined set of Antimicrobial Stewardship standards. Overall compliance with was 94%. A Trust wide action plan has been implemented and individual hospitals received a breakdown of their results.

2.38 The Director of Infection Prevention and Control acknowledges the breadth and depth of work undertaken by the wider IPC Team, members of the Infection Control Committees as well as the day to day contribution of all our staff and clinical leaders working together to reduce the incidence of HCAIs and to keep patients and our staff safe.

Recommendation

The Board of Directors are asked to receive the Infection Prevention and Control Annual Report for 2019/20 and approve for publication.

SECTION 3: INFECTION PREVENTION and CONTROL ARRANGEMENTS

3.1 The Director of Infection Prevention and Control (DIPC)

Professor Cheryl Lenney, Chief Nurse was designated as the DIPC from September 2017

Professor Cheryl Lenney,
Chief Nurse, DIPC

3.2 Members of the IPC Team

The senior members of the IPC team can be found below:

***Dr Andrew Dodgson**,*
Infection Prevention & Control Doctor (IPCD), Oxford Road(ORC)/Trafford Campus

***Mrs Julie Cawthorne**,*
Assistant Chief Nurse/Clinical DIPC, MFT

***Dr Moira Taylor**,*
Infection Prevention & Control Doctor (IPCD) Wythenshawe and Withington Hospitals

Microbiology and Virology Services are provided by the Manchester Medical Microbiology Partnership, collaboration between the Trust and Public Health England (PHE).

3.3 Microbiology Services

The Wythenshawe Hospital Microbiology Laboratory was transferred and integrated to the Oxford Road Campus in August 2019. The Clinical Microbiology Teams are in the process of continuing to integrate at the time of writing this report.

3.4 Virology Services

There were four Clinical Virologists based at the Oxford Road Campus who provided a service across the Trust and a regional service.

3.5 The Infection Prevention and Control (IPC) Nursing Team

The Infection Prevention and Control/Tissue Viability (IPC/TV) Nursing Team was integrated in April 2019 and provided a service to the Oxford Road Campus (ORC), Wythenshawe, Trafford, Withington and Altrincham Hospitals, (WTWA) and the Manchester Location Community Services (MLCO). In January 2020 the Team expanded to welcome the IPC and TV Teams from Trafford Local Care Organisation (TLCO).

A diagram demonstrating the updated structure of the combined IPC/TV Nursing Team can be found in Appendix 1.

3.6 Antimicrobial Stewardship Pharmacists

There were 2.6 Whole Time Equivalent (WTE) Antimicrobial Stewardship Pharmacists working across the Trust

3.7 Provision of IPC Team Services

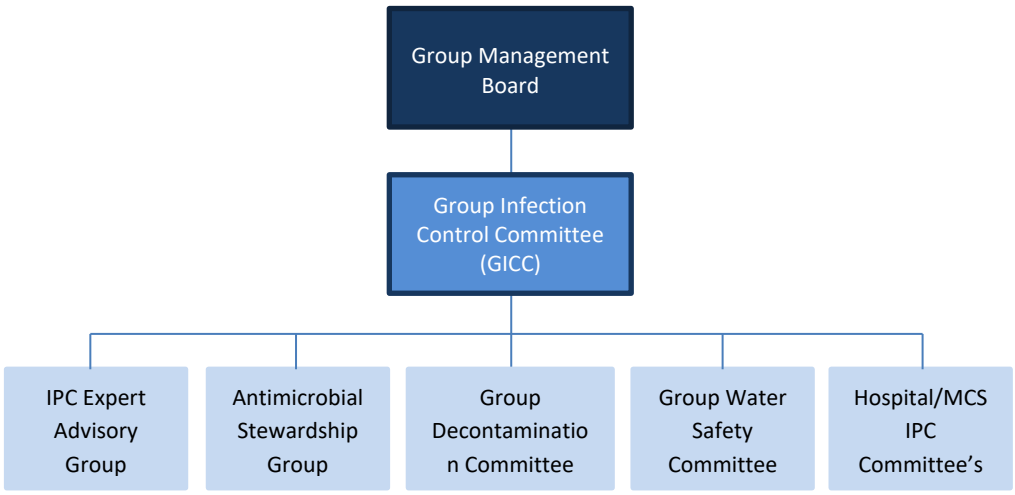
The IPC teams provided 24-hour advice and support on IPC issues to the staff and patients of the Trust across all sites. At the Oxford Road/Trafford Campus this included an out of hour's telephone on-call service by the IPC nursing team and microbiology. At Wythenshawe Hospital out of hours IPC advice was provided by the Microbiologist on call.

3.8 The Group Infection Control Committee (GICC)

The Group Infection Control Committee had corporate responsibility for overseeing the implementation of infection prevention and control activities. The GICC met four times during the year and was chaired by the DIPC. The Group Infection Control Committee reported to the Group Management Board. The GICC Terms of Reference can be found in Appendix 2.

3.9 Framework for IPC

The IPC governance framework can be seen below;



3.10 Infection Prevention and Control Structure within the Hospitals/Managed Clinical Services (MCS)

An Infection Control Committee was established within each Hospital/MCS and MLCO. The portfolio for IPC was delegated to the Directors of Nursing by the Chief Nurse/DIPC. Each Hospital/MCS and the MLCO appointed a Clinical Lead to support IPC policy and practice across professional groups and represent their Hospitals/MCS and MLCO at the GICC.

The minutes from the Hospital/MCS IPC Committees were presented at the GICC.

3.11 Service Level Agreement (SLA) with St Ann's Hospice

The Trust IPC/TV Team provided IPC advice and guidance to St Ann's Hospice across the three North West Hospice sites: the Neil Cliffe Centre (based at Wythenshawe Hospital); Heald Green, and; Little Hulton through a Service Level Agreement. This included:

- The provision of policies and procedures relevant to the prevention and control of infections
- Attendance at the quarterly Infection Prevention and Control Committee hosted by St Ann's Hospice
- Review of the annual audit report by the Head of Nursing for Infection Prevention and Control produced by St Ann's Hospice for the Little Hulton and Heald Green sites
- The provision of *ad hoc* advice and guidance as sought by senior clinicians and managers at St Ann's Hospice e.g. following an outbreak or incident, or in response to a Care Quality Commission (CQC) report

3.12 Funding for Infection Prevention and Control Services

The IPC/Tissue Viability nursing teams provided a service to the organisations. Funding for the IPC/TV nursing services was provided by the Trust within the Clinical and Scientific Managed Clinical Services.

3.13 Microbiology Laboratory Services

Funding for Microbiology services was covered by the SLA between the Trust and Public Health England (PHE). Financial support for outbreaks of infection (excluding laboratory costs) was sourced locally by the Hospitals/MCS.

3.14 Electronic Surveillance System

Recurrent funding for ICNet (electronic Infection Prevention & Control surveillance database) was from the Clinical and Scientific Managed Clinical Services.

SECTION 4: HEALTHCARE ASSOSCIATED INFECTIONS (HCAI)

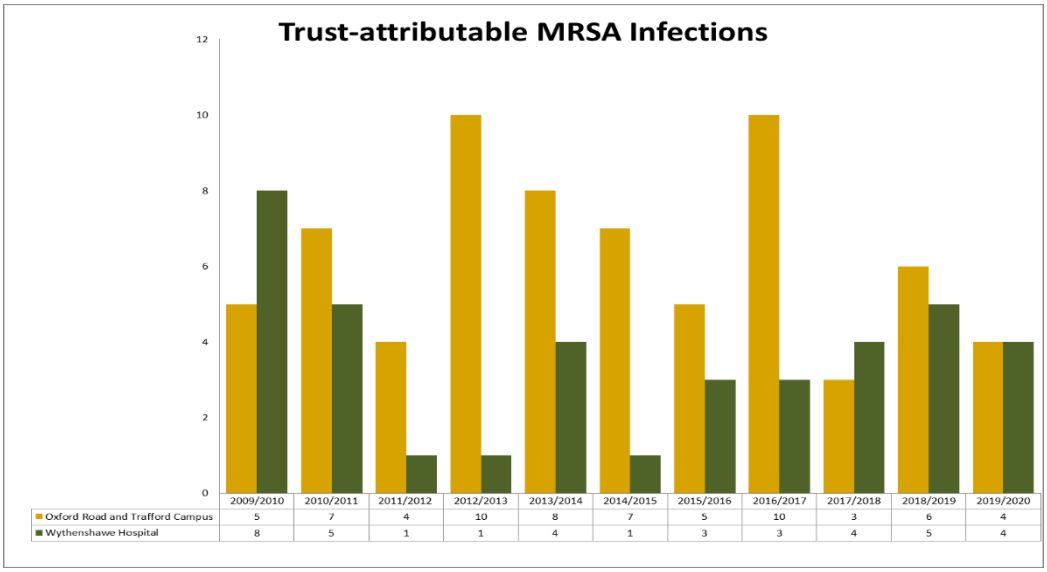
4.1 HCAI Performance Targets

The prevention and control of infection is a high priority for the Trust and there is a strong commitment to prevention of all HCAI Infections.

4.2 Meticillin-resistant *Staphylococcus aureus* (MRSA) bacteraemia

There were eight Trust-attributable MRSA bacteraemia cases (four in MRI; two in CSS and two in Wythenshawe Hospital), reported to PHE during 2019/2020, and six community-attributable cases reported. This was a reduction from 2018/19 when there were 10 Trust-attributable bacteraemia reported. Chart 1 below compares the number of cases of attributable MRSA bacteraemia at ORC/Trafford Hospital and Wythenshawe Hospital from 2007/8 -2019/20.

Chart 1 Trust – Attributable MRSA bacteraemia (2007/8 – 2019/20)



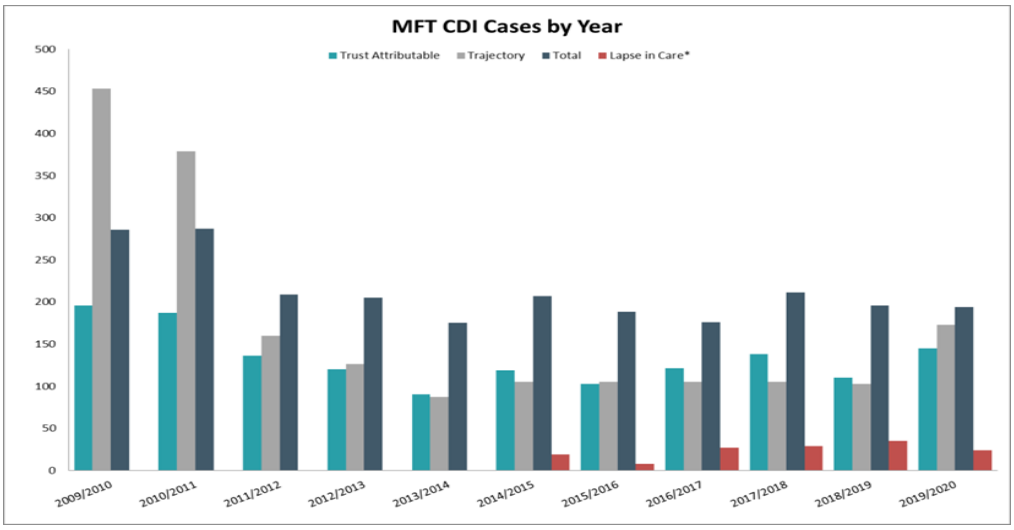
A Route Cause Analysis (RCA) was used to investigate each incident of MRSA bacteraemia the findings indicated that two were found to be avoidable and six unavoidable. All incidents were reviewed by the responsible Hospital/MCS. Lessons learned were identified and disseminated through the local accountability meetings.

4.3 Clostridium difficile infection (CDI)

Chart 2 below shows the number of Trust attributable CDI and lapses in care numbers for 2009/10 – 2019/20. A total of 194 CDI cases were reported during 2019/2020: 145 (74.7%) of which were trust-attributable against a trajectory of 173.

Changes to the national apportioning algorithm for 2019/2020 meant that trust-attributable cases also included community cases that had been an inpatient at the reporting trust within the prior 28 days (now referred to as healthcare-associated).

Chart 2 Trust Attributable CDI and Lapses in Care 2009/10 – 2019/20



Following monthly external case reviews, there were 24 lapses in care identified. Due to the pandemic 47 cases between January and March 2020 were not reviewed by the Clinical Commissioning Group (CCG). Advice from PHE was that these cases be recorded as unknown

4.3 Gram Negative Bloodstream Infections (GNBSI)

In November 2016, the Department of Health announced ambitions to halve the number of GNBSI by 2020/21. This objective was amended in January 2019 to a 25% reduction by April 2022 and a 50% reduction by April 2024. The threshold for GNBSI was set at 228 for 2019/2020 which was based on a 15% reduction to achieve the national reduction objective. The Trust exceeded the threshold by 20%.

The main cause of GNBSI is *E.coli*. There were 591 incidents of *E. coli* bacteraemia reported to PHE during 2019/2020 of these, 158 cases (26.7%) were determined to be hospital-onset.

4.4 Case Review of Incidents of GNBSI April 2019 – December 2019.

A review of the incidents of all GNBSI was presented to the Group Infection Control Committee (GICC) in January 2020.

Investigation into MFT-attributable cases at Wythenshawe Hospital revealed diverse reasons for bacteraemia development including a severe burn, gastrointestinal complications, biliary malignancy/biliary sepsis and urinary tract infections. Of the 29 cases reviewed, 21 (73%) indicated urosepsis as the primary cause. Of these 21 cases, 11 were determined to be associated with a urinary catheter (see section 4.5 for management of Catheter Associated Urinary Tract Infection).

Root Cause Analysis (RCA) of cases at MRI indicate that 23% of GNBSI were associated with a urinary focus (50% of which were in catheterised or recently catheterised patients), 29% were respiratory focused and 33% were associated with an intravascular device. However, this may have represented bias in terms of RCA completion and required further analysis of infection and clinical speciality. A further update on the investigation to the GICC in March was delayed due to the onset of the pandemic.

Utilising the location of specimen collection as an indication of underlying focus, 21 cases (23%) of GNBSI reported by MRI (96) indicated possible hepatobiliary involvement. This has resulted in the instigation of a weekly ward round between the Microbiologist and the Clinical Team to review infection management of hepatobiliary patients.

Analysis of age indicated that 5% of all MFT GNBSI were under one year of age with 51% of cases being reported in patients over the age of 65.

4.5 Catheter Associated Urinary Tract Infection (CAUTI)

CAUTI surveillance has been in place at ORC/TGH since 2014, and was adopted at Wythenshawe Hospital in October 2018. A total of 252 CAUTI were reported during 2019/2020, a monthly average of 21 cases. Changes to reporting criteria/methodology precludes comparison to previous reporting years.

Actions to reduce the number of incidents of CAUTI

- All incidents of CAUTI that occurred in patients across MFT were monitored, investigated and reviewed at Hospital/MCS Harm Free Care meetings. Lessons learned and actions were incorporated into local Infection Control work plans.
- The Trust continued to participate in the GNBSI Reduction Ambition Group in collaboration with colleagues from the CCG, MLCO and Neighbouring trusts.
- The Adult Urinary Catheterisation and Catheter Care Policy, Urinary Catheter Care Integrated Care Pathway (ICP) and Catheter Passport were revised and updated and were to be ratified at the GICC meeting in March 2020. This has been postponed to July 2020 due to the pandemic.
- Work was completed on streamlining catheter fixation devices and catheter bags supported by ward based training on the appropriate usage.
- General ward based training was undertaken out following an audit of catheter usage at ORC. This training focused on positioning of catheter to support drainage, early removal of catheters and changing the practice of dip sticking urine to identify a CAUTI.
- The Bladder and Bowel team have evaluated bladder scanners which have been made available within the Trust

4.6 Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia

Mandatory reporting of all MSSA bacteraemia began in January 2011. A total of 209 MSSA bacteraemia cases were reported to PHE during 2019/2020. Of these, 80 cases (38.2%) were trust-apportioned (i.e. occurred 48 hours or more after admission). There is currently no target associated with MSSA bacteraemia incidence.

4.7 Vancomycin-resistant Enterococci (VRE) bacteraemia cases

A total of 30 VRE bacteraemia were reported during 2019/2020 (see Table 1 below for distribution of cases of VRE bacteraemia across MFT). This compares to 27 reported during the previous year: an 11% increase.

Table 1 Distribution of Cases of VRE Bacteraemia

Individual incidents of VRE bacteraemia were investigated and addressed at the Hospital/MCS Infection Control Accountability Review meetings. The majority of incidents were spread in time and location across the organisation with the exception of an outbreak on the Cardiothoracic Critical Care Unit (CTCCU) at Wythenshawe (see section 4.8).

Hospital /MCS	Number of Cases
MRI	13
CSS	11
RMCH	1
Wythenshawe Hospital	4
Trafford General Hospital	1

4.8 Outbreak of VRE on CTCCU Wythenshawe Hospital

Between June and September 2019 there were seven patients identified as VRE positive, three of these patients had a VRE bacteraemia. Typing of four isolates demonstrated two were the same type and two were unique. The Unit remained open during the outbreak with strict monitoring of control measures implemented. In response to the outbreak the CTCCU Team and IPC Team developed a charter that was distributed to all staff to support IPC practice.

4.9 Summary of Outbreaks of Infection 2019 – 2020

A summary of clusters/outbreaks of infection requiring additional IPC control measures are shown below in Table 2.

Table 2 Outbreaks April 2019 – March 2020

Dates	Ward	Cause	No. Patients affected	Bed closures
WTWA				
16/05/19 – 24/05/19	F14	Norovirus	6 4 staff	8 beds x4 days 4 bed x4
31/05/19 – 06/06/19	F4	Norovirus	12	0
17/06/19- 15/08/19	Burns	MRSA	4	0
22/08/19-10/09/19	CTCCU	VRE	7	0
07/07/19- 28/07/19	A7	CDI	4	0
15/08/19 – 12/09/20	F14	MRSA	3	4beds x2 days
10/09/19- 01/10/19	A4	CDI	3	0 PII*
25/010/19 – 29/10/19	A7	Norovirus	8	12 beds x4 days
14/11/19- 18/11/19	TGH -Ward 6	D+V- no organism isolated	13 4 staff	12 beds x 4 days
03/12/19 – 24/12/19	F4	CDI	2	0
19/01/20- 26/02/20	A9	CPE	16	28 beds x6 days beds closed during cleaning process.
March 2020	SCBU	Klebsiella oxycoctoca	4	PII*
ORC				
24/04/19 – 02/05/19	Ward 85	Norovirus	16 2 staff	28 beds x7 days
31/07/19- /08/19	Ward 36 and 37	CPE	12	0
16/08/19 – 14/10/19	Ward 32	CDI	4	0
	AM4	CPE VIM	4	0 PII*
03/12/19 – 11/12/19	NICU	MRSA	5	0
31/12/19- 09/01/20	Ward 85	Norovirus	9 11 staff	28 beds x 9 days

*PII = Period of increased incidence

4.10 Peripheral Blood Culture Trends

There is no national UK standard for contamination rates, but rates should be below 3%, aiming for zero. The most recent contamination rates in adults (>16 yrs) was 2.14% and 2.9% for children (<16 yrs).

4.11 Shelford Group Comparison

MFT's performance compared to other members of the Shelford Group can be found in Charts 3 to 6**.** The charts detail the 2019/2020 HCAI rates using KH03 occupied overnight beds data (per 100,000).

Chart 3 Shelford Group Hospital-onset MRSA bacteraemia rates (per 100,000 overnight beds)

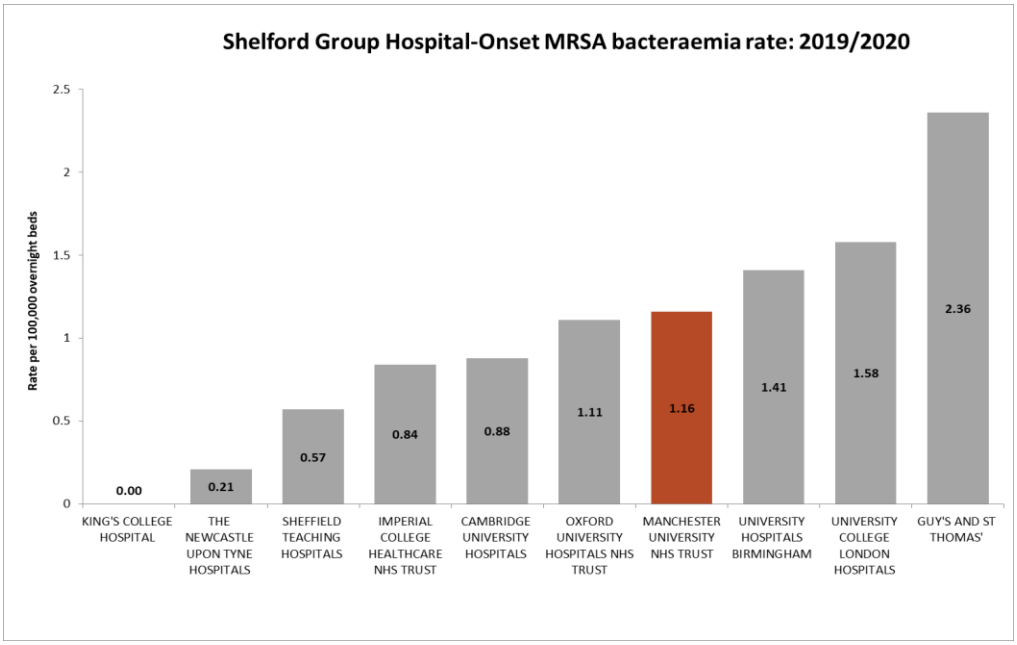


Chart 4 Shelford Group Healthcare-Associated CDI rates (per 100,000 overnight beds)

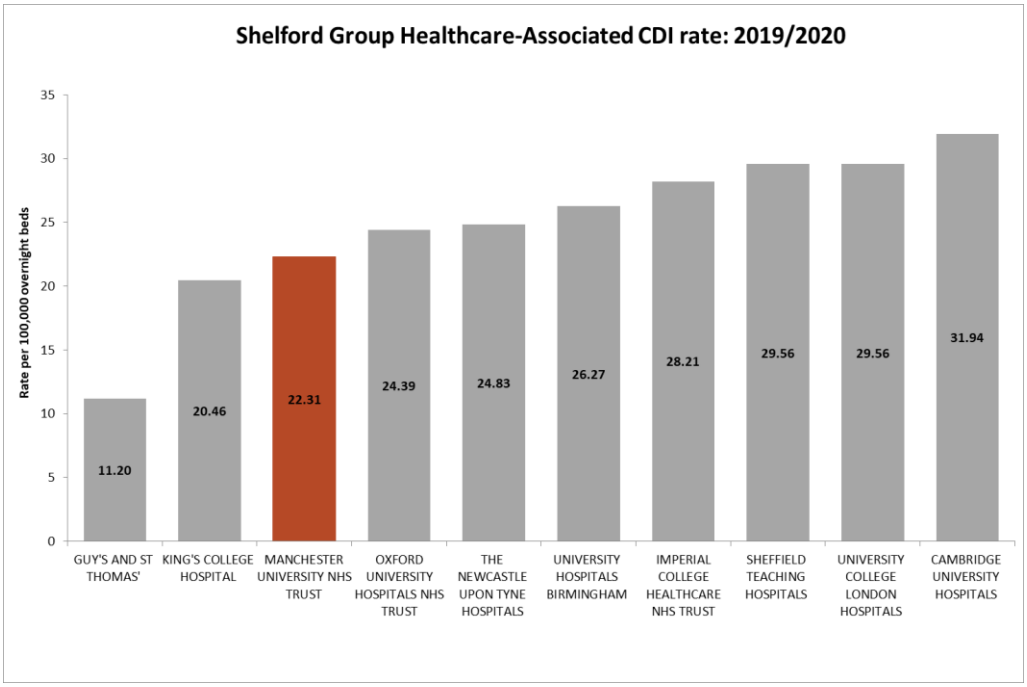


Chart 5 Shelford Group Hospital-onset *E. coli* bacteraemia rates (per 100,000 overnight beds)

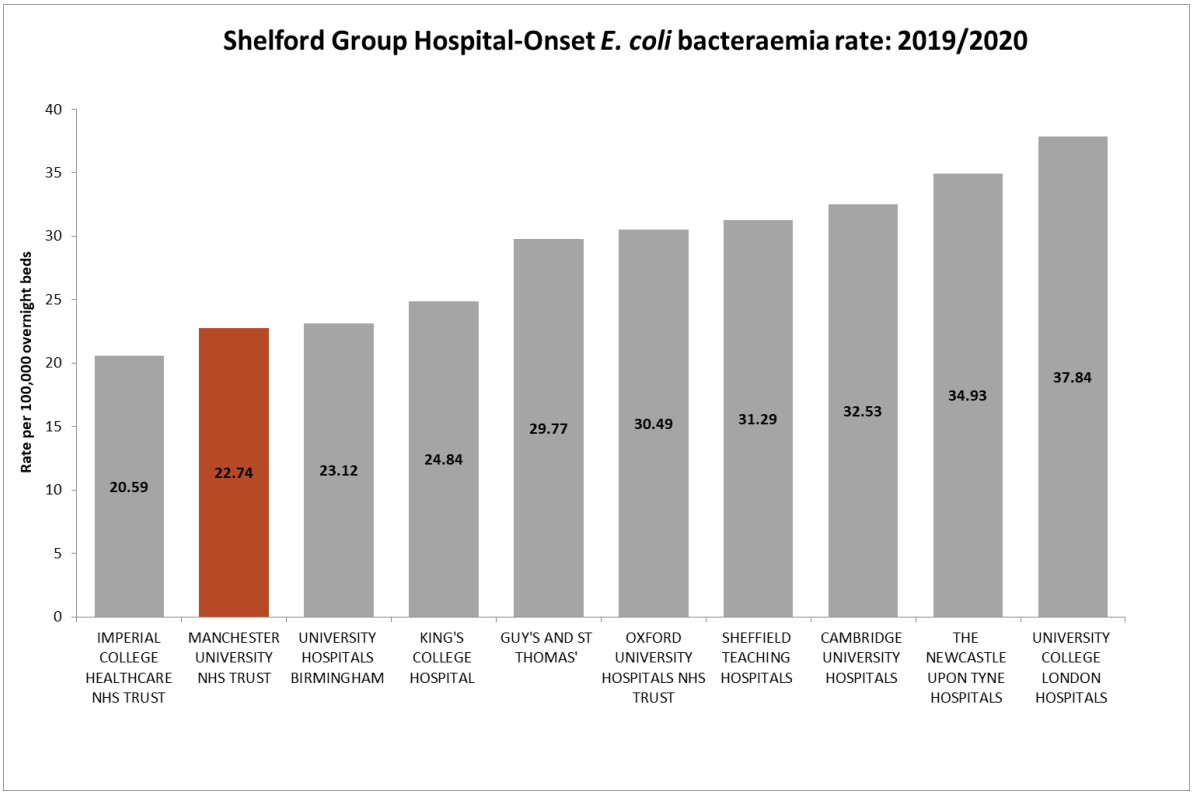
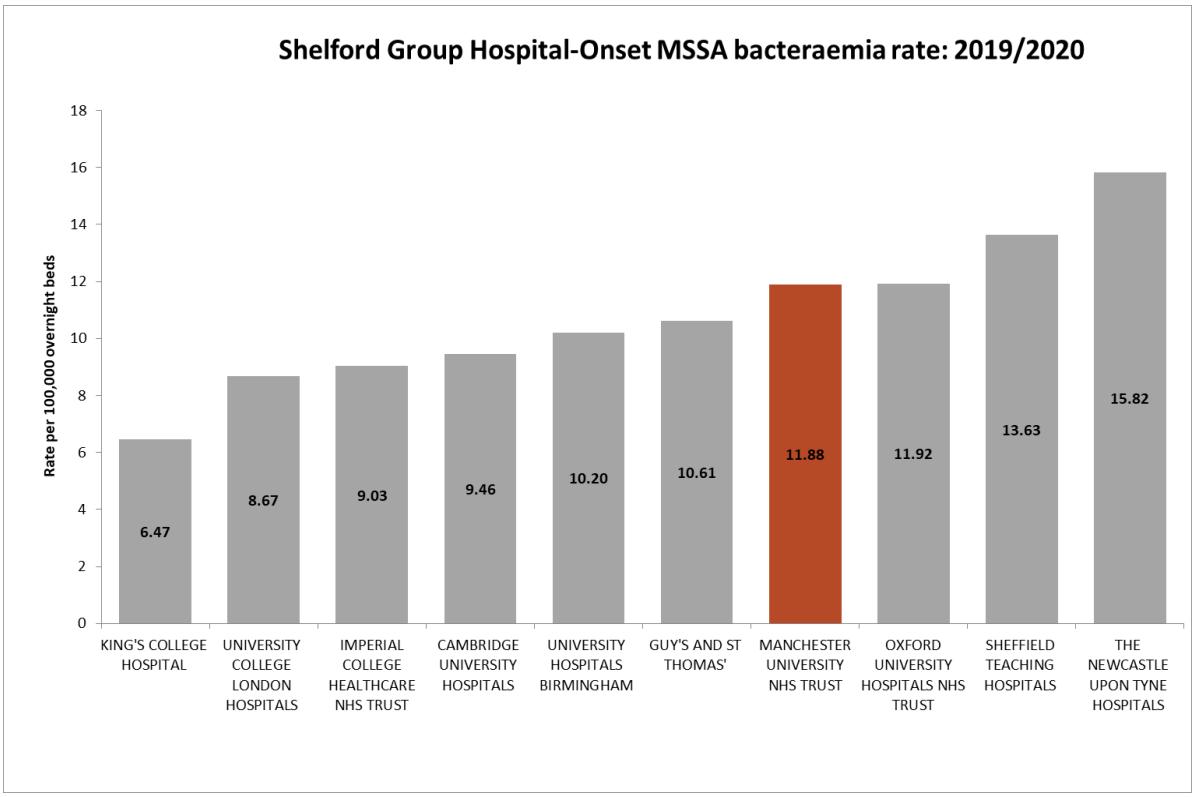


Chart 6 Shelford Group Hospital-onset MSSA bacteraemia rates (per 100,000 overnight beds)



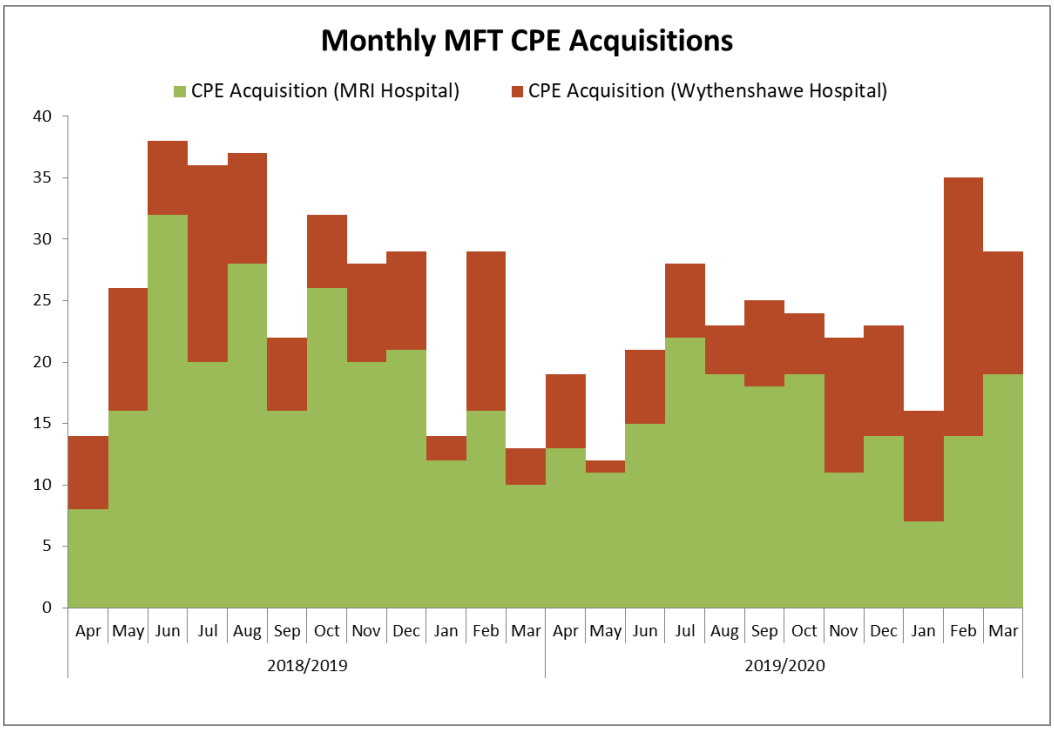
SECTION 5: CARBAPENEMASE-PRODUCING ENTEROBACTERIACEAE (CPE)

5.1 Carbapenemase-producing Enterobacteriaceae (CPE)

The Trust has experienced an on-going CPE outbreak since 2009 with *Klebsiella pneumonia* as the most frequently isolated organism. Intensive local IPC measures in line with national and international recommendations have been implemented in response.

The mean number of monthly CPE acquisitions during 2019/2020 was 27**,** compared to an average of 31 cases per month in 2018/2019. This represents a 12% reduction. Monthly peformance can be seen in Chart 7 which presents CPE acquistion data for Wythenshawe and MRI Hospitals. There were eight CPE bacteraemias reported during 2019/2020 compared to 12 in 2018/2019.

Chart 7 Monthly MFT CPE Acquisitions



5.2. Research Studies

Building on the success of the TRACE project published in January 2017; The Trust has continued to be at the forefront of developing the evidence base for the management and control of patients with CPE. This is reflected in the research published over the past 12 months by members of the IPC team (Professor Cheryl Lenney, Chief Nurse/DIPC; Dr Andrew Dodgson, Consultant Microbiologist, Infection Control Doctor (ORC) and Head of Service; Mrs Julie Cawthorne, Assistant Chief Nurse, IPC/TV /Clinical DIPC; Dr Ryan George, Senior Surveillance Officer, IPC/TV), these are summarised below;

5.3 Genomic Epidemiology of Complex, Multispecies, Plasmid-borne *bla* $_{KPC}$ Carbapenemase in *Enterobacterales* in the United Kingdom from 2009 to 2014.

GStoesser N, Phan HTT, Seale AC, Aiken Z, Thomas S, Smith M, Wyllie D, **George R,** Sebra R, Mathers AJ, Vaughan A, Peto TEA, Ellington MJ, Hopkins KL, Crook DW, Orlek A, Welfare W, **Cawthorne J**, **Lenney C, Dodgson A**, Woodford N, Walker AS; TRACE Investigators' Group.Antimicrob Agents Chemother. 2020 Apr 21;64(5):e02244-19. doi: 10.1128/AAC.02244-19. Print 2020 Apr 21.PMID: 32094139.

The study was a result of the TRACE collaboration between MFT, the University of Oxford and PHE. By using whole genome sequencing of a large number of CPE organisms, the study described the way that the genes responsible for Carbapenemase production are able to spread between different species and strains of bacteria. The work has potential implications for future surveillance and strategies to control CPE and other antibiotic resistant bacteria.

5.4 Carbapenem-resistant Enterobacteriaceae dispersal from sinks is linked to drain position and drainage rates in a laboratory model system.

Aranega-Bou P, **George RP**, Verlander NQ, Paton S, Bennett A, Moore G; TRACE Investigators' Group.J Hosp Infect. 2019 May;102 (1):63-69. doi: 10.1016/j.jhin.2018.12.007. E pub 2018 Dec 18.PMID: 30571992

A further study resulting from the previously reporting TRACE collaboration used a series of sinks built into a laboratory at PHE's Porton Down site to simulate a hospital ward situation. This study examined how CPE could be dispersed from contaminated sink drains back in to the environment. The position of the tap and drain outlet and the rate of drainage exerted a profound effect on the amount of organism dispersed into the environment. The study has implications for both hospital design and maintenance and their role in the control of infection and outbreak investigation.

5.5 Screening for carbapenemase-producing Enterobacteriaceae in previous carriers readmitted to hospital: evaluation of a change in screening policy.

Tucker A, **George R,** Welfare W, Cleary P, **Cawthorne J, Dodgson A.**J Hosp Infect. 2019 Oct;103(2):156-159. doi: 10.1016/j.jhin.2019.04.012. Epub 2019 Apr 27.PMID: 31039383

From April 2016, the Trust implemented a new risk based approach to KPC-CPE screening policy at MRI, all patients previously identified as KPC-CPE positive were admitted to a side room on readmission and offered screening for CPE using a highly sensitive and reliable molecular method.

Patients with an initial negative screen were classified as 'CPE not detected' and a risk assessment was undertaken to establish the presence of factors that may increase the risk of transmission If low risk, the patient was transferred to a general ward where they were monitored, screened and risk –assessed every 72 hours.

This study evaluated the Trust screening policy for patients with a history of CPE. The results showed that most (76.5%) patients with a history of CPE did not have detectable KPC-CPE on re-admission or during their subsequent hospital stay but that repeat screening after an initial negative result is required. The findings of this study support the Trust decision to develop a risk based approach to the management of patients with KPC-CPE from April 2016 onwards.

5.6 Patient experience of hospital screening for carbapenemase producing Enterobacteriaceae: A qualitative study

Caroline King BSc Hons, MSc, PhD, Research Fellow| Tracyanne Grandison BN, Senior Research Nurse **Julie Cawthorne** BSc Hons, MSc, Assistant Chief Nurse/Clinical Director Infection Prevention and Control Kay Currie BSc, MSc, PhD, RN, Professor of Nursing Journal of Clinical Nursing (2019). 00:1–11.J Wiley
(*This study was funded by NHS Health Protection Scotland and the Scottish Infection Research Network).*

The aim of this study was to explore patients' accounts of screening and being managed for colonisation with the antimicrobial resistant organism,carbapenemase-producing *Enterobacteriaceae* (CPE), when in hospital. Two main themes were identified: “I can't make sense of CPE,” illustrating limitations in patients' understandings of CPE; and, “I feel as if they are saying it is my fault,” indicating the feelings of responsibility and blame which patients experienced. This paper contributed original evidence to the limited literature on patients' experiences of being colonised with CPE. The findings suggest that support and information provided for patients by healthcare professionals needs to be based on current evidence-based guidance on the nature of CPE and its implications for patient care, as well as being responsive to patients' emotional needs

SECTION 6: SURGICAL SITE INFECTION SURVEILLANCE (SSIS)

6.1 Surgical Site Infection Surveillance

The Trust SSI programme was led by the Trust Clinical Lead for SSI Professor Ferdinand Serracino-Inglot and reported to the Trust GICC. The IPC/ TV team seconded a nurse for a year into the role of Surgical Site Infection (SSI) Nurse Band 6.

6.2 MFT Participation in the National Getting it Right First Time (GIRFT) Audit

The Trust participated in the national GIRFT audit between May and October 2019, led by Professor Ferdinand Serracino-Inglot, 12 out of the 13 assigned specialities took part. The denominator data was submitted in December 2019. The Trust’s results have been received and are currently being reviewed.

6.3 Participation in the National Surgical Site Infection Surveillance Service (SSISS)

As a result of the secondment of the SSI Nurse the IPC/TV team were able to extend the programme for SSI surveillance to include two additional surgical specialities this year, (Hepatobiliary and Breast surgery). In addition, the SSI nurse reviewed the data collection submitted for Orthopaedic and Cardiac surgery. Findings identified under reporting of data in both specialities. This issue will be addressed prior to the resumption of the SSISS programme which was suspended due to the pandemic

6.4 Mandatory Orthopaedic Joint Replacement Surgery (Hip and Knee) SSI Surveillance

The Trust is required to submit a minimum of one quarter of data per year to comply with mandatory reporting for orthopaedic implant surgery. See table 1 below which shows the results for participation over the three-year period 2018 – 2020 against the national rate for the previous five years.

The denominator should be taken into consideration when comparing local rates of Infection to the national rate.

Table 3 Trust-wide SSI results for hip and knee replacement 2018 -2020

Oxford Road Campus									
	2018			2019			2020		
	Ops	SSI	SSI%*	Ops	SSI	SSI%*	Ops	SSI	SSI%*

Hip replacement				26	2	7.69%			
Knee replacement				12	0	0			
Wythenshawe Hospital									
Hip replacement	110	0	0	126	1	0.79%	45	1	2.22%
Knee replacement				100	0	0	`35	0	0
Trafford Hospital									
Hip replacement	383	0	0	370	0	0	39	0	0
Knee replacement									

* National rate for previous five years = 0.9% hip replacement and 1.2% knee replacement

6.5 Participation in the Voluntary PHE SSI Surveillance Programme

In addition to the PHE mandatory SSI programme the Trust has also participated in the voluntary SSI programme for four other categories of surgery.

6.6 Breast Surgery Wythenshawe Hospital

The IPC/TV Team met with the Breast specialist to agree participation in SSI surveillance for all categories of Breast Surgery from 1st October 2019 for 3 months. SSI rates for breast surgery are shown in table 4

Table 4 Results for Breast Surgery SSI Surveillance

Wythenshawe Hospital									
	2018			**2019**			**2020**		
	Ops	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***
Breast surgery				381	5	1.31%			

*National rate for previous five years = 3.1%

6.7 Voluntary Participation in Hepatobiliary (HPB) SSI Surveillance

For the first time the Trust was able to participate in the PHE voluntary SSI surveillance for HPB, 93 operations were undertaken in Q4 2019 and 87 operations were undertaken in Q1 2020. A local review was undertaken of the data submitted. Fifteen organ space SSI's were identified within the three-month period. A local in depth RCA tool was developed and completed on a sample of five identified SSI's. Of the five investigations four were identified as SSIs and one was incorrectly reported. Further action was suspended due to the onset of the pandemic. See Table 5 below for results)

Table 5 Results for Hepatobiliary SSI Surveillance

Oxford Road Campus									
	2018			**2019**			**2020**		
	Ops	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***
Hepatobiliary Surgery				93	15	16%	87	6	6.9

*National rate for previous five years = 9.4%

6.8 Voluntary Participation in Cardiac Surgery SSI Surveillance

The Trust also continued to participate in the voluntary PHE data collection for Cardiac surgery. Analysis of the data identified seven surgeries where patients were re-admitted with deep incision or organ space infection. The SSI Nurse completed an in-depth root

cause analysis on all the seven cases. Several themes were identified following the investigation see Table 6 below.

Table 6 Themes identified following investigation

Findings	Action
Inadequate post-operative wound care	An incisional wound assessment tool was developed
Inappropriate swabbing	A Standard Operating Procedure for how and when to take a wound swab was developed
Insufficient documentation of key perioperative care elements e.g. pre-operative showering, type of drape used, hair removal method and irrigation practices	To be actioned at resumption of Surgical Programme in phase 2 of pandemic

Table 7 Results for Cardiac Surgery SSI Surveillance

Oxford Road Campus									
	2018			**2019**			**2020**		
	Ops	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***	**Ops**	**SSI**	**SSI%***
Coronary artery bypass graft (CABG)	95	1	1%	355	12	3.38%			
Cardiac surgery (other than CABG)							1		0
Wythenshawe Hospital									
Coronary artery bypass graft				133	1	0.75%	113	1	0.88%
Cardiac surgery (non-CABG)				105	-	0%	59		0%

*National rate for previous five years = 5.8% for CABG surgery and 2.2% for non-CABG surgery

6.9 Trust- wide Audit of Practice against NICE Guidelines for SSI Prevention 2019

The SSI Nurse undertook a pilot audit of practice against the NICE guidelines for SSI prevention. 17 theatres were audited. The findings were presented at the Group Infection Control Committee in October 2019 with a plan to refine the tool and re-audit in 12 months.

SECTION 7: NATIONAL OUTBREAK OF LISTERIOSIS

7.1 Background of National outbreak of Listeriosis

A national outbreak of *Listeria monocytogenes* occurred in April 2019 involving nine in-patients in total across several hospitals in England. Two of these were treated at the Manchester Royal Infirmary (MRI). In accordance with national reporting the Trust notified the Greater Manchester Health Protection Unit (GMHPU) of these cases and co-operated fully with the investigation.

PHE lead a multi-agency investigation into the outbreak which found the nine confirmed cases were linked by whole genome sequencing, six of whom died. There was a Trust response lead by the Chief Nurse/DIPC supported by key stakeholders.

Listeria was isolated from the blood cultures of the two patients receiving care in MRI. Both patients received the appropriate care and treatment however both died, and Listeria was recorded as a contributory factor to the cause of death. Both of the patients had underlying health conditions. An internal review of both cases was undertaken, and the incident was STEIS reported and the CQC were informed.

7.2 Actions taken to reduce the risk of further cases by the Trust

All cases identified as part of the national outbreak had potential exposure within healthcare settings before 25th May 2019. There was also confirmed microbiological evidence linking all nine cases to sandwiches produced by one company and its meat products supplier who supplied sandwiches to 43 NHS organisations in England. The supply of sandwiches from the Company was withdrawn across the Trust on the 25th May 2019 following advice from PHE as a precautionary measure and an alternative supplier was identified.

As a proactive measure the Chief Nurse/DIPC requested a trust-wide unannounced audit against the standards included in the Trust Policy for Food Safety and Hygiene in the Clinical Environment (2018). The results of the audit demonstrated that there is variance in practice regarding the management of food brought in for patients by their relatives/visitors to in-patient areas.

A separate audit of all-day care and residential services within the MLCO that provide catering services for patients was also undertaken the results of which also demonstrated variance in practice and facilities.

The recommendations of the audits were addressed through a task and finish group commissioned by the Chief Nurse/DIPC.

Information for staff on frequently asked questions, including further information for pregnant women, vulnerable patients and advice for clinicians concerned that a patient may have suspected Listeriosis was provided by the Infection Prevention and Control (IPC) team and circulated to all staff through the Directors of Nursing.

7.3 External Review of Catering Services

The Environmental Health Officer (EHO) from Manchester City Council (MCC) made an unannounced visit to the Sodexo Catering Preparation Facilities at The Oxford Road Campus on 15th May 2019. The food service retained its five-star rating and no major issues were raised. There were no actions for the Trust following this visit.

The EHO returned to the Trust five days later and focussed on food service by clinical ward staff. Seven recommendations were subsequently made to the Trust of which three were notified as a requirement. The requirement included: additional training for staff and the registration of the Trust as a food provider.

7.4 Action

The Trust invited the EHO to work in partnership to develop an extended food handling policy for food handlers in the clinical environment that included appropriate legislative actions and training needs for level 1 and level 2 food handlers. The Trust employed a subject matter expert from the Food Standards Agency (FSA) to advise and support on the written policy.

The policy was reviewed internally in January 2020 before being forwarded to the EHO for final comment in February 2020.

7.5 Summary of Outstanding Matters

- The incubation period for this outbreak of *Listeria monocytogenes* concluded at the end of July 2019 when the national investigation closed.
- The Trust continued to offer support to the families of both patients who died whilst in our care.
- The Trust has registered as a Food provider with the EHO
- The ratification of the food handling Policy was delayed due to the pandemic and will be ratified in quarter 2
- The final report from PHE for the national outbreak has not yet been circulated

SECTION 8: MANAGING THE RISK OF INFLUENZA

8.1 Managing the Risks of Influenza

The timing, extent and severity of 'seasonal' influenza activity can vary. It occurs mainly during an eight to ten-week period during the winter and usually peaks between December and March, although activity can persist as late as May. This year 2019/20 Influenza season was associated with reduced activity in comparison to the preceding 2018/19 season in terms of cases in the community and admissions to the Trust.

8.2 Management of Patients with Influenza 2019/2020 Season

In preparation for the 2019/20 flu season, building on experience and lessons learned from previous years the IPC Team collaborated with Clinical Colleagues across the Trust to develop a plan of action summarised below.

- The Trust policy for The Management of Patients with Influenza was updated to reflect changes in anti-viral therapy and advice on offering vaccination to long-stay in-patients who may not have had the opportunity to be vaccinated through their General Practitioner.
- The IPC Team liaised with the Senior Management Teams from Wythenshawe Hospital and the MRI to advise on preparation of an escalation policy with additional actions that would be implemented if activity reaches a threshold that impacted on service delivery this included:
    - Identification of dedicated cohort areas/wards if there are high numbers of patients admitted with flu.
    - Extend laboratory hours to enable rapid turnaround of results.

Preparations were also made to provide data on inpatient Influenza positive cases and participate in the national surveillance schemes.

8.3 Front-line staff influenza vaccination programme 2019/20

The Department of Health (DH) set a national uptake target for vaccination of all frontline Healthcare Workers (HCWs) at 80% for the 2019-20 season. Achieving the 80% target was also expected in relation to the National Health and Wellbeing Flu Vaccination CQUIN target.

The staff flu vaccination planning group which includes stakeholders from across the Trust was established in July 2019 and included focus groups with staff to gain insight into what went well/could do better. The plan for this year built on the successes from last year and incorporated lessons learned please see summary below;

- The Chief Nurse/DIPC, was the board champion for the flu campaign is a flu champion and launched the campaign by vaccinating board colleagues on the 30th September. Photographs of the event were published across MFT.
- The campaign was supported by Senior Medical, Nursing and Management staff across the organisation with a variety of local events to promote uptake of vaccination and incentives for staff to be vaccinated.
- Communication of the programme began in July 2019 to prepare staff for the flu campaign and address any issues or concerns that they might have to help dispel myths and provide key facts.
- Vaccinated staff were given a yellow sticker to be placed on their identity card as part of an enhanced engagement plan called **'Spot the Dot'** – making it fun and easy to see who has had their vaccine and to encourage conversations with staff who have not had their vaccines yet.
- Staff who were approached to be vaccinated and decline were asked to complete the consent form stating the reason why they had declined.
- This year there was an Increased pool of Flu Champions, approximately 280 trained Flu champions (compared to 170 for the previous year), who provided vaccination clinics across all areas of the Trust and covering all shifts.
- Daily open access clinics at the Employee Health and Wellbeing (EHW) service.
- Information regarding opportunities for staff to access flu vaccination are locally promoted.
- There were specific plans to support community services to increase their uptake rate including more Flu Champions to make the vaccine accessible to all staff, regular bespoke communications and a higher level of senior leadership support.

Data collection recording/capture for this year was enhanced to enable the Trust to monitor uptake. Hospital Management Teams received weekly reports from the end of October 2019 to enable them to focus on 'hot spot' areas and improve engagement. In addition, consent was requested to enable managers to be provided with the names of their staff who declined vaccination.

The Campaign was a great success; the Trust achieved a 79.4% uptake of flu vaccination amongst frontline Healthcare Workers (HCW).

SECTION 9: COVID-19

9.1 COVID-19 Pandemic Background

Coronaviruses are a large family of viruses with some causing less-severe disease, such as the common cold, and others causing more severe disease such as Middle East respiratory syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). COVID-19 is a novel corona virus first identified in Wuhan China in late 2019.

The severity of infection caused by COVID-19 ranges from mild symptoms of upper respiratory tract infection (with or without fever) to more severe symptoms including; fulminant pneumonia requiring hospitalisation and advanced respiratory support.

9.2 Containment Phase January 2020 - February 2020

The national response to COVID-19 has been led by NHSE/I and PHE. The Trust was actively engaged from the beginning under the leadership of the Chief Nurse/DIPC, an Incident Management Team was established that included stakeholders from both the acute and community settings.

The Consultant Virologists and IPC Team liaised with clinical colleagues in all emergency access areas to support and advise on:

- The identification of potential isolation facilities across all emergency access areas (for adults and children), to manage cases of suspected COVID-19 who needed to be assessed.
- The installation and management of assessment POD's for testing members of the public who were suspected to have COVID-19
- Isolation rooms for patients who needed to remain hospitalised whilst awaiting test results.
- Guidelines and training for staff on the use of Personal Protective Equipment (PPE) that were made available on the Trust IPC website

9.3 Pandemic Phase March 2020

As the situation moved into the pandemic phase the response was expanded and led by the MFT Accountability Emergency Officer (AEO) / Group Chief Operating Officer, Julia Bridgewater supported by the Chief Nurse / DPIC, Professor Cheryl Lenney and other Group Executives.

The Trust contingency plans included; escalation plans for additional capacity to manage patients who presented to be tested, review of potential isolation facilities and extending the programme for training staff to use enhanced PPE.

9.4 Actions undertaken by the IPC Team

Several specific actions in response to the pandemic were undertaken by the IPC team, these are summarised below.

9.5 Implementation of National Guidance

As the pandemic rapidly evolved there was rapidly changing national guidance from PHE supplemented by additional guidance from professional bodies. The IPC Team interpreted national guidance to produce local policies for clinical staff including; guidance on isolation/co-horting/collection and transport of high consequence infectious diseases (HCID) samples

The Team Consistently updated advice on PPE undertaking risk assessments and developing standard operating procedures to rise to the challenges of shortages in the national provision of PPE including; decontamination of face visors/fit checking of single use FFP3 respirators/use of coveralls instead of gowns.

9.6 Expert Advice

The Consultant Virologists and IPC Team provided advice and support at strategic and operational meetings that was incorporated into policies and daily communications. In addition, they also engaged with Clinical Teams from a wide range of specialities throughout each stage of the pandemic.

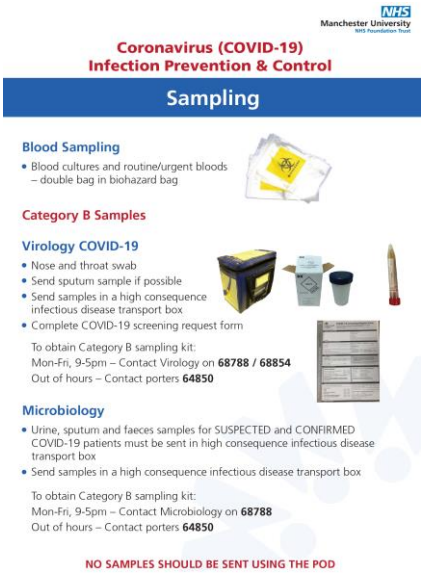
9.7. Training and Education for COVID-19

The IPC Nursing Team developed and delivered bespoke presentations on the emerging coronavirus and use of PPE, based on national guidelines for a range of staff in the acute and community setting throughout both phases furthermore they provided training to upskilled staff that were deployed into clinical areas.

In addition, the IPC Nursing Team provided training for senior leaders to enable them to role model and cascade on the spot advice for staff working in clinical settings. There were nine sessions attended by a total of 93 staff. The sessions included; the mode of transmission of COVID -19 and national guidance regarding use of PPE.

Feedback from these sessions indicated that they were well received (see Table 8 PPE Expert Training Attendees Follow up Survey Results). This information will be used to inform practice in the future.

The IPC Team used a wide range of educational materials to support staff including videos, posters and frequently asked questions. These resources were available on the Trust COVID-19 Intranet page and the IPC intranet page. (See examples below)


NHS
Manchester University

Coronavirus (COVID-19)
Infection Prevention & Control

Sampling

Blood Sampling
- Blood cultures and routine/urgent bloods – double bag in biohazard bag

Category B Samples

Virology COVID-19
- Nose and throat swab
- Send sputum sample if possible
- Send samples in a high consequence infectious disease transport box
- Complete COVID-19 screening request form

To obtain Category B sampling kit:
Mon-Fri, 9-5pm – Contact Virology on **68788 / 68854**
Out of hours – Contact porters **64850**

Microbiology
- Urine, sputum and faeces samples for SUSPECTED and CONFIRMED COVID-19 patients must be sent in high consequence infectious disease transport box
- Send samples in a high consequence infectious disease transport box

To obtain Category B sampling kit:
Mon-Fri, 9-5pm – Contact Microbiology on **68788**
Out of hours – Contact porters **64850**

NO SAMPLES SHOULD BE SENT USING THE POD

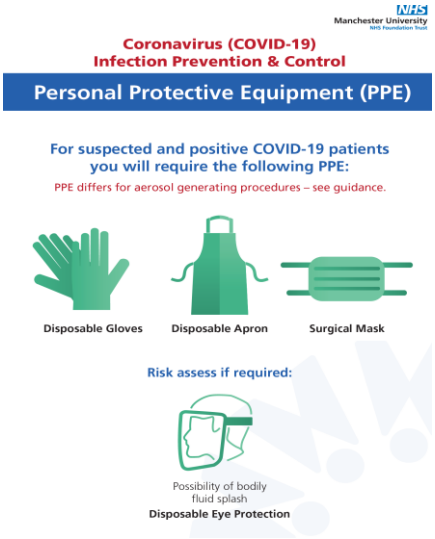
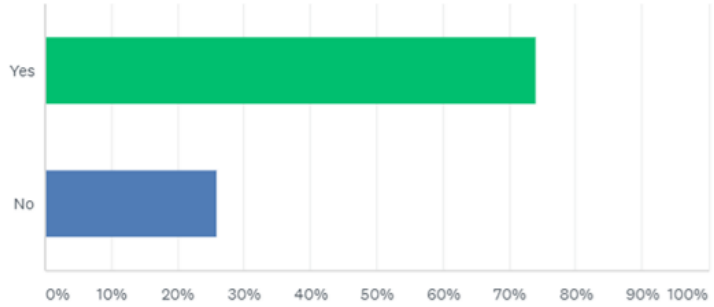


Table 8 PPE Expert Training Attendees Follow up Survey Results

Within patient contact areas do you think that PPE usage is compliant with current policy?

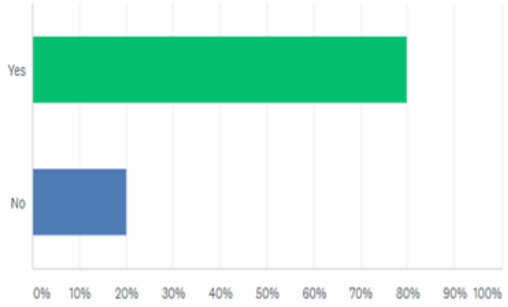
Answered: 50 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	74.00%	37
No	26.00%	13
TOTAL		50

Have you personally challenged anyone who appears to be using PPE incorrectly?

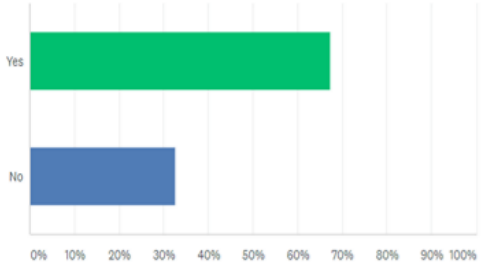
Answered: 50 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	80.00%	40
No	20.00%	10
TOTAL		50

Do you feel that staff are confident in their understanding of appropriate PPE use?

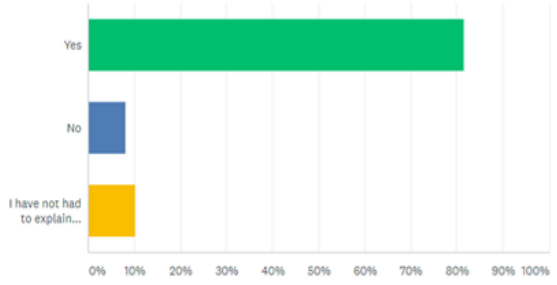
Answered: 49 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	67.35%	33
No	32.65%	16
TOTAL		49

Do you feel that the PPE expert training has helped you explain concerns relating to PPE to staff?

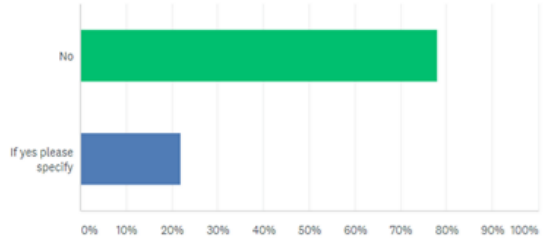
Answered: 49 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	81.63%	40
No	8.16%	4
I have not had to explain anything	10.20%	5
TOTAL		49

Do you feel there was anything missing from the PPE expert training?

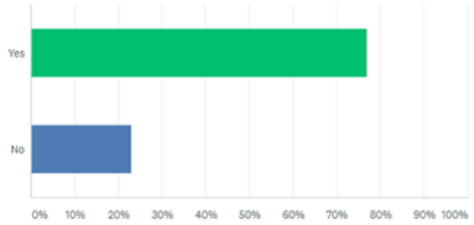
Answered: 50 Skipped: 0



ANSWER CHOICES		RESPONSES	
No		78.00%	39
If yes please specify	Responses	22.00%	11
TOTAL			50

Do you feel that there is currently enough PPE in the trust to comply with current policy?

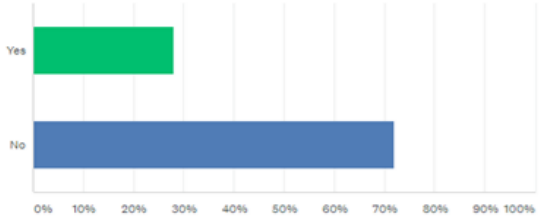
Answered: 48 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	77.08%	37
No	22.92%	11
TOTAL		48

Do you think that knowledge of PPE use prior to the pandemic was sufficient for safe practice with regards to PPE?

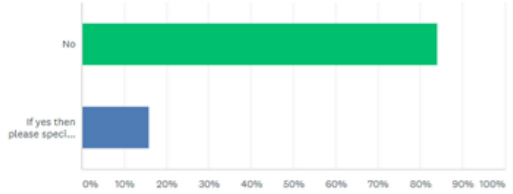
Answered: 50 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	28.00%	14
No	72.00%	36
TOTAL		

On being challenged have any members of staff refused to change their use of PPE?

Answered: 50 Skipped: 0



This question had a free text element which was completed by 8 (16%) of respondents. There were too few respondents for a meaningful analysis of themes. Notably however, 38% (n=3) of respondents identified medical staff as having refused to change their PPE on being challenged

What would you say is the most common issue you encounter relating to PPE in the clinical areas?

This question had a free text response. Overall this question was completed by 47/50 respondents. Four clear themes were noted from the responses:

Theme	Mentions in free text response	Proportion of overall responses
Incorrect use of masks	20	43%
Knowing what PPE to wear	14	30%
Fear and anxiety	5	11%
Incorrect donning/doffing	5	11%

Other responses included incorrect handwashing practice, availability of PPE and understanding of COVID -19 transmission.

9.8 Procurement of Personal Protective Equipment (PPE)

During the period of national shortages of PPE, the IPC Team provided advice on procurement of PPE from alternative suppliers and liaised with local partnerships for example, the University of Manchester to design and provide face visors using 3D printers. Further work was also undertaken with local companies to source supplementary PPE.

9.9 National Screening Programme

The Manchester Partnership PHE Laboratory based at ORC Trust was the first centre outside of London to test for COVID-19. The Laboratory capacity was increased to provide testing for the Trust and the North West region. 24-hour working was introduced to cope with capacity and reduce the turnaround time of results.

9.10 Surveillance

The IPC Team worked in conjunction with colleagues from Information Technology to provide real time surveillance data regarding COVID in-patients. This information was used to inform internal and external reports

9.11 Extension of IPCT Services

The IPC Nursing Service was extended to provide additional on-site support to the Trust across 7 days

9.12 Nightingale Hospital North West

The team have provided IPC advice and support for the Nightingale Hospital this including; during the construction phase, induction training for staff on the use of PPE/general IPC principles. In addition, the team have provided ongoing advice and support whilst the facility has been open.

SECTION 10: TRAINING and EDUCATION

10.1 Training and Education

The IPC Nursing Team updated the e-learning package which is undertaken by all new staff on Induction to the Trust and delivered face-to-face training on the management of Healthcare associated infections to all new starters in Clinical induction.

10.2 Aseptic Non-Touch Technique (ANTT) theory sessions

The IPC Team supported the development of an e-learning package on the ANTT theory component and key principals of infection prevention and control to be undertaken by all staff across the trust who undertaken ANTT procedures.

Following the theoretical training session all members of staff whose practice included ANTT were competency assessed in the clinical environment. Thereafter staff must complete an annual re-assessment of competency to practice.

10.3 Bespoke learning activities

The IPC nursing teams continued to deliver learning activities bespoke to the individual sites of WTWA and ORC.

This year the IPC nursing team provided quarterly study days for the Infection Prevention Link Workers, who acted as Champions in their wards and departments raising awareness on current infection prevention and control practices and supporting the implementation of policies, guidelines and best practice. The study days included practical sessions and lectures delivered by microbiologists, guest speakers and members of the IPC Team.

The IPC team also continued to support the Local Universities with the delivery the ANTT theory component and basic Infection Control principles to both Nursing and Medical students.

In addition, the IPC Team delivered a range of training /education sessions to the following staff groups:

- International Nurses recruited to MFT
- Medical Team Induction
- Hospital Volunteers
- Work experience Students
- New Healthcare Support Workers
- Internship across sites
- Annual Young Peoples Open Day
- Porter Staff
- Staff working in areas when there was an increase/outbreak of infection
- Bespoke training on Ward/Departments

10.4 Hand Hygiene – Focus on practice

It is universally agreed that performing hand hygiene correctly and at the right time is the most effective measure in reducing Healthcare Associated Infections (HCAI). The Trust always expects all staff to comply with good hand hygiene practice.

This year the Infection Prevention and Control team has led the Trust participation in the Royal College of Nursing (RCN) accredited Gojo Hand hygiene training with sessions being undertaken in both the Acute and Community settings. These received very positive feedback from those who attended.

Also, in the last 12 months the Infection Prevention and Control team supported the participation in two national initiatives focusing on infection prevention and control. These included the World Health Organisation (WHO) clean care for all– it's in your hands: raising awareness that hand hygiene, along with Infection Control is critical to achieve quality of care and patient safety across all levels of the health sector.

The second initiative was International Infection Control week in October 2019. During this week the Infection Prevention and Control/Tissue Viability and

Education teams produced a mobile roadshow which visited all the Wards and Departments across the sites raising awareness of local Infection Control issues, hand hygiene and use of personal protective equipment to all members of the Multidisciplinary team members.

SECTION 11: MAINTAINING a CLEAN ENVIRONEMT

11.1 Governance Arrangements

Decontamination, Ventilation and Water services were governed by policies along with local operational plans. Each topic had local safety groups reporting into a group level committee that met quarterly and reported into the Group Infection Control Committee (GICC). All appropriate professional appointments, including Authorising Engineers, were in place and monitored through the Estates and Facilities Group Management Board (EFGMB). The services were assured by a programme of independent annual audits.

11.2 Decontamination Services

Sterilisation of re-useable surgical devices were undertaken centrally on site at the Oxford Road Campus in the Decontamination Services Department. The Department was accredited to ISO 13485:2016 and was also assessed and certified as meeting the requirements of Directive 93/42/EEC on medical devices, Annex V.

Wythenshawe, Trafford and Withington Hospitals continued in partnership with Christies and North Cheshire to receive sterile services from Steris. This was monitored by the WTWA Estates & Facilities Decontamination Group through Positional Reports provided by the Contract Manager.

Decontamination of flexible endoscopes was undertaken on the Oxford Road Campus in satellite units within associated clinical areas and at Trafford, Wythenshawe and Withington in centralised units. The Endoscopy Departments at Manchester Royal Infirmary (MRI) Endoscopy Unit, Trafford and Wythenshawe Hospitals were accredited by the Joint Advisory Group (JAG) with some actions noted (see below).

11.2.1 Achievements

The programme of works to upgrade the Trust's Endoscope Decontamination Suites (EDS) continued; the Children's Hospital theatres, MRI Outpatients Department, Elective Treatment Centre and Main Endoscopy, and Withington and Trafford Hospital Suites have all been completed. At the time of writing the Wythenshawe EDS is overdue a major upgrade and this is being progressed by a Task and Finish group alongside the Endoscopy Unit upgrade.

11.2.2 Required Developments

A set of seven risk-mitigation workstreams has been established (see below) to address ongoing issues as well as those highlighted by Audits and JAG Inspections.

- Replacement of Wythenshawe endoscopy facilities
- Lifecycle upgrade of DSD facilities at ORC

- Introduction of a fourth Automated Endoscope Reprocessor (AER) at Trafford
- Review of DSD & endoscopy facilities across MFT
- Introduction of electronic Track & Trace at ORC & Trafford
- Replacement of the Steris contract servicing both Wythenshawe & Trafford
- Appointment of a Trust Decontamination Lead.

Decontamination of Nasendoscopes at Trafford Hospital Nasendoscopes used in the Ear Nose and Throat (ENT) Department at Trafford and Altrincham are currently decontaminated by a manual wash followed by use of the Tristel Wipe System, (this meets the Essential Quality Requirements (EQR) in HTM01-06 but is not considered Good Practice). Spot audits were carried out on the process to maintain a minimum standard. As the Trafford Decontamination Suite has been upgraded it was intended to move the Trafford ENT scopes into the upgraded unit but the lack of a fourth Automated Endoscope Reprocessor has generated concerns for capacity and throughput.

There is an ongoing concern relating to Scopes, Blades and Probes which require either Decontamination or Sterilisation but cannot be reprocessed through the equipment the Trust currently has available. This is being reviewed with Procurement and the IPC & TV team for a resolution.

11.3 WATER SAFETY

11.3.1 Management of Risk for *Legionella*

Water sampling for *Legionella* was undertaken in accordance with L8 and Health Technical Memoranda (HTM-04). Remedial action was successfully undertaken on outlets that did not meet the required standard. All building and engineering projects were required to provide additional testing if they included modification or connection to the existing water system including the need to undertake Water Risk Assessments in line with the HTM.

11.3.2 Management of *Pseudomonas aeruginosa* from Water Outlets in High Risk Clinical Areas

Pseudomonas risk assessments for all augmented care areas were in place. Sampling for *Pseudomonas* continued in accordance with the addendum to HTM 04 with appropriate follow up on positive results. A Trust Wide review of the range of areas included within the Augmented Care Units definition has been ongoing but as of the date of this report has not reached a conclusion.

11.3.3 Achievements

Comprehensive maintenance programme and water testing regime for WTWA which now includes an in-house Pseudomonas water testing facility (IDEXX Pseudalert) which identifies positive results within 24 hours rather than 3 days. A Healthy Water Project that monitored water temperature and flow was undertaken at ORC. This identified areas of concern and timely resolution for low or no use outlets utilising new technology.

11.3.4 Required Developments

As well as the Augmented Care definitions review described above work has been ongoing between the Estates and Facilities Teams and IPC&TV relating to rise and fall baths (often referred to as Arjo Baths). This project is ongoing.

11.4 VENTILATION

The management of Ventilation Systems was based upon monitoring the legal and mandatory requirements of ventilation systems in healthcare premises; this includes the design, maintenance and the operation of ventilation systems:

Annual performance and verification checks were undertaken on all critical ventilation systems, including Ultra Clean Theatres, for assurance purposes. A 2019 Theatre PPM planner was issued for all theatres and critical ventilation plant.

Critical Ventilation systems are currently under review across MFT to establish where investment is required to improve existing facilities in Theatre areas.

11.5 CLEANING SERVICES

11.5.1 Contracting Arrangements

The Trust cleaning services were provided by both internal and external contractors/teams.

- Sodexo Healthcare was the main contractor for the provision of cleaning services across the Oxford Road Campus, including the Dental Hospital and Old Saint Mary's building and Wythenshawe Hospital.
- Withington, Trafford and Altrincham Hospitals and the Intermediate Care Units all had services provided by in-house teams.

11.5.2 Monitoring Arrangements

As part of the contracts Sodexo were required to self-monitor the performance of cleaning services against key performance indicators. These were reported to the Trust on a monthly basis for analysis and challenged where appropriate by the Estates and Facilities Team.

The services at Withington, Trafford and Altrincham Hospitals and the Intermediate Care Units were managed and monitored through internal in-house arrangements with the service managers and local users.

In addition, the standards of cleanliness were monitored and reported for all sites through the monthly Quality of Care Rounds, the Ward Accreditation Process and the Patient Experience Tracker, (Oxford Road Campus/Trafford Hospital). These results informed areas of best practice and areas where additional focus was required.

11.5.3 The Role of the Infection Prevention and Control Team

The Infection Prevention and Control Team worked in conjunction with the Trust Estates and Facilities Teams, Clinical Divisions, Sodexo and internal providers to ensure cleaning standards were met across the Trust.

11.5.4 Cleaning Schedules

Cleaning schedules were publicly displayed in all clinical areas and processes were in place to report and escalate cleaning problems. These included: an agreed process which provided users with information on what services should be delivered and how to escalate non-compliance; and, a cleaning matters/logbook process which required clinical and cleaning staff to record the completion of tasks and log additional or amended requirements.

11.5.5 Infection Prevention and Control Training for Domestic Staff

All new employees attended a generic induction which included the principles of Infection Prevention and Control.

11.5.6 Patient Led Assessment of the Care Environment (PLACE)

The PLACE assessments were undertaken across the MFT sites and four MLCO sites. The assessments are the first to be conducted under the updated standards, and the first co-ordinated as MFT. The overall timeframe for the PLACE Assessments, including preparation, re-fresher training and data entry spanned from 14th August 2019 to 14th November 2019. (See Table 9 and 10)

Table 9: MFT PLACE Score Summary

Category	National Average %	ORC %	Wythenshawe %	Trafford including Altrincham %	Overall MFT, including MLCO %
Cleanliness	98.60	98.38	98.82	99.10	98.63
Food	92.19	93.70	94.54	92.59	93.97
Organisational Food	91.92	100	88.89	94.07	95.50
Ward Food	92.62	92.23	95.92	91.67	93.66
Privacy, Dignity & Wellbeing	86.09	86.33	88.85	93.16	87.88
Condition, Appearance & Maintenance	96.44	97.68	96.81	98.18	97.44
Dementia	80.70	79.68	87.34	88.08	83.20
Disability	82.52	79.78	84.84	87.18	82.30

MLCO Score Summary

Category	National Average %	Buccleuch Lodge %	Dermott Murphy %	Gorton Parks %	Average MLCO %

Cleanliness	**98.60**	100	100	100	100
Food	**92.19**	91.77	97.53	98.33	95.88
Organisational Food	**91.92**	85.19	95.56	97.04	92.60
Ward Food	**92.62**	100	100	100	100
Privacy, Dignity & Wellbeing	**86.09**	85.71	88.10	91.53	88.45
Condition, Appearance & Maintenance	**96.44**	95.19	100	98.44	97.88
Dementia	**80.70**	73.13	88.24	87.50	82.96
Disability	**82.52**	69.64	80.36	92.59	80.86

Score above national average
Score just below national average
Score below national average

The scores for Buccleuch Lodge were influenced by work being undertaken to upgrade the environment at the time of the assessment. This work has now been completed. The full report on this has been presented to Patient Environment of Care Steering Group.

SECTION 12: ANTIMICROBIAL STEWARDSHIP

12.1 Antimicrobial Stewardship Committee

The trust- wide antimicrobial stewardship committee (AMC) was a subgroup of the GICC and was responsible for developing, implementing and monitoring the antimicrobial stewardship programme and reporting progress to the GICC. This year the AMC became affiliated with the Greater Manchester Antimicrobial Resistance (AMR) strategy group and the Antimicrobial Stewardship (AMS) groups and continues to work with these groups to ensure there is a coordinated approach to the AMR strategy across Manchester healthcare services.

Manchester Biomedical Research Centre (BRC) was one of ten leading research centres across the country to receive funding to explore innovative new ways to inform prescribing and identify patterns of resistance. The investment will result in expansion of the National institute for Health Research (NIHR) Manchester BRC's respiratory research.

12.2 Health Education England AMR innovation grant - AMS Change

In 2019 key members of the AMS team together with two health psychologists from the University of Manchester were awarded a HEE AMR innovation grant. In January 2020, 25 healthcare professionals from across MFT and Manchester Health and Care Commissioning (MHCC) were trained as "master trainers" that is, trainers in behaviour change techniques with regards to AMS. Evaluation of this project and the interventions will be done as part of the follow-up for the grant.

12.3 Antimicrobial guidelines

The AMC had a continuous programme of development and review of the trust- wide antimicrobial formulary, ensuring that the guidelines were up to date; evidence based and in accordance with best practice and trends in surveillance. The guidelines were hosted on the MicroGuide platform which is accessible via an app and a web browser.

12.4 COVID-19 guidance

In March 2020 the 1st guidelines for the management of patients with Covid-19 (SARS-CoV) infection were published on MicroGuide. These guidelines are under constant review by the key members of the committee in line with the emerging evidence/ national guidance.

12.5 Point prevalence Audit March 2020

This audit was designed to determine the level of compliance with the Trust-wide antimicrobial prescribing guidelines (on Microguide) and determine actions required to address non-compliance. 518 patients prescribed antimicrobials across MFT were audited against a defined set of antimicrobial stewardship standards (see **Table 11** below).

Overall compliance with the trust-wide antimicrobial guideline was 94%. A Trust wide action plan has been implemented and individual hospitals received a breakdown of their results.

12.6 World Antibiotic Awareness Week 2019

In November 2019 the Antimicrobial stewardship team supported by the IPC team undertook a range of activities across the Trust to promote awareness of antimicrobial resistance. This was done in collaboration with our colleagues at The University of Manchester and Manchester Metropolitan University.

Table 11 Results of Point Prevalence Audit March 2020

Standard	Compliance (%)
1. Standard one Antibiotic treatment should be prescribed as per MFT antibiotic guidelines, unless specific micro advice, Culture and Sensitivity are available (or specific clinical indications prevent this)	94%
2. Standard two The indication for antibiotic treatment should be documented in the medical notes and on the drug chart	Notes: 92% Chart: 91%
3. Standard three The duration for antibiotic treatment should be documented in A) The medical notes B) the drug chart	Notes: 64% Chart: 77%
4. Standard four Doses and dose frequency should be appropriate for age, weight, renal and hepatic function	99%
5. Standard five IV antibiotic treatment should be appropriate for the patient's clinical status/match the guidelines	96%

SECTION 13: CONCLUSION

The content of this report establishes the

broad spectrum of activity associated with infection prevention and control across the Group. The outcomes of the practice and process described are evidence of the hard work and commitment of staff working across the organisation.

The Group has maintained its reputation for strong and effective prevention and management of Infection Prevention and Control despite the challenges of the national outbreak of *Listeria monocytogenes* and the COVID-19 pandemic. In both situations staff across the organisation have shown their commitment to care for patients and each other under extreme circumstances.

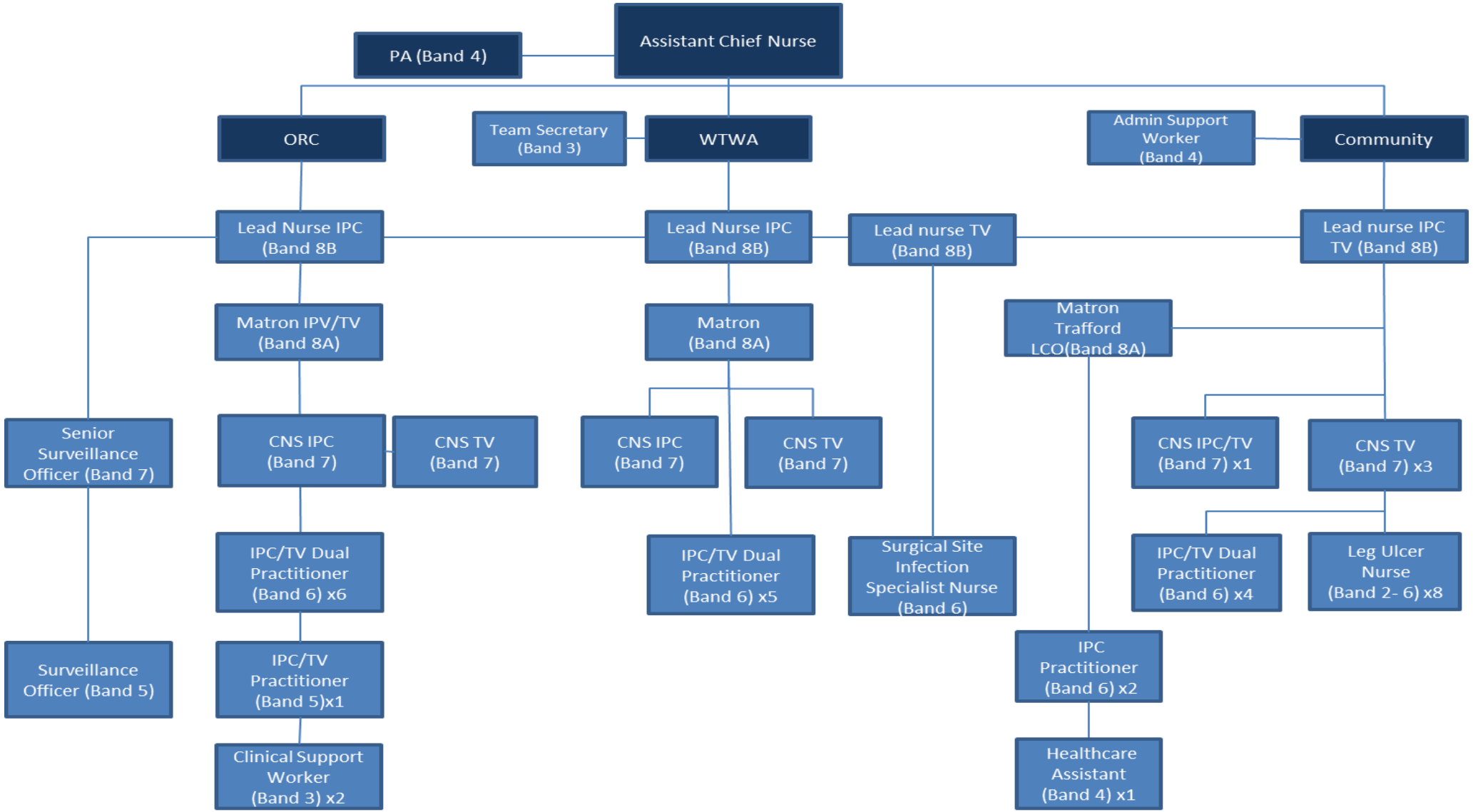
The content of this report reflects the breadth of activity and the enthusiasm to constantly improve and to develop new and innovative means of improving patient care. Moreover, this report demonstrates a culture of openness and transparency in regards to the internal and external review processes for key infections.

The Board of Directors are asked to receive this report for April 2019 to March 2020 and approve for publication.

Julie Cawthorne
Assistant Chief Nurse/Clinical Director of Infection Prevention and Control
June 2020

Appendix 1

MFT IPC/TV Nursing Team Structure 2019/20



Appendix 2

GROUP INFECTION CONTROL COMMITTEE
TERMS OF REFERENCE

1. CONSTITUTION

1.1 The Group Management Board has established a Committee to be known as the Infection Prevention and Control Committee. The committee is an executive committee and holds the powers delegated to it in these terms of reference. The Infection Control Committee is chaired by the Chief Nurse/ Director of Infection Prevention and Control.

2. MEMBERSHIP

2.1 Membership shall consist of:

Chief Nurse/DIPC (CHAIR)
Consultant Microbiologist/Infection Control Doctors (Vice-Chair)
Deputy Infection Control Doctor
Directors of Nursing
Assistant Chief Nurse Clinical DIPC
Lead Nurses Infection Prevention and Control
Hospital/MCS Clinical Leads for Infection Control
Consultant in Communicable Disease (Public Health England)
MHCC Infection Control Lead
Antimicrobial Pharmacist
Director of Estates and Facilities
Associate Director of Clinical Governance
Director of Clinical Governance
LCO representative
Assistant Director, Employee Health & Wellbeing
Chair of Antimicrobial Committee

All group executives have an open invitation to and may attend committee meetings

2.2 No business should be transacted at the meeting unless a minimum of ten members are present, which must include the Chair or Deputy Chair, four Hospital Clinical Leads, and either the Director of Nursing (Corporate) or the Assistant Chief Nurse/Clinical DIPC

3. ATTENDANCE AT MEETINGS

3.1 The Infection Control Committee may require the attendance of any Trust employee (or agent of the Trust)

4. FREQUENCY OF MEETING

4.1 The Committee will meet every three months (four times a year), but may be convened at other times as deemed necessary.

5. OVERVIEW

5.1 The Committee will set the strategic direction for infection prevention and control and seek assurance on an exception or as required basis

5.2 The Committee is responsible for developing the group organisational strategy and clinical standards for infection prevention and control in line with national/international evidence based practice and standards.

6. SCOPE AND DUTIES

6.1 Provide strategic leadership for infection prevention and control, including identifying priorities and setting performance targets.

6.2 Develop the strategy and agree the clinical standards for infection prevention and control across all the Trust sites.

6.3 Approve the programme of work of the Trust Clinical Infection Control committee.

6.4 Receive Hospital/MCS ICC performance and exception reports

6.5 Receive, review and ratify group policies, clinical pathways and reports, including the Annual Infection Control Report.

6.6 Approve the annual audit calendar to provide assurance that standards are met and any required changes to practice, systems and processes are delivered.

6.7 To report to the Group Management Board on performance against infection control indicators and audits, including actions taken to address any areas for improvement.

6.8 To determine and commission programmes of work required to deliver the work programme of the Infection Control Committee

6.9 Oversee the Trust's involvement in and response to, internal and external assessments and inspections.

6.10 Agree the education and training framework for infection prevention and control for the Trust, ensuring compliance with infection prevention and control standards.

6.11 Approve the Trust's Annual Infection Control Report.

6.12 To describe, review and monitor the principle and significant risks related to infection control on behalf of the Trust and present these with the plan of controls to the Group Management Board and Risk Management Committee.

6.13 The Infection Control Committee will receive exception reports from the Hospital/MCS Infection Control leads where performance is out with the standards set out in the IPC strategy

6.14. The Infection Control Committee will receive at each meeting a report from the Trust Infection Control Group to include:

1. Policy and pathway development
2. Infection Control Group activity
3. Changes to national or local strategy
4. Trust wide themes identified from adverse events

7. AUTHORITY

7.1 The Infection Control Committee is empowered to examine and investigate any activity within the Trust pursuant to the above scope and duties.

8. REPORTING

8.1 The Committee will report to the Group Management Board.

8.2 The Committee will work closely with relevant Group Committees and the Clinical Advisory Committee and will provide assurance to the Board of Directors in relation to infection prevention and control

8.3 The minutes and exception report (as required) will be considered at the next Risk Management Committee and Quality and Performance Scrutiny Committee

9. REVIEW

9.1 These terms of reference will be reviewed annually.

10. KEY PERFORMANCE INDICATORS

10.1 These Terms of Reference will be measured against the following key performance indicators:

1. 75% attendance of all listed members or nominated deputy
2. Presentation of the Annual Infection Control Report.