



Chelsea and Westminster Hospital
NHS Foundation Trust

Infection Prevention and Control

Annual Report

2022-2023

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1. Introduction

This is the report of the Director of Infection Prevention and Control (DIPC), which summarises the work undertaken in Chelsea and Westminster NHS Foundation Trust (CWFT) for the period 1st April 2022 to 31st March 2023.

The report summarises the measures taken to protect patients and staff against infections, and provides assurance in relation to the Trust's compliance with the requirements of the Health Act 2008 and the Code of Practice on the prevention and control of infection and related guidance (2015).

The paper outlines the developments undertaken by the Infection Prevention and Control Team (IPCT) and summarises the following:

- The IPCT annual programme
- Mandatory surveillance reporting and progress against targets
- Incidents and outbreaks including the management of COVID-19 and seasonal influenza
- Hand hygiene and personal protective equipment (PPE) audits, infection prevention and control high impact intervention audits
- Surgical site infection surveillance programme
- Education and training including IPC link professionals
- Antibiotic stewardship
- Body fluid exposure management
- Decontamination and cleaning
- Hard services contributions

2. Executive Summary

- a. There were 27 cases of Trust apportioned *Clostridioides difficile* infection (CDI) against a target of 25 for this financial year. The Trust (January 2023 data) is ranked 10th lowest of 137 Acute Trusts and below the national average rate of 13.00 with a rate of 9.32, (Public View Ltd data). This is a 29% decrease in comparison to last year's cases.
- b. There were 7 cases of Trust apportioned MRSA bacteraemia against a trajectory of 0. A targeted deep dive of Trust attributed MRSA bacteraemias was conducted at the end of the year, see Appendix 5.
- c. The average hand hygiene compliance score was 96% and overall completion of reporting was 98%. An increase of 3% in compliance from the previous year and a 7% increase in completion.
- d. Surveillance of surgical site infection (SSI) was undertaken for total hip replacement and knee surgery for all quarters on each site, participation for 1 quarter is mandated by the Department of Health. The number of elective procedures continued to increase considerably during this period due to the establishment of COVID-19 recovery plans.
- e. There were no influenza outbreaks identified at CWFT.
- f. NHS England set a CQUIN of 90% and lower end of 70% of frontline healthcare workers to receive influenza immunization; 49.80% of frontline staff were vaccinated. This is consistent with most of the NWL sector due to the

focus on mandatory COVID-19 vaccination which was prioritised over influenza. Lower prevalence of flu in previous years may have impacted staff perception around flu vaccination and the Influenza Strategy group met to identify actions to improve performance for the coming season.

- g. The Infection Prevention and Control Team supported the Trust in their response to the COVID-19 pandemic with a focus on returning to business as usual through restart and recovery plans and site visits to ensure that all areas of the Trust have in place the required IPC precautions to keep patients, staff and visitors safe.
- h. There were a number COVID-19 ward clusters/outbreaks during 2022– 23 which were successfully managed and contained.
- i. Cleaning audits conducted across the Trust exceeded the minimum targets set out in the National Specification of Cleanliness as a result of the pandemic.
- j. Enhanced monitoring for *Pseudomonas aeruginosa* in water outlets continues in all augmented care units. Mitigations on positive outlets are agreed by the DIPC, the Infection Prevention and Control Team, authorised water engineer and the hard FM providers in conjunction with Estates and Facilities. The Water Safety Group meets monthly and reports into HSERG and Estates Performance and Governance Group.
- k. All NHS England sponsored CQUINs have been suspended for the financial year due to the pandemic. However the CWFT AMS team have continued to optimise historic AMS targets from previous CQUINs in line with NHS England and Improvement criteria.
- l. The decontamination department successfully passed the annual three day External Audit during this year to confirm compliance with the requirements of the European Directive MDD/93/42/EEC and the ISO 13485:2016 Standard. From 2020/21 the service is registered with NQA and will no longer be accredited against European Directive MDD/93/42/EEC.
- m. 90% of Trust staff were compliant with mandatory infection prevention and control training level 2.

3. IPCT Annual Programme

Under the leadership of the DIPC, the IPCT in conjunction with a range of colleagues across the Trust have contributed to the annual programme of work described in this report.

In the forthcoming year, the IPCT will continue to focus on the harmonisation of IPC practices, policies and processes. Key objectives for the coming year also include; continuing to minimise the risk of healthcare associated infections, infection audit and surveillance, further developing the skills and knowledge of staff, ensuring evidence based clinical guidance on IPC practices and improving accessible patient information. The overarching IPC objectives for 2023/24 can be found Section 14.

The DIPC and IPC Lead Nurse are actively involved in advising on Trust refurbishments projects and new builds e.g. the new build of an Ambulatory Diagnostic Centre on the West Middlesex site and Dental Theatres on the Chelsea site. The IPCT will also continue to provide proactive and reactive IPC advice and support to Trust staff and monitor compliance with IPC policies.

4. Mandatory Reporting

The Trust is required to report the healthcare associated infections outline in Figure 1 (below) to UKHSA. Cases are apportioned into the following 3 categories based on data submitted.

- **Hospital-onset healthcare-associated (HOHA):** cases that are detected in the hospital two or more days after admission.
- **Community-onset healthcare-associated (COHA):** cases that occur in the community (or within two days of admission) when the patient has been a recent discharge from the reporting organisation with 28 days of their positive blood culture.
- **Community-Onset Community-associated (COCA):** cases that occur in the community with no patient history of a recent admission.

Due to the algorithm and definition changes introduced in July 2020, the Trust attributed blood stream infection rates have risen in comparison to previous years. Further analysis of all Trust attributed cases is conducted monthly.

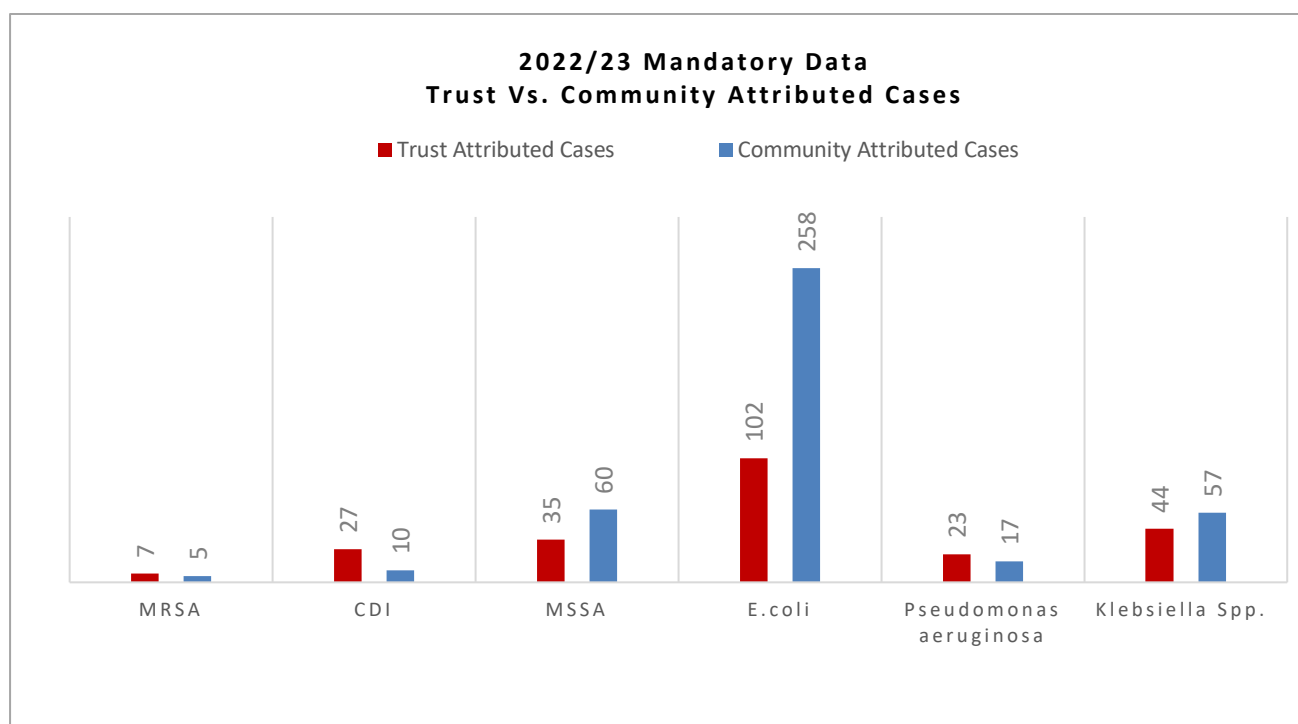


Figure 1: 2022/23 Mandatory Data Trust vs. Community Attributed Cases

4.1. *Clostridioides difficile* Infection (CDI)

Trust apportioned *Clostridioides difficile* cases include:

- **Hospital-onset healthcare-associated (HOHA):** cases that are detected in the hospital two or more days after admission.
- **Community-onset healthcare-associated (COHA):** cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous four weeks.

There were 27 Trust apportioned CDI cases against a Target of 25. This is a 25% decrease in comparison to 36 Trust apportioned cases for the year 2021/22 and a 31% decrease with the 39 Trust attributed cases in 2019/2020.



There were 10 cases of non-Trust apportioned cases of CDI.

A root cause analysis (RCA) of each Trust apportioned case was initiated by the IPCT and senior medical and nursing staff caring for each patient. Action plans were subsequently developed to address lessons learnt which are monitored at Trust quality and risk meetings.

A *Clostridioides difficile* Deep Dive was conducted for 2022/23 (see Appendix 6) which summaries learning.

4.2. Meticillin Resistant *Staphylococcus aureus* (MRSA) Bacteraemias

There were a total of 7 Trust apportioned MRSA bacteraemias from April 2022 – March 2023 against a target of zero, However of these, 4 cases were clearly community derived with patients admitted with signs and symptoms of infection consistent with a deep seated MRSA infection but were nevertheless Trust attributed due to the date of blood culture receipt in relation to admission date. Four cases occurred at the WM site and three at the CW site.

There were 5 Community apportioned cases. See Appendix 5 for a deep dive summary report of the MRSA bacteraemia cases.

4.3. Meticillin Sensitive *Staphylococcus aureus* (MSSA) Bacteraemias

There were 35 cases of Trust apportioned MSSA bacteraemias in comparison to 60 community apportioned cases (see Appendix 4 for summary data). This is an increase from 26 Trust apportioned cases in 2021/22. No upper limit has been currently set.

4.4. *E.coli* Bacteraemias

There were 102 cases of Trust apportioned *E.coli* bacteraemias against a target of 73, and 258 community apportioned cases (see Appendix 4 for summary data and Appendix 7 for in-depth report). This is an increase on the previous year's data of 77 Trust apportioned cases and 227 community apportioned cases also reflected in national increase in cases

4.5. *Klebsiella* spp. Bacteraemias

There were 45 cases of Trust apportioned *Klebsiella* spp. bacteraemias, against a target of 39 and 57 community apportioned cases (see Appendix 4 for summary data). This compares to 37 and 65 cases respectively for 2021 – 22.

4.6. *Pseudomonas aeruginosa* Bacteraemias

There were 23 cases of Trust apportioned *Pseudomonas aeruginosa* bacteraemias, against a target of 23 and 17 community apportioned cases (see Appendix 4 for summary data). This is a reduction when compared to 24 and 17 cases respectively for 2021 – 22.

4.7. Orthopaedic Surgical Site Infection (SSI) Surveillance

Report written by IPC Surveillance Officer

The IPC Surveillance Officers carried out Total Hip Replacement (THR) and Total Knee Replacement (TKR) surveillance continuously throughout the year using criteria set by UK Health Security Agency (UKHSA).

Cross site, a total of 271 hip procedures and 261 knee procedures were performed for the year. One hip infection was identified from CW and two knee infections were identified, one for each site (see tables below).

The necessary RCA meetings were conducted for the hip and knee infections. No lapses in care were identified during the evaluation. RCA meetings focussed on improving theatre protocols, temperature monitoring of patients, application of suppression therapy and harmonising theatre products cross site. The consultants/surgeons in attendance will facilitate potential changes in practices.

Although the Trust infection rates are above the national average, this is due to the lower number of procedures compared to previous years on both sites.

There were no reported additional cases of infection with regards to 30-day surveillance follow-up with the patients, as compared to the national benchmark. The quarterly report generated by UKHSA is shared with the orthopaedic surgeons for their information and action as required.

Table 1: CWFT Joint SSI Surveillance Data – Total Hip Replacement

Total Hip Replacement (THR)				
Surveillance Period	Number of Procedures	Number of Infections	Hospital % Infections	National Average
Apr – Jun 2022	75	0	0.0%	0.3%
Jul – Sep 2022	62	1	1.61%	
Oct – Dec 2022	70	0	0.0%	
Jan – March 2023	64	0	0.0%	
Total	271	1	0.37%	

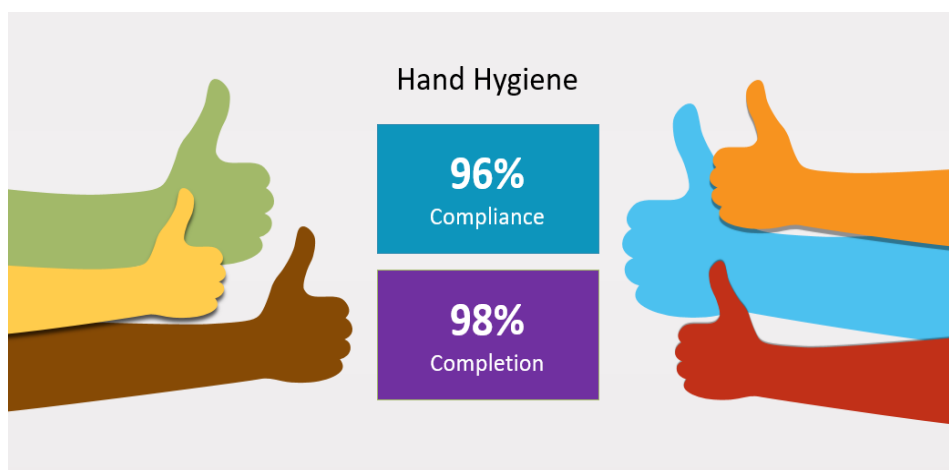
Table 2: CWFT Joint SSI Surveillance Data – Total Knee Replacement

Total Knee Replacement (TKR)				
Surveillance Period	Number of Procedures	Number of Infections	Infections rate %	National Average
Apr – Jun 2022	67	0	0.0%	0.3%
Jul – Sep 2022	73	1	1.37%	
Oct – Dec 2022	71	1	1.41%	
Jan – March 2023	50	0	0.0%	
Total	261	2	0.77%	

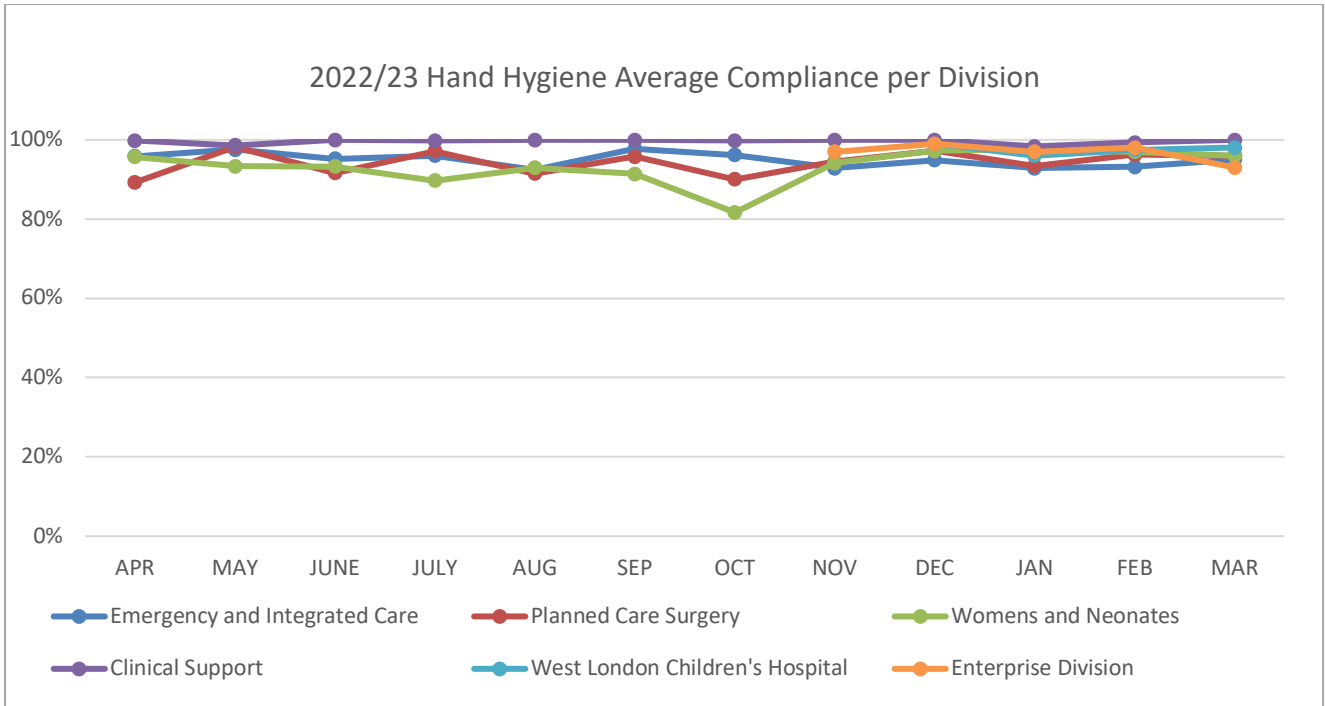
See Appendix 8 for hip and knee data by site.

5. Hand Hygiene

Hand hygiene is a key priority within the organisation. Monthly audits of hand hygiene compliance are conducted and reported to the Infection Prevention and Control Group (IPCG).



From April 2022 – March 2023, 98% of hand hygiene audits were completed for the Trust and the mean hand hygiene compliance rate was 96% (see summary data in Appendix 4). Both completion and compliance increased in 2022/23.



Graph 2: Monthly hand hygiene compliance scores per division

6. Infection Prevention and Control Audits

Infection Control Link Professionals (ICLPS) continue to audit peripheral venous catheters (PVC), urinary catheters (UC) and central venous catheters (CVC) on a monthly basis using a care bundle process. This process is an evidence based approach to clinical interventions which when implemented consistently, reduces variation and the risk of infection.

A new Personal Protective Equipment (PPE) audit was introduced in April 2022 which reviews staff compliance with appropriate PPE usage.

Both sites audit electronically, via Survey Monkey.

Below are the average compliance scores for 2022/2023:

- PVC: 89%
- CVC: 90%
- Paediatrics CVC: 92%
- UC: 88%
- PPE: 88%

From April 2022, divisional triumvirates were sent a divisional dashboard to allow them oversight of their audit data in order to improve on the above performance figures, with feedback received at the monthly IPCG. (See Appendix 4 for further details). Audit compliance significantly improved with the additional oversight and timely intervention.

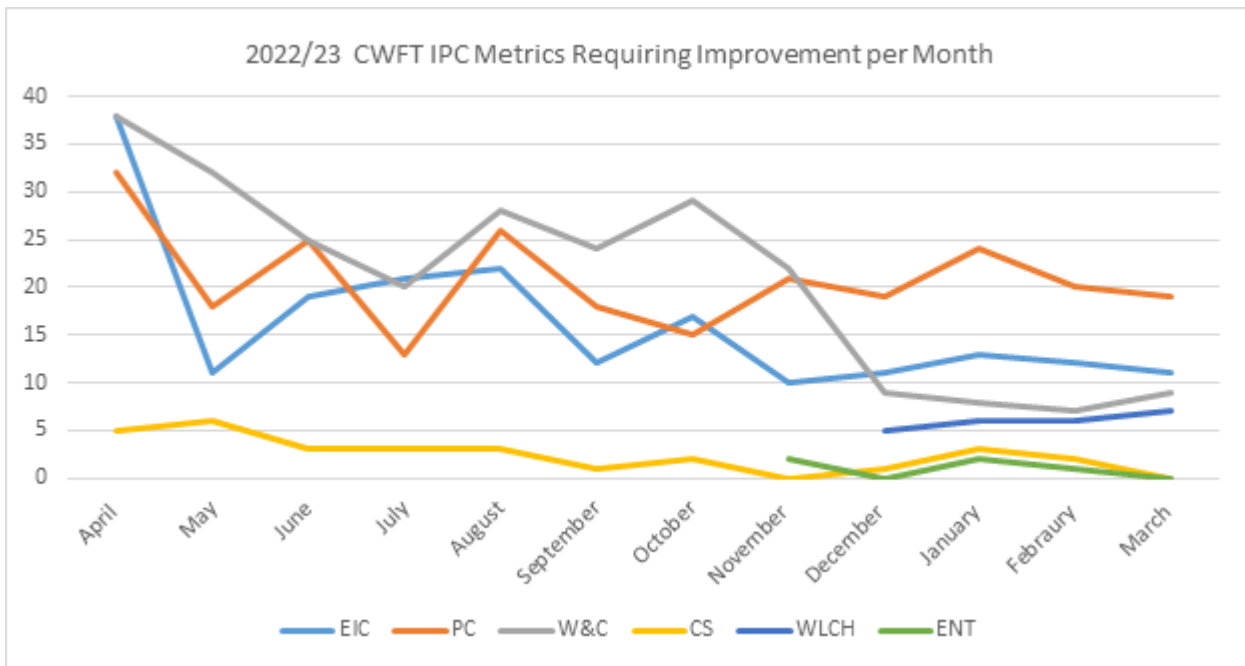


Figure 3: 2022/23 CWFT IPC Metrics Requiring Improvement per Month

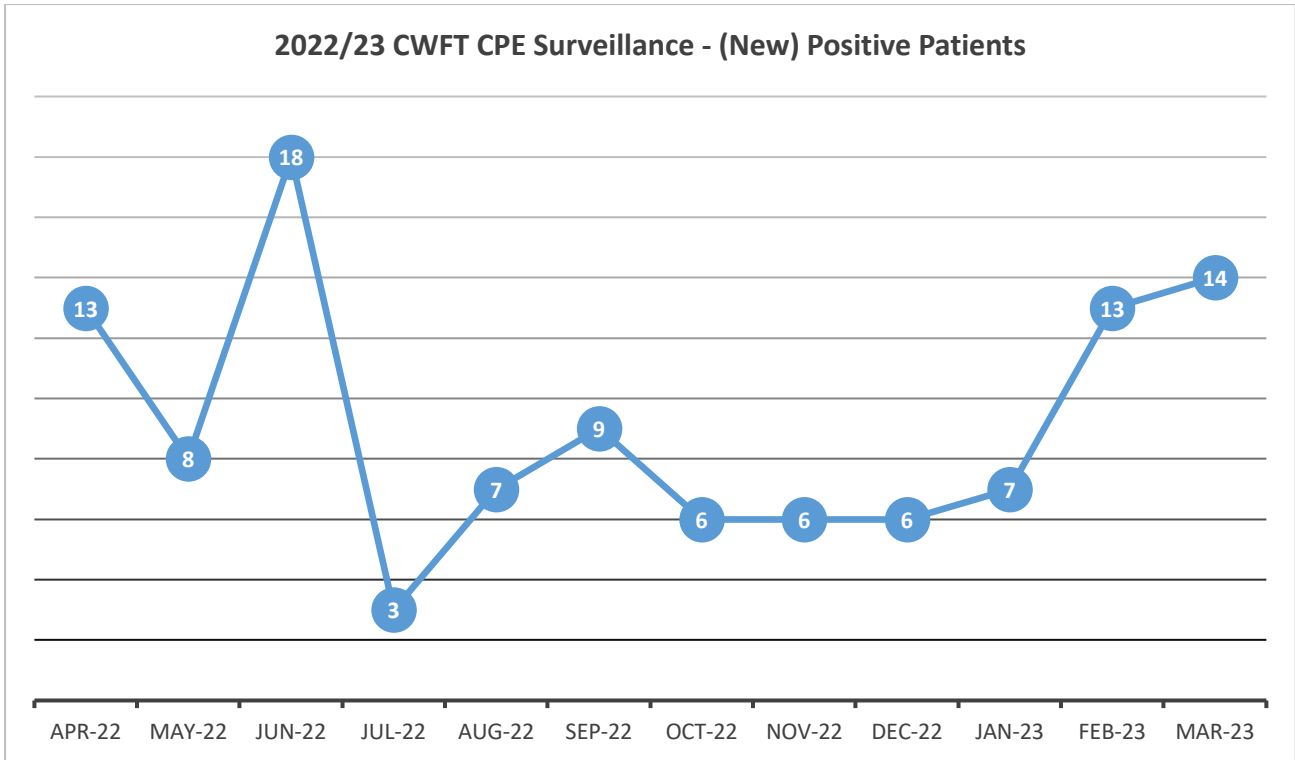
As evidenced from the graph above (Figure 3), audit compliance is improving in the majority of divisions with the number of metrics requiring review reducing across the year. From April 2022 – March 2023 there has been a 59% decrease in metrics requiring review.

WLCH and ENT commenced audits in November and December respectively as both are new Trust divisions.

7. Screening for Carbapenemase-Producing *Enterobacteriales* (CPE)

A Carbapenem Resistant Organism (CRO) risk assessment is carried out on all patients on admission to the Trust; this identifies patients that require screening for CRO and that are at high risk of carrying carbapenemase producing *Enterobacteriales* (CPE). Patients are also screened on admission to ITU and NICU and screened weekly during their augmented care stay.

From April 2022 – March 2023 there were a total of 110 newly identified cases of CPE, 49 at the CW site and 61 cases at the WM (see Appendix 4 for Organism and Mechanism of resistance data).



Graph 4: CWFT Monthly New CPE Case Surveillance

8. Emerging Infections / Horizon Scanning

8.1. COVID-19

The COVID-19 pandemic remained a large focus of the IPC work alongside the usual work carried out by the IPC team in 2022/2023. The IPC team was responsive and actively involved in implementing the UK Health Security Agency (UKHSA) and pan-London guidance as it was published to keep patients, visitors and staff safe. This was delivered actively through review of and writing of guidelines, patient pathways, Trust wide webinars, updated communication bulletins and included in all training content.

Significant new guidance was introduced by the UKHSA early in April and May 2022, including changes to the testing of symptomatic staff and management of those testing positive including utilising lateral flow testing to allow earlier return to work. In addition, the government introduced new guidance 'COVID-19 testing in periods of low prevalence' in August 2022 which recommended the cessation of routine asymptomatic testing for the majority of asymptomatic staff and patients.

There was also the introduction of lateral flow testing to allow the earlier desolation of patients. The IPC team led on the development of new staff and patient testing pathways in order to safely introduce the local changes required to implement the new national guidance.

New pathways were introduced to implement testing of patients only when presenting with or developing respiratory symptoms and routine asymptomatic testing for most patients ceased. The IPC team continued to manage clusters/outbreaks and to identify contacts of patients with COVID-19 in need of testing and monitoring as a precautionary measure to facilitate early identification, isolation and management.

Updated guidance was also received in the form of a rapid review of aerosol generating procedures (AGPs) in June 2022. The IPC team carefully considered the recommendations in conjunction with the Chief Nurse to ensure safe implementation in line with national guidance.

Whilst the number of COVID-19 cases fluctuates, the incidence of severe illness has reduced over the last year. The team has, and will continue to, promote standard infection control and transmission based precautions, in line with national IPC guidance, to provide on-going safe care for patients, visitors and staff at all times.

8.1.1. COVID-19 Clusters / Outbreaks 2022-23

During the year, the IPC team advised on and supported the management of 3 outbreaks and 3 clusters of COVID-19 on the Chelsea site and 10 outbreaks and 3 clusters on the West Middlesex site, for a total of 19 managed incidents. Divisionally, EIC division managed 10 outbreaks and 5 clusters, while PC division managed 3 outbreaks and 1 cluster.

Regular outbreak/ incident meetings were held and the following additional containment measures were implemented:

- Isolating/cohorting COVID-19 positive patients.
- Monitoring all patients daily for new onset of respiratory symptoms.
- Performing Lateral Flow Tests (LFT) on Day 6 and Day 7 for those COVID-19 positive to facilitate early de-isolation.
- Entire ward COVID-19 testing to identify and isolate cases promptly.
- Ward/bay closures to protect vulnerable patients.
- Increased frequency of cleaning implemented and infectious discharge cleans for affected bays.
- Daily staff LFT screening.
- Restricted visiting for the COVID-19 positive patients and contact bays.
- Regular IPC ward visits to support staff
- Positive patients were transferred to a COVID-19 managed ward and/or side rooms.
- Patient contacts vulnerability status reviewed and screened accordingly. Contacts treated as vulnerable pending vulnerability assessment status to ensure patient safety.

The vast majority of the patients testing positive were asymptomatic or had mild infection. The large number of positive patients identified, together with managing subsequent outbreaks created a significant challenge, however business continuity, patient safety and flow was maintained and facilitated.

Cases were classified according to the below COVID-19 case definitions:

HO.iHA: - Indeterminate as to whether acquired in hospital or community (diagnosed 3-7 days)

HO.pHA: - Probable hospital acquired (diagnosed 8-14 days after admission)

HO.dHA: - Definite hospital acquired (diagnosed 15+ days after admission)

8.2. Monkey pox

In May 2022 autochthonous transmission of Monkeypox (MPX) was identified in the UK. Through the diagnosis of early cases, the IPC team were the first to herald to UKHSA colleagues a wider network cluster on the 15th May needing further investigation. Daily briefings with UKHSA at local and national level followed, helping to inform early case definitions and subsequent guidelines.

Ahead of the curve, CWFT actioned IPC precautions and guidance to staff prior to UKHSA notifications to ensure staff and patient safety from 16th May 2022. Advice on requirements for PPE were cascaded by IPC on evening of notification of our first results with information on diagnosis, enhanced cleaning initiated and immediate IPC pathway review to ensure streamlining of patient flow at CWFT, minimising patient-patient interactions in GUM and other services, and establishing pathways for optimal patient review, diagnosis, testing and staff safety.

Infrastructure

The infrastructure of GUM services was reviewed and services switched to pre-booked appointments only, utilising one entrance with clear signage, separate exits and one-way patient flow. Waiting room requirements were minimised along with opportunities for cross-transmission with optimised patient flow, on-site cleaners and rotating cleaning rooms to allow for sufficient patient rooms dictating bookings and an adequate supply of PPE and waste disposal was ensured.

Patient pathways were continually reviewed by IPC to ensure oversight of infrastructure to optimise safe delivery of care throughout all stages of the infection with reconfigurations of services as required. An initial MPX testing hub was designated to mitigate staff exposure to potential MPX cases and ensure standardisation of testing. Adjacent to the acute hospital site, the clinic was chosen to support the potential identification and admission of systemically unwell individuals, reducing unnecessary delay and travel. Referral to the hub was via sexual health clinics or telephone triage. Staff within this clinic underwent

updated fit-testing for FFP3 respiratory PPE. Following the UKHSA announcement, all walk-in activity to sexual health clinics ceased. Patients reporting skin rashes of any type underwent telephone triage with a senior member of staff before attending in person and the alterations in service infrastructure facilitated swift and safe review of individuals with suspected MPX, with a clear admission pathway for those requiring more intensive healthcare support, maintaining patient and staff safety and wellbeing.

Education

Educational sessions for all staff, including within the sexual health directorate were delivered on MPX, encompassing its clinical presentation, and instructions on how to review and manage the condition through virtual educational events with a forum for question-and-answer sessions including through all staff webinars, Grand rounds as well as PPE education session.

New pathways were rapidly developed for testing (iteratively updated as UKHSA advice changed over the initial days of the cluster) with onward referral facilitated. The Trust website was updated with a landing page for MPX including updated clinical, testing and IPC guidance, how to recognise associated symptoms and signs and where to seek further support, including clinical review.

IPC Measures

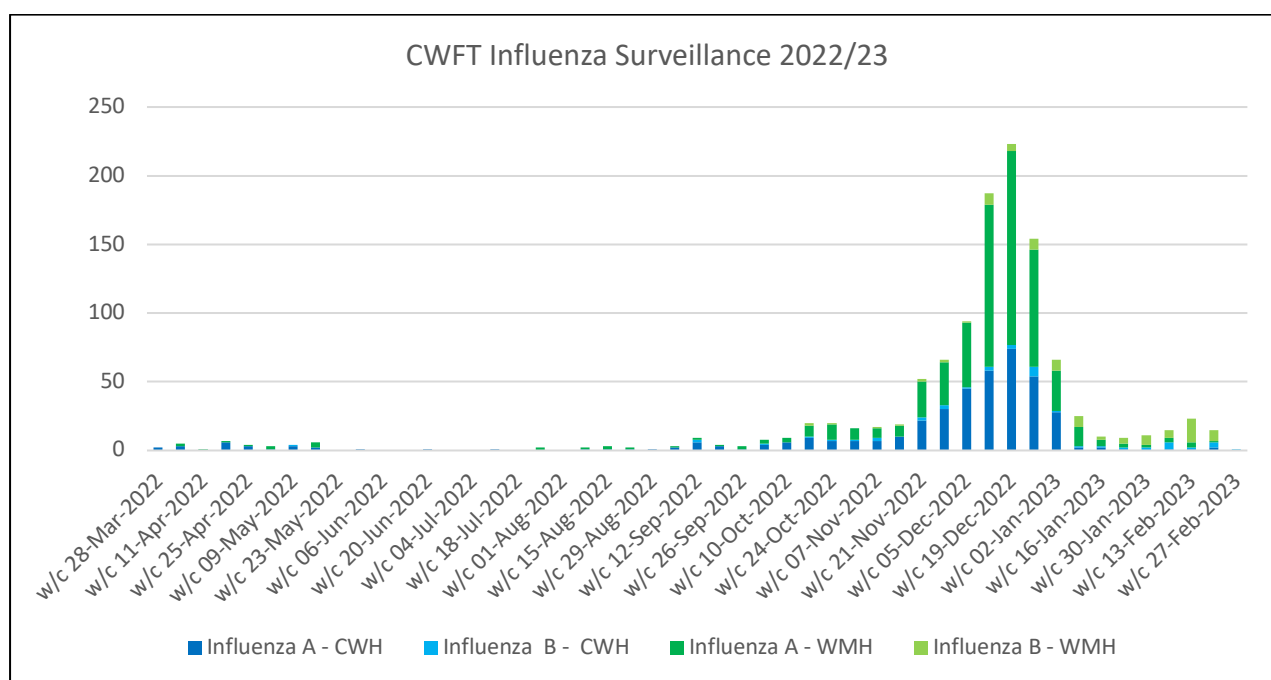
To support appropriate IPC measures, all satellite GUM services were reviewed by the IPC team, PPE supplies were distributed to clinics from the main hospital supply and clear instructions regarding PPE use and disposal were disseminated, along with establishing enhanced cleaning of all sites.

There were no known cases of MPX cross transmission at the Trust and the IPC team and wider teams at CWFT are proud of the rapid and collaborative response demonstrated in the management of MPX which was recognised and commended at a national level by Professor Susan Hopkins at UKHSA

9. Seasonal Influenza

Chelsea and Westminster Hospital NHS Foundation Trust began flu planning in July 2022 and used learning from previous flu seasons to develop a robust plan, particularly in relation to vaccination of front line staff. The steering group met fortnightly initially and then weekly from November 2022 until February 2023. The group was chaired by the Director for Infection Prevention and Control and had representation from infection prevention control, microbiology, nursing, clinical divisional representatives, maternity, pharmacy and communications and cross-site medical directors. Planning meetings were held throughout the summer of 2022 and staff vaccination commenced at the end of September 2022.

Graph 5 illustrates Influenza A and Influenza B positivity by site demonstrating a peak for Influenza A in December 2022, this is in line with Table 3 and regional data (see graph 6) below.



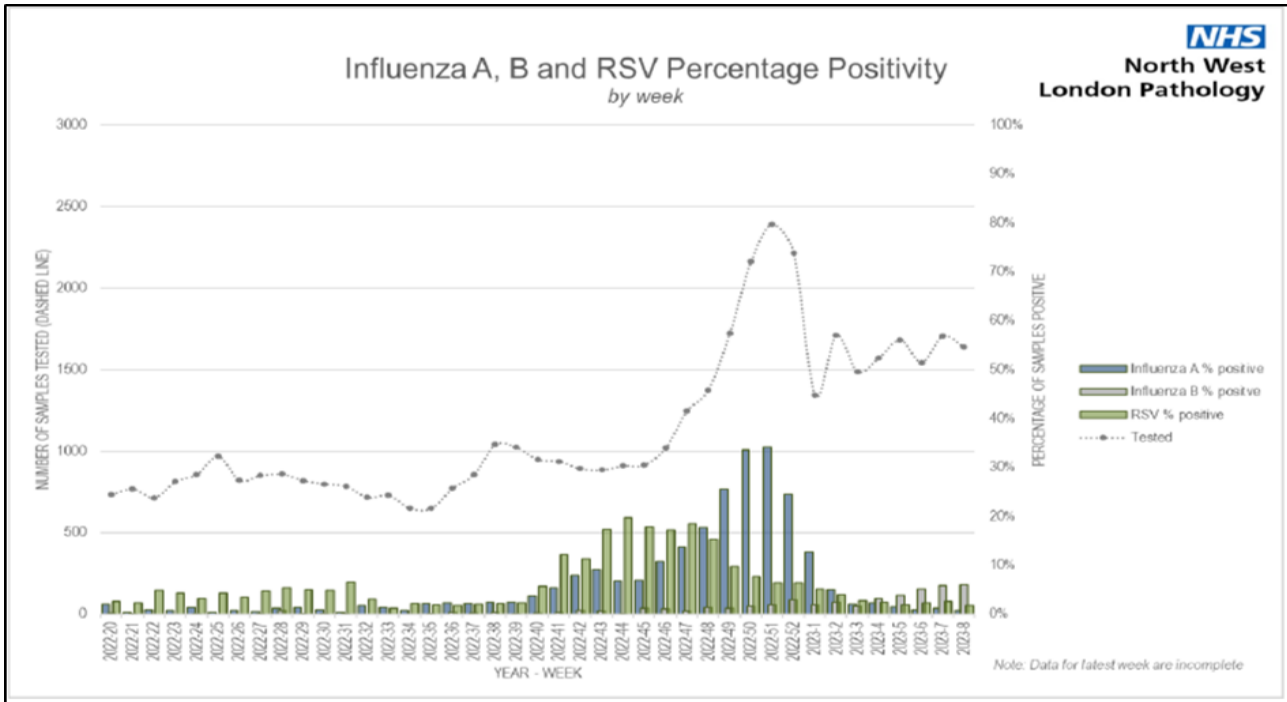
Graph 5: CWFT Seasonal Influenza Surveillance

Table 3: CWFT Influenza Cases

28/03/2022- 01/03/2023	Influenza A No. of cases	Influenza B No. of cases
WMH	579	91
CWH	409	45
CWFT	988	136

- 85% of the cases occurred from October 10th 2022 - January 15th 2023.
- Influenza A incidence was highest the week commencing 19/12/2022.
- The Influenza B incidence was highest the week commencing 13/02/2023.

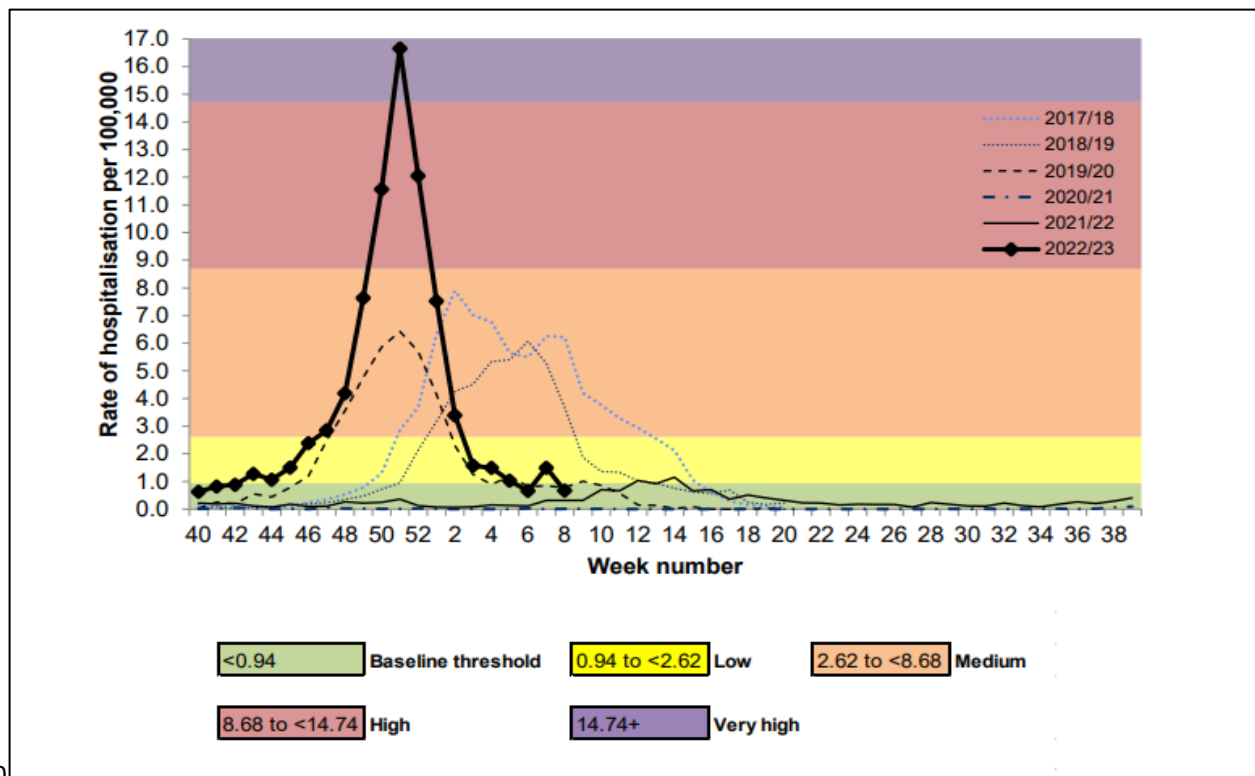
The North West London Pathology graph below showing the samples taken and positivity by week, clearly illustrates the early onset of Influenza A and peaking in December.



Graph 6: NWLP Influenza A, B and RSV percentage positivity.

National Influenza data

Influenza hospital and ITU admissions in England were at the highest levels in 5 years during the 2022/23 season.



Graph 7: Weekly overall Influenza hospital admission rates per 100,000-trust catchment population with MEM (Moving Epidemic Method) thresholds, SARI Watch, England. UK HSA weekly influenza surveillance report dated 02/03/2023.

Influenza Cluster

A cluster of Influenza A occurred at CWH on Nightingale ward in November 2022. Five patients tested positive in one bay, clinical management, increased cleaning and monitoring were implemented immediately and the cluster did not extend outside of the bay. All patients fully recovered. No positive cases were identified amongst staff. UKHSA confirmed at the time that community flu rates were increasing nationally.

9.1. Staff Vaccination

The Trust achieved 49% vaccination rate of front line staff against a CQUIN target of 70%.

Table 4: Staff Vaccination Rates

	CW	WM
Eligible Substantive staff	4239	2258
Flu Immunised	2131	1195
Rate (flu)	50.27%	52.92%
C19 Immunised	2035	981
Rate (C19)	48.01%	43.45%

Whilst the vaccination rate result was lower than the set CQUIN target, vaccination coverage was in line with other organisations across the country. The Trust achieved the highest rate compared to other local acute trusts, with the best performing trust achieving only 57%. Staff vaccination rates for Influenza per site showed that vaccine uptake was equitable across both sites, with only a marginal difference of 2.65%. As well as roving vaccinators, WMH offered a walk-in service whilst CWH was largely appointment focussed. Vaccine hesitancy and perceptions of vaccine effectiveness may have contributed to the reduction in staff vaccinations.

Staff Vaccination per division for both Influenza and COVID-19

Table 5: Benchmarking in the North West London Health and Care Partnership Sector

Organisation Name	No. of HCWs with Direct Patient Care	Seasonal Flu doses given since 1st September 2022	
		No.	%
CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST	6,548	3,258	49.80%
THE ROYAL MARSDEN NHS FOUNDATION TRUST	3,853	1,879	48.80%
THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	3,264	1,559	47.80%
IMPERIAL COLLEGE HEALTHCARE NHS TRUST	12,591	5,784	45.90%
ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	1,350	598	44.30%
CENTRAL LONDON COMMUNITY HEALTHCARE NHS TRUST	4,710	2,080	44.20%
LONDON NORTH WEST UNIVERSITY HEALTHCARE NHS TRUST	7,907	3,465	43.80%
WEST LONDON NHS TRUST	3,753	1,494	39.80%

Table 6: Benchmarking Vaccination Rates against Other Organisations

Organisation Name	No. of HCWs with Direct Patient Care	Seasonal Flu doses given since 1st September 2022	
		No.	%
EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	7,262	4,139	57.0%
KINGSTON HOSPITAL NHS FOUNDATION TRUST	3,555	1,966	55.3%
GREAT ORMOND STREET HOSPITAL FOR CHILDREN NHS FOUNDATION TRUST	4,761	2,536	53.3%
GREAT ORMOND STREET HOSPITAL FOR CHILDREN NHS FOUNDATION TRUST	4,761	2,536	53.3%
LONDON AMBULANCE SERVICE NHS TRUST	5,175	2,739	52.9%
CROYDON HEALTH SERVICES NHS TRUST	3,971	2,057	51.8%
HOUNSLOW AND RICHMOND COMMUNITY HEALTHCARE NHS TRUST	1,348	675	50.1%
CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST	6,548	3,258	49.8%
ST GEORGE'S UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	9,378	4,615	49.2%
THE ROYAL MARSDEN NHS FOUNDATION TRUST	3,853	1,879	48.8%
THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	3,264	1,559	47.8%

Table 7: Staff Vaccination Rates by Division

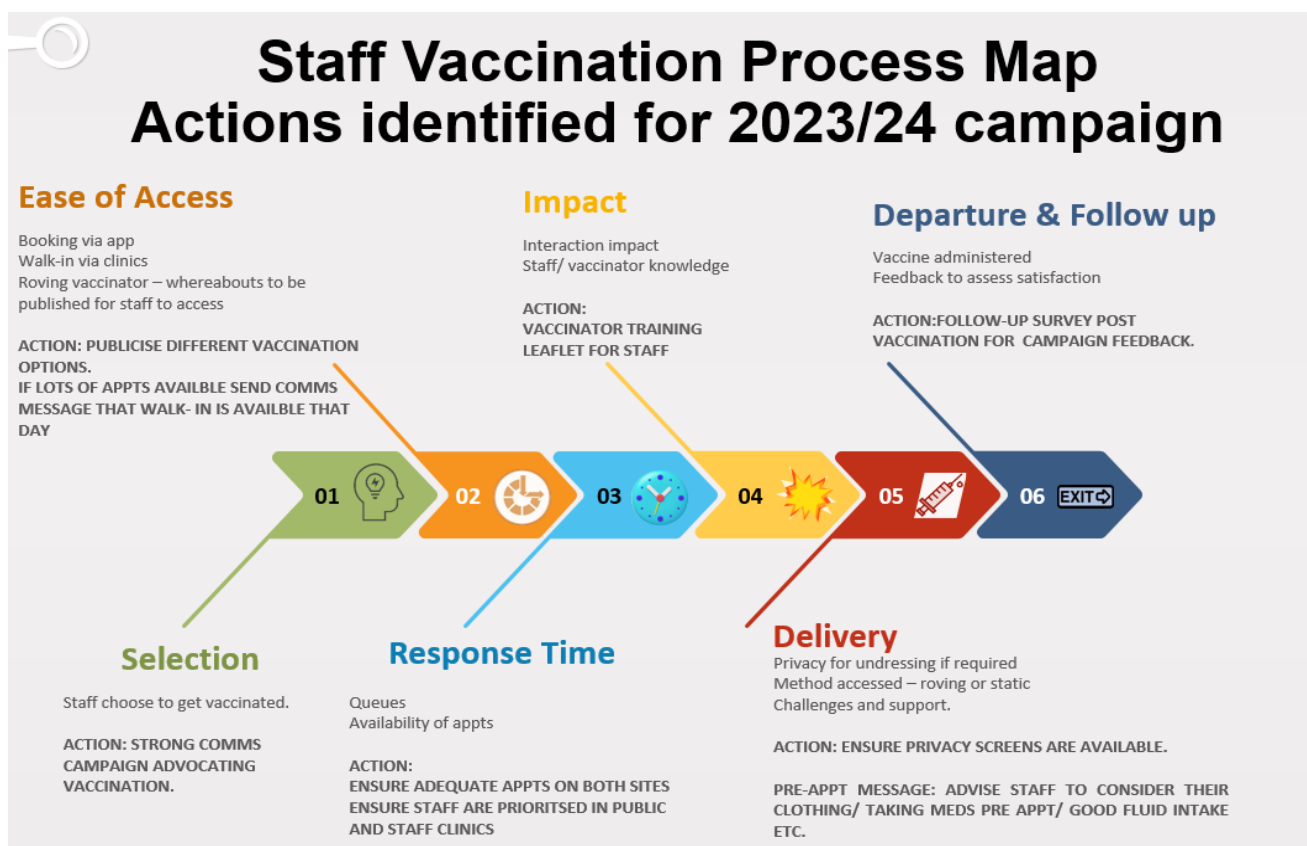
	Flu Vaccine		COVID-19	
	Internal	CQUIN	Internal	CQUIN
Overall (CQUIN) (Frontline staff)	51.19%		46.42%	
Overall (Internal) (all Trust staff)	56.76%		51.11%	
Emergency & Integrated Care Division	59.90%	59.90%	51.56%	51.56%
Corporate Division	44.78%	59.66%	44.94%	57.98%
Planned Care Division	53.02%	53.02%	49.50%	49.50%
Women's, Children's and Sexual Health Division	46.54%	46.54%	44.59%	44.59%
Enterprise Division	45.26%	45.26%	41.05%	41.05%
Clinical Support Division	43.23%	43.23%	36.61%	36.61%

9.2. Planning for 2023 / 24

Learning from the 2022/23 campaign, early planning and provision of vaccines and educational resources will be utilised. The campaign will focus on the months of September and December 2023 for roving vaccinators and other initiatives as this is when vaccine uptake is highest.

Planning for the 2023/24 campaign commenced in April 2023 and will continue until the campaign commences in September 2023. The planning stages are focusing on the following initiatives:

- Funding for campaign incentives – paper to be presented for finance executive approval.
- Communications strategy
- Launch events including materials such as badges, incentives and banners.
- Pop-up vaccination events.
- Roving vaccinators.
- Reporting of vaccine figures externally
- Divisional/speciality support e.g. Occupational Health vaccination clinics.
- Preparation of flu plan 2023-24.
- Staff engagement opportunities.
- Options appraisal to capture staff who have received vaccination elsewhere.
- Post vaccination feedback.
- In-patient vaccination.



10. Incidents, Outbreaks and Clusters (Excluding COVID-19)

10.1. Chelsea and Westminster Hospital

Increased incidence of MRSA on the Neonatal Unit

From 31/03/22 – 19/06/22, seven babies were identified to have acquired MRSA on the unit, all babies were colonised initially and two babies went on to develop MRSA blood stream infections (BSI). Specimens from five of the babies were sent for typing to the UKHSA laboratory, the remaining two babies were transferred to another hospital and typing was not able to be performed by the receiving unit where the babies had tested positive. Three different strains of MRSA were found, which nevertheless suggested cross-transmission. A route cause analysis was performed for each case and a comprehensive action plan generated which involved: increased visits by the IPC team and senior nursing team; daily communication with senior nurses and doctors to update the action plan; review of cleaning policies and practices for equipment and the environment; review of incubator cleaning guidance; review of peripheral vascular devices and central venous catheter practices; review of blood sampling; improving hand hygiene awareness; personal protective equipment compliance; education and training; parental involvement and education. Lessons learned from the incident included the importance of identifying colonised neonates quickly so that appropriate management could be initiated; identifying and interrupting potential reservoirs of transmission; the importance of continuous education and training and good communication amongst all staff groups at all levels. UKHSA were involved in the incident and root cause analysis meetings and helped support decision making.

Cross transmission of multi-drug resistant *Acinetobacter baumannii* on Annie Zunz ward

Carbapenem-resistant Organism (CRO) screening specimens and a clinical sample taken on 31/03/22 and 01/04/22 identified two patients colonised with multi-drug resistant *Acinetobacter baumannii*, the samples were sent to the UKHSA laboratory for typing. Both patients were admitted to Annie Zunz ward on 31/03/22. One patient was in a side room for the duration of the hospital stay, the second patient had been placed in a bay with one other patient for approximately 12hrs before being isolated. Once the positive results became known, all patients on Annie Zunz ward were screened for CRO as were the patients in the SMA bay following a patient transfer. Annie Zunz ward received an infectious clean, all consumables were disposed of and enhanced cleaning of the environment and equipment was carried out until the two patients were discharged. This prevented further spread and no further positive cases or transmission was identified from the contact screening. Typing results became available on 03/05/22, suggestive of cross-transmission. Although Annie Zunz ward were proactive in screening these patients, the lesson learnt was that whilst awaiting CRO screening results, patients should continue to remain isolated.

10.2. West Middlesex Hospital

Carbapenem-resistant Organism (CRO) outbreak on Lampton and Osterley 2 (April 2022)

Five patients were identified across Lampton and Osterley 2 wards with *Klebsiella pneumoniae*, NDM from 2nd April 2022 to 23rd April 2022. Typing suggested cross-transmission. The following additional IPC control and containment measures were initiated immediately - outbreak meeting convened, weekly CRO screening of the ward until assurance of no further cross-transmission, enhanced cleaning of all equipment and environment, weekly steam cleaning of commodes, the importance of compliance with hand hygiene and use of PPE emphasised, appropriate disposal of waste and linen reiterated, IPC refresher conducted to staff highlighting the multi-drug resistant organisms policy. The outbreak emphasised the importance of compliance with IPC measures and was supported by UKHSA colleagues.

Measles increased incidence on ED (June 2022)

Seven patients (2 adults and 5 children) were identified with measles on presentation to ED from 2nd June 2022 to 29th June 2022. Four patients (1 adult and 3 children) required further clinical management on the ward. All results have been communicated to ED and concerned wards to contact trace potential patient and staff contacts in order to initiate management as necessary. No patient and staff contacts were reported and no onward transmission between patients and staff identified. The IPC team visited and supported affected areas and reiterated strict adherence to respiratory precautions and patient placement. The ED and ward team confirmed they immediately isolated the patient with suspected or confirmed measles infections and informed the Local Health Protection Team.

Carbapenem-resistant Organism (CRO) on AICU (August 2022)

Two patients were identified on AICU with *Klebsiella pneumoniae*, and OXA-48 & NDM carbapenemase resistance mechanisms. The first case was identified from a rectal swab sent on 15th August 2022 whilst the second case from sputum sample sent on the same date. Typing results suggested cross-transmission. The following additional IPC control and containment measures were initiated immediately - outbreak meeting convened, whole unit CRO screening, enhanced cleaning of all equipment and environment, weekly steam cleaning of commodes, the importance of compliance with hand hygiene and use of PPE based on isolation precaution signage was reiterated, limited cohort isolation within AICU with strict enhanced precaution was initiated whilst awaiting a side room, regular IPC and senior nursing team visits were conducted to support staff. The outbreak emphasised the importance of screening, early identification, isolation, signage and cleaning.

Norovirus outbreak on Syon 2 and Kew (January 2023)

In January 2023, there were two norovirus outbreaks on Syon 2 and Kew ward, with four symptomatic patients identified on each ward. A number of staff across both wards were also symptomatic and remained off from work. The following additional IPC control and containment measures were initiated immediately -an outbreak meeting was convened, isolation of all patients with strict enteric precautions was initiated, the importance of compliance with hand hygiene using soap and water was reiterated, symptomatic patients were screened for norovirus and other faecal pathogens, a no admissions policy on affected bays for 48hours post isolation was initiated, safety netting advice to all discharged patients was provided, enhanced cleaning of all equipment and environment, the necessary infectious discharged clean on affected beds/side rooms was arranged, all patients were monitored for any new onset diarrhoea/vomiting symptoms, restricted visiting was implemented including no volunteers on affected bays. The outbreak emphasised the importance of prompt identification and isolation of symptomatic patients and the importance of compliance with IPC measures. UKHSA colleagues attended and supported management at all outbreak meetings.

Carbapenem-resistant Organism (CRO) outbreak on Kew (March 2023)

Fourteen CRO positive patients were identified on Kew ward, over an outbreak with the first positive identified on 20th February 2023 and the last positive identified on 28th March 2023. There were eight CRO NDM *Escherichia coli*, of which five returned the same typing with 3 samples still awaiting typing.

There were three CRO OXA-48 *Escherichia coli*, of which two returned the same typing with one awaited. Other CRO isolates were also identified but not related by typing to the cluster (NDM *Klebsiella pneumoniae*; IMP *Klebsiella pneumoniae*; and OXA-48 *Escherichia coli*, & *Citrobacter freundii*, IMP).

The following additional IPC control and containment measures supported by UKHSA colleagues were initiated immediately – several outbreak meetings conducted, ward closed to all admission on 5th March 2023 and reopened on 10th March 2023 with the exception of Bay 4 which remained closed to admission from 3rd March 2023 to 12th April 2023, Stroke Network notified about the ward closure, the importance of thorough hand hygiene and strict adherence to bare below the elbow with compliance of appropriate use and disposal of PPE reiterated, the importance of dedicated equipment for CRO patients emphasised including all equipment cleaning after each use, enhanced cleaning implemented until 31st March 2023, with cleaning on CRO cohort bay 4 extended until 12th April 2023, steam cleaning of sluice initiated along with commodes and therapies equipment including hoists, weekly ward screening conducted for four weeks in addition to contact screening on affected bays, CRO patient cohorted in bay 4, regular visits by the IPC team and senior management were conducted to support the ward.

Lessons learnt from the outbreak highlighted the importance of isolating patients with challenging behavioural issues including wandering patients with poor hygiene standards, timely screening of contacts to facilitate early escalation and de-escalation of IPC measures, and the importance of consistency of good hand hygiene practice, appropriate use and disposal of PPE, changing of PPE between patients and providing care, and ensuring educating agency/bank staff about the current IPC policies of the Trust.

Norovirus increased incidence on Lampton (March 2023)

Five patients were identified on Lampton Bay 1 with diarrhoea and/or vomiting from 22nd March 2023 to 24th March 2023 of which 3 patients were confirmed norovirus positive. The following additional IPC control and containment measures were initiated immediately – communication with the ward staff and email correspondence sent with a plan of action to be initiated, patients isolated and managed with strict enteric precautions, the importance of compliance with hand hygiene using soap and water reiterated, a no admissions policy was implemented, norovirus outbreak record chart for the whole ward initiated, necessary infectious discharged cleans performed on affected beds/side rooms before any admissions, safety netting advice to all discharged patients provided, increased cleaning for affected bays and side rooms initiated, no volunteers and restricted visiting on affected bay and side rooms implemented.

The incidence emphasised the importance of prompt identification and isolation of symptomatic patients and prompt communications to all staff.

11. Education and Training

The IPC team provide training for staff across the organisation. This includes mandatory training for all staff along with mandatory updates for clinical staff. The team also provided a wide range of additional education and training sessions. The team provides induction training for all new clinical staff, including junior doctors and medical students. Towards the end of the year the team developed a successful programme of updating existing infection control link practitioners (ICLP) training via online meetings. The team also delivered a well-attended training programme in response to an increase in MRSA infections which utilised a combination of ward visits, online updates and IPC roadshows. A new updated eLearning module was further developed and has been delayed by national and local changes in guidance, however will replace the existing module early in this financial year 2023.

Table 8: Staff Mandatory Training Compliance

Infection Control (Hand Hygiene)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Overall %	88%	89%	89%	90%	89%	89%	90%	91%	91%	92%	93%	94%
Clinical Support Division	87%	89%	90%	90%	89%	89%	92%	92%	92%	93%	94%	96%
Corporate Division	90%	90%	88%	90%	91%	90%	90%	93%	94%	94%	94%	93%
Emergency & Integrated Care Division	86%	85%	88%	93%	93%	93%	90%	91%	91%	92%	88%	85%
Enterprise Division	83%	86%	87%	84%	84%	83%	86%	86%	90%	91%	89%	92%
Planned Care Division	89%	90%	90%	92%	90%	91%	85%	87%	87%	87%	88%	90%
West London Children's Hospital							79%	80%	77%	76%	90%	95%
Women's, Children's & Sexual Health Division	83%	82%	84%	85%	84%	87%	88%	90%	89%	90%	92%	94%
Infection Control - Level 2	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Overall %	90%	90%	90%	90%	90%	88%	88%	89%	90%	91%	92%	92%
Clinical Support Division	90%	89%	91%	91%	90%	88%	89%	89%	91%	91%	91%	89%
Corporate Division	75%	84%	87%	85%	83%	79%	83%	81%	83%	84%	85%	90%
Emergency & Integrated Care Division	91%	91%	91%	91%	90%	88%	89%	91%	91%	93%	92%	92%
Enterprise Division	92%	91%	93%	95%	94%	90%	91%	93%	94%	96%	96%	94%
Planned Care Division	91%	91%	90%	90%	90%	89%	90%	90%	90%	91%	92%	90%
West London Children's Hospital							85%	86%	87%	90%	93%	94%
Women's, Children's & Sexual Health Division	90%	90%	89%	90%	88%	87%	86%	85%	87%	89%	92%	92%

11.1. IPC Roadshows

The IPC team launched a roadshow campaign cross site, providing ward based education sessions. The team focused on MRSA and the key themes were: PPE, hand hygiene and suppression therapy. The sessions were extremely well received and over 100 staff have attended. The roadshow themes changed monthly with a focus on hand hygiene, glove use and bare below elbows.



12. Infection Control Link Professionals (ICLPs)

The ICLPs are responsible for instigating and monitoring the Trust's infection control priorities at ward/department level. This includes the completion of hand hygiene audits, personal protective equipment audits and High Impact Intervention audits, which consist of the on-going care of peripheral vascular devices, central venous catheters and urinary catheters.

The IPC team held three ICLP study days this year in which 32 staff were trained. The divisional breakdown of this includes: 6 Emergency and Integrated Care staff, 13 Planned Care and Surgery staff, 9 Women's and Children's staff, including HIV, GUM, 3 from Clinical Support and 1 from Enterprise. The ICLP study days continue to be oversubscribed with a long waiting list of interested staff keen to be supported in improving IPC practice across the Trust.

Additionally since January 2023, 12 ICLP refresher sessions have been provided by the IPC team for ICLPs, allowing them the opportunity to update their knowledge and skills. To date 174 staff have attended refresher sessions.

13. Infection Prevention and Control Board Assurance Framework

The board assurance framework (BAF) document brings together all relevant information and guidance required to assess compliance against the National Infection Prevention and Control Manual (NIPCM) and other related infection prevention and control guidance, to identify risks associated with infectious agents, providing an additional level of assurance to the Board.

The BAF was first drafted as a guidance document for healthcare providers in response to COVID-19; since UKHSA COVID-19 guidance was archived at the end of April 2022, the BAF in combination with the NIPCM are supporting this transition.

Using the BAF ensures that CWFT can respond in an evidence-based manner to maintaining the safety of patients, service users, and staff. The BAF is regularly reviewed to ensure currency and identify gaps in policy and practice implementation. Risks and gaps are captured and the required processes to address these gaps are highlighted to the relevant leads and divisions to ensure patient and staff safety

See Appendix 2 for the most up to date draft of the BAF.

14. Overarching IPC Priorities 2023-24

See Appendix 9 for progress on IPC objectives 2022-23.

Table 9: IPC Priorities for 2023-24

Objective	Rationale
Reinvigorate Gloves Off campaign	Opportunity to review the best available evidence regarding PPE usage. Improve healthcare worker hand hygiene practice. Education for healthcare staff on best practice for glove use. Reduce glove wastage. Assess Financial impact of reducing glove use
Increase the number of ICLP trained staff across the Trust	To ensure there are IPC role models across all wards and departments acting as a visible IPC advocates. Promotion of best IPC practice. Enable effective challenging/managing of poor practice across all disciplines. ICLPs can be used a training resource for local staff. ICLPs will be encouraged to collaborate and communicate regularly with the IPC team to offer support locally.
Upskilling and education of the IPC team	Ensure the IPC team continue to develop specialist IPC skills and knowledge to better support and educate healthcare workers.
CVC Line Surveillance	This will enable identification of gaps in practice. Opportunity to review the best available evidence regarding line care. Reduce Gram positive and Gram negative line-associated bloodstream infections. Improve patient outcomes.
Urinary Catheter Surveillance	Identify gaps in practice. Opportunity to review the best available evidence regarding urinary catheter care. Reduce Catheter associated UTIs. Reduce Gram negative bloodstream infections associated with urinary catheter care. Improve patient outcomes.
Reduce Trust apportioned CDI cases.	Improve patient safety and patient outcomes
Reduce Trust apportioned <i>E.coli</i> bacteraemia cases	Improve patient safety and patient outcomes
Collaborative working with divisions to improve standards.	Transparency and oversight of cases of hospital acquired infections, IPC audit results studies/ reports pertaining to the Divisions. Improve patient safety and patient outcomes
Work with the ICS and local health and social care organisations to reduce Gram-negative bloodstream infections.	The Government has an ambition to halve healthcare associated Gram-negative blood stream infections by delivering a 25% reduction by 2021 – 2022 with the full 50% reduction by 2023 – 2024.
Continue to provide assurance that the Trust complies with the criteria in the Code of Practice for the control of infection and related guidance (2015)	The Code of Practice sets out the 10 criteria against which the Trust will be judged on how it complies with the registration requirements related to infection prevention by the Care Quality Commission.
Continue to monitor multi-drug resistant micro-organisms and ensure processes are in place to minimise their transmission.	The increase in antimicrobial resistance is recognised both nationally and internationally as a major threat to public health.

15. Antimicrobial Stewardship

Report written by Antimicrobial Pharmacist

15.1. Antimicrobial Pharmacist Stewardship Activities

The Trust has a dedicated specialist pharmacy team working with medical microbiology, infection control and clinicians to form the Antimicrobial Stewardship Group (ASG), which reports to the Medicines Committee. The antimicrobial pharmacists and microbiologists work closely to ensure appropriate antimicrobial stewardship guidance is practiced in the clinical setting. Regular ward rounds, MDTs, and surveillance help support this.

Key developments and achievements of the antimicrobial pharmacists during 2022/23 include:

15.1.1. Specialist Advice / Support / Ward Rounds

The antimicrobial team provide daily (Monday – Friday) ward rounds and virtual reviews to all in-patients at the CWFT with the exception of neonates. The team use computer decision support system (CDSS) linked through Cerner to proactively identify patients on antimicrobial therapy and provide a timely review of antimicrobial prescribing. There is immediate and real time feedback on AMS performance to clinical teams, allowing for continued AMS education to users. The team has oversight of 230 patients (110 CWH and 120 WMH) on antimicrobials, including antifungals and COVID-19 therapies, every day (Monday – Friday). A total of 23,014 documented interventions made over the last financial year.

15.2. AMS service provision during COVID-19 pandemic

The Trust AMS service has been repurposed from March 2021 to manage the infective complications of SARS-CoV-2. The service has lead on the introduction of novel evidence based therapies, controlling the use of non-evidence based interventions and supporting the work of the ward-based and research teams. COVID-19 anti-infective guidelines have been produced to reflect the emerging evidence base and rapidly disseminated to ward-based clinicians through the traditional AMS structure. The infectious disease (ID) & Microbiology consultants have worked closely with the Trust's COVID-19 response team to ensure evidence-based management of these patients. The ID & Microbiology specialists working with the antimicrobial pharmacists have continued to provide the full AMS service in adjacent to the COVID-19 response. Ward-based patient consults with clinicians has continued and antimicrobial usage, including antifungals and antivirals, have been stewarded throughout the pandemic. Real-time feedback on prescribing was provided to promote timely evidence based interventions throughout the pandemic. Novel therapies including remdesivir, tocilizumab, baricitinib, sotrovimab, molnupiravir and Paxlovid have been introduced for COVID-19 and used widely in line with national guidance.

The team has also supported with the COVID Medicines Delivery Unit (CMDU) from December 2021, helping to deliver timely anti-COVID-19 therapy to patients from across the NWL integrated care systems (ICS).

15.3. Key Performance Indications

15.3.1. NHSE CQUIN 2022/23

The NHSE CQUIN for antimicrobials was launched in April 2022 with the expectation that Trusts would improve diagnosis and treatment of urinary tract infections in adults. Data was collected quarterly for the Trust by the AMS pharmacy team for submission. The Trust has exceeded the minimum target (60%) with compliance identified in 85%, 77% and 77% for the first three quarters of the financial year, respectively. No data is collected yet for quarter 4.

The Trust has performed highly compared to peers (top 10% of reporting Trusts) and has successfully met the CQUIN standards to date. The AMS group is awaiting confirmation of whether the Trust will be undertaking the next year's CQUIN.

15.3.2. NHSE National Contract

All NHS England sponsored CQUINs have been suspended for the financial year due to the pandemic. The CWFT AMS team have continued to optimise historic AMS targets from previous CQUINs in line with NHS England and Improvement criteria.

i. Reducing total antibacterial usage across the Trust

Total antibacterials usage (in DDD/1,000 trust beds) has *reduced* significantly (>10%) over the last financial year from baseline 2017. This shows continued improvement in the AMS strategy to minimise unnecessary antibacterial prescribing at a Trust level. This has been implemented by using shorter total durations of therapies (strategy for AMS at CWFT 'shorter is better'), timely reviews of antimicrobials for in-patients and the introduction of novel diagnostic tests to support antimicrobial avoidance in low risk patients (e.g. procalcitonin). Emergency admissions and sexual health clinic account for 20% and 35% of total antibacterial usage at the CWFT site, respectively. Antibacterial usage with local peers within London has *increased* by 14% during this period [Figure 8].

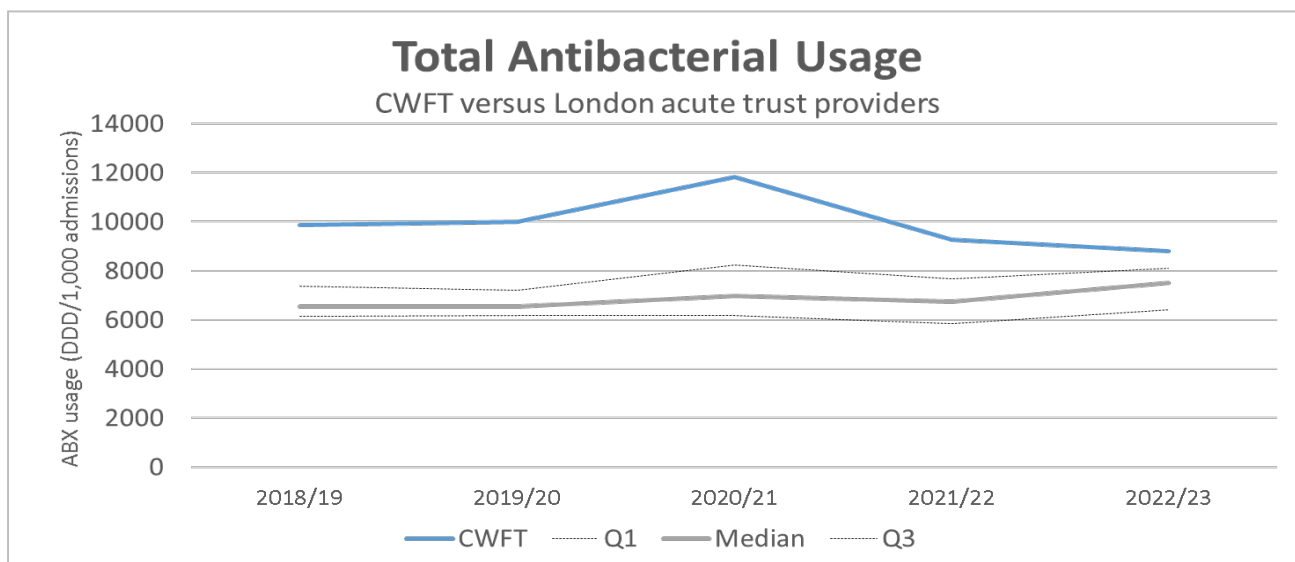


Figure 8. Total antibacterial usage at CWFT compared to London peer NHS hospitals (2018 (baseline) – 2022/23)

The new NHSE targets for reducing broad-spectrum antibacterial usage by 4.5% over the next 5 years has been introduced during Q4 of 2022/23 as part of our standard contract. The CWFT AMS team have been working to this target internally since 2019 and in 2022/23, demonstrates a 22% *reduction* in total broad-spectrum antibacterials from baseline (2018). This is against a baseline *increase* of 12% seen by peer London NHS hospitals [Figure 9]

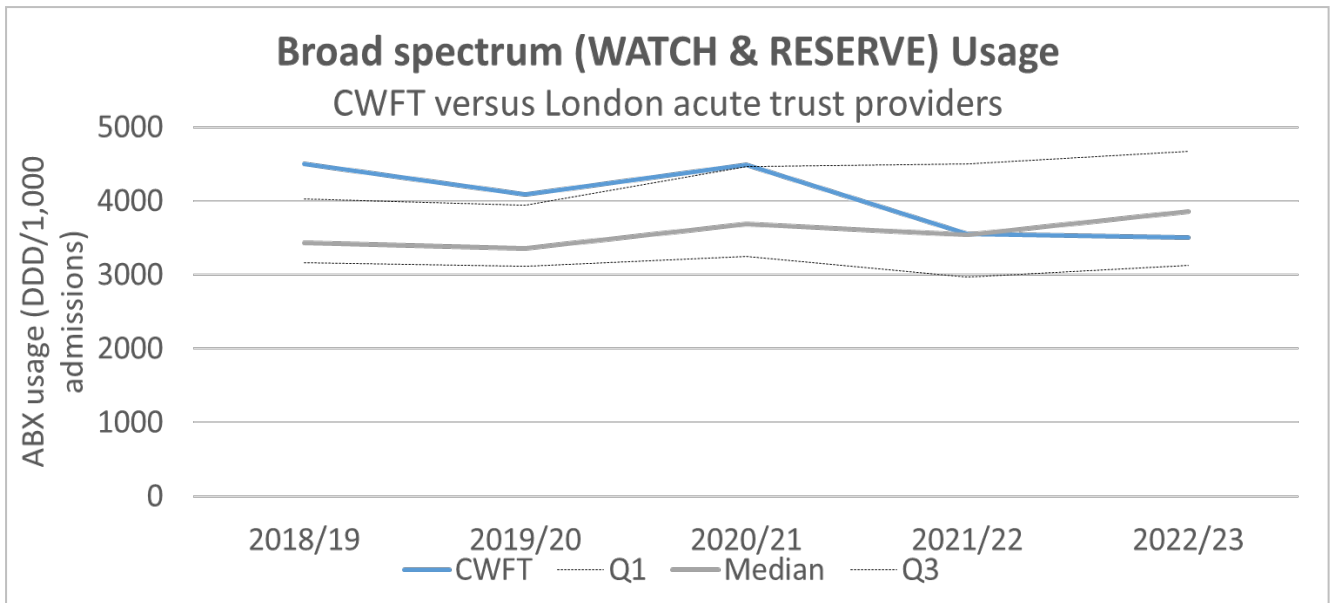


Figure 9. Broad-spectrum antibacterial usage at CWFT compared to London peer NHS hospitals (2018 (baseline) - 2022/23)

ii. Reducing quinolones and carbapenem usage

Broad-spectrum antibacterials, including quinolones (e.g. ciprofloxacin) and carbapenems (e.g. meropenem), are continually monitored to ensure all use in clinically appropriate. CWFT has continued to reduce total usage of these broad-spectrum therapies in response to the MHRA alert on quinolone safety and to reduce selective pressure on carbapenemase producing organisms (CPO), for quinolones and carbapenems, respectively. Despite the COVID-19 pandemic pressure, carbapenems remain low and are reducing despite increasing trends with NHS London peers; >25% overall *reduction* at CWFT versus a 4% *increase* with London peers [Figure 10].

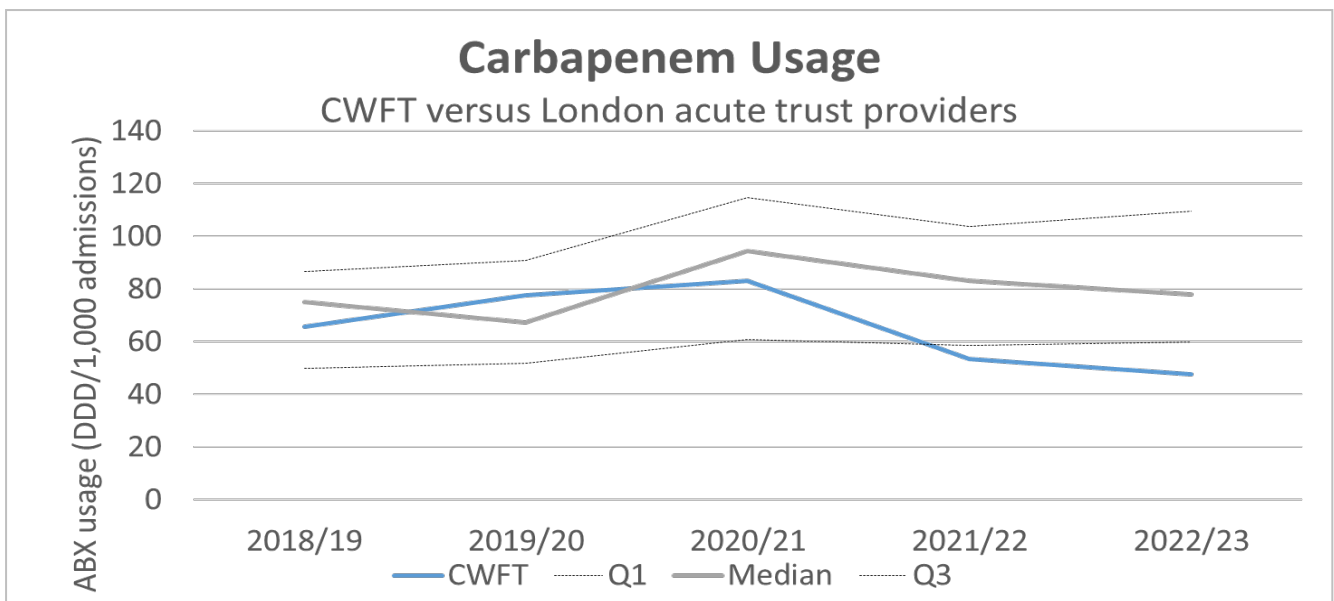


Figure 10. Carbapenem usage at CWFT overtime and compared to NHS London peers

The overall quinolone usage has *reduced* by 14% at CWFT trust over this period compared to a 12% median *increase* by NHS London peers [Figure 11]. All quinolone usage is reviewed by the AMS team and safer alternative offered where appropriate.

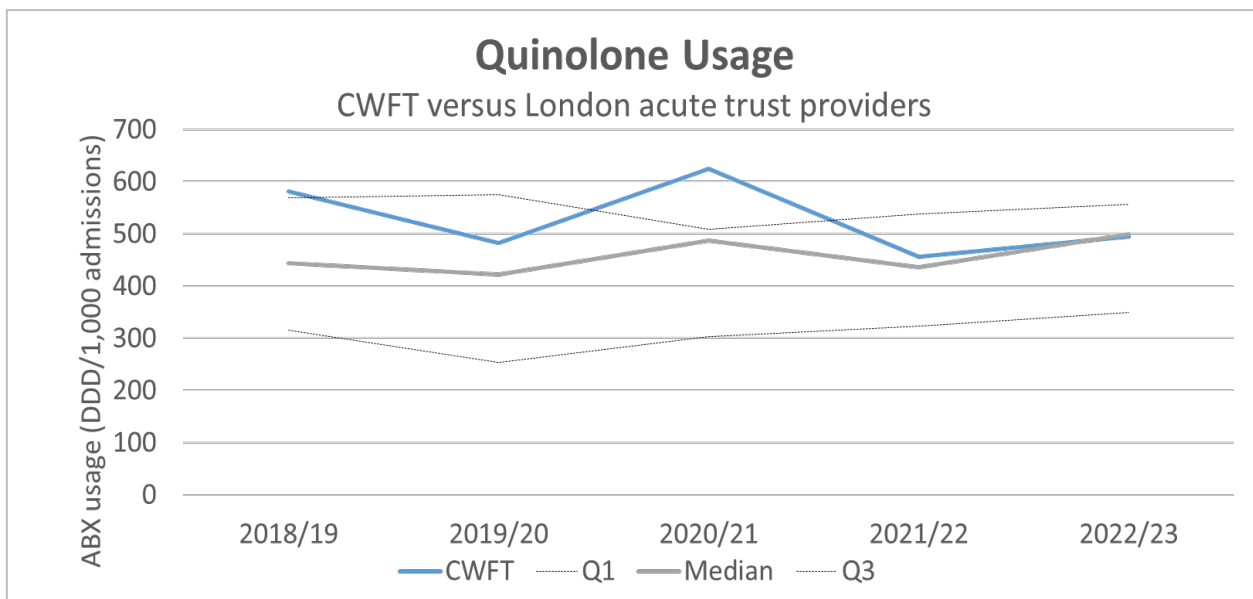


Figure 11. Quinolone usage at CWFT overtime and compared to NHS London peers

iii. Optimising antifungal usage

Systemic antifungal stewardship has continued at the CWFT throughout the pandemic with a focus on minimising unnecessary antifungal usage. Total systemic antifungals (under specialist commissioning) has diversified at the CWFT from baseline in 2018 with a move away from ultra-broad amphotericin intravenous treatment. This reduces patient risk of drug toxicity namely kidney failure (15-30% of treated patients are expected to develop some kidney dysfunction). All high-cost antifungals are reviewed by the AMS pharmacy team and the Trust has introduced in-house biomarkers (e.g. serum beta D-glucan) which have supported these improvements. Total antifungal costs have reduced from £475,000 in 2018/19 to £235,000 in 2022/23 representing a >50% saving in drug costs.

15.3.3. C. difficile Infections

The definitions for hospital acquired *C. difficile* infection (CDI) have expanded from April 2019 to include healthcare associated infections. Thus comparisons of CDI rates over time is challenging due to definition differences. Rates have increased locally but this is a trend replicated nationally and reassuringly CWFT has the lowest rates of CDI across England (versus peer NHS acute teaching hospitals). The infection, prevention and control team lead on the CDI improvement projects but the AMS team supports through its daily review of all broad-spectrum antibacterial prescribing in hospital.

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
England	→	7,021	20.1		-	-
Teaching trust	→	3,177	21.7		-	-
Lancashire Teaching Hospitals	→	164	53.1		-	-
Wirral University Teaching Hospital	→	121	46.2		-	-
University College London Hospitals	→	87	38.0		-	-
The Newcastle Upon Tyne Hospitals	→	146	30.8		-	-
Cambridge University Hospitals	→	101	28.2		-	-
Royal Free London	→	91	27.9		-	-
York Teaching Hospital	→	84	27.4		-	-
Blackpool Teaching Hospitals	→	66	26.7		-	-
Liverpool University Hospitals	→	137	25.5*		-	-
Derby and Burton Foundation Trust	→	125	24.8		-	-
Oxford University Hospitals	→	90	24.4		-	-
Leeds Teaching Hospitals	→	145	24.0		-	-
Manchester University NHS Foundation Trust	→	180	23.7*		-	-
University Hospitals Bristol and Weston	→	79	22.3*		-	-
Imperial College Healthcare	→	73	21.3		-	-
University Hospital Birmingham	→	193	21.0*		-	-
Sheffield Teaching Hospitals	→	100	20.5		-	-
Bradford Teaching Hospitals	→	38	18.5		-	-
Salford Royal	→	105	18.1		-	-
Southampton University Hospitals	→	70	17.8		-	-
North Cumbria Integrated Care NHS Foundation Trust	→	36	17.4*		-	-
Kings College Hospital	→	83	17.3		-	-
Nottingham University Hospitals	→	90	16.4		-	-
Norfolk and Norwich University Hospitals	→	56	16.1		-	-
Barts Health NHS Trust	→	100	16.0		-	-
St Georges Healthcare	→	47	15.5		-	-
University Hospitals Of Leicester	→	85	14.8		-	-
Guys and St Thomas	→	55	14.0		-	-
University Hospitals Coventry and Warwickshire	→	46	11.9		-	-
Hull and East Yorkshire Hospitals	→	35	9.8		-	-
Chelsea and Westminster Hospital	→	26	9.3*		-	-
Royal Liverpool and Broadgreen	-	-	-		-	-
South Manchester University Hospital	-	-	-		-	-

Source: HCAI Mandatory Surveillance Data

Figure 12. Chelsea & Westminster NHS Trust vs NHS peers for hospital acquired CDI rates

15.3.4. COVID-19 related activity

The AMS stewardship pharmacy team have lead on the Trusts response to COVID19 treatments from March 2020. Over 2022/23, the team has supported the safe and effective use of novel therapies including tocilizumab, remdesivir, sarilumab, sotrovimab, molnupiravir and Paxlovid® into clinical practice for both out- and in-patient population. All prescribing is overseen by the antimicrobial team to ensure safe and effective use of these novel therapies. A guideline and prescriber information guideline has been created by the AMS and Microbiology / ID teams. The team has also supervised the COVID19 medicines delivery unit (CMDU) introduction since December 2021 and provides 7 day prescribing support for this complex patient group. A total of 1,052 patients received one or more of these therapies as an in-patient over the last 12 months.

15.3.5. In-patient bed-days saving through Out-patient antimicrobial therapy (OPAT) saving efficiency

The Antimicrobial stewardship team have continued to develop and support the OPAT service guidelines written by the AMS pharmacy team have been implemented cross-site to facilitate earlier discharge with the use of new agents (e.g. Cefazolin, thrice weekly Teicoplanin and elastomeric filled benzylpenicillin) and through delivery of multi-daily doses through 24 hour elastomeric infusion devices. This has been further improved with the introduction of pharmacy-lead self-administration training programme.

Approximately 800 bed days are saved monthly (600 and 200 at the CWH and WMH sites respectively) thus freeing the Trust of an estimated 9,500 bed-days each year. The service provision has been reduced at WMH due to reduced staffing and other competing clinics within the AEC. Further opportunities exist to expand this service through direct

referrals from GPs, re-establishing the WMH service and exploring an in-home treatment service for our non-ambulant patients.

15.4. Guidelines

- Updated cross-site paediatric empirical and surgical guidelines
- Updated cross-site adult empirical guidelines
- Updated cross-site adult dosing guidelines (now includes dosing in line with EUCAST)
- Updated COVID-19 treatment guidelines

15.5. Audit

- Management of influenza infections (cross-site)
- Antimicrobial prophylaxis prescribing in adult general surgery (cross-site)
- Antimicrobial prescribing in paediatric encephalitis (cross-site)
- Safe and effective use of teicoplanin in adults (cross-site)
- Reviews of patients for IV-PO switch (CWH)
- Antimicrobial prescribing in the UCC/A&E departments (cross-site)

15.6. Antimicrobial Sensitivities Monitoring

- Yearly review of Trust sensitivity / resistance data to support guideline writing and to aid monitoring of resistance patterns. Bespoke antibiograms have also been created for clinical departments to improve local prescribing.
- Quarterly trust-wide AMS groups are held to review surveillance and oversee prescribing

15.7. Patient Information

Patient information leaflets have been devised for high risk medications for dissemination to patients in the inpatient and outpatient settings. A COVID-19 patient information leaflet was devised following national guidance.

15.8. Teaching

- Junior Doctors: F1, F2 & CMT teaching sessions on prudent antibiotic prescribing
- Pharmacists: In house teaching sessions on a variety of antibiotic topics, including penicillin allergy, basic microbiology, antimicrobial resistance, and the treatment of common infections
- Pre-registration pharmacists: Teaching session on antimicrobials for pre-registration pharmacists from Chelsea and Westminster Healthcare NHS Foundation Trust, Royal Marsden Hospital & Royal Brompton Hospital
- Induction training for new junior doctors and pharmacists
- International conference presentations (ECCMID & FIS)
- UKCPA & RPS webinar teaching
- Research tutor for Imperial Medical Students

15.9. Publications and Presentations

See Appendix 10 for publications and presentations

16. Body Fluid Exposure – Occupational Health

Report written by Associate Director of People

The Trust's core health and safety and occupational health policies continue to be updated to ensure that such documents support both main hospital sites and satellite locations.

Details and data relating to incidents, complaints, claims, risk registers and occupational health data are captured on Datix, a web-based, integrated safety learning system. The Datix system is subject to further enhancements to include other patient safety topics, such as patient experience and mortality reviews, and supports a robust reporting culture throughout the Trust to improve our safety practices.

There were 51 RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) incidents reported to the Health and Safety Executive (HSE) during 2022/23, of which 36 related to CW and 13 to WM. A total of 2 incidents were RIDDOR reported for community nursing/clinics provided by the Trust. The Trust's health and safety team works with clinical and corporate departments to support a system of self-assessment and independent spot-checks. Areas subject to spot-checks are identified using a risk-based approach. A total of 193 body fluid exposures, including sharps and splash injuries relating to staff, were reported during the period.

In 2023-24, it is envisaged that the occupational health service will transfer, subject to formal consultation, to the NWL Occupational Health Shared Service, hosted by Central and North West London NHS Foundation Trust, following a successful pilot that started in April 2021.

Table 10: Sharps and Bodily Fluids Exposures for 2022-23

	Contact with Sharps – Clean	Contact with Sharps - Dirty	Exposure to Biological Hazard (Inc. splash / spill)	Needle stick / Sharps Injury	Total
Incident Affecting Patient	0	0	0	1	1
Incident Affecting Staff	11	154	24	0	189
Incident Affecting Visitor, Contractor or Member of the Public	0	3	0	0	3
Total	11	157	24	1	193

17. Decontamination

Report written by Decontamination leads.

The department successfully passed the annual three -days External Audit recently to confirm compliance with the requirements the ISO 13485:2016 Standard.

EDU JAG Accreditation Audit will take place on the May 2023.

The service is registered with NQA and will no longer be accredited against European Directive MDD/93/42/EEC. The next annual audit is scheduled take place on the 20th and 21st July 2023

Business case will drafted for the renewal of 10 endoscopy cabinets throughout the Trust as advised in the Jag audit in May 2022.

In Edu department at Chelsea the ventilation is currently being rebalance.

- The new traceability system (Fingerprint) has been implemented.

- At West Middlesex site, the new traceability system will be completed and fully implemented by May 2023.
- The new Quality Management System is under constant review with a full training programme to ensure compliance.
- Loan equipment process is now operating successfully following implementation of a new procedure agreed by all parties.
- Chelsea an Ultrasonic machine will be installed by the end of May 2023, this will facilitate the cleaning of cannulated items.
- At West Middlesex in endoscopy all the washer disinfectors and cabinets are in the process of been replaced and programme to be completed by end of September.

Departmental Improvements

Sterile services and endoscopy decontamination will have to investigate extension of the operating hours to accommodate extra activity by theatres, clinics and endoscopy.

New Management has improved staff morale with the adoption of an open door policy and regular and constants updates, encouraging two-way communication.

The department is in the process of recruiting into vacant posts. As all the departments the demands in SSD and EDU has increased considerably over the last 2 years

Communication has improved with all stakeholders.

18. Trust Estate's & Facilities Monitoring

Report written by the Facilities Manager, Estates & Facilities Directorate

The role of Estates and Facilities is to oversee all aspects of managing Trust buildings and facilities services within them, This includes Soft FM (traditional services i.e. cleaning, catering, waste, linen, provided in both hospitals by ISS), Hard FM (JCA at Chelsea and Bouygues at West Middlesex, includes building maintenance and ventilation) and NEPTS (Non-Emergency Patient Transport provided by HATS). Other services include Space management and Staff Accommodation across the Trust as well as Capital Projects.

Throughout the period between April 2022 and March 2023 the E&F Team and our service partners worked closely with both the Site Operations Teams and IPC to ensure compliance to all Trust Policies and to continue to prevent and manage outbreaks and clusters of COVID -19 in various wards.

During winter 2022/2023, the situation was exacerbated by an increased incidence of flu cases presenting in both hospitals. Additional cleaning hours were introduced in affected areas to effectively control the virus.

Contractual KPI's for our service partners suspended for the majority of the COVID-19 period were resumed in March 2022.

18.1. Cleanliness

Over the course of the year, increased cleaning hours with an increased workforce continued to be allocated in COVID-19 designated wards across the Trust in order to prevent the spread of infection. Routine cleaning of all areas with Chlor Clean became standard practice.

Mask wearing remained mandatory across the hospital areas throughout the past year. Mask changing stations consisting of a large mask dispenser, with an offensive waste bin and alcohol gel dispenser were still positioned at the

entrance/exit of every ward while smaller, specially designed mask holders were put up with every apron and glove dispenser in the inpatient wards to ensure PPE was available in the correct place.

Mask and hand gel dispensers stayed in position at the entrances of the hospital and were manned by specially recruited staff who urged patients, staff and visitors to sanitise their hands with hand gel and to wear a face mask.

At the beginning of 2021, a notification was received from NHS England that the new National Standards of Healthcare Cleanliness (NSoHC 2021) would be rolled out as from April 2022. Work started immediately after the announcement to be ready for the official implementation date.

On the Chelsea site, the new National Standards of Healthcare Cleanliness 2021 (NSoHC 2021) were implemented in October 2021 ahead of the national roll out in April 2022 and are now well embedded across the hospital. Areas were allocated new risk categories from FR1 to FR6 in consultation with the IPC leads. Results of cleaning audits are presented at the monthly IPCG meetings. The Commitment to Cleanliness Charter is now displayed in all hospital areas as required by the new NSoHC 2021.

At West Middlesex Hospital run by a PFI management company, negotiations were held throughout the past year to incorporate the new mandatory NSoHC 2021 within the existing cleaning contract. Until an agreement has been made between the Trust and PFI, the cleaning contractor adhere to the NSOC 20007.

18.1.1. Chelsea and Westminster Hospital

During the year 2022/2023, a total of 1868 cleaning audits were undertaken in all functional risk (FR) category areas, from FR1 to FR6, in accordance with National Standards of Healthcare Cleanliness 2021 (NSoHC 2021).

Within the FR1 category, all functional areas were inspected weekly with a ward representative, resulting in a total of 1130 audits. All audits achieved the minimum target score of 98%. The overall average score achieved for this category was 98.63% showing consistency with the previous year's score of 98.68%.

In the FR2 category, all functional areas were inspected monthly resulting in a total of 372 audits for the year. All audits achieved the minimum target score of 95%. The overall average score achieved for this category was 97.54%

Functional areas within the FR3 category were audited bi-monthly making it a total of 96 audits for the year. The average score achieved for this risk category was 96.42% against a KPI target of 90%.

Compliance with cleaning audits being carried out jointly with a member of clinical staff was 100% in all risk categories reported above.

Deep Cleaning Programme was completed at 100% in FR1 areas between April 2022 and March 2023 part. As per the agreed process, each area that had been deep cleaned was inspected and signed off by the area's person in charge and an Estates and Facilities representative. A full deep cleaning programme for 2022 was shared with Estates and Facilities Department; a list of areas deep cleaned are as follow:

- Mars Ward
- Apollo Ward
- Birthing Centre
- ED OBS
- Intensive Care Unit & High Dependency Unit
- Burns Unit
- Burns Operating Theatre
- Ron Johnson Ward
- Labour Ward

- Labour Theatre
- Josephine Barnes Ward / HDU
- Neonatal Unit (NICU)
- Treatment Centre Day Surgery
- Operating Theatres (Main) & Recovery
- Children Theatres & Recovery
- Dermatology Theatre (Daniel Turner Theatre)
- ED Resus
- ED Paediatric
- ED Majors
- Gazzard Unit
- Endoscopy Unit/Theatres
- ECG/Cardiology & Lung Function

In addition to the standard discharge cleans carried out between April 2022 and March 2023, the cleaning teams completed 4978 infectious cleans as compared to the previous year of 9,758 infectious cleans.

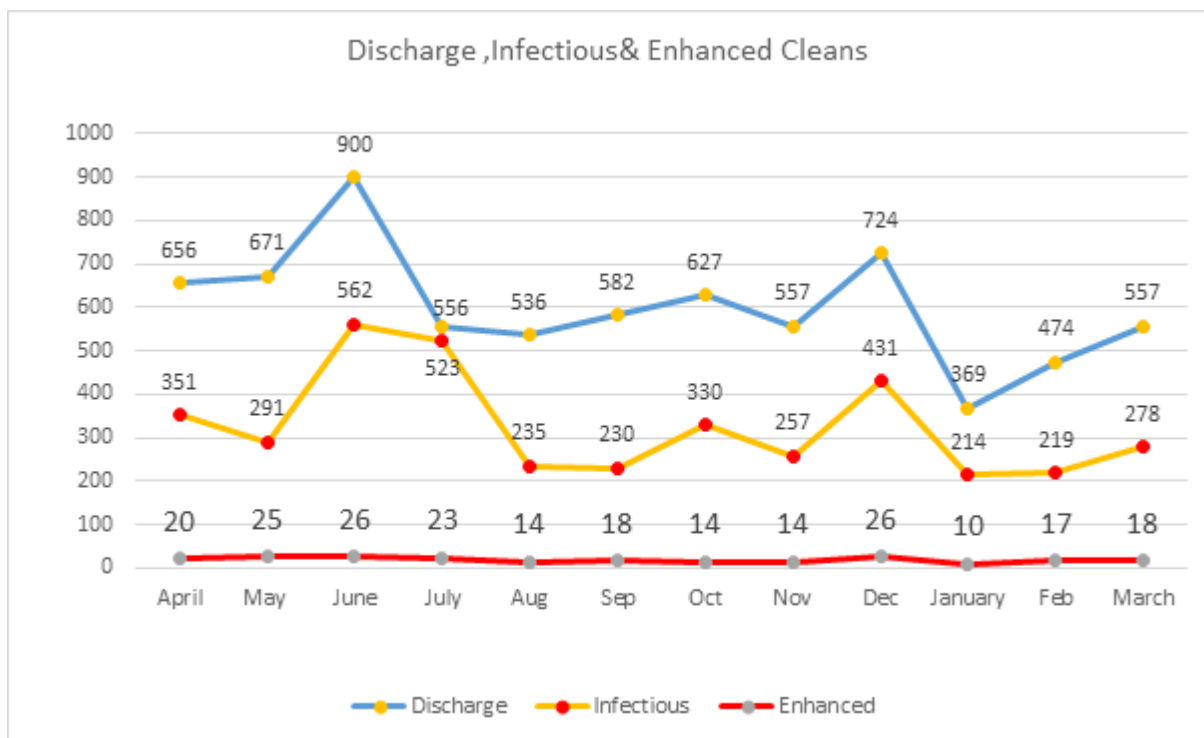


Figure 13. Cleans – Chelsea & Westminster hospital

18.1.2. West Middlesex Hospital

Between April 2022 and March 2023, a total of 1,238 cleaning audits were undertaken in accordance with National Specification of Cleanliness 2007. Within the very high-risk category, all functional areas were inspected weekly making it a total of 396 audits for the year April 2022 to March 2023. All audits achieved the minimum target score of 95%. The overall average score achieved for this category was 99.05% showing a slight increase compared with last previous year's score of 98.88%.

In the high-risk category, all functional areas were inspected monthly making it a total of 527 audits for the year April 2022 to March 2023. All audits achieved the minimum target score of 90%. The overall average score achieved for this category was 97.15% showing a slight increase compared with the previous year's score of 96.78%.

Functional areas within the significant risk category, which includes mainly OPD clinics, had all been audited monthly rather than quarterly making it a total of 144 audits for the year. The average score achieved for this risk category for was 96.28% against a KPI target of 85% which is similar to last year's score, which was 96.00%.

Compliance in respect of cleaning audits being carried out jointly with a member of clinical staff reached 100% in very high-risk category similar with previous year. Within the high-risk category joint auditing compliance achieved 95%, showing a decrease compare with last year.

Between April 2022 to March 2023, the ISS special projects team have completed a total of 70 deep cleans which include the annual deep clean of Main Theatres and the quarterly deep clean of Aseptic Suite in Pharmacy.

In addition to the "standard" discharge cleans carried out between April 2022 and March 2023, the cleaning teams completed 4814 "infectious" cleans which is an increase of 4% compared to previous year and 21% of the total volume of discharge cleans for previous year. 29% of Infectious cleans were related to Covid-19 cleans.

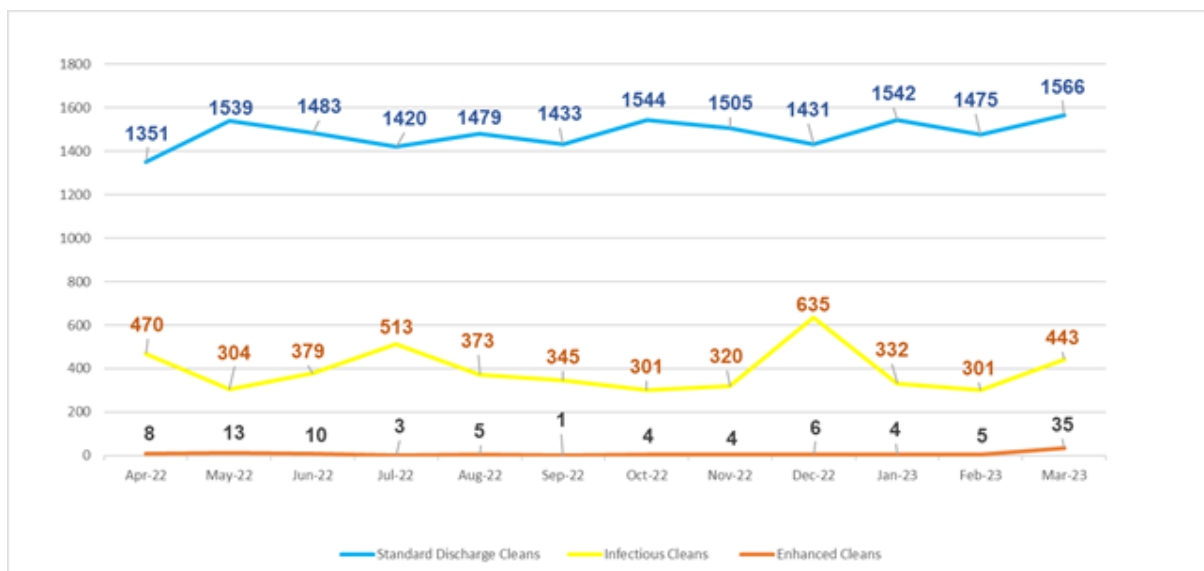


Figure 14. Cleans – West Middlesex Hospital

18.2. JCA – Chelsea and Westminster Hospital

Report written by JCA Stock Control and Senior Water Supervisor

JCA continue to contribute to the monthly Water Safety Group (WSG). ZetaSafe is constantly reviewed by the team on site and the water AE, so when necessary additional outlets are added. The red readings on Zeta temperatures, those falling outside of the required parameters, have been reported at the WSG monthly meetings. Identified infection risks readings, for *Pseudomonas aeruginosa* and Legionella, have been subject to regulatory and IPCT guidance in non-clinical areas, risk assessments have been undertaken to identify where samples need to be taken in clinical areas by the authorised water engineer.

JCA have Responsible and Deputy Responsible persons on site also a lead water technician who have all completed responsible person training in Practical Water Safety for Healthcare Premises courses. In addition, there is a water technician who has completed water safety for healthcare technicians.

The main control measures around both *Legionella* and *Pseudomonas aeruginosa* are based on maintaining the correct temperatures, flushing little used water outlets, and minimising dead legs. Where positive counts have occurred in clinical areas, remedial actions were immediately taken along with resamples. All microbiological samples are analysed by UKHSA. Positive results usually have a local identifiable cause, such as low use of the outlet. All outbreaks are thoroughly investigated to ascertain the root cause of the problem.

The *Legionella* risk assessment was carried out in May 2022, a review is due in 2024. JCA have completed the remedials from the risk assessment in 2020 and pick up other identified remedials from the review assessments.

The hydrotherapy pool has been closed for the past 36 months.

The monitoring of the negative pressure rooms continues a monthly basis. Where rooms were outside of the accepted parameters remedial actions were taken.

18.3. Bouygues Energies and Services – West Middlesex Hospital

Report written by Bouygues Contract Manager

Bouygues have representatives on, and continue to support, the Water Safety Group (WSG) and the Infection Prevention Control Group (IPCG) and are also part of the newly formed Ventilation Safety Group (VSG). We have had training for both RPs and CPs for Water, and have further RP training over the coming months of May and June, along with completed training for a Ventilation AP and upcoming training for a further Ventilation AP.

Bouygues at West Middlesex Hospital have continued the use of the Zetasafe system. This is used to gather and analyse water related data, allowing good insight into potential problems as well as good practice on the site. As a company we are now looking to roll Zetasafe out to other sites to assist with water safety management.

The flow issue that was identified affecting the time it takes water to get to temperature in Richmond Ward and AEC, has been worked on over the year with replacement thermal balancing valves installed in place of flow regulating valves on both the first and Ground floor. This has been completed successfully on the Ground floor, and work continues on the first floor. Once this is completed we will be installing a new return leg to the system to further improve the flow. This issue has been discussed in the Water Safety Group and there is a control scheme in place which includes daily flushing of outlets in the affected area, along with enhanced monthly microbiological testing.

Microbiological testing is also undertaken by UKHSA at the request of the Trust. Positive results usually have a local identifiable cause, such as low use of the outlet. Following the introduction of replacing shower heads and hoses, Bouygues are continuing to see a reduction in *Legionella* and *Pseudomonas aeruginosa* levels. Where possible, with agreement from the Trust, some low use outlets have been completely removed. Any and all outbreaks are thoroughly investigated to ascertain the root cause of the problem.

Ventilation validation has been carried out in all designed procedure rooms and theatres across site, and we have also carried out an exercise to measure air flow in all clinical areas, and some administrative areas as well to help with future planning of these spaces, and any business cases for change of use.

Water risk assessments for all areas of the site have been commissioned and will take place in May of 2023.

All other HTM03 AND HTM04/L8 compliance has been adhered to and the site is well maintained.