Infection Prevention & Control Annual Report 2024/2025

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Contents

1. Executive Summary- Overview of Infection Control Activities within the Trust for 2024/25

This Annual Report outlines the infection prevention and control (IPC) activities at Royal Papworth Hospital NHS Foundation Trust (RPH) from April 2024 to March 2025.
Throughout the year, RPH maintained a strong and proactive focus on IPC, driven by close collaboration between clinical, operational, and estates teams. Key programmes—including audits, surveillance, outbreak management, and incident investigations—were delivered consistently and embedded into organisational assurance structures. Oversight was maintained through the Infection Control Pre-, Peri- and Post-operative Care Committee (ICPPC) and the Quality Risk Management Group (QRMG), ensuring that IPC remained a priority in maintaining patient safety and regulatory compliance.

Royal Papworth Hospital (RPH) continues to participate in the mandatory national surveillance of key healthcare-associated infections (HCAIs), ensuring robust reporting and benchmarking through the UK Health Security Agency (UKHSA) Healthcare Associated Infections Data Capture System (HCAI DCS).
The Trust submits data on:

- Methicillin-Resistant Staphylococcus aureus (MRSA) bacteraemia
- Methicillin-Sensitive Staphylococcus aureus (MSSA) bacteraemia
- Escherichia coli (E. coli) bacteraemia
- Clostridioides difficile (C. difficile) infection
- Carbapenemase-Producing Enterobacterales (CPE)
- Pseudomonas aeruginosa and Klebsiella species

This surveillance data supports national comparisons, trend analysis, and targeted quality improvement initiatives across the Trust, in alignment with the wider NHS IPC strategy.

The IPC 2024/25 annual report covers:
Cleaning and Environmental Standards:

- Cleaning services are delivered via a PFI contract with OCS. The contract is output-based, monitored through joint audits, and quality control (QC) checks via the Audim system.
- Implementation of the new updated version of NHS Cleaning Standards 2025 is underway.
- A robust deep cleaning programme continues year-round, particularly in high-risk areas such as Theatres and Cath Labs.
- A dedicated cleaning manager role is being recruited to strengthen day-to-day oversight.

Facilities-Linked Safety Domains

- Water Safety: Managed through a dedicated Water Safety Group. Annual audits and risk assessments are conducted by an external Authorising Engineer, with a current focus on enhanced flushing and drain maintenance.
- Ventilation Safety: A newly appointed AE in 2024 for ventilation led a comprehensive review and testing programme, resulting in system rebalancing, increased filter changes, and refined PPM schedules.
- Linen Services: Delivered in partnership with Elis, adhering to NHS standards and monitored via the Decontamination Subcommittee.

Infection Surveillance and Outbreaks:

- Mycobacterium abscessus: Three new cases identified in 2024/25 all linked to the outbreak strain identified in the water system in 2019.The cases included two lung transplant patients – the first such cases since 2021. An extraordinary M. abscessus steering group was convened with extensive actions including environmental sampling, system reviews, and enhanced staff awareness training. This is being closely monitored.
- Tuberculosis (TB): Throughout 2024/25 three patient and one staff member cases triggered contact tracing, and one case required a formal incident management response.
- Carbapenemase-Producing Enterobacteriaceae (CPE): Outbreak declared in July 2024 and stood down in October 2024. 29 confirmed cases linked to the same strain. Key control measures implemented swiftly with positive recognition from NHSE, UKHSA, and ICB.
- ESBL and VRE: No VRE outbreaks. One ESBL bacteraemia with confirmed patient-to-patient transmission in Critical Care was managed through a post-infection review (PIR) and targeted daily audits.
- Royal Papworth Hospital continues active participation in national and local Surgical Site Infection (SSI) surveillance across cardiac, and transplant specialties. All deep and organ-space infections trigger Root Cause Analysis (RCA), with findings reported through the SSI Surveillance Group and ICPPC. In 2024/25:
    - Cardiac SSI rates remained above the national UKHSA benchmarks but are slowly coming down year on year.
    - Superficial SSI's were the dominant feature with a noticeable drop in deep and Organ space SSI.
    - Enhanced monitoring for transplant patients continued due to increased infection risk.
    - Key improvements included strengthened pre-op skin decontamination, post-op wound care guidance, and theatre environment audits.

Antimicrobial Stewardship:
There is a strong focus on Antimicrobial Stewardship (AMS) to ensure appropriate use of antibiotics and reduce resistance. The multidisciplinary AMS Group met regularly, reviewing prescribing trends and compliance with national guidance.
Key highlights:

- Overall antibiotic use remained stable.
- Regular audits and feedback supported good compliance with prescribing standards.
- Education and awareness sessions were delivered trust-wide.

Ongoing work includes aligning with UK 5-year AMR strategy and further embedding AMS into everyday clinical practice.

IPC Audit Performance

- Hand Hygiene: Number of audits increased with improved peer-review and action planning processes.
- Environmental Audits: A new environmental, clutter and sink hygiene audit was introduced during the CPE outbreak initially scored 40%, improving to 70% by year-end. This audit will continue for the coming year.

Inoculation Injuries

- A total of 42 inoculation injuries reported, slightly down from 45 in 2023/24 and significantly lower than the 52 in 2021/22. Surgical directorate reported the most incidents. A quality improvement initiative was launched in 2025 to address sharps safety across departments.

Vaccination Uptake

- Delivered through a joint flu and COVID-19 booster programme from September to November 2024, with ad hoc sessions continuing into early 2025.
- Staff uptake:
  - Flu: 38.7% overall; 36.5% (clinical), 45.8% (non-clinical)
  - COVID Booster: 29.4% overall; 27.4% (clinical), 36.2% (non-clinical)
- Figures reflect a continued national trend of declining uptake.

Risk Management and Governance

- Two key IPC risks are monitored monthly at Board level:
  1. Risk of harm from hospital-acquired infections
  2. Outbreak and transmission of M. abscessus
- All emerging risks are escalated from ICPPC to QRMG and managed through relevant subcommittees and task groups.

2. Introduction

The purpose of this report is to inform patients, the public, staff, the Trust Board of Directors, and the Council of Governors about the infection prevention and control (IPC) activities undertaken by Royal Papworth NHS Foundation Trust (hereafter referred to as 'RPH') during 2024/25. It provides assurance that the Trust remains compliant with the Health and Social Care Act 2008 and the Code of Practice on the prevention and control of infections, as well as national guidance outlined in the National Infection Prevention and Control Manual (NIPCM) for England, published in 2022.

The report outlines RPH's IPC management arrangements, the structure and function of the IPC team, the integration of IPC within the Trust, performance outcomes, and progress against key targets. It highlights the Trust's commitment to maintaining high standards of infection prevention and control to ensure patient safety.

All NHS organisations are required to have effective systems in place to manage and control healthcare-associated infections (HCAIs), in accordance with the Health and Social Care Act 2008 (see Appendix 1). At RPH, a dedicated and proactive IPC team leads this work, bringing the appropriate expertise and competence to support best practices. However, infection prevention is a shared responsibility, and it remains a high priority for all staff across the organisation.

RPH complies with the NIPCM (2022) and the associated National IPC Standard Monitoring Tools published in October 2024, providing clear evidence of compliance. These standards support the 'Saving Lives' programme and High Impact Interventions (HII), originally introduced in 2005. The most recent review of these interventions was conducted in 2017 by a working group commissioned by the Infection Prevention Society (IPS) in collaboration with NHS Improvement. The Trust's IPC audit and surveillance programme incorporates guidance from the NIPCM, HIIs, and other sources, ensuring continuous monitoring and improvement of IPC policies and procedures.

Additionally, this annual report aligns with the ten compliance criteria set out in the Code of Practice, as outlined in the Health and Social Care Act 2008 (see Appendix 1). It also reflects the recommendations of the National Institute for Health and Care Excellence (NICE) Quality Standard 113, which was published in February 2016 and addresses organisational responsibilities in preventing and controlling infections in hospital settings.

Ultimately, this report is intended to reassure all stakeholders that RPH prioritises the prevention of infection transmission and is committed to providing the highest standards of patient care.

3. Description of Infection Control Arrangements

3.1. Corporate Responsibility

The Chief Nurse continues to hold responsibility for Infection Prevention and Control (IPC) across the Trust, reporting directly to the Chief Executive and the Board of Directors. This governance structure aligns with the requirements set out in the Health and Social Care Act 2008 (revised 2022).

Throughout the reporting period, Executive Directors remained actively engaged in visibility and environmental rounds, which include assurance and compliance monitoring in relation to IPC standards. These rounds support the Trust's commitment to maintaining safe clinical environments.
In addition, the Medical Director and the Heads of Clinical Governance and Risk Management contributed strategically at a corporate level, influencing policy and operational areas with direct impact on infection prevention and control outcomes.

At an operational level, Matrons continued to play a central role in supporting IPC. Their responsibilities include the auditing, monitoring, and reporting of compliance, as well as ensuring that actions are completed in line with Trust IPC policies and best practice standards.

This collaborative and multi-tiered approach to IPC governance reinforces the Trust's commitment to providing safe, high-quality care and meeting regulatory expectations.

3.2. Infection Prevention and Control Team

The Trust's approach to Infection Prevention and Control (IPC) is underpinned by strong leadership, clear governance structures, and a multidisciplinary approach to clinical safety, in line with NHS England's IPC Board Assurance Framework.

Strategic Leadership and Governance
The Deputy Director of IPC leads the specialist IPC team and is responsible for the delivery of IPC objectives across the organisation. The team operates under the influence and leadership of the Chief Nurse, with oversight provided by the IPC Committee, which meets regularly to review progress against the IPC Annual Work Plan.

The Trust's Infection Prevention and Control Doctor (IPCD) is a Consultant Microbiologist, with a weekly allocation of 4.7 Programmed Activities (18 hours per week over 42 weeks). Out-of-hours IPC cover is provided by the Consultant Microbiology Team, and virology expertise is supported by Cambridge University Hospitals NHS Trust.

IPC Specialist Team Functions
The specialist IPC nursing team plays a key role in delivering the operational aspects of IPC across Royal Papworth Hospital (RPH), providing:

- Expert advice and support to staff on infection prevention and control
- Education and training tailored to staff roles and responsibilities
- Direct communication with patients and relatives regarding alert organisms, infection risk, and reassurance

- Proactive outbreak monitoring and management, including timely response and mitigation measures
- Collaboration with multidisciplinary teams, Clinical Governance, and Risk Management, ensuring integrated safety practices across departments

Assurance, Policy, and Communication
In alignment with the BAF, the IPC team ensures:

- The development and maintenance of evidence-based policies, procedures, and guidelines for infection prevention, control, and outbreak management
- Timely communication of infection risks and alerts to all relevant internal and external stakeholders
- Clear and consistent IPC messaging during transitions of care between healthcare providers
- Structured and risk-based audit and surveillance programmes, with regular reporting to the IPC Committee and Board
- Participation in key Trust safety and quality forums, contributing to decision-making on matters affecting infection control

Training and Competency
The team is responsible for ensuring all Trust staff receive accurate, role-specific training in infection control principles and in accordance with national guidance. Training compliance is monitored and reported through the Trust's governance systems, and continual education is delivered through formal sessions, e-learning, and on-the-ground support.

Continuous Improvement and Reporting
The IPC Annual Work Plan, reviewed and approved by the ICPPC Committee, sets clear priorities and outcomes. Progress is monitored against national targets and local quality improvement goals, with assurance provided to the Trust Board via regular reporting and escalation pathways.
An organisational chart showing the structure and reporting lines of the IPC team is provided in Appendix 2

3.3. Infection Prevention and Control Committee Structure and Accountability

The Infection Control and Pre and Perioperative Care (ICPPC) Committee serves as the Trust's primary forum for oversight, assurance, and discussion of changes to infection prevention and control (IPC) policy and practice. The Committee is chaired by the Director of Infection Prevention and Control (DIPC) and meets every eight weeks.

Committee Membership and Structure
The multi-disciplinary membership of the ICPPC Committee includes representation from:

- All clinical divisions
- Estates and Facilities
- Decontamination services
- Clinical Audit
- Surgical site surveillance
- Antimicrobial Pharmacy
- Clinical Governance
- Occupational Health

The Committee ensures robust decision-making and oversight of IPC practices across the organisation, and the IPC team provides subject matter expert advice at both internal and external forums.

Assurance items and key risks identified through the ICPPC Committee are escalated to the Quality and Risk Management Group (QRMG) and subsequently reported to the Quality and Risk Committee, a formal sub-committee of the Board of Directors. This structure ensures timely oversight and a clear governance route from front-line IPC practice to Board-level assurance.

Additional Strategic Initiatives and Working Groups for 2024/25 were:

- A dedicated Surgical Site Infection (SSI) stakeholder group continued to meet monthly in 2024/25 to support quality improvement work related to SSI surveillance and prevention.
- A new Incident Management Team (IMT) was established in 2024/25 to coordinate the Trust's response to outbreaks, ensuring rapid containment and learning.

To support a culture of IPC excellence across all staff groups, the Trust has continued to develop and embed a network of IPC champions and clinical link roles in both clinical and non-clinical areas. These individuals form the Infection Control Link Group, which acts as a forum for:

- Education and awareness
- Sharing of IPC best practice
- Local implementation of IPC initiatives
- Supporting the IPC audit program.

In addition, the following educational activities have taken place during 2024/25:

- IPC Masterclasses delivered to all newly appointed Matrons during induction
- Regular IPC engagement at monthly Matron meetings
- A programme of IPC study days targeting key clinical areas
- Ongoing publication of a monthly IPC newsletter, providing Trust-wide learning from incidents, audits, and good practice

These activities directly support compliance with BAF controls assurance expectations around workforce training, local ownership of IPC standards, and continuous improvement through education and shared learning.

3.4. Infection Control Team Representation on External Committees

- East of England Regional Microbiology Development Group
- East of England Infection Prevention Society Branch Meetings
- Network meetings with the Integrated Care board and services including regional hospitals.
- DIPC or Deputy DIPC attends the integrated care board (ICB) IPC Board.

3.5. Assurance, Internal, and External Inspections

The Trust applies a robust assurance framework to Infection Prevention and Control (IPC), combining internal scrutiny through committee governance with external assurance mechanisms. This approach ensures compliance with national standards, the Health and Social Care Act 2008 (updated 2022), and other relevant regulatory frameworks.

Internal Assurance (2024/25)
Accountability for IPC is exercised through the Trust's committee structure, particularly the Infection Control and Pre and Perioperative Care (ICPPC) Committee, supported by regular

escalation and reporting to the Quality and Risk Management Group (QRMG) and the Quality and Risk Committee. Compliance with national standards and internal policy is monitored via:

- Internal audits and surveillance programmes
- Gap analyses and mock inspections
- Regular reporting through governance channels

External Assurance Measures (2024/25)

1. Standards for Decontamination (Criteria 1, 2, and 9)
    - The Trust's Sterile Services are subcontracted to STERIS IP, a provider that is independently audited and accredited.
    - STERIS meets the requirements of ISO 13485:2003, ISO 9001:2008, and complies with the Medical Devices Directive 93/42/EEC Annex V, Article 12 (Sterility Aspects Only).
    - In January 2024, STERIS was awarded a new three-year contract covering both instrument and endoscope decontamination, effective from April 2024.
    - A Trust Decontamination Lead was recognised as an important appointee to oversee all aspects of decontamination.
    - A Decontamination Sub-Committee has been established and provides assurance reports to the ICPPC Committee.

2. Care Quality Commission (CQC) Standards
    - RPH is registered with the Care Quality Commission (CQC) and monitors compliance with the ten of the Hygiene Code under the Health and Social Care Act 2008.
    - A full gap analysis against all ten criteria is completed annually and reviewed quarterly throughout the year (See Appendix 3.)
    - Compliance with CQC Regulation 15 – Premises & Equipment, including IPC-related cleanliness, is tested through annual ward accreditation program and reported to the Fundamentals of Care Group for assurance and shared learning.

3. UKHSA Mandatory Surveillance Reporting (Criterion 1)
    - The Infection Control Doctor (ICD) oversees mandatory reporting of alert organisms to the UK Health Security Agency (UKHSA) via the national Data Capture System (DCS).
    - Monthly reports are reviewed at ICPPC and shared through governance structures up to the Board of Directors.

4. Patient-Led Assessments of the Care Environment (PLACE) (Criteria 1 and 2)
    - The Trust participates annually in the PLACE national inspection programme, assessing standards in:
        - Cleanliness
        - Food and hydration
        - Privacy, dignity, and wellbeing
        - Condition, appearance, and maintenance of the environment
        - Dementia-friendly design
        - Accessibility for people with disabilities
    - The November 2024 PLACE inspection was carried out by a team of internal and external assessors, including governors, volunteers, Trust members, and facilities contractors.
    - The 2024/25 outcomes show that RPH performed above the national average, particularly in the areas of cleanliness and building condition.
    - Full results are available online at: Patient-Led Assessments of the Care Environment (PLACE), 2024 - England - NHS England Digital

This section evidences strong internal and external mechanisms to monitor, assure, and continually improve IPC compliance and outcomes, directly addressing multiple BAF domains, including:

- Leadership and Accountability
- Safe Systems of Work
- Monitoring and Reporting
- Decontamination and Cleanliness Standards
- Assurance through Inspection and Audit

The assurance process includes internal and external measures. Internally, the accountability exercised via the committee structure described above ensures that there is internal scrutiny of compliance with national standards and local policies and guidelines. Furthermore, external assessments are also used. These include the "Controls Assurance" measures for infection control and decontamination standards, International Standards for Organisation Care Quality Commission standards and the Patient-led assessments of the care environment (PLACE), plus a Health and Social Care act 2008, review.

3.6. DIPC Reports to Board of Directors and Quality and Risk Management Group

A monthly Infection Prevention and Control (IPC) report forms a standing agenda item within the patient safety section of the Quality and Risk Management Group (QRMG). This report includes mandatory monitored healthcare-associated infections (HCAIs), such as *Clostridioides difficile* (C. diff) and Methicillin-resistant *Staphylococcus aureus* (MRSA), as well as other infection-related metrics. It also highlights any adverse IPC issues, incidents, or concerns arising in clinical practice.

QRMG reviews this report and provides assurance while escalating significant matters as necessary to the Quality and Risk Committee, a subcommittee of the Board of Directors, ensuring effective oversight and accountability at the highest level.

3.7 Infection Control Reports and Programme for 2024/25

Throughout 2024/25, the Infection Prevention and Control Team has delivered a robust programme of work, including:

- Maintaining compliance with the Health and Social Care Act 2008, updated to reflect revised guidance issued in July 2015.
- Engagement with the Infection Control, Pre and Perioperative Care Committee to provide governance and policy oversight.
- Coordination of the Link Practitioner Network and dissemination of monthly IPC newsletters to embed best practice across clinical and non-clinical areas.
- Development, review, and ongoing maintenance of IPC policies and procedures.
- Regular audit and surveillance activities with comprehensive monitoring and reporting.
- Delivery of education initiatives, including IPC study days and divisional training support.
- Adherence to Department of Health initiatives, notably the High Impact Interventions (HII) and the WHO '5 Moments for Hand Hygiene' campaign.
- Effective management of outbreaks and infection-related incidents within the Trust.
- Reporting of Hospital associate infections compliance in the Royal Papworth Integrated Performance Report.
- Leadership of a refreshed fit testing service to protect staff from airborne infections, supported by the Health & Safety Agency (HSA).
- Active collaboration with the Surgical Site Infection (SSI) stakeholder group to drive continuous improvement.
- Provision of specialist IPC expertise across essential safety groups.
- Establishment and develop the Decontamination Subgroup Committee, working closely with the Decontamination Lead to ensure sterilisation and equipment safety standards.

- Representation in key safety forums including water safety and ventilation safety groups to maintain a safe care environment.

These comprehensive activities underpin the Trust's commitment to maintaining the highest standards of infection prevention and control, protecting patients, staff, and visitors alike.

3.8 National monitoring audit tools and high impact interventions.

Designated Infection Prevention and Control (IPC) Link Practitioners at Royal Papworth Hospital (RPH) conduct monthly High Impact Intervention (HII) audits. These audits are based on evidence-based care bundles and focus on key clinical procedures known to impact infection risk, forming a core part of the Trust's approach to reducing hospital-acquired infections

HII audits help identify gaps in clinical practice, enabling targeted improvements and supporting patient safety. In 2024/25, the Trust adopted the newly developed National IPC Audit Tool, which complements internal audit processes and provides enhanced oversight of compliance against the Board Assurance Framework (BAF).

The full audit cycle, including action planning and follow-up, continues to be embedded within clinical teams. This approach supports multidisciplinary collaboration and promotes shared responsibility for IPC standards. Where audits fall below the 95% compliance threshold, teams are required to submit formal improvement plans, which are reviewed and monitored by the Infection Control and Pre and Perioperative Care (ICPPC) Committee.

During 2024/25, RPH achieved a cumulative compliance rate of 97% for Hand Hygiene audits and 94% for all HII audits. Peer review of audits was encouraged across clinical areas, enhancing local ownership and learning. Education on auditing methodology and the audit cycle to improve reliability and sustainability of results was continued through 2024/25

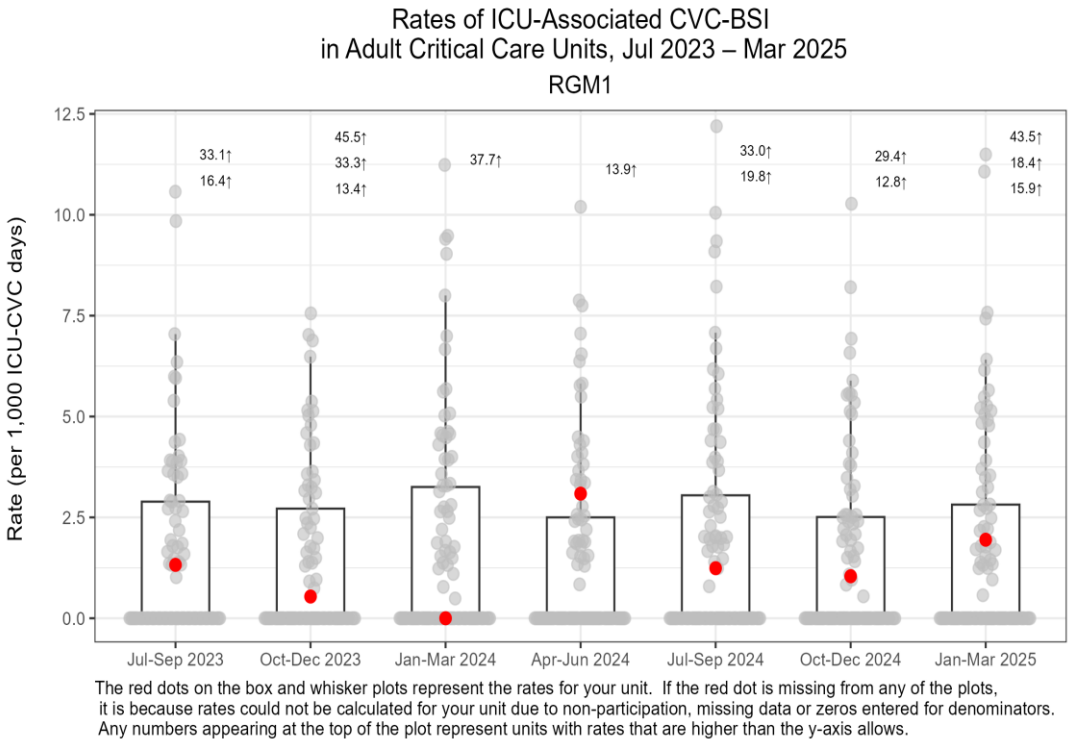
4. Healthcare Associated Infections Statistics

4.1. Infection Control in Critical Care Improvement Programme (ICCQIP)

The Infection in Critical Care Quality Improvement Programme (ICCQIP) was established in 2016 to tackle the issue of hospital-associated infections (HAIs) in intensive care units (ICUs), particularly those linked to central venous catheter (CVC) care. This initiative followed the success of the *'Matching Michigan'* study, which demonstrated how standardising care bundles could significantly reduce bloodstream infections in critical care.

The ICCQIP surveillance programme aims to monitor and characterise CVC-associated bloodstream infections (CVC-BSI) in adult ICUs. Data is collected and analysed quarterly, with unit-level benchmarking reports sent to participating hospitals to support continuous quality improvement.

Royal Papworth Hospital continues active participation in this programme. The graph below presents RPH ICU's performance for the reporting period July 2023 to March 2025, with the Trust's results indicated by the red dots on each box-and-whisker plot:



Across all reporting periods, RPH remained within the interquartile range (IQR) for ICU-associated CVC-BSI rates, reflecting a consistently low rate of bloodstream infections (apart from quarter 1 2024/25). In three of the seven quarters (Jan–Mar 2024, Jul–Sep 2024 and Oct-Dec 2024), the Trust reported near-zero infection rates, placing it among one of the best-performing units nationally for CVC/BSI.
This consistent performance demonstrates the effectiveness of RPH's central line care bundles, aseptic technique training, and sustained IPC surveillance in the ICU environment. The quarterly report is discussed with the critical care multidisciplinary team and monitored by the ICPPC committee.

4.2 Mandatory Reports

4.2.1 MRSA Bacteraemia

Table 1 – Annual MRSA Bacteraemia Rates (2020–2025)

Year	Cases
2020/21	2
2021/22	0
2022/23	1
2023/24	2
2024/25	0

For 2024/25, the UKHSA threshold for MRSA bacteraemia was zero, and RPH reported no cases during this period. This outcome reflects sustained improvement in MRSA prevention.
The implementation of universal MRSA screening continues to play a key role in early detection and timely decolonisation of colonised patients. Screening compliance increased to 95% in 2024/25, representing an improvement from the previous year.

4.2.2 *Clostridioides difficile* (C. diff)

Table 2 – Annual *C. difficile* Cases (2020–2025)

Year	Cases
2020/21	8
2021/22	12
2022/23	7
2023/24	17
2024/25	15

The UKHSA threshold for C. difficile in 2024/25 was 18 cases, and RPH remained below the threshold with 15 reported cases attributed to RPH.
Following updated UKHSA guidance, all cases identified ≥48 hours after admission are now attributed to the Trust, regardless of clinical judgement regarding avoid-ability. The review process for C. difficile cases was modified and instead of full Root Cause Analyses (RCAs) and scrutiny panel meeting, the IPC team now conducts mini-RCAs for shared learning, with escalation for full RCA and Post-Infection Review (PIR) only in the event of outbreaks or clusters.

In January 2025, the Trust committed to a 12-month regional Quality Improvement Programme (QIP) focused on reducing the incidence of C. diff across healthcare organisations within the integrated care system . This collaborative initiative aims to strengthen prevention strategies by offering a structured toolkit of shared resources and renewed focus across the system.
The QIP toolkit includes:

- IPC adherence monitoring tools (e.g., audit checklists and trackers)
- Educational materials for clinical teams
- Evidence-based care bundles
- Patient information leaflets

This toolkit supports Trusts in evaluating and improving local practice, fostering standardisation, and enhancing engagement with infection prevention efforts.

Progress and outcomes of the programme are monitored through the ICPPC, with regular updates feeding into the Trust's wider assurance and governance structures.

4.2.3 MSSA Bacteraemia

Table 3 – Annual MSSA Bacteraemia (2020–2025)

Year	Cases
2020/21	17
2021/22	12
2022/23	19
2023/24	8
2024/25	7

Mandatory reporting of Methicillin-Sensitive *Staphylococcus aureus* (MSSA) bacteraemia to UKHSA continues, though no external threshold is set.
In 2024/25, RPH recorded 7 cases, showing a year-on-year improvement. All cases were isolated and not temporally or spatially linked, suggesting no evidence of systemic hospital transmission.

4.2.4 Other Reportable Bacteraemia

Mandatory surveillance continues for E. coli, Klebsiella spp., and Pseudomonas aeruginosa through UKHSA. The thresholds for 2024/25 were:

- E. coli – 8 cases
- Klebsiella spp. – 8 cases
- P. aeruginosa – 1 case

Table 4 – Other Bacteraemia (2020–2025)

Year	E. coli	Klebsiella spp.	*P. aeruginosa*
2020/21	14	28	9
2021/22	9	13	5
2022/23	9	15	4
2023/24	11	11	3
2024/25	9	8	1

In 2024/25, RPH all threshold targets were reached, with:

- E. coli: 9 (1 above threshold but under review)
- Klebsiella spp.: 8 (at threshold)
- P. aeruginosa: 1 (at threshold)

Surveillance data is regularly reviewed by the ICPPC Committee, and any trend or deviation prompts immediate investigation.

4.3 Other Surveillance Reports

4.3.1 Non reportable Bacteraemia

Although no UKHSA threshold exists for these pathogens, they are monitored monthly and reported to both the ICPPC Committee and UKHSA due to the public health risks associated with antimicrobial resistance (AMR).

Table 5 – GRE/VRE, ESBL & CPE bacteraemia/infection (2020–2025)

Year	GRE/VRE	ESBL	CPE
2020/21	14	6	7
2021/22	12	1	1
2022/23	2	3	2
2023/24	4	2	3
2024/25	3	2	3

- **GRE/VRE**: A slight decrease was observed compared to 2023/24.
- **ESBL and CPE** rates remained low and stable.

Two of the CPE infections in 2024/25 were linked to time and place, prompting the declaration of an outbreak**.** Full outbreak management protocols were initiated, including incident review, enhanced surveillance, and implementation of targeted IPC measures in the affected clinical area. These organisms continue to be managed through rigorous screening, isolation, antimicrobial stewardship, and targeted IPC interventions.

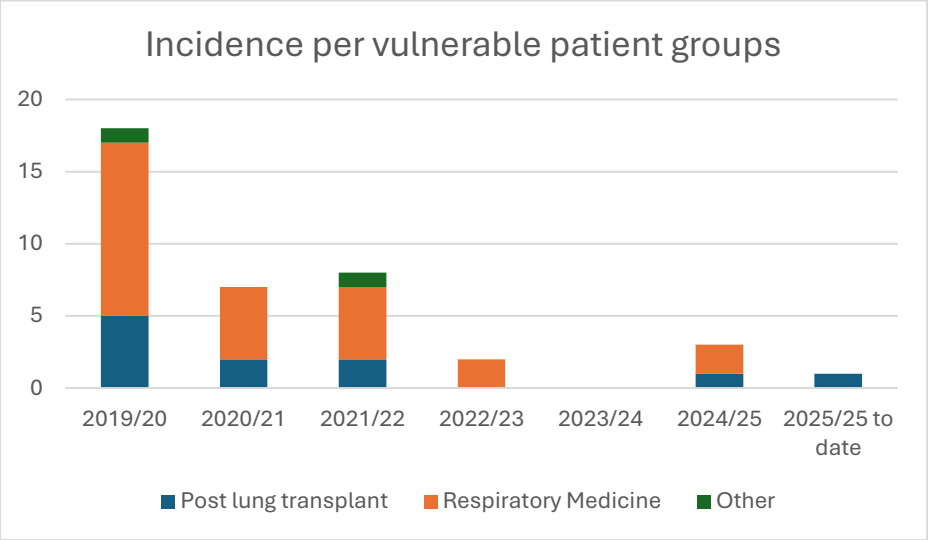
4.4 Mycobacterium abscesses

M abscessus is a rare infection which can cause problems for people with specific underlying respiratory conditions or those who are immunosuppressed. Following routine water testing in 2019 and identification of M abscessus (related to the strain identified in the water) in 2 lung

transplant patients RPH declared an outbreak. A subsequent investigation was undertaken which led to a number of water safety measures to be put in place. Regular review of these measures by the water safety group has been overseen by the infection prevention and control committee in respect to their effectiveness.

Prevalence and current position

The total number of cases who have had a confirmed diagnosis of M abscessus since the move to new RPH is 67 patients. Of these 38 are related to the outbreak strain. The profile of positive cases annually is shown in the graph below: Note 2 cases are thought to be lab contaminants therefore excluded from the graph.



Since implementing enhanced water safety controls and engineering interventions, the Trust has significantly reduced the incidence of new *M. abscessus* infections. In 2024/25, 3 out of 7 new cases were linked to the original outbreak cluster, demonstrating ongoing improvement but continued need for vigilance.

The M. abscessus Steering Group, established in January 2021, continued to meet regularly during 2024/25. The group includes representation from IPC, Estates and Facilities, Clinical and Research, Governance, and Communications, and provides regular updates to the Executive Oversight Committee, which also includes external stakeholders including UKHSA, CQC, NHSE. This governance structure ensures that mitigation measures remain robust and that learning continues to inform both operational and strategic responses.

4.5 Surgical Site Surveillance

Surgical Site Surveillance at RPH aims to identify cardiac surgery patients developing SSIs, using criteria defined by the UK Health Security Agency (UKHSA). Historically, surveillance focused on CABG and valve surgery. Since October 2023, this has expanded to include Pulmonary Endarterectomy (PTE), transplant, and other cardiac surgeries (excluding thoracic procedures and device implantations). From March 2024, CABG, valve, and other cardiac surgery data (excluding transplant and PTE) began being submitted to UKHSA for national benchmarking, based on infections identified during inpatient stay or readmission. All additional identification methods (post-discharge follow-up, self-reporting) are monitored internally.

SSI Monitoring and Reporting

Surveillance continues up to one-year post-operation, with data as of 1st May 2025.

Infection Rates (2024/25)

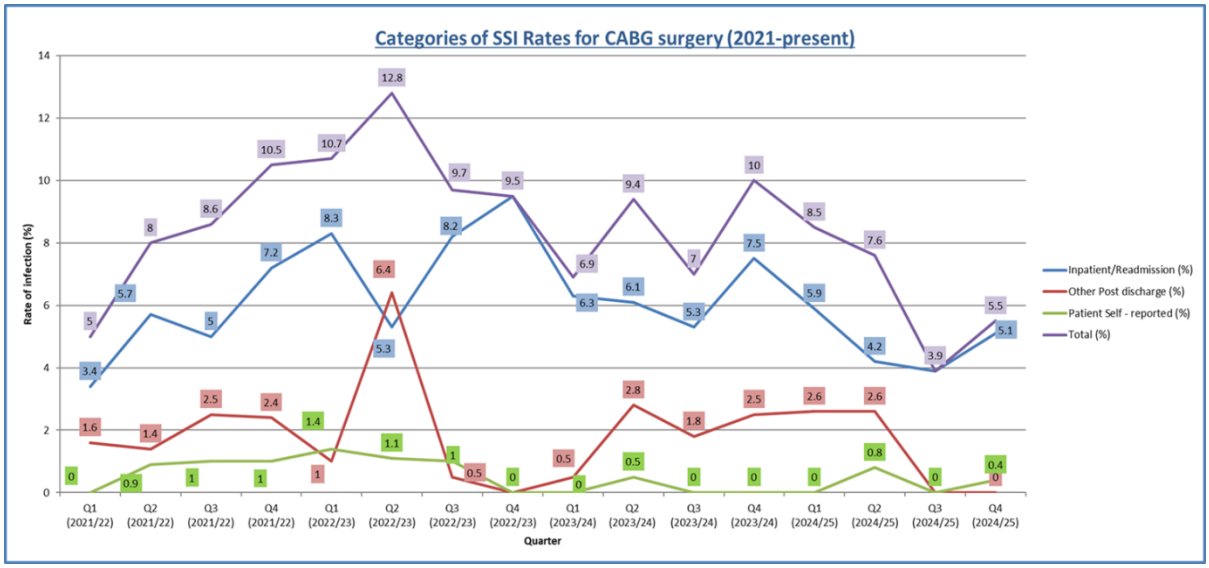
- **CABG:** 6.4% (62/965) — ↓ from 8.3% (2023/24)
- **Valve:** 3.1% (21/673) — ↓ from 3.2% (2023/24)
- **PTE:** 1.2% (2/168)
- **Transplant:** 2.8% (2/71)
- **Other Cardiac Surgeries:** 0% (0/82)

CABG Infection Categories by Quarter (Table 1)

	Q1 (2024/25)	Q2 (2024/25)	Q3 (2024/25)	Q4 (2024/25)
INPATIENT/READMISSION	13 (5.6%)	11 (4.2%)	9 (3.9%)	12 (5.1%)
POST DISCHARGE	6 (2.6%)	7 (2.6%)	0 (0%)	0 (0%)
SELF REPORTED	0 (0%)	2 (0.8%)	0 (0%)	1 (0.4%)
TOTAL	**19 (8.1%)**	**20 (7.6%)**	**9 (3.9%)**	**13 (5.5%)**

Note: UKHSA national CABG SSI benchmark remains at 2.6–2.7%. RPH continues to exceed this benchmark but has shown year-on-year improvement.

Graph 1 shows the breakdown of CABG SSI category reporting from 2021 – 2025. As can be seen, our overall infection rates are lower than 2023-2024. Our inpatient/readmission rate was on an incline from 2021; however, these rates have now begun to show a more consistent reduction, and there is a significant decrease in comparison to the previous two years. Despite this, we remain above the UKHSA national benchmark for CABG which has remained at 2.6-2.7% throughout the year.



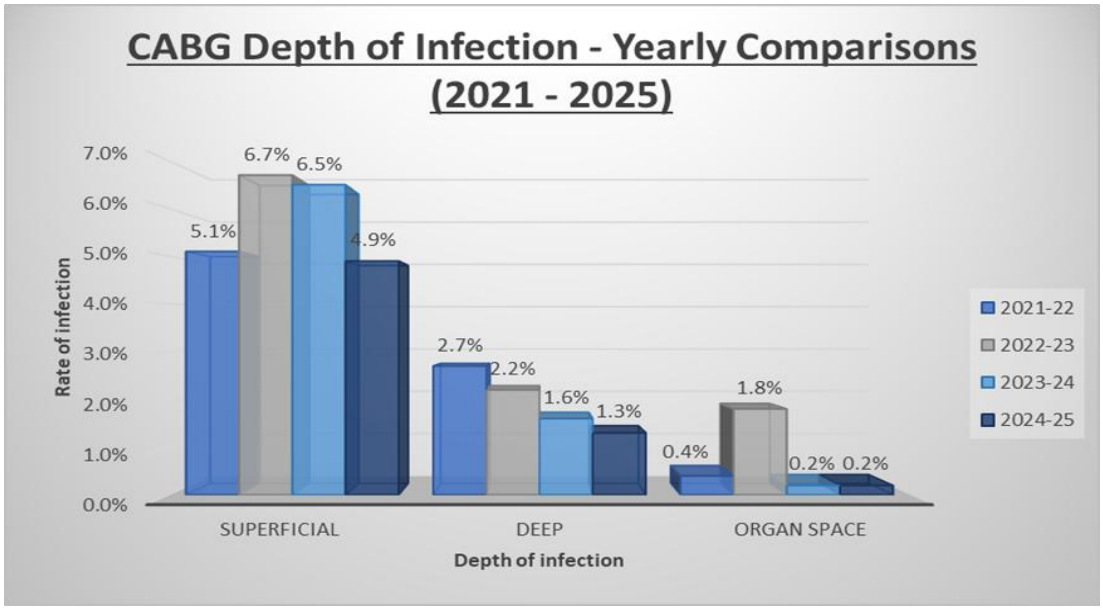
Graph 1 – Total SSI rates for CABG surgery 2021 – present

Depth of Infection (2024/25)

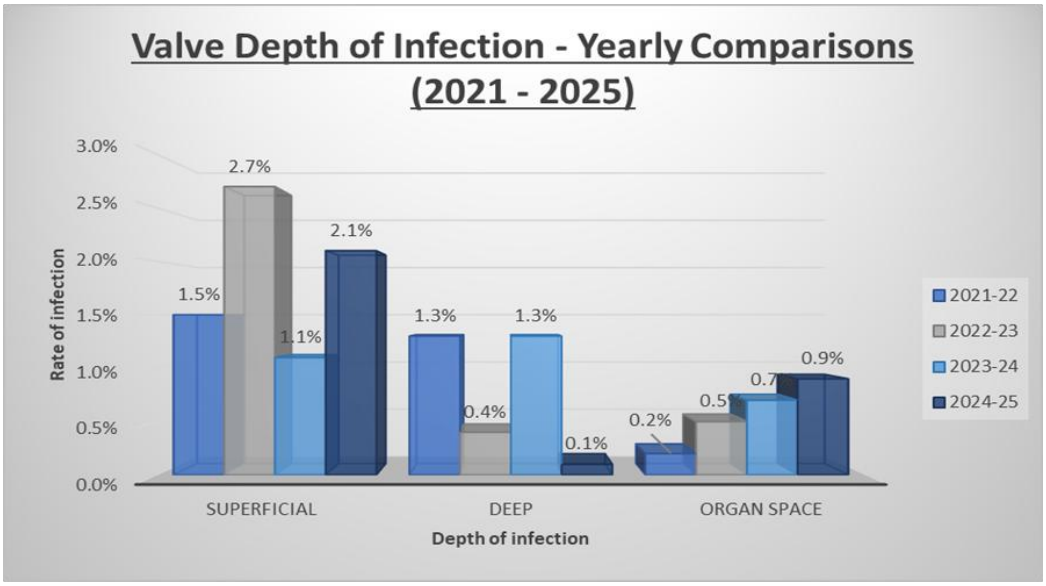
The infections have predominantly been superficial in both CABG and valve surgeries although for both we have still seen deep and organ space infections:

Depth	CABG	Valve
Superficial	47 (4.9%)	14 (2.1%)
Deep	13 (1.3%)	1 (0.1%)
Organ Space	2 (0.2%)	6 (0.9%)

- Total organ space infections (CABG + Valve): 8/1638 (0.5%) — ↑ slightly from 6 (2023/24)
- Deep infections total: 14/1638 (0.9%) — ↓ from 20 (2023/24)
- Notable infection rates in PTE: 2 superficial (1.2%), and in transplant: 1 deep (1.4%) and 1 organ space (1.4%)



Graph 2 – Comparable depths of surgical site infection in CABG surgery by year (2021/2022 to 2024/2025)



Graph 3 – Comparable depths of surgical site infection in valve surgery by year (2021/2022 to 2024/2025

SSI Stakeholder Group & Governance

- Established 2022 in response to elevated SSI rates post-move to new site.
- Governed through the SSI Stakeholder Group, with monthly Clinical Practice, Environmental and Decontamination, and Scrutiny Panel meetings.
- Task and Finish Groups (established May 2023 and continued throughout 2024/25) have driven change in:
    - Clinical practice
    - Staff engagement
    - Environment & cleaning
    - Diabetes management
    - Endoscopic vein harvesting (EVH)

SSI Summit was held August 2024 in the aim to engage with all clinical groups within the surgical pathway and to discuss key performance indicators

- Over 140 participants
- Key improvement focus areas identified:
    - Ventilation & air monitoring
    - Theatre discipline & access
    - Glycaemic control
    - Standardised use of EVH

Key SSI Prevention Actions over 2024/25:

- Sterile services provider changeover (April 2024)
- Reduced theatre capacity: from 14 to 12 people
- Reduced footfall in theatres (door counters implementation)
- Decolonisation compliance increased from 20% to 100% (from Feb 2024)
- Enhanced theatre cleaning for 2 months period: double chlorine cleaning (July 2024)
- Routine audits: monthly mattress audits, daily environmental checks, fortnightly IPC spot checks
- IPC education sessions & declutter campaign (from July 2024)

- Clinical protocol improvements:
    - Routine use of incisional VAC dressings
    - HbA1c screening at pre-op
    - New post-op diabetes management guidelines
    - Opening of Enhanced Recovery Unit (May 2024)

Root Cause Analyses (RCAs) – Deep & Organ Space Infections

In-depth RCAs were completed for all deep and organ space SSIs and reviewed through the Scrutiny Panel. Common findings included:

- Uncontrolled perioperative blood glucose (repeated elevated readings)
- Poor pre-op glycaemic control (elevated HbA1c)
- High BMI and comorbidities as key risk factors
- Gaps in compliance with infection control audits (hand hygiene, ANTT)
- Incomplete documentation of MRSA decolonisation and surgical prophylaxis
- Delays to surgery and patient care
- Under-communicated infection risk at consent stage

Key learning from these reviews continues to inform practice across the surgical pathway. The Wound Care and SSI Surveillance teams collaborate closely across inpatient, outpatient, and theatre settings to monitor and manage wound complications. 2024/25 saw increased surveillance staffing, enabling robust and timely infection identification and follow-up.

SSI rates have shown a positive downward trend in 2024/25, reflecting the Trust's commitment and wide-ranging efforts to improve infection prevention. While rates remain above national benchmarks for some procedures, the introduction of targeted improvements, ongoing stakeholder engagement, and enhanced surveillance continue to support meaningful progress.

Preventing SSIs remains a Trust priority, with attention not only to clinical outcomes but also the significant impact on patients' physical health, psychological wellbeing, and long-term recovery

4.6 Antimicrobial Stewardship

In 2019, the UK published its 20-year vision for antimicrobial resistance (AMR) To deliver on this vision, the government committed to producing a series of 5-year national action plans. The second of which Confronting antimicrobial resistance 2024 to 2029 was published 8th May 2024, which details 4 themes with 9 strategic outcomes.

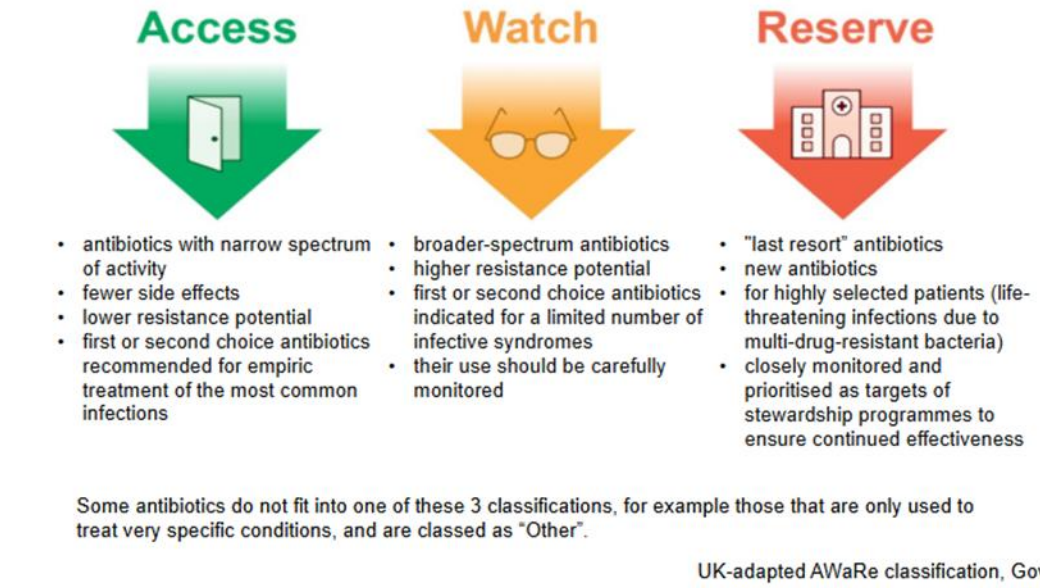
This national action plan (NAP), 'Confronting antimicrobial resistance 2024 to 2029', builds on the achievements and lessons of the first. It contains outcomes and commitments that will make progress towards the 20-year vision for AMR to be contained, controlled and mitigated. Action will be taken across all sectors (human health, animal health, agriculture and the environment) and represents a more encompassing approach to tackle antimicrobial resistance. The national action plan requires all health sectors to work closer together with a lot more collaboration.

NHS Standard Contract 2024/25

This has an antimicrobial stewardship component requiring all trusts in England to reduce its use of "Watch" and "Reserve" antibiotics (vs 2017 baseline). Antibiotics in the UK are categorised into 3 categories (adopted from the World Health Organisation list). This list was updated in January 2025.

Royal Papworth Hospital MET this contract requirement**.**

Figure 1: An image summarising the Access, Watch and Reserve categories.



The "Access", "Watch" and "Reserve" list has recently been updated. The most significant change within the adapted 2024 classification compared to the England-adapted 2019 classification is the move of first generation cephalosporins (Cefadroxil, Cefalexin, Cefazolin and Cefradine) from the Watch category to Access category. This change was made based on resistance potential, antibiotic use (as a first-line treatment or main oral option for community upper urinary tract infections), with lower Clostridioides difficile (C. difficile) risk than other cephalosporins, and value as an alternative for patients with non-severe or unverified penicillin allergies. This change only applies to the first generation cephalosporins, all other cephalosporins remain in the Watch or Reserve categories. The change in category does not mandate increased use of cephalosporins or require change to existing clinical guidance. In FY 2025/26 the AMS team will be looking to introduce Cefazolin to the trust formulary and will be examining the literature to see where we can place it in our guidelines for our patient cohorts. The AMS team will be working with clinical teams to review their "watch" and "reserve" antibiotics at ward rounds with the aim of changing to the narrower spectrumed "access" where appropriate. The AMS team will be working with our clinical teams to ensure appropriate samples are taken and with our local UKHSA microbiology laboratory to receive timely sample results.
https://www.gov.uk/government/publications/uk-aware-antibiotic-classification/uk-access-watch-reserve-and-other-classification-for-antibiotics-uk-aware-antibiotic-classification

Non-mandatory IVOS CQUIN 2024/25

Whilst non-mandatory, RPH continued with the IV to oral antibiotic CQUIN, with the aim that if a patient was prescribed an IV antibiotic, that it was appropriate for the patient to be receive an IV formulation in more than 85% of the time. We **MET** this target with 88.25% of IV antibiotics being appropriate overall min 2024/25.

Formulary additions in 2024/25

Rezafungin IV – a new to market once weekly echinocandin has been added to the formulary. It is licensed for treatment of invasive candidiasis and candidaemia. It offers the opportunity to release bed days for patients remaining in hospital purely to finish their daily echinocandin course (minimum 14 days treatment from first negative blood culture).

Cefepime IV – a quinolone/vancomycin and meropenem sparing option in the treatment of empiric respiratory infections when patients have failed treatment with the first line option, Piperacillin/Tazobactam.

Guidelines

All our major guidelines have been updated in 2024/25 and can be found on our Eolas Medical app.
This app has replaced MicroGuide® and is available on the intranet or can be accessed on electronic devices and phones free of charge. The Eolas app also hosts a wealth of other resources such as patient information leaflets, Medusa IV monographs and national clinical guidelines. Within our Eolas app and embedded within the guidelines there are bite-sized educational training videos e.g. healthcare acquired pneumonia/ventilator acquired pneumonia, post-op pyrexia and therapeutic drug monitoring. The antibiotics listed in our Eolas app are linked to their drug monographs which details dosing information in normal renal function and dosing for patients with renal impairment.

World Antibiotic Awareness Week (WAAW)

RPH hosted a national antibiotic stewardship event at the Heart and Lung Research Institute. This event was attended by pharmacists working for the Public Health England, NHS England and antimicrobial stewardship pharmacists from throughout all healthcare sectors in the region. This was a huge learning event with antimicrobial stewardship presentations made detailing the challenges that the different healthcare sectors in our region are facing.
During WAAW, the AMS team at RPH ran several “escape room” AMS events exploring the use of gamification of AMS to engage with prescribers. We also visited wards with our AMS and engaged with prescribers and nursing staff and listened to the daily AMS challenges that they faced.

Ward Rounds and Audits

Twice weekly AMS surgical ward rounds continue and well as thrice weekly ward rounds to Critical Care and weekly transplant and thoracic ward rounds. Audit of practice continues with re-audits of surgical antibiotic prophylaxis and therapeutic drug monitoring. Posters on the re-audit of surgical antibiotic prophylaxis and of the benefit of shorter courses was presented at the international HIS/FIS Conference 2024 held in Liverpool. This also provided the opportunity to visit the Liverpool Heart and Chest hospital and network with their AMS Team.

Antimicrobial shortages

These remain a challenge to AMS practice and significant amounts of time and resources are spent by the AMS and Pharmacy Procurement Team sourcing alternative (often unlicensed) options with stock having to be managed closely to ensure that patient care is not compromised. There are usually increased financial costs to the trust because of antimicrobial contract shortages. The AMS and pharmacy procurement team have worked hard to keep the annual increase to £18,149 (0.85%) compared to FY 2023/24. This is despite an approximate 17% reduction in antibiotic use in FY 2024/25.

AMS - Projects in 2025/26

- The introduction of continuous IV Vancomycin infusions in Critical Care. This aims to see patients achieving therapeutic drug levels in a timelier manner ensuring that their infections are treated in a timelier manner, possibly reducing course lengths compared to current practice and possibly decrease on length of stay.
- Penicillin De-labelling patients with a low risk of penicillin allergy. Having a false penicillin allergy exposes patients to second choice antibiotics, exposing patients to multiple antibiotics (e.g. having Vancomycin and Ciprofloxacin instead of Piperacillin/Tazobactam as an empiric choice for pneumonia) with more toxic side-effects e.g. renally toxic antibiotics or increased risk of myopathies. The AMS Team will be taking part in the iNAAN study (International Network of Antibiotic Allergy Nations in the United Kingdom) looking to use the proven PENFAST tool to de-label any appropriate in-patient with an inaccurate penicillin label following a thorough penicillin history examination and consent by the patient and clinical team. This project is a major patient safety initiative and has the potential to reduce unnecessary antibiotic use, reduce length of stay for patients and reduce financial costs for the trust.
- Extended Beta-lactam antibiotic infusions. For critically ill patients, the AMS team will be looking to introduce extended infusions for Piperacillin/Tazobactam and Meropenem. This has the potential to use lower dose antibiotics over a prolonged period and achieve better patient outcomes when used with antibiotics that demonstrate time-dependent killing and not concentration-dependent killing.
- Review of antimicrobial dosing in ECMO patients in Critical Care.
- Utilising the Eolas app to its maximum potential, exploring its use as an educational tool and as a means for other teams to host their guidelines.
- Developing and providing (useful) AMS reports to clinical teams to inform their clinical practice.
- Introducing AMS Ward Rounds to other clinical areas e.g. Cardiology or RSSC

4.7 Incidents and Outbreaks 2024-25

Incident and outbreak investigations occurring in 2024/25 were managed and reported to the ICPPC throughout the year.

Influenza
Fifty six cases of flu were identified in 2024/25. Half of these cases were in December 2024 and 3 were hospital acquired from staff or visitors. There were no influenza outbreaks in 2024/25.

Norovirus
There were no cases of norovirus for 2024/2025

***Clostridioidies difficile* (*C. difficile*)**
There were no outbreak or cluster incidents relating to *Clostridioidies difficile* infection in 2024/25 and all C difficile cases which were hospital acquired were reviewed with shared learning.

MRSA
There were no cases of hospital acquired MRSA bacteraemia in 2024/25.

MSSA
2024/25 saw a much reduced number of MSSA bacteraemia no outbreaks reported .

Mycobacterium abscessus (*M. abscessus*)
In 2024/25, three new cases of *M. abscessus* infection were identified linked to the RPH outbreak strain associated with the water system. Notably, two of these cases were lung transplant patients (LTX) — the first LTX cases since 2021.

This development triggered an escalation from the ICPPC Committee and prompted a comprehensive investigation and management response, overseen by the M. abscessus Steering Group.

Oversight and Actions Taken

1. *Patient Case Review*
    - Both lung transplant patient cases were presented to the Serious Incident Executive Review Panel (SIERP) to assess the level of harm and determine duty of candour requirements.
2. *Steering Group Meetings*
    - An extraordinary M. abscessus steering group was convened and continues to meet every two weeks to oversee the outbreak response.
3. *Patient Pathway Review*
    - A detailed review of all care activities along the patient pathways is underway to identify any non-compliance with infection control and safety protocols. All findings are being risk assessed and prioritized for action.
4. *Environmental Testing*
    - Environmental and cistern water sampling has been completed in rooms occupied by affected patients. Preliminary results are pending.
5. *Water Safety Group (WSG) Response*
   An extraordinary meeting was held with the following actions taken:
    - Flushing protocols reviewed and enhanced flushing ceased on Ward 5 North, the area caring for immediate postoperative lung transplant patients.
    - Enhanced control measures introduced, including more frequent water sampling targeting pathogens such as Legionella due to the reduction of flushing of outlets.
    - Collaboration with partners to undertake drain cleaning and develop a maintenance plan (no national guidance exists for frequency/process).
    - A review with the Authorising Engineer to evaluate any additional water treatment requirements.
    - Implementation of a timeline for all water treatments and control measures aimed at controlling M. abscessus.
6. *Staff Education and Awareness*
    - Ongoing promotion of M. abscessus awareness and water safety protocols among staff.
    - Current compliance with M. abscessus awareness training stands at 82%.
7. *Communication Efforts*
    - The M. abscessus communications group has been reinstated to review and update patient information, staff guidance, consent forms, and website content.
8. *Future Planning*
    - The steering group will explore the possibility of more stringent controls for the most vulnerable patient groups.
9. *External Stakeholder Communication*
    - Initial notifications regarding the increased incidence have been made to the Integrated Care Board (ICB), UKHSA, NHSE, and CQC

The outbreak will be closely monitored throughout 2025/26 to ensure all potential causes are identified and effective mitigation measures remain in place.

Mycobacterium tuberculosis *(TB)*
During the reporting period 2024/25, there were three patient cases, and one staff member newly diagnosed with Mycobacterium tuberculosis (TB) during their time at RPH.

Key Actions Taken:

- Contact Tracing Initiated:
  A full contact tracing programme was implemented for all four cases in accordance with national guidance to identify any potential transmission risks to patients, staff, and the public.

- Incident Management Team (IMT):
  An Incident Management Team (IMT) was convened in response to one of the cases due to increased transmission risk, particularly to healthcare workers and patients.
- Swift Containment:
  The IMT coordinated a rapid investigation, ensuring:
  - Timely risk assessment
  - Implementation of appropriate isolation and control measures
  - Completion of all required contact tracing with no further cases identified

Multi-Drug Resistant Organisms (MDROs) – 2024/25 Summary

Vancomycin-Resistant Enterococcus (VRE)
All positive clinical site samples for VRE are routinely monitored to detect any emerging trends or outbreaks. **No incidents or outbreaks** of VRE were recorded during 2024/25

Extended Spectrum Beta-Lactamases (ESBL)
One ESBL bacteraemia case was identified with patient-to-patient transmission in the Critical Care Area (CCA). Due to the prolonged stay of the affected patient, this was classified as moderate harm.

Key actions included:

- A Post Infection Review (PIR) was conducted, with findings and learning shared with the CCA team.
- An ESBL screening programme for all CCA patients was initiated.
- Daily IPC audits were introduced for two weeks and reviewed during the PIR.
- Follow-up and assurance on actions were led by the IPC team to support learning and compliance.

Carbapenemase-Producing Enterobacteriaceae (CPE)
A CPE outbreak was declared in July 2024 and successfully stood down on 2 October 2024. 29 confirmed cases were identified, linked to the same strain, with 4 additional potential cases under investigation. One post-control case in September was linked to environmental concerns (e.g. room clutter near the sink area impeding cleaning access).

Control Measures & Outcomes:

- Immediate outbreak control measures implemented from July to August were effective in stopping further transmission.
- The importance of consistent IPC practices was reinforced.
- Additional IPC recommendation applied:
  - Double chlorine cleaning of the environment.
  - Review of the maintenance of the floor scrubbers used.
  - Drain decontamination program implemented,
  - Review of Mattress decontamination.
- The outbreak demonstrated that robust IPC measures prevent transmission, as validated by external stakeholders including NHSE, UKHSA, and the ICB.
- Ongoing measures include:
  - Routine screening of all patients on admission and weekly in Critical Care.
  - Enhanced environmental inspections on Level 5, resulting in noticeable reductions in clutter and improvements in cleaning standards.

COVID-19
There was a small increase in COVID-19 positive patients admitted in July, September and October 2024. No patient required critical care support and there was a reduction in the numbers of patients needing to come into hospital due to COVID-19 infection. There were 11 nosocomial cases in 2024/25 periodically with a spike in July where more COVID-19 cases were identified within the trust. All nosocomial were fully investigated and monitored through the ICPPCC. There were no staff outbreaks relating to COVID 19.

5 Environment

A safe, clean, and well-maintained hospital environment is essential for effective infection prevention and control. At RPH, the cleanliness and environmental safety programme is delivered in partnership with our contracted facilities provider, OCS, under a Private Finance Initiative (PFI) agreement.
Monitoring and governance of environmental safety are embedded into the ICPPC committee and are supported by performance monitoring forums, Estates and Facilities (E&F) oversight, and direct engagement from nursing leadership including Matrons.

5.1 Cleaning Services and Performance Monitoring

- OCS delivers all routine and specialist cleaning services. The contract is performance-based (output specification) rather than input-led, meaning cleaning is monitored by frequency and outcome rather than fixed staff numbers.
- "Commitment to Cleaning" boards are displayed in each ward/department. These outline responsibilities and cleaning schedules, incorporating service level agreements (SLAs).
- The PFI is a self-monitoring contract, with OCS leading on all cleaning audits. However, joint audits are also carried out on a 13-week rolling schedule, involving Trust representatives. Any audit failures are rectified immediately and re-audited.
- All audit outcomes are reported in the monthly performance report and managed via the contractual management process.
- The Trust and OCS are currently working on embedding the NHS Cleaning Standards 2025, although the only change from 2021 relates to ambulance vehicle cleaning.

Quality Control (QC) Audits

QC audits are carried out regularly across functional risk areas and are captured via the Audim system, with results reported monthly.

Functional Risk Area (FR)	Audit Frequency
FR1	Weekly
FR2	Monthly
FR4	Quarterly
FR6	Annually

QC teams include Matrons, E&F, and OCS supervisors, ensuring a collaborative approach.

5.2 Deep Cleaning Programme

A Trust-wide deep cleaning programme continues in line with contractual obligations. Specific attention has been given to the Theatre and Cath Lab complex, as recommended by the Surgical Site Infection (SSI) Review. Progress is regularly reported to the ICPPC Committee.

5.3 Cleaning Contract Management

Management oversight of the cleaning service includes:

- The General Manager (Project Co) and the Director of Estates and Facilities.
- The OCS PFI Director undertakes regular site visits.
- A dedicated cleaning manager role is in recruitment to enhance daily supervision.

5.4 Cleaning Audit and Monitoring Tools

OCS uses Audim, a digital audit platform aligned with NHS 50-element templates. Recent additions to the auditing framework include:

- High-level cleaning audits
- Floor scrubber maintenance audits
- Efficacy audits as per national cleaning standards

Trust Estates has full access to Audim, ensuring transparency. Results are shared with Senior Nurses/Department Heads, and discrepancies are addressed in ICPPC. Out-of-hours cleaning provision is also in place.

5.5 Linen Services

- Linen is provided by Elis through a shared service with Cambridge University Hospitals.
- Deliveries include all standard hospital linens and are distributed daily.
- Collection of soiled linen is managed by porters; Elis then undertakes cleaning per NHS standards.
- Assurance visits and independent audits confirm compliance and quality.
- Linen services are monitored by the Decontamination Sub-Committee.

5.6 Water Safety

The Trust has a Water Safety Group, which reports to the Infection Prevention and Control Committee. The Water Safety Group meets quarterly to review the water safety plan and report and escalates any issues relating to water health. The water safety group also has an operational monthly meeting to review and update on progress against the action plan.
Within Estates & Facilities, a weekly meeting takes place to support the completion and tracking of actions.
Throughout the year there had been some extraordinary meetings taken place, when urgent action or decisions have been required. These have primarily been around M.abscessus.

The Water Safety Group is the working group whose duties are to advise on and monitor the implementation and efficacy of all Legionellosis and Pseudomonas Management & Controls as well as temperature control and safe hot water management programmes across all sites constituting the Trust Estate. During last year, the water safety group took ownership of the M.abscessus risk assessment, implementation, and management.

The group consists of the Trust Designated Responsible Person and Deputies, Infection Control Doctor and/or deputy (IPC lead nurse), Matrons or Ward Based Representative, Risk Manager, Estates Operation Manager, Hard FM Manager and the Trust Legionellosis Management & Control Consultants and Skanska team. Details of the Trust's water safety procedures are documented in DN654 Water Safety Plan available on the Intranet. Any concerns raised regarding water management are escalated through the ICPPC committee.

RPH have appointed an Authorising Engineer for water from Hydrop company who completes a yearly audit and completes various risk assessments to improve the water system health.

RPH has an approved and up to date water safety plan in place with robust surveillance of water sampling and control measures to maintain water safety throughout the trust. Currently the water safety plan is under review to align with the changing environment and to consider any changes to the revised risk assessments.

5.7 Ventilation Safety

The Ventilation Safety Group is chaired by Estates and Facilities and meets monthly with cross-organisational membership (including IPC, Skanska, and OCS).
Recent developments:

- Appointment of a Ventilation Authorising Engineer (AE) in 2024.
- Independent review and audit (including smoke testing) of the Trust's critical ventilation systems.
- Updates to air exchange rates, filter change frequency, door seals, and Planned Preventive Maintenance (PPM) schedules.
- Work is ongoing into 2025/26 to ensure sustained compliance with HTM 03-01.
- Annual maintenance in high-risk areas was completed and verified against national standards and approved at ICPPC.

Summary of Environment.
In Summary environmental hygiene and infrastructure safety at Royal Papworth remain a high priority, underpinning our infection prevention strategy. Significant collaborative efforts have been made between clinical, estates, and contracted service teams to ensure alignment with national standards and prompt responses to any non-conformities.
These proactive measures are part of our Trust-wide approach to ensuring patient safety and optimal care environments across all clinical settings.
OCS provides cleaning services to Royal Papworth Hospital, through a PFI contract arrangement. This is monitored through the Trust Estates team performance monitoring forums and ICPPC committee and QC audits take place which are monitored with the oversight from the Matrons.

- Within each department/ward of the hospital there are *"commitment to cleaning"* boards that display the roles, responsibilities, and cleaning routines of that department; these also incorporate the required SLA for that specific department/ward
- As an output spec contract there are no specific staffing number requirements aligned to the cleaning contract, the service level that OCS are monitored against is the frequency of work/service specification outputs.
- The PFI contract is a self-monitoring contract which enables the contractor to take a lead in all cleaning audits. In addition to this we have organised joint audits that take place according to the 13-week schedule. In the event of an audit failing, OCS will rectify the failings immediately and the area will be audited again on completion.
- Any failures in cleaning audits are reported in the monthly performance report and managed through the PFI contractual management process.
- OCS & E&F are continuing to work to ensure sufficient staffing levels are maintained.
- The Trust and OCS are working to implement the NHS cleaning standards 2025 (albeit the only change from the 2021 standards is with respect to cleaning of ambulance vehicles).

6 Training Activities

Infection Prevention and Control training mandatory sessions were delivered as outlined in Table 11 either by Face to Face, MS teams or recorded sessions.

Table 11

Teaching sessions	Frequency	Delivered by
Induction session for **all** new starters	Monthly	Presentation provided and reviewed by IPC team; supervised by education team. 100% attendance as it is mandatory to complete.
IPC study day	Bi-annually	Presentation presented by the IPC and other subject experts surrounding current hot topics and findings.
Training for Foundation and Core Medical Trainees	Three times yearly	Education manages this with IPC supporting updates.
Update for qualified nurses in cardiac and thoracic directorate via e-learning	Level 1 – every 3 years. Level 2 - Annually	Standard e-learning package Mandatory requirement
Update for non-qualified nurses in cardiac and thoracic directorate via e-learning	Every 3 years	Standard e-learning package Mandatory requirement

Hand hygiene update for all other clinical staff via Hand Hygiene week for practical plus e-learning	Annually	IPCT to complete- Hand hygiene awareness week
Training session for Housekeepers via e-learning	Annually	IPC team review and update training pack.
M. abscessus essential training	One off training	Standard e-learning package. Updated by IPC team. Ad hoc teaching session via teams supported by IPC team.
IPC session for departments	Bespoke	IPC present hot topics and findings
HCSW care certificate	Monthly	Understanding the principles of infection prevention and control

Summary
The trust achieved 100% compliance for IPC training on induction for all new starters in 2024/25.

Compliance with Infection Prevention and Control annual updates is a requirement for all staff for completion of their annual appraisals. All mandatory training data is shared to the management teams for them to manage and support is provided to increase training compliance. ESR training mandatory IPC training compliance is reviewed at the ICPPC Committee. Compliance for training for 2024/25 is displayed in table 12

Table 12- Compliance with IPC mandatory training

CSTF REQUIREMENTS (EXC STARTERS IN LAST 3 MONTHS)	AS AT 31.03.2025		
UPDATED COMPETENCY	**No. Required**	**No. Compliant**	**% Compliant**
Infection Prevention and Control - Level 1	2186	2010	91.95%
Infection Prevention and Control - Level 2	1642	1371	83.50%

M. abscessus training was implemented in May 2021 for staff to complete via online training. This was to encourage all staff to have awareness and education in respect to *M. abscessus*. 2024/25 training continued to be monitored through ICPPCC.

Table 13- Compliance with M abscessus training

EXCLUDING TEMPORARY STAFFING (CLINICAL)	**No. Required**	**No. Compliant**	**% Compliant**
M.Abscessus Training	2082	1703	81.80%

7 Audit IPC Annual Programmes

Table 14- IPC Annual Audit Programme and Result 2024/25 (Criteria 1-10)

Title	Frequency	Results 2024/25	
Hand Hygiene	Monthly	97%	
HII*	Monthly	94%	*High Impact Interventions HII5 – Ventilated patients -VAP prevention HII8 – Cleaning and decontamination of clinical equipment
ANTT	Monthly	95%	
MRSA Screening	Yearly	95%	
Decolonisation – pre op	Monthly	91%	
Isolation	Monthly	76%	
Vulnerable group and POU filter (*M. abscessus*)	Monthly	93%	
Sharps	Annual	92%	Summary: All audits are taken to the ICPPC for review and robust action plans completed so everyone has an overall insight. Additional decolonisation audit was carried out to 2024/25. IPC and audit team work closely and share monthly reports to the clinical team.
Linen	Annual	88%	
Environment	Annual	97%	
Hand Sanitiser	Annual	89%	
Hand Hygiene technique	Annual	94%	
Waste	Annual	93%	
CVC BSI surveillance	Quarterly	Reported above	
Scrubbing and Gowning	Rolling	96%	
Skin Prep	Rolling	80%	
National Surgical Audit (NICE guidelines)	Rolling	See comment under SSI.	

Summary: 2024/25 Audit plan was reviewed and approved through ICPPCC.

The overall IPC compliance results for 2024/25 have remained consistent with those from 2023/24, with occasional months showing lower compliance levels.

Key highlights:

- Hand Hygiene Audits:
  IPC has intensified efforts to raise awareness on the critical importance of hand hygiene. This has resulted in a notable increase in the number of hand hygiene audit episodes compared to the previous year.
- Audit Process Enhancements:
  The audit process now includes peer review, detailed narrative explanations for non-compliance, and robust action plans, contributing to a more effective and transparent audit cycle.
- Environmental Audits Post-CPE Outbreak:
  Following the CPE outbreak, an additional environmental audit was introduced, focusing on clutter, sink hygiene, and both high- and low-level cleaning.
    - When first implemented as a monthly audit, compliance started at 40%.
    - Throughout 2024/25, compliance has improved steadily to 70%, with ongoing efforts to achieve further improvements.

8 Influenza and COVID-19 Vaccine Uptake

Vaccination of frontline healthcare staff against influenza and COVID-19 remains a critical measure in reducing the transmission of infection to vulnerable patient populations.

This year's staff immunisation programme at Royal Papworth Hospital (RPH) ran from September 2024 to November 2024, and was delivered in-house by the RPH team. The programme offered both seasonal influenza and COVID-19 booster vaccinations.

From December 2024 to January 2025, an ad hoc booking service continued, with approximately 50 additional staff vaccinated—this figure is not reflected in the headline data below.

Vaccination data is uploaded to the UK Health Security Agency (UKHSA) via the ImmForm platform.

Table 15 - Influenza and COVID-19 Vaccine uptake for 2024/25 Season (Criterion 1, 10)

Metric	**Flu**	**COVID-19 Booster**
Total vaccinations administered at RPH (all individuals including OCS, Skanska, Volunteers)	1,156	881
Number of RPH staff vaccinated (excluding OCS, Skanska, Volunteers, external vaccinations)	967	735
% of eligible RPH staff vaccinated	38.7%	29.4%

Note: 'Eligible staff' includes all substantive and temporary (bank/locum) staff who have worked at RPH within the last three months. The total eligible number fluctuates due to staff turnover.

Role Type	**% Vaccinated – Flu**	**% Vaccinated – COVID Booster**
Clinical Roles	36.5%	27.4%
Non-Clinical Roles	45.8%	36.2%

Commentary on Uptake Trends

- Overall uptake for both flu and COVID-19 booster has declined compared to previous years.
- The decline is consistent with national trends across the NHS, although the specific causes remain unclear.
- Possible influencing factors (as seen nationally) may include:
    - Lower perceived risk post-pandemic.
    - Vaccine fatigue or complacency.
    - Changes in vaccine delivery methods or scheduling.

Despite this, the RPH immunisation team maintained strong engagement and visibility during the campaign, offering:

- Drop-in clinics, roving vaccinators, and ad hoc appointments.
- Coverage extended to OCS, Skanska staff, volunteers, and contractors working on-site.

Further evaluation will inform the 2025/26 immunisation strategy, including a review of communication methods, accessibility of clinics, and targeted outreach for clinical staff groups.

9 Inoculation Injuries

9.5 Annual Quarterly Figures

The number of inoculation injuries (including needlestick, splash, and sharps injuries) has seen fluctuations over recent years. In 2024/25, there were 42 reported incidents, a slight decrease from 45 in 2023/24, and still notably lower than the peak in 2021/22 (52 incidents).
This reduction may be attributed to improved documentation, heightened awareness, and ongoing emphasis on safe sharps handling practices.

Table 16- Annual Quarterly Figures of Inoculation Injuries

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2020/21	5	5	9	8	27
2021/22	9	8	11	22	52
2022/23	10	5	10	12	37
2023/24	14	8	9	14	45
2024/25	*8*	*6*	*12*	*16*	*42*

This year has seen a slight decrease in sharps injuries reported from previous year and is still lower than rates recorded in 2021/22. Reasons for this could include improved documentation on sharps, splash and needlestick injuries (SSNI) over the reporting period.

9.2. Areas Reporting Incidents

The breakdown by directorate for 2024/25 shows that the Surgical Directorate reported the highest number of incidents (17), followed by Cardiology (9). Surgical division is the largest division with high-risk intervention with Cardiology also completing high risk intervention. A notable portion (8 incidents) were reported with unknown attribution, highlighting an area for improvement in incident documentation.

Table 17 – Divisions incidents occurred

Directorate	Qtr1	Qtr2	Qtr3	Qtr4	Grand Total
Cardiology RPH	3	1	2	3	9
Clinical Support Services RPH		1			1
Surgical RPH	2	1	6	8	17
Thoracic RPH	1			4	5
Unknown	1	2	4	1	8
Workforce Directorate	1	1			2
Grand Total	**8**	**6**	**12**	**16**	**42**

9.3 Quality Improvement Initiatives

In 2025, the Trust launched a Quality Improvement Programme to proactively reduce the incidence of sharps and needlestick injuries. This initiative involves, Occupational Health, Health & Safety Officer, Senior clinical decision-makers, Education and IPC.

Aims of the programme:

- Improve reporting accuracy and timeliness
- Strengthen preventative protocols and device safety
- Promote incident learning and feedback
- Review and update sharps handling procedures

The programme is currently under evaluation, with progress to be monitored through the Health and Safety Group and reported to the Infection Control Prevention and Practice Committee (ICPPC).

10 Infection Prevention and Control Risk Management

The Trust recognises that infection prevention and control (IPC) carries inherent risks that can impact both patient and staff safety. These risks are actively monitored and reviewed through established governance frameworks to ensure timely mitigation and escalation.

Governance and Escalation Structure
All IPC-related risks are overseen by the ICPPC. Where required, risks are escalated to the QRMG for further review and strategic oversight. This ensures that IPC risks are integrated within the broader organisational risk management process.

Strategic IPC Risks on the Board Assurance Framework
The Trust currently holds two overarching IPC-related risks on its Board Assurance Framework, which are subject to monthly review and updates:

Risk Description	Impact	Mitigation Measures	Oversight Committee
Failure to protect patients from hospital-acquired infections (HAIs), leading to patient harm.	Risk to patient safety and Trust reputation	IPC programme, surveillance, training, audits, outbreak response protocols	ICPPC, QRMG
Risk of Mycobacterium abscessus (M. abscessus) outbreak, especially among vulnerable patients.	Increased morbidity and mortality in high-risk cohorts	Enhanced environmental controls, ventilation and water system reviews, patient cohorting	ICPPC, QRMG

These risks are assessed against their potential severity and likelihood, with mitigation plans actively managed by the IPC team in collaboration with Estates, clinical services, and the executive team.

11 Summary of Key Areas for this Coming Year

The IPC team are committed to work with all departments and services to maintain a safe environment for patients, staff and visitors. As 2024/25 ended we look forwards to 2025/26 and areas that the IPC team will continue to focus attention on are:

- Continue to complete a gap analysis of the Hygiene code and complete the new updated version of IPC national board of assurance (BAF) framework. To support this work and improve our compliance where it was identified as partial or non-compliant:
    - Continue to work closely with the decontamination lead to develop a robust decontamination sub-committee.
    - Support and develop a enhance assurance reports to the ICPPC committee from the soft services and ventilation safety group, by full engagement from the Estates team. Appointing an AE in April 2024 for ventilation has improved develop a Ventilation safety plan with work underway to compliment the ventilation.
    - To review, implement and embed the new 2025 version of the national cleaning standards entirely at Royal Papworth Hospital NHS Foundation Trust.
    - Support and work alongside the health & safety committee to maintain staff safety with a quality improvement program on prevention of sharps injury.
    - IPC to work collaboratively with the AMS team to aim to achieve the national targets.
- Continue working with the SSI stakeholder group to improve the surgical site infections rates. Ongoing work which will include:
    - Increase the IPC environment rounds on the surgical wards with clinical engagement
    - Work with the theatre team to reduce Footfall in the theatre department.
    - Support the move of SSI stakeholder over to the STA division.
- Management and maintain safety mitigation throughout RPH with M.abcessus by:
    - The executive corporate group will continue to monitor the outbreak.
    - Use the risk assessment completed and work on the actions and risks identified to maintain safety

12 References and Resources

IPS & NHS Improvement (Nov 2017) 4th Ed of Saving Lives: High Impact Interventions,

Department of Health (2015), Health and Social Care Act 2008, Code of practice on the prevention and control of infections and related guidance

Department of Health (2003), of the Chief Medical Officer's strategy for infection control (*Winning Ways: working together to reduce healthcare associated infection*)

NHS Improvement & Infection Prevention Society (2017) High Impact Interventions: Care processes to prevent infection. 4th Ed

Public Health England 2017. Guidance, Health matters: preventing infection and reducing antimicrobial resistance. [ONLINE] Available at: https://www.gov.uk/government/publications/health-matters-preventing-infections-and-reducing-amr/health-matters-preventing-infections-and-reducing-antimicrobial-resistance [Accessed May 2018]

National Infection Prevention and Control Manual (NIPCM) for England. [ONLINE] Available at: https://www.england.nhs.uk/national-infection-prevention-and-control-manual-nipcm-for-england

National Infection Prevention and Control Standard precaution monitoring tool. [Online] Available at: NHS-England-standard-infection-control-precautions-monitoring-tool.xlsx

Appendix 1

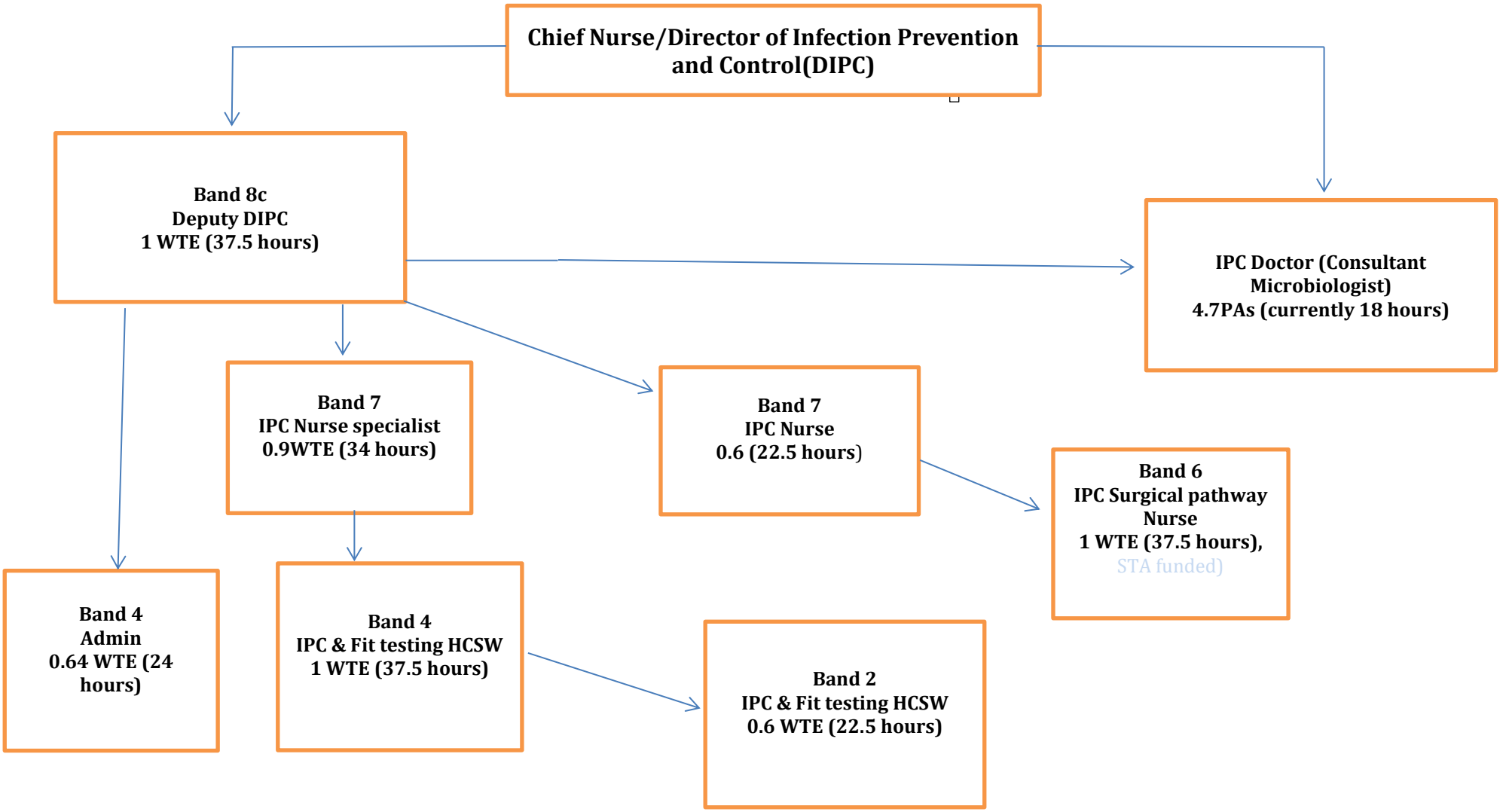
The requirements of the Health and Social Care Act (2008) updated in this report in line with revised guidance issued July 2015.

Compliance criterion	What the registered provider will need to demonstrate
1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.
2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.
3	Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.
4	Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion.
5	Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.
6	Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.
7	Provide or secure adequate isolation facilities.
8	Secure adequate access to laboratory support as appropriate.
9	Have and adhere to policies, designed for individual's care and provider organisations that will help to prevent and control infections.
10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.

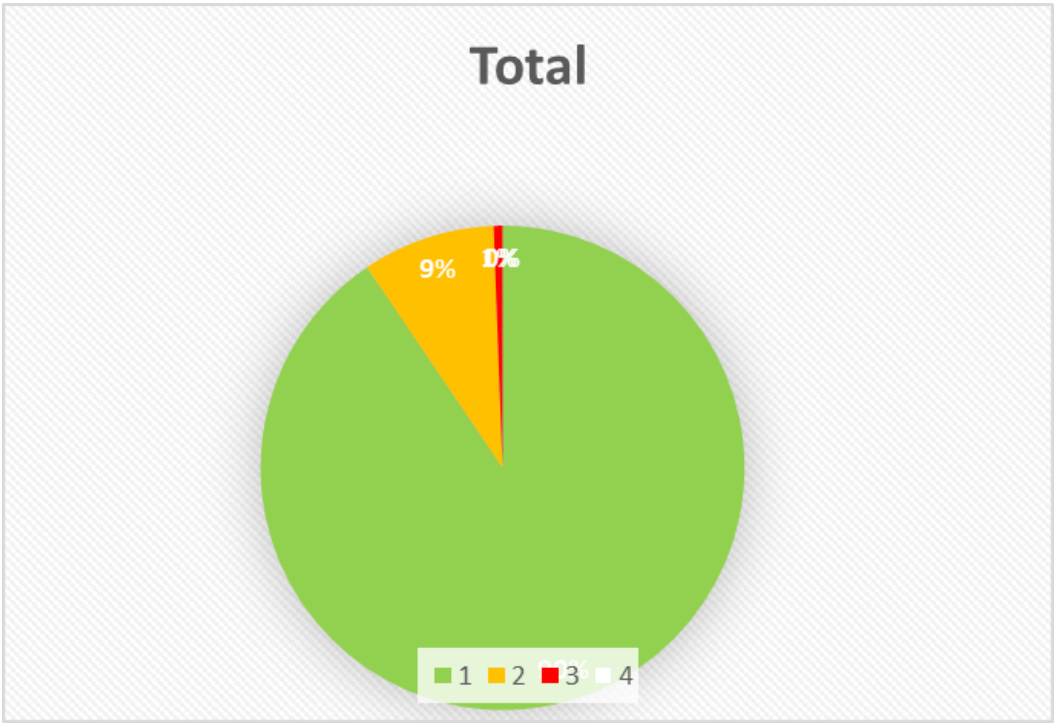
Appendix 2

Infection Prevention and Control Team (Criterion 1)

IPC Team Structure -2024/25



Appendix 3: Hygiene Code Gap Analysis 2024/2025

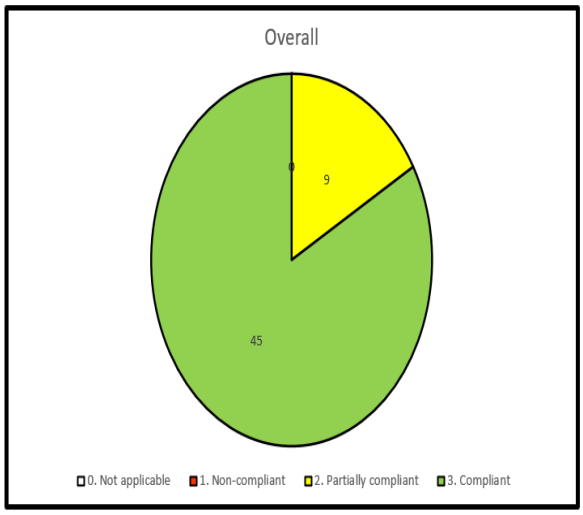


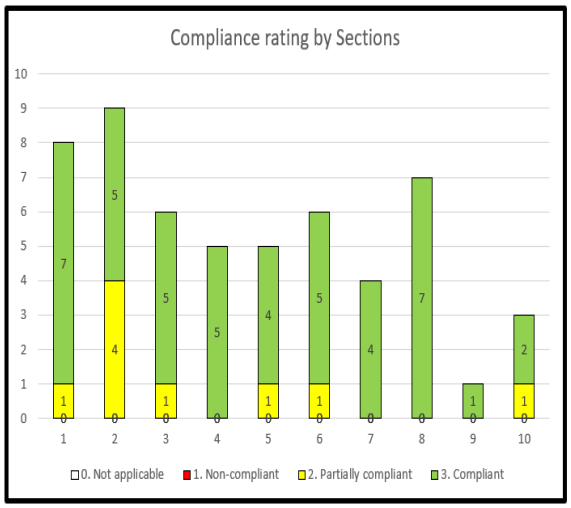
	Compliant	Partial compliance	Non-compliance	Not Completed
Total	153	15	1	0

What the registered provider will need to demonstrate

Criterion 1
Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.
Criterion 2
The provision and maintenance of a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.
Criterion 3
Appropriate antimicrobial use and stewardship to optimise outcomes and to reduce the risk of adverse events and antimicrobial resistance.
Criterion 4
The provision of suitable accurate information on infections to service users, their visitors and any person concerned with providing further social care support or nursing/medical care in a timely fashion.
Criterion 5
That there is a policy for ensuring that people who have or are at risk of developing an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of transmission of infection to other people.
Criterion 6
Systems are in place to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.
Criterion 7
The provision or ability to secure adequate isolation facilities.
Criterion 8
The ability to secure adequate access to laboratory support as appropriate.
Criterion 9
That they have and adhere to policies designed for the individual's care, and provider organisations that will help to prevent and control infections.
Criterion 10
That they have a system or process in place to manage staff health and wellbeing, and organisational obligation to manage infection, prevention and contr

Infection Prevention and Control Board Assurance Summary (2024/25)





BAF Domain	Assurance Activities	Evidence / Outcomes
1. Leadership and IPC Governance	- DIPC (Chief Nurse) leads IPC and chairs ICPPC Committee - Deputy Director of IPC oversees delivery - Multi-disciplinary ICPPC meetings every 8 weeks	- ICPPC minutes and agendas - Escalation to QRMG and Board via Quality and Risk Committee
2. IPC Policies and Procedures	- Trust-wide IPC policies and SOPs developed, reviewed, and aligned with national guidance	- Policy review logs - Document control system with version history and approvals
3. IPC Training and Education	- Matron IPC masterclasses - IPC study days - IPC link group across clinical and non-clinical areas - Regular newsletter for learning	- Training compliance records - Newsletter distribution list - Induction logs for new staff
4. Audit, Surveillance and Reporting	- Monthly alert organism reports to ICPPC - Surgical Site Infection stakeholder group meetings - Ongoing internal audits and external PLACE assessment	- UKHSA data submissions - SSI meeting minutes - PLACE results showing above national average
5. Decontamination and Equipment Standards	- STERIS contract awarded (April 2024) for decontamination services - Monthly decontamination assurance to ICPPC - Decontamination Lead in post	- Accreditation certificates (ISO 13485, ISO 9001) - Subcommittee minutes - Contractor performance reports
6. Outbreak Management and Learning	- Incident Management Team (IMT) established 2024/25 for outbreak response	- Outbreak debrief reports and lessons learned logs
7. Risk Management and Board Assurance	- Escalation from ICPPC → QRMG → Quality & Risk Committee - Quarterly review of CQC Hygiene Code compliance - Annual mock Regulation 15 reviews	- Gap analysis (Appendix 3) - Mock inspection reports - Board minutes reflecting IPC oversight
8. Communication and IPC Culture	- Infection Control Link Group forums - IPC advice available Trust-wide - Staff engagement via newsletters, champions, and targeted updates	- Attendance records - Staff feedback from IPC surveys - Distribution logs
9. Estates, Environment and Standards	- Participation in national PLACE inspections - Facilities contractors involved in assessments	- 2023 PLACE score above national average (Appendix 4) - PLACE report showing cleanliness and building maintenance scores