

# Infection Prevention & Control Annual Report 2019/2020

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## 1. Introduction

All NHS organisations must ensure that they have effective systems in place to control healthcare associated infections (see Table 1). The prevention and control of infection is part of Royal Papworth’s overall risk management strategy. Evolving clinical practice presents new challenges in infection prevention and control, which need continuous review.

*Table 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.

The Trust has registered with the CQC and declared full compliance with the ten compliance criteria as detailed in Table 1 above.

The Trust puts infection control and basic hygiene at the heart of good management and clinical practice, and is committed to ensuring that appropriate resources are allocated for effective protection of patients, their relatives, staff and visiting members of the public. In this regard, emphasis is given to the prevention of healthcare associated infection, the reduction of antibiotic resistance and the sustained improvement of cleanliness in the hospital.

The issues that the Trust must consider include:

- The number and type of procedures carried out across the Trust and the systems in place to support infection control and decontamination.
- The different activities of staff in relation to the prevention and control of infection.
- The policies relating to infection prevention and control and decontamination.

- Staff education and training programmes.
- The accountability arrangements for infection prevention and control.
- The infection control advice received by the Trust.
- The microbiological support for the Trust.
- The integration of infection control into all service delivery and development activity.

This report has been written to provide information about infection prevention and control at Royal Papworth Hospital. This information is primarily aimed at patients and their carers, but may also be of interest to members of the public in general.

The report aims to reassure the public that the minimisation and control of infection is given the highest priority by the Trust.

In publishing this report we recognise that patients and the public are increasingly concerned about infection risks. Access to information about this aspect of hospital care is rightly needed in order to make informed decisions and choices about their health care needs.

## 2. Executive Summary – Overview of Infection Control Activities within the Trust

The Trust has a pro-active infection prevention and control team that is very clear on the actions necessary to deliver and maintain patient safety. Equally, it is recognised that infection prevention and control is the responsibility of every member of staff and must remain a high priority for all to ensure the best outcome for patients.

The hospital complies with the “Saving Lives” programme. High impact interventions (HII) were originally published in 2005 as part of ‘Saving Lives’. Since then, the tools have been updated in 2007, 2010 and 2017. The latest review was undertaken by a working party commissioned by the Infection Prevention Society (IPS) in 2017 in association with NHS Improvement. The infection prevention and control audit and surveillance programme incorporates this guidance and along with other audits such as the IPS audit tools, allows constant monitoring of all infection, prevention and control policies and procedures.

In February 2016 the National Institute for Health and Care Excellence (NICE) published Quality Standard 113 which covers organisational factors in preventing and controlling healthcare-associated infections in hospital settings. Royal Papworth is compliant with the standards in this document.

Royal Papworth continues to take part in mandatory surveillance of Methicillin Resistant *Staphylococcus aureus* (MRSA) bacteraemia, Methicillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia, *E.coli* bacteraemia and *Clostridioides difficile* infection via the national Public Health England healthcare associated infections Data Capture System (HCAI DCS). In addition, mandatory reporting of *P.aeruginosa* and *Klebsiella* species was introduced in 2017.

In response to a national ambition announced by NHS England to reduce healthcare associated Gram-negative blood stream infections (BSI) by 50% by March 2021, the Trust has developed and is following an *E.coli* reduction plan which aims to reduce the incidence of *E.coli* bacteraemias within the Trust. Overall, the rate of *E.coli* bacteraemias in the Trust year on year has been very low compared to the national rates. Even though, the Trust has achieved a 10% reduction of *E.coli* bacteraemia in 2018/19 and stayed at the same level in 2019/20.

Royal Papworth Hospital NHS Foundation Trust monitored incidence of *C.difficile* during 2019/20 and continuously strives to remain within our ceiling target. The ceiling target is reset

on a yearly basis. Since April 2013 this has been done by the Clinical Commissioning Group (CCG).

Incidents and outbreaks were managed as they arose throughout 2019/20. The management of influenza remains high on the Trust's agenda and local policies and procedures are continually updated and reviewed in line with national guidance.

### **3. Description of Infection Control Arrangements**

#### **3.1 Corporate Responsibility (Criterion 1)**

The Chief Nurse has lead responsibility within the Trust for Infection Prevention and Control and reports to the Chief Executive and the Board of Directors. Following publication, by the Department of Health in December 2003, of the Chief Medical Officer's strategy for infection control (*Winning Ways: working together to reduce healthcare associated infection*) the Chief Nurse post has been designated as Director for Infection Prevention and Control (DIPC) for the Trust. As outlined in *the Health and Social Care Act (2008) updated in this report in line with revised guidance issued July 2015*.

The Executive Directors engage with patient environment rounds which include Infection Prevention and Control compliance. The Medical Director and the Heads of Clinical Governance and Risk Management, through their respective roles, also exert their influence at a corporate level in areas that have direct impact on infection prevention and control. Matrons and Heads of Nursing consider infection prevention and control issues when completing their rounds and provide in and out of hours support.

#### **3.2 Infection Prevention & Control Team (Criterion 1)**

Specialist advice is provided to clinicians throughout the hospital by the infection prevention and control team. A Consultant Microbiologist is the designated Infection Prevention and Control Doctor (IPCD), with the weekly allocation of 4.5 programmed activities (18 hours per week for 42 weeks of the year) of infection control doctor time. When needed, cover for leave of absence is provided by another Consultant Microbiologist at Papworth Hospital. On-call cross cover arrangements are in place for Microbiologists from Royal Papworth and Cambridge University Hospitals. Specialist advice in virology is provided by Cambridge University Hospital Consultant Virologists.

The specialist infection, prevention and control nursing team provide education, support and advice to all Trust staff with regard to infection prevention and control matters and liaise regularly with patients and relatives to provide information on alert organisms, offering advice and reassurance when required.

The team liaise with clinicians and divisional managers together with managers who have responsibility for operational support, clinical governance and risk management. The remit of the team includes:

- To have policies, procedures and guidelines for the prevention, management and control of infection in place across the organisation.
- To communicate information relating to communicable disease to all relevant parties within the Trust.
- To ensure that training in the principles of infection control is accurate and appropriate to the relevant staff groups.

- To work with other clinicians to improve surveillance and to strengthen prevention and control of infection in the Trust.
- To provide appropriate infection control advice to key Trust committees, taking national guidance into account.
- To share information between relevant parties within the NHS when transferring the care of patients to other healthcare institutions or community settings.

Full details of the infection prevention and control team are provided in the organisation chart shown on page 7 of this report.

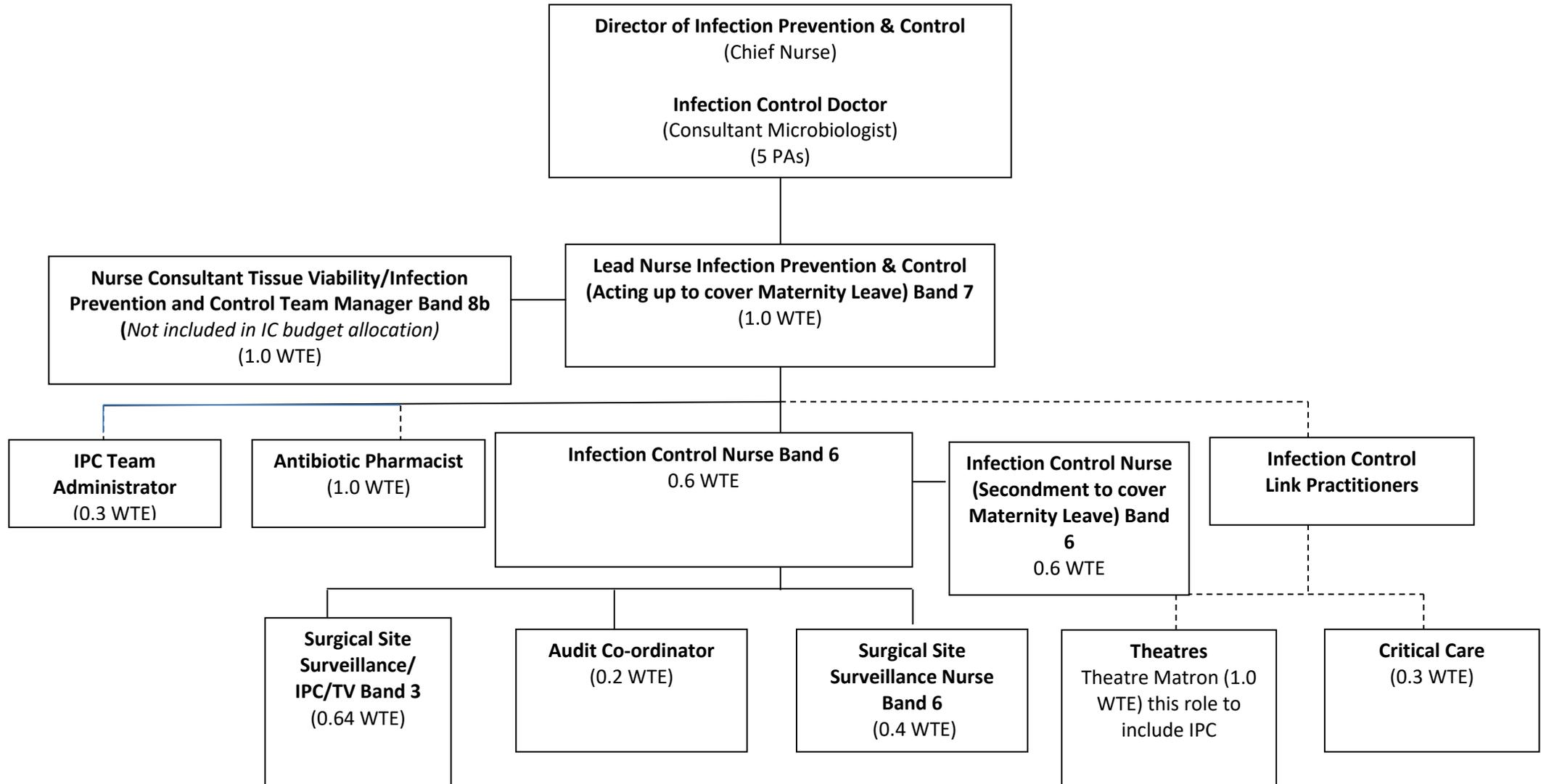
### 3.3 Infection Prevention & Control Committee Structure and Accountability (Criterion

The Infection Control and Pre and Perioperative Committee (ICPPC) is the main forum for discussion concerning changes to policy or practice relating to infection prevention and control. The membership of the Committee is multi-disciplinary and includes representation from all divisions and senior management. The Committee is chaired by the Director of Infection Prevention and Control (DIPC) or deputy, and meets every 8 weeks. The Committee has a link via the Clinical Governance Management Group and the Chief Nurse (DIPC) into the Quality and Risk Management Group (QRMG) and the Board of Directors. The DIPC provides a monthly report to the Board and QRMG.

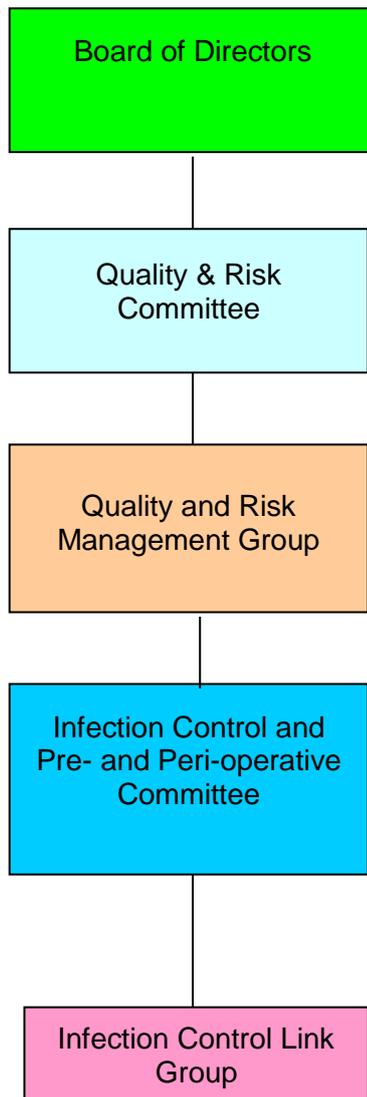
The Terms of Reference were revised and drawn up with due regard to the recommendations for the composition and conduct of infection control committees contained in Department of Health in December 2003, of the Chief Medical Officer's strategy for infection control (*Winning Ways: working together to reduce healthcare associated infection*).

Additionally, clinical champions have been identified in each area who come together as an "Infection Control Link Group". This group helps to facilitate best practice and acts as a forum for education and discussion. The relationship and reporting lines between the various committees showing Ward to Board arrangements is shown in the diagram on page 8.

**Infection Prevention & Control Team (Criterion 1)**



**Infection Prevention & Control Committee Structure and Accountability (Criterion 1)**



**Committee / Group Membership:**

Director of Infection Prevention & Control					
Infection Prevention & Control Doctor					
Infection Prevention & Control Nurse					
Representatives from each Clinical Directorate					
Assistant Director of Operations					
Antimicrobial Pharmacist					

### 3.4.1 **Infection Control Team Representation on Committees at Papworth Hospital (Criterion 1):**

- Antimicrobial Stewardship Group
- Quality and Risk Management Group
- Drugs & Therapeutics Committee
- Food and Nutrition Group
- Health & Safety Committee
- Infection Control and Pre- and Peri-operative Committee
- Water Safety Group
- Links to Prescribing and Formulary Committee
- Medical Advisory Committee
- Medical Devices Group
- New Papworth/Capital Bid meetings
- Nursing Advisory Committee
- Pathology Management Group
- Product Review Group
- Waste Management Committee

### 3.4.2 **Infection Control Team Representation on External Committees**

- East of England Regional Microbiology Development Group
- East of England Infection Prevention Society Branch Meetings
- Extra-ordinary network meetings with Cambridgeshire Commissioning Group and other Regional hospital IPCNs

## 3.5 **Assurance, internal and external inspections (Criterion 1 & 2)**

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, ISO, Care Quality Commission standards and the Patient-led assessments of the care environment (PLACE) review.

Progress in these areas during 2019/20 is summarised below.

### **Standards for Decontamination**

Sterile Services Department has been audited and meets the requirements of disinfection, assembly, packing, moist heat and gas plasma sterilisation of theatre trays and procedure packs and supplementary instruments in accordance with ISO 13485:2003 and ISO 9001:2008. For moist heat and gas plasma sterilisation of theatre trays, procedure packs and supplementary instruments in accordance with Medical Devices Directive 93/42/EEC Annex V, Article 12 (Sterility Aspects Only)

### **Care Quality Commission Standards (Outcome 8)**

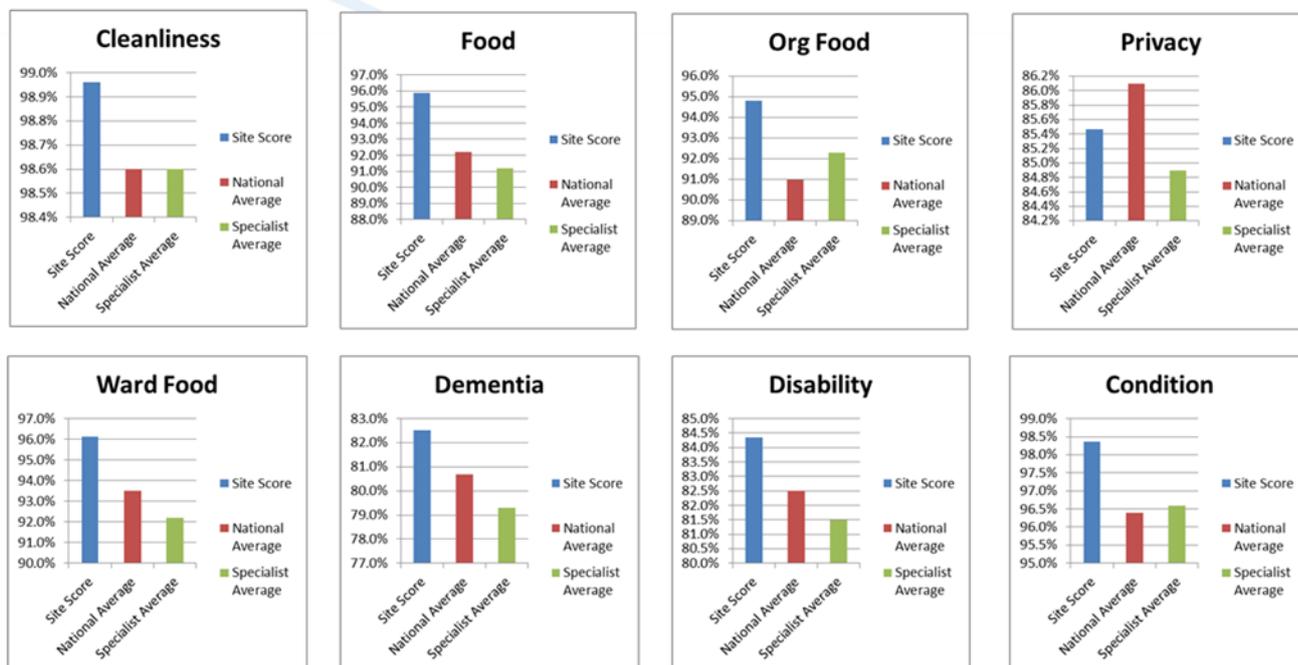
The Trust is registered with the CQC and declared full compliance with the ten compliance criteria.

### **PHE Data Capture Mandatory reporting (Criterion 1)**

The Infection Control Doctor is responsible for mandatory reporting and enters the data onto the PHE Data Capture website when the results are available. The Trust then signs this off monthly.

The Trust reported the following for 2019/20: MRSA bacteraemia - 0, C.difficile - 11 cases (against a ceiling target of 11).

## PLACE Audit Results table 2019/20 inspection (Criterion 1 & 2):



### 3.6 DIPC Reports to Board of Directors and QRMG (Criterion 1- 10)

The monthly DIPC report forms part of the patient safety agenda and reports on mandatory monitored healthcare associated infections (HCAIs) such as *C.difficile* and MRSA, as well as other healthcare associated infections. The report also highlights any topical infection prevention and control issues and incidents occurring in clinical practice. The DIPC annual report is submitted to the Board of Directors.

### 3.7 Budget Allocation (Criterion 1)

Budget allocation for infection control activities:

- 1.0 WTE Band 7 Lead Nurse in Infection Prevention and Control
- 0.6 WTE Band 6 Infection Control Nurse
- 0.6 WTE Band 6 Infection Control Nurse
- 5 PAs of Consultant Microbiologist time.
- 0.4 WTE Band 6 surgical site surveillance nurse time.
- 0.64 WTE Band 3 Health care support worker SSI/IPC
- 0.2 WTE Audit co-ordinator
- Scientific support and technical capability is funded within the contract that the Trust has with the Public Health England (PHE).
- 0.3 WTE Team Administrator
- Training and IT support are funded from corporate IT and Education budgets based on any case of need submitted by the infection control team.

### 3.8 Infection Control Report & Programme for 2019/20 (Criterion 1 & 4)

Work undertaken by the Infection Prevention and Control Team during 2019/20 covers the following areas:

- Compliance with the Health and Social Care Act 2008 *updated in this report in line with revised guidance issued July 2015.*
- Infection Prevention and Control Committee
- Link Practitioner Network
- Development and maintenance of policies and procedures
- Audit and Surveillance monitoring and reporting
- Education
- Compliance with Department of Health initiatives – High Impact Interventions / WHO 5 Moments for hand hygiene
- Outbreak and incident management
- Infection Prevention and Control input into planning for the New Papworth Hospital
- HII monitoring is reported in the Royal Papworth integrated performance report.

### **3.9 High impact Interventions**

At Royal Papworth Hospital every month a designated Infection Prevention and Control link nurse carries out High Impact Intervention (HII) audits. The High Impact Interventions are an evidence-based approach to clinical procedures or care processes. The appropriate use of HII audits help to manage and reduce the risk of infection and identify areas for improvement. These audits include; HII1 Central Venous Catheter insertion and ongoing care, HII2 Peripheral Intravenous Cannula insertion and ongoing care, HII4 Surgical Site Infection pre-op, HII5 Ventilation-association Pneumonia, HII6 Urinary Catheter insertion and ongoing care and HII8 Cleaning and Decontamination. At Royal Papworth Hospital the standard compliance rate required is greater than 95%. Areas that fall below this are required to complete an action plan to rectify any issues preventing them meeting the required standard. The Trust has achieved an overall rating above 97% for each month during 2018/2019.

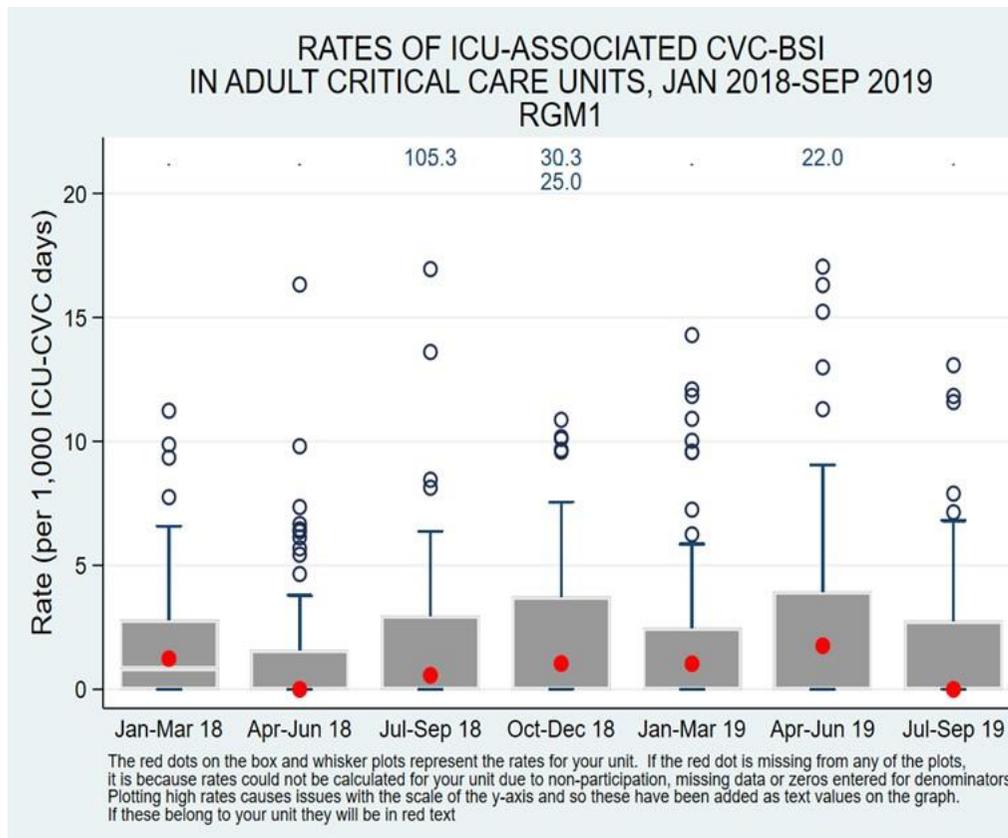
#### 4. HCAI Statistics (Criterion 1, 4 & 9)

##### 4.1 Infection in Critical Care Quality Improvement Programme (ICCQIP)

The ICCQIP board was set up in 2016 to address the concerns of hospital-associated Infections (HAI) in intensive care units (ICU) in England, following on from the publication of the successful 'Matching Michigan' study.

The ICU surveillance programme aims to characterise and monitor all ICU and central venous catheter (CVC) associated blood stream infections in order to identify concerns and support actions to reduce the infection rates. Data is collected and analysed on a quarterly basis and unit level reports are generated and sent to respective units.

The latest results for 2019/20 year can be presented in the form of a graph and they are as follows:



The Royal Papworth hospital is indicated by the red dot and, as it can be seen, it is within the national interquartile range in all periods.

## 4.2 Mandatory Reports (Criterion 1, 2, 4, 5, 7 & 9)

### 4.2.1 MRSA

MRSA bacteraemia figures for the past 14 complete years are represented in the table below.

#### Papworth Annual MRSA bacteraemia rates (from 1 April 2006)

01.04.06 to 31.03.07	01.04.07 to 31.03.08	01.04.08 to 31.03.09	01.04.09 to 31.03.10	01.04.10 to 31.03.11	01.04.11 To 31.03.12	01.04.12 To 31.03.13	01.04.13 To 31.03.14	01.04.14 To 31.03.15	01.04.15 To 31.03.16	01.04.16 to 31.03.17	01.04/17 to 31.03.18	01.04.18 to 31.03.19	01.04.19 to 31.03.20
4	5	1	2	1	1	2	0	1	0	0	5 (3 on trajectory)	2 (1 on trajectory)	0

The ceiling for MRSA bacteraemias set for Royal Papworth for 2019/20 by the CCG was zero. Compliance with screening in 2019/20 was 95.5 %. Since the introduction of universal MRSA screening the numbers of patients who attend Papworth who are found to carry MRSA have reduced considerably because the screening has allowed early isolation and treatment of patients with MRSA.

#### 4.2.2 *C.difficile*

*C. difficile* figures for the last six years are represented in the table below. Cases are attributed to the Trust if the positive sample was taken more than 2 days after admission and this now includes all cases regardless of whether the scrutiny panel has found learning outcomes. Scrutiny panel meetings are held for each case to identify any learning actions.

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>C. difficile &gt;65 yrs</b>	4	4	5	2	4	6	6
<b>C. difficile &lt; 65 yrs</b>	3	5	4	0	3	5	5
<b>Total</b>	7 (4 attributable)	9 (3 attributable)	9 (3 attributable)	2 (0 attributable)	7 (3 attributable)	11 (2 attributable)	11

The ceiling set for Royal Papworth by the CCG for 2019/20 was 11 cases. All *C. difficile* cases had a root cause analysis carried out, and were reported to the Infection Prevention and Control Committee and via the Public Health England healthcare associated infections Data Capture System (HCAI DCS).

#### 4.2.3 **MSSA bacteraemia**

Reporting of Methicillin Sensitive *Staphylococcus aureus* (MSSA) bacteraemia to the Department of Health through the MESS system has been compulsory since January 2011. There is no ceiling set by external authorities for these infections. The numbers given below include cases where the blood culture was taken within 48 hours of admission to the hospital (community acquired infections).

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>Methicillin sensitive <i>Staphylococcus aureus</i> bacteraemias (MSSA)</b>	18	10	18	9	16	21	17	14	22	9	16

#### 4.2.4 **E. coli bacteraemia**

Reporting of *E. coli* bacteraemia to the Department of Health through the HCAI DCS system has been compulsory since June 2011. These infections are reported to the Infection Prevention and Control Committee. There is no ceiling set by external authorities for these infections at present.

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>E. coli bacteraemias</b>	8	10	6	11	12	11	9	9

### 4.3 Other Surveillance Reports

#### 4.3.1 GRE/VRE and ESBL bacteraemia

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>Glycopeptide (or Vancomycin)-Resistant <i>Enterococcus</i> (GRE/VRE) bacteraemias</b>	0	4	8	2	4	3	8	11	8	3
<b>Extended spectrum B-lactamase producers (ESBL) bacteraemias</b>	1	0	3	0	0	3	5	3	1	2

VRE bacteraemias and ESBL bacteraemias are reported to the Infection Prevention and Control Committee and to Public Health England quarterly. There are no ceilings set by external authorities for these healthcare associated infections.

#### 4.4 Surgical Site Surveillance (Criterion 1, 2, 3, 4, 5, 6, & 9)

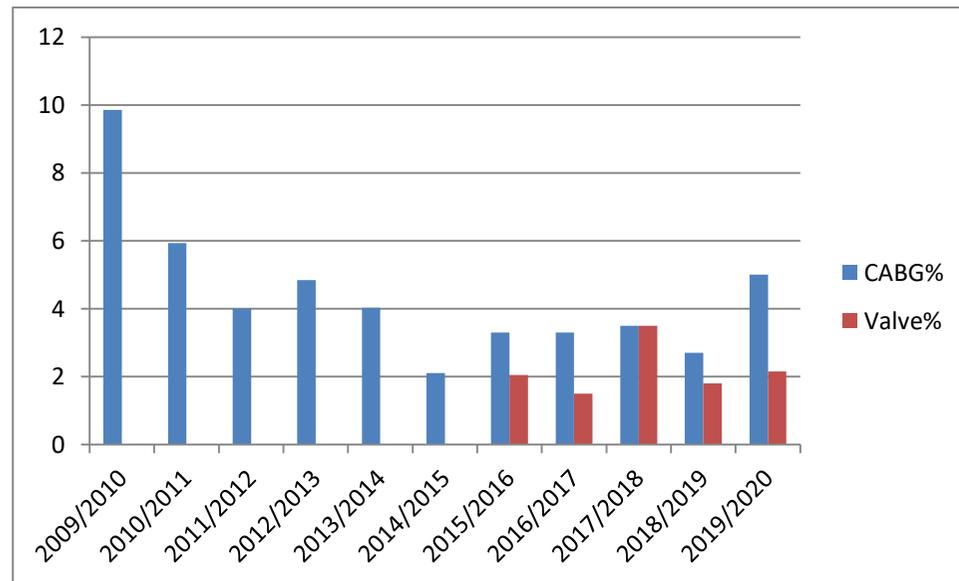
From April 2009 we have undertaken continuous surgical site surveillance of Coronary Artery Bypass Graft (CABG) patients to monitor infections post-surgery using the Public Health England (PHE) surveillance protocol. Following a bundle of interventions in pre, intra and post op care in line with NICE guidance CG74 and WHO recommendations this has resulted in a fall in infection rates from 9.85% 2009-2010 to 2.75% for CABG in 2018-2019 for inpatient and readmissions only. Current national benchmark for inpatient and readmissions for SSI in CABG is 3.0% (PHE 2019). Unfortunately, our SSI rates in both CABG and Valve have risen in the past year since we moved to the new site which was a huge organisational change with an increase in staff turnover. The rise in infections was highlighted through the Infection Prevention and Control committee. No obvious source identified. We initiated additional meetings in November and January for SSI stakeholders. This gathered representatives from the multi-disciplinary team involved in the patient's pathway for surgery to discuss any issues and revisit the SSI prevention protocol to ensure standards were being maintained. A summary of our on-going actions to address this issue are stated below:-

- Review of infected cases to check for any issues or common themes
- Skin prep – refocus on pre-op skin prep with skin and nasal decolonisation on surgical wards and repeated theatre skin prep audit.
- Antibiotic prophylaxis - audit on timing of antibiotic prophylaxis and feedback to anaesthetic team. Plan to re-audit once surgical activity resumed following COVID.
- Ventilation in theatre – compliance checked and air testing completed by Microbiologist. Ventilation in all theatres is adequate and complies with HTM 03-01 with regard to microbiological validation.
- Theatre discipline – in-house education delivered by theatre practitioners on maintaining sterile field.
- ANTT – increased audit of practice initiated.
- Feedback of rates and discussion of increased SSI incidence at M&M meeting in January 2020 and quarterly rates to all surgeons, surgical teams and ward areas.

Current SSI figures for 2019/20

April 19 – March 2020 CABG +/- valve = 5%

April 19 – March 2020 Valve only = 2.15%



(These figures are subject to change as patients are in surveillance for 1 year post surgery)

In addition to the above we have submitted our CABG data voluntarily for Q3 and Q4 to PHE Surgical Site Surveillance Service and were identified as a high outlier for Q3 Oct-Dec. A response was submitted to acknowledge our awareness of the issue and steps taken to address this as listed

above. We are continuing with surveillance in both CABG and Valve patients. We continue to promote good pre, intra and post-operative care of our patients to reduce the risk of SSI developing using a bundle of interventions and feedback rates to surgical teams.

## 4.5 Antimicrobial Stewardship (Criterion 1, 3, 5 & 8)

### Antimicrobial Stewardship 2019 - 2020

In 2019, the UK government set out its five-year national action plan to tackle Antimicrobial Resistance (AMR) within and beyond the UK borders. The plan has ultimately been designed to ensure progress towards the 20-year vision on AMR, in which resistance is effectively contained and controlled. It focuses on three key ways of tackling AMR:

1. reducing need for, and unintentional exposure to, antimicrobials;
2. optimising use of antimicrobials; and
3. investing in innovation, supply and access.

The plan also sets out four measures of success to ensure progress towards the 20-year vision. These include, among others, targets to:

- halve healthcare associated Gram-negative blood stream infections;
- reduce the number of specific drug-resistant infections in people by 10% by 2025;
- reduce UK antimicrobial use in humans by 15% by 2024;
- reduce UK antibiotic use in food-producing animals by 25% between 2016 and 2020 and define new objectives by 2021 for 2025; and
- be able to report on the percentage of prescriptions supported by a diagnostic test or decision support tool by 2024.

The Antimicrobial Stewardship Group updated its Antimicrobial Strategy to help the Trust meet the government's aims and objectives. Our Antimicrobial Strategy aims to provide a framework to enable appropriate and prudent antimicrobial use within Royal Papworth Hospital NHS Foundation Trust.

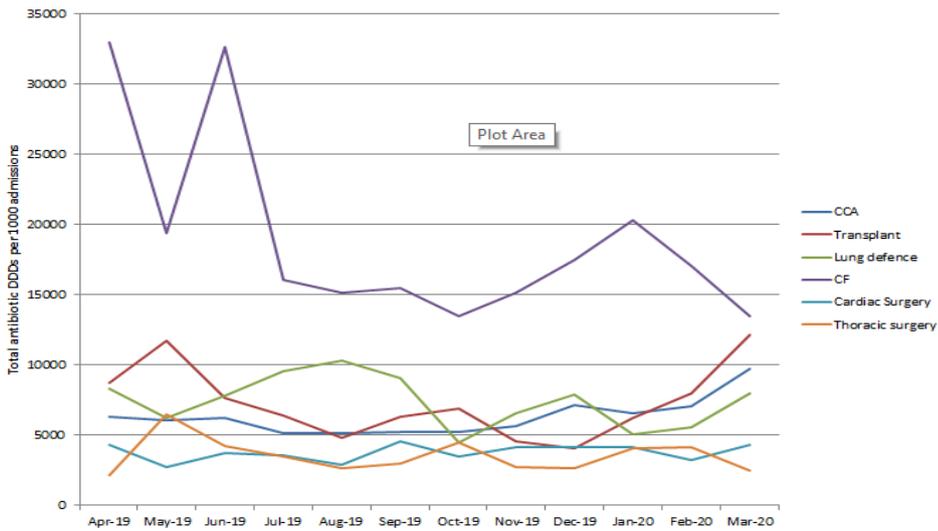
All Trusts in England are currently required to send PHE their antibiotic usage data. At RPH, this is supplied to PHE via a third party company (Rx-Info) from Pharmacy issue data and can be accessed via the Public Health England portal <https://fingertips.phe.org.uk/profile/amr-local-indicators/>. The Antimicrobial Stewardship Team (AST) has been working with the third party company to ensure that the data supplied is as accurate as possible. This has allowed the AST to focus their time on other antimicrobial stewardship projects in the new Royal Papworth Hospital.

2019/20 has been a challenging time for the AMS team with the move to the new hospital site and the embedding in of new ways of working and the development of different teams and wards.

Antibiotic usage challenges during 2019/20 includes the need to operate two hospital sites (before the new site fully opened), an increase in surgical site infections and *Mycobacterial abscessus* infections and the Covid-19 pandemic, which started in Quarter 4 2019/20.

This year, we have increased the visibility of antibiotic usage in the Trust with monthly reports to the individual specialities on their use of broad spectrum and high cost antimicrobials. This monthly report also includes their compliance with the Start Smart and Focus audits. These monthly reports and usage monitoring prompted greater awareness of antimicrobial use within the trust.

**Trust wide Antibiotic Usage (expressed as Defined Daily Dose/1000 admissions) based on speciality**

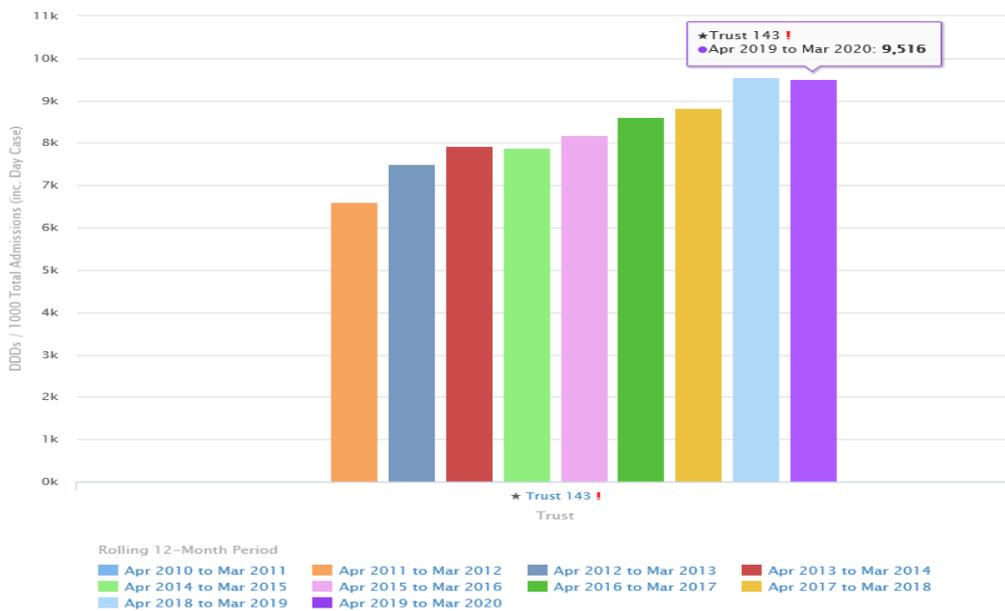


[Data from our third party provider demonstrates a reduction in antibiotic usage compared to 2018/19.](#)

**Trust wide Antibiotic Usage (expressed as Defined Daily Dose/1000 admissions)**

Filter Summary

Drugs: ATC: J01 - ANTIBACTERIALS FOR SYSTEMIC USE. Specialties: CQUIN Preset (223 of 229). Prescription Types: All



#### 4.6 Incidents and Outbreaks (Criterion 1-10)

Incident and outbreak investigations occurring in 2019/20 were reported to the hospital Infection Control and pre- and peri-operative Committee throughout the year.

##### **Influenza**

Plans for the vaccination of health care workers and the management of patients with influenza were co-ordinated through the ICPPC and led by the Occupational Health Team. Leads from all directorates were involved with the planning. The fit testing program for FFP3 masks is on-going. The seasonal flu vaccination programme continued during 2019/20 and staff were strongly encouraged to have the vaccine. The Occupational Health Department co-ordinated a successful programme and the Trustwide uptake rate was 86%. This was helped greatly by a mobile flu clinic.

During this period, Royal Papworth continued to be a registered ECMO (extra corporeal membrane oxygenation) centre. This is treatment used for patients who have respiratory difficulties including H1N1.

There were no influenza outbreaks in 2019/20.

##### **Norovirus**

There were no incidents of ward closures due to confirmed Norovirus during 2019/20, however there was 1 bay closed in total over eight different periods of time due to viral gastroenteritis.

The total number of bed days lost due to viral gastroenteritis in 2019-20 was 4.

##### **Clostridium difficile**

In 2019/20 there was one period of increased incidence. Five patients tested positive for *C.difficile* in the month of December. Four of the five patients had been inpatients on Critical Care. A Period of Increased Incidence meeting was held to discuss all of the cases. It was felt that because one of the five patients did not stay on Critical Care we did not need to include this patient in the Period of Increased Incidence cohort. Ribotyping was carried out on the four isolates that were included in the Period of Increased Incidence; this showed that each of the isolates were different strains. Due to this the cases were deemed as sporadic and not related. The CCG Matron reviewed all four cases and did not identify any lapses in care. Weekly isolation and hand hygiene audits were carried out on CCA for a period of four weeks as requested by the CCG Matron. Environmental cleaning was monitored closely and regular QCs were carried out and an action plan was developed and implemented by the CCA Sister and Infection control nurse. There have been no further cases of *C.diff* reported on CCA to date.

##### **MRSA**

There were no cases of MRSA bacteraemia in 2019-20. There were 8 bed days lost for MRSA contact screening in 2019/20.

##### **M.abscessus in water**

Royal Papworth Hospital (RPH) experienced an outbreak of *Mycobacterium abscessus* (*M.abscessus*) shortly after moving to newly commissioned, single-building accommodation in Cambridge in May 2019. Bacteria from the family *M.abscessus* were detected in broncho-alveolar lavage (BAL) fluid of 2 patients (on 5/8/19 and 15/8/19) after they had received a lung transplant in the new hospital. This was an unexpected finding and as a consequence the hospital declared this to be an 'outbreak'. *M.abscessus* was found at BAL in a further 3 transplant patients by November 2019. In addition *M. abscessus* was cultured from sputum specimens taken from 16 patients with cystic fibrosis (CF) or bronchiectasis. People with these

lung diseases are prone to infection with *M. abscessus* but this number of new cases was more than expected especially as the new hospital had been designed to try to eliminate the risk of person to person transmission of *M. abscessus* in the areas where these at risk patients were accommodated.

From the analyses that have been performed the most credible source of the outbreak was the hospital water. At this distance in time it is not possible to know how the bacteria came to be in the water supply. There is no apparent evidence of poor practice in the provision of either facilities management or clinical care in the hospital.

*M. abscessus* outbreaks in the UK associated with hospital water have not been described in the scientific literature and the cases at RPH appear to be unique in that respect. However one similar outbreak has been described in the USA. The current outbreak shows that contamination of the water system in a hospital can happen in different countries with different water treatment regimen and that an early response can limit the number of people affected. If a similar outbreak occurs elsewhere or again at RPH the immediate response should be to suspect the water supply and adopt measures to protect vulnerable groups from the risk of infection using point of use filters (POU) and bottled water until cultures are available.

Extensive remedial actions have been carried out and by the end of March 2020 the majority of actions had been completed. A serious incident report has been finalised. The hospital continues to monitor *M. abscessus* in the water system and follow established remedial measures e.g. point of use filters for susceptible groups of patients.

Connection between *M. abscessus* acquisition and hospital water in cystic fibrosis and lung defence patients is still being investigated

### **Tuberculosis**

There were 3 incidents during 2019/20. All cases were individually assessed and were followed up as appropriate.

### **Vancomycin Resistant Enterococcus VRE and Extended Spectrum Beta-Lactamases (ESBL)**

Routine screening on CCA no longer takes place for VRE and ESBL, however all positive clinical site samples are monitored to enable the Trust to identify increases in these organisms and act accordingly. There were no outbreaks of VRE or ESBL in 2019/20.

### **Carbapenemase Producing Enterobacteriaceae (CPE)**

Over the past decade large increases in carbapenemase-producing Enterobacteriaceae (CPE) infections have been reported globally. Recent data from the UK shows an alarming year-on-year increase in the number of isolates of Gram-negative bacteria confirmed as Carbapenemase-producing, with 1,600 confirmed isolates in 2014, up from just over 1,000 confirmed in 2013, 4. As CPE infections are susceptible to only a small number of antimicrobials this situation compromises a major public health problem and priority. In March 2014 Public Health England launched the acute Trust toolkit to promote the early detection, management and control of CPE colonisation. In response to this the IPCT developed a procedure to manage diagnosis, isolation and treatment of patients with these organisms. In 2019-20 there were patients diagnosed with CPE 6 infection at Royal Papworth Hospital, these were from routine screening and there was no ongoing spread of CPE. There has been no evidence of transmission or CPE outbreaks within the Trust in 2019/20. All cases were individual assessed and were followed up as appropriate.

### **COVID-19 Pandemic**

COVID-19 is a new coronavirus disease, which causes respiratory symptoms. It was first identified in December 2019 in China and quickly spread around the world. The COVID-19 pandemic was officially declared on the 11<sup>th</sup> March 2020. During the early stages of the outbreak the Trust put together surge plans to prepare for the expected upturn in demand of patients who would be admitted or transferred to us. During March the Trust put these plans into place and extended the capacity of its Critical Care Unit (CCA) to house COVID-19 patients. It also substantially increased its capacity to treat severely ill patients with COVID-19, who required Extracorporeal Membrane Oxygenation (ECMO).

## 5 Estates & Facilities update for DIPC (Criterion 1, 2, 6 & 9)

### 5.1 Cleaning Services

OCS provides cleaning services to Royal Papworth Hospital.

- 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.
- 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 weekly. In the event of an audit failing, OCS will rectify the failings immediately and the area will be audited again on completion.
- OCS & E&F are continuing to work to ensure sufficient staffing levels are maintained within the agreed contract.
- Levels of frequency for associated risk level are found in the data below.

<b>Very High Risk</b>		
<b>Task</b>	<b>Frequency</b>	<b>Responsibility</b>
<b>Sanitary Areas</b>		
Commodes	Daily / Between Use	Domestic / Nursing staff
Bathroom hoists	Daily / Between Use	Domestic / Nursing staff
Patient wash bowls	Daily	Nursing staff
Mirrors	Daily	Domestic
Dispensers	Daily	Domestic
Showers/baths	Daily / Between use	Domestic / Nursing staff
Toilets	3 x Daily & 1 x Checked	Domestic
Sinks	3 x Daily & 1 x Checked	Domestic
<b>Bays/Bedrooms</b>		
Medical equipment not attached to a patient	Daily	Domestic / Nursing staff
Medical equipment attached to a patient	Daily	Nursing staff
Medical gas equipment	Daily	Nursing staff
Patient fans (external clean)	As required	Nursing staff
Patient personal items	Daily	Nursing staff
Patient TVs	Daily	Domestic
Beds (frame only)	Daily	Domestic

Mattresses	Daily	Nursing staff
Lockers/tables	2 x Daily	Domestic
Weighting scales, manual handling equipment and drip stands	Daily / Between Use	Domestic / Nursing staff
Chairs	Daily	Domestic
Notes and drugs trolleys	Daily	Ward Housekeeper / Nursing staff
<b>Kitchen Areas</b>		
Dishwashers (external clean)	Daily	Ward Housekeeper
Fridge freezers (external clean)	Daily / Weekly (internal clean)	Ward Housekeeper
Ice machines/water boilers (external clean)	Daily	Ward Housekeeper
Kitchen cupboards	Weekly	Ward Housekeeper
Hand Wash Basin	Daily / Between Service	Domestic / Ward Housekeeper
Catering Sink	Daily / Between Service	Domestic / Ward Housekeeper
Microwaves	Daily / Weekly (internal clean)	Ward Housekeeper
Floors - polished/non-slip/soft	Daily/Between Service	Domestic /Ward Housekeeper
<b>Floors/walls</b>		
Switches/sockets	Daily	Domestic
Radiators/ventilation grills	Daily	Domestic
Walls	Spot check Daily / Dust Weekly	Domestic
Doors	Daily	Domestic
Floors - polished/non-slip/soft	2 x Daily	Domestic
Low / high surfaces	2 x daily / 2 x weekly	Domestic
<b>Additional Equipment</b>		
Waste receptacles	Daily	Domestic
Linen trolley	Weekly	Portering Staff

<b>High Risk</b>		
<b>Task</b>	<b>Frequency</b>	<b>Responsibility</b>
<b>Sanitary Areas</b>		
Commodes	Daily / Between use	Domestic / Nursing staff
Bathroom hoists	Daily / Between use	Domestic / Nursing staff
Patient wash bowls	Daily / Between use	Nursing staff
Mirrors	Daily	Domestic
Dispensers	Daily	Domestic
Showers / baths	Daily / Between use	Domestic / Nursing staff
Toilets	3 x Daily & 1 x Checked	Domestic
Sinks	3 x Daily & 1 x Checked	Domestic
<b>Bays/Bedrooms</b>		
Medical equipment not attached to a patient	Daily / Between use	Domestic / Nursing staff
Medical equipment attached to a patient	Daily / Between use	Nursing staff

Medical gas equipment	Daily	Nursing staff
Patient fans (external clean)	As required	Nursing staff
Patient personal items	Daily	Nursing staff
Patient TVs	Daily	Domestic
Beds (under)	Weekly	Domestic
Mattresses	Daily / Between use	Nursing staff
Chairs / lockers / tables	Daily	Domestic
Weighing scales and manual handling equipment	Daily / Between use	Domestic / Nursing staff
Drip stands	Daily / Between use	Domestic / Nursing staff
Notes and drugs trolleys	Daily	Ward Housekeeper / Nursing staff
<b>Kitchen Areas</b>		
Dishwashers (external clean)	Daily	Ward Housekeeper
Fridge freezers (external clean)	Daily / Weekly (internal clean)	Ward Housekeeper
Hand Wash Basin	Daily / Between Service	Domestic / Housekeeper
Catering Sink	Daily / Between Service	Domestic / Housekeeper
Ice machines / water boilers (external clean)	Daily	Ward Housekeeper
Kitchen cupboards	Weekly	Ward Housekeeper
Microwaves (external clean)	Daily / Weekly (internal clean)	Ward Housekeeper
Floors - polished / non-slip / soft	Daily	Domestic
<b>Floors/walls</b>		
Switches / sockets	Daily	Domestic
Radiators / ventilation grills	Daily	Domestic
Walls	Spot Check Daily / Dust Weekly	Domestic
Doors	Daily	Domestic
Floors - polished / non-slip / soft	Daily	Domestic
Low / high surfaces	Daily / Weekly	Domestic
<b>Additional Equipment</b>		
Waste receptacles	Daily	Domestic
Delivery linen trolley	Weekly	Portering Staff

<b>Significant Risk</b>		
<b>Task</b>	<b>Frequency</b>	<b>Responsibility</b>
<b>Sanitary Areas</b>		
Commodes	Daily / Between use	Domestic / Nursing staff
Bathroom hoists	Daily / Between use	Domestic / Nursing staff
Patient wash bowls	Daily / Between use	Nursing staff
Mirrors	Daily	Domestic
Dispensers	Daily	Domestic
Showers / baths	Daily / Between use	Domestic / Nursing staff
Toilets	Daily	Domestic
Sinks	Daily	Domestic
<b>Bays/Bedrooms</b>		

Medical equipment not attached to a patient	Daily / Between use	Domestic / Nursing staff
Medical equipment attached to a patient	Daily / Between use	Nursing staff
Medical gas equipment	Daily	Nursing staff
Patient fans (external clean)	As required	Nursing Staff
Patient personal items	Daily	Nursing staff
Patient TVs	Daily	Domestic
Beds (under)	Weekly	Domestic
Mattresses	Daily / Between use	Nursing staff
Chairs / lockers / tables	Daily	Domestic
Weighing scales and manual handling equipment	Daily / Between Use	Domestic / Nursing staff
Drip stands	Daily / Between Use	Domestic / Nursing staff
Notes and drugs trolleys	Daily	Ward Housekeeper / Nursing staff
<b>Kitchen Areas</b>		
Dishwashers (external clean)	Daily	Ward Housekeeper
Hand Wash Basin	Daily / Between Services	Domestic / Ward Housekeeper
Catering Sink	Daily / Between Services	Domestic / Ward Housekeeper
Fridge freezers (external clean)	Daily / Weekly (internal clean)	Ward Housekeeper
Ice machines / water boilers (external clean)	Daily	Ward Housekeeper
Kitchen cupboards	Weekly	Ward Housekeeper
Microwaves (external clean)	Daily / Weekly (internal clean)	Ward Housekeeper
Floors - polished / non-slip/soft	Daily	Domestic
<b>Floors/walls</b>		
Switches / sockets	Weekly	Domestic
Radiators / ventilation grills	Daily	Domestic
Walls	Spot check weekly, dust monthly	Domestic
Doors	Daily	Domestic
Floors - polished / non-slip/soft	Daily	Domestic
Low / high surfaces	Daily / weekly	Domestic
<b>Additional Equipment</b>		
Waste receptacles	Daily	Domestic
Delivery linen trolley	Weekly	Portering Staff

<b>Low Risk</b>		
<b>Task</b>	<b>Frequency</b>	<b>Responsibility</b>
<b>Sanitary Areas</b>		
Mirrors	Weekly	Domestic
Dispensers	Weekly	Domestic
Toilets	Daily	Domestic
Sinks	Daily	Domestic
<b>Bays/Bedrooms</b>		
Chairs	Weekly	Domestic
<b>Floors/walls</b>		

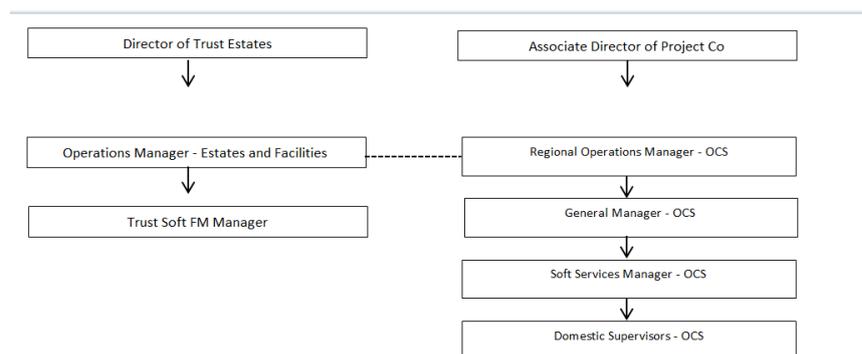
Switches / sockets	Weekly	Domestic
Radiators / ventilation grills	Monthly	Domestic
Walls	Monthly	Domestic
Doors	Spot Check Weekly / Full Clean Monthly	Domestic
Floors - polished / non-slip / soft	Weekly	Domestic
Low / high surfaces	Weekly	Domestic
<b>Additional Equipment</b>		
Waste receptacles	Daily	Domestic

## 5.2 Deep Cleaning Programme

A deep cleaning programme has been agreed in conjunction with OCS to be carried out throughout the year which would cover the hospital in full.

## 5.3 Management Arrangements

OCS is overseen by the Associate Director Project Co, the Director of Trust Estates and Operations Manager from the Trust, the OCS Regional Contracts Manager who visits the site regularly; together they oversee management of the cleaning contract. This management structure also supports the cleaning supervisors on a day to day basis.



## 5.4 Monitoring Arrangements

The contract is set up to be self-monitoring. OCS have implemented an audit system called iAuditor which uses the NHS 49 elements template to track and score audit scores. Trust Estates have access to the system which allows transparency in the data. The employment of OCS supervisors alongside Trust Estates monitoring Officers ensures consistent focus on both quality of service delivery and effective communication on monitoring results. The results of all cleans across the Trust are sent to the IPC team and Senior Nurses/Department Heads weekly, and any discrepancies are discussed at the ICPPC. OCS utilise the National Standards for Cleanliness audit tools and follow the recommendations as laid down by this national body. Out of hours cleaning provision is available from 22:00 – 06:00, by contacting the Helpdesk

QCs are undertaken at the following frequencies, and QC teams consist of a matron or nursing representative, OCS and Estates and Facilities; all results are captured on to the iAuditor system and are reported weekly and monthly.

Area	Frequency
Very High Risk	Weekly
High Risk	Two-weekly
Significant Risk	Monthly
Low Risk	6-monthly

## 5.5 Budget Allocation

The costs of all cleaning, including routine cleaning, deep cleans and ad-hoc cleans is included within the PFI contract.

## 5.6 Decontamination

The Trust has appointed two external leads for decontamination; Duncan Roper from Nuffield Health as Decontamination Manager and Tracey Miller from AVM as Authorising Engineer for Decontamination.

The only items we decontaminate on site are endoscopes. We have two endoscope washing machines, one in theatres and one in radiology, as well as a contingency process through Cambridge University Hospitals, if for any reason both scope washers are out of action. Room decontamination can be carried out by OCS using a variety of options, whatever is appropriate for the situation. They can use a chemical solution of Tristel or Actichlor, or if required a HPV machine. The trust also has a UV machine which is used in strategic areas to assist with the decontamination of rooms; these are used by HCAs.

## 5.7 Linen Service

The linen service is provided by Ellis and Saffron laundry; their contract is for clean linen to be delivered to site daily consisting of the following: sheets, draw sheets, pillow cases, towels, blankets, scrubs and patient gowns. These are stored in the linen room and dispatched to the wards by the portering team. Dirty linen is collected from the wards by porters and then collected by Ellis/Saffron for cleaning. The linen is cleaned in accordance with NHS standards.

## 5.8 Water Safety

The Trust has a Water Quality Steering Group, which reports to the Risk Management Group. The Water Quality Steering Group meets regularly to review any issues relating to water systems and control.

The Water Safety Group is the working group whose duties are to advise on and monitor the implementation and efficacy of all Legionellosis Management & Control and Safe Hot Water Management Programmes across all sites constituting the Trust Estate. The group consists of the Trust Responsible Person (water) and Deputies, Infection Control Doctor, Matron or Ward Based Representative, Risk Manager, Estates Operation Manager and the Trust Legionellosis Management & Control Consultants and Skanska Full. Details of the Trust's water safety procedures are documented in DN654 Water Safety Plan available on the Intranet.

## 6. Training Activities (Criterion 1, 4, 6, 9 &10)

Infection Prevention and Control training mandatory sessions were delivered as out-lined in the table below:

Teaching sessions	Frequency	Delivered by
Induction session for <b>all</b> new starters	Monthly	Presentation provided and reviewed by IPC team; supervised by education team
Training for Foundation and Core Medical Trainees	Three times yearly	Education
Update for qualified nurses in cardiac and thoracic directorate via e-learning	Annually	Standard e-learning package

Update for non-qualified nurses in cardiac and thoracic directorate via e-learning	Annually	Standard e-learning package
Hand hygiene update for all other clinical staff via Hand Hygiene week for practical plus e-learning	Annually	IPCT
Training session for Housekeepers via e-learning	Annually	IPC team

Infection Control & Hand Hygiene Training April 19 - March 20	
	<b>Compliance</b>
Hand hygiene training	Monitored on Education database
General training	Compliance is now linked to incremental progression and this will ensure that full compliance is obtained.

Compliance with Infection Prevention and Control yearly updates is a requirement for all staff for completion of their annual appraisals. Compliance is regularly monitored and reported back to the IPCC meetings on a quarterly basis. The Education Department follow up any non-compliance.

## 7. Annual Programmes (Criterion 1-10)

### 7.1 IC Annual Work Programme 2018/19

	Action	Goal	Timeline	Responsible	RAG Rating
1	IPC team	New SSI Band 3 post to be approved and appointed WTE 0.60	July 2019	SSI Nurse/IC Nurse	
		Business case for Band 3 TV/IC Specialist Support Nurse	Jan 2020	Lead ICN/Lead TVN	On hold
2	MRSA screening	Maintain and monitor screening compliance.	Monthly	Matrons	Continuous
		Provide feedback on compliance to all areas via the ICPPC	Eight weekly	ICPPC	
3	Audit	Annual review of annual audit programme Including Care bundles. Take through ICPPC.	Sept 2019	Lead ICN/IC Doctor	
		Continuous application and monitoring of annual audit programme	2019/20	IPCT/Link nurses/ Antimicrobial pharmacist/ Audit department/ relevant others	Continuous
4	Review of new build projects, designs and estates during the	Infection control input to New Papworth Hospital (NPH)	2015/20	IPCN/ IC Doctor	

	Action	Goal	Timeline	Responsible	RAG Rating
	settling in period of the New Hospital				
5	Onsite upgrades and new builds	Support and advise Estates as required.	2019/20	IPCN/IC Doctor	
6	CQC monitoring	Ensure and measure compliance with CQC standards/ Health and Social Care Act 2008. Evidence review for shared drive in progress. Review annually.	2019/20	IPCN/ IC Doctor	
7	Education	Participation in the annual programme for FY1 + 2, and CMT run by the Education department Ad hoc training across the Trust Trust-wide induction – update annually  Mandatory training provided via E-Learning with IPC support (Level 1 & 2), updates carried out annually.  Hand Hygiene awareness week	2019/20  2019/20  September 2019	IPC team (including IPC Doctor)  IPC team  IPC team	
8	Deep Clean Programme	Continued monitoring of deep clean programme through IPCC. Data held with Estates/OCS and QC results reported via Matrons balanced score card and issues flagged to ICPPC.  Submission of Estates Compliance report to ICPPC	2019/20 8 weekly to ICPPC  2019/20 8 weekly to ICPPC	OCS/Estates / DIPC/Modern Matrons/ IPCN  Estates/DIPC	
9	Surgical Site Infection Surveillance	Register for Year 10 PHE surveillance programme. Continuous SSI surveillance programme to cover CABG +/- valve. Data to be submitted to the PHE for one quarter only for CABG +/- valves Continued in-house surveillance of Valve only surgery  Engagement with surgical teams/microbiologists to discuss deep/organ space infections and completion of RCA to identify common themes/learning	Q3 2019/20  2019/20	Surgical Site Surveillance team  Surveillance team, ICD	Continuous
10	Root Cause analysis of MRSA /MSSA and Clostridium difficile cases	Completion of RCAs on all cases of MRSA and C.difficile. Completion of MSSA RCAs according to criteria.	2019/20	IPCT/ IPC Doctor / Matrons/Ward areas	Continuous
11	Monitoring <i>E.coli</i> , Klebsiella and Pseudomonas bacteraemias	Mandatory reporting of <i>E.coli</i> cases required from June 2011 and voluntary reporting of Klebsiella and Pseudomonas cases from April 2017	2019/20	IC Doctor/Lead IPCN	Continuous

	Action	Goal	Timeline	Responsible	RAG Rating
	Rate reduction as advised for all NHS Trusts	Review of plan- for the Trust to reduce <i>E.coli</i> bacteraemia and healthcare associated Gram-negative blood stream infections by 50% by March 2021	2019/20	IC Doctor/Lead IPCN	Continuous
12	CVC-BSI Monitoring in critical care and respiratory patients	Continue current CVC-BSI monitoring via Infection in Critical Care Quality Improvement Programme (ICQIP) website. Continue submitting data on CVC-BSI in respiratory patients to the Matron for their own analysis.	2019/20	IC Doctor	Continuous
13	Routine tasks including managing patients on Lorenzo	<p>IPCNs</p> <ul style="list-style-type: none"> <li>▪ Regular review of inpatients with IC issues/nursing ward round.</li> <li>▪ Action positive results and advise on inpatient treatment/ send GP/hospital/patient letters</li> <li>▪ Document advice on Lorenzo</li> <li>▪ Alert positive patients on Lorenzo/Tomcat, this includes new categories of alerts on Lorenzo.</li> <li>▪ Give patient advice leaflets and visit newly positive patients on the ward.</li> <li>▪ Monthly isolation surveillance.</li> </ul> <p>IPCNs/ICDs</p> <ul style="list-style-type: none"> <li>▪ Telephone advice</li> <li>▪ DIPC Annual report</li> <li>▪ Provide support to ward staff with IC matters.</li> <li>▪ Management of patients with diarrhoea</li> <li>▪ Outbreak management</li> <li>▪ Review and create policies and procedures</li> <li>▪ Participation in external audits and inspections</li> <li>▪ Monthly QRMG DIPC report</li> <li>▪ Monitoring of quarterly/CCG dashboard</li> <li>▪ Providing figures for Matrons and Nursing scorecards</li> <li>▪ Meeting attendance <ul style="list-style-type: none"> <li>▪ IPCNs-attend regular meetings.</li> <li>▪ ICDs-attend upwards of 8 regular meetings.</li> </ul> </li> </ul> <p>ICD</p> <ul style="list-style-type: none"> <li>▪ CCA ward rounds</li> <li>▪ Transplant ward rounds</li> <li>▪ Respond to FOI requests and complaints</li> <li>▪ Preparation of reports (e.g. SUI, alert organism monthly reports) and annual reports/plans</li> <li>▪ Monthly Trust board reporting</li> </ul>	2019/20	IPCT	Continuous

	<b>Action</b>	<b>Goal</b>	<b>Timeline</b>	<b>Responsible</b>	<b>RAG Rating</b>
14	ED Environmental Rounds	To maintain a safe environment for patients and staff.  Ensure a smooth running of the New Hospital from an Infection Control perspective.	2019/20	ICNs/Matron s/DIPC/EDs/ISS	Continuous
15	Data analysis/ Monitoring of current national guidance (horizon scanning)	Monitoring and analysis of annual figures for MRSA, C. diff and bacteraemias Reviewing issued national guidance Monitoring current IC research.	2019/20	IPCT	Continuous
16	Water Safety Plan (including management at NPH)	Pseudomonas/Legionella Monitoring with Estates  Advising on water management at New Papworth Hospital NHS Foundation Trust. Regular attendance at Water Safety Group meetings.	2019/20  2019/20	IPCT/IPC Doctor/Estates  Estates	Continuous
17	CPE Management and prevention	Ongoing monitoring/ screening and incident management of CPE; includes additional screening of patients who have been in London and Manchester hospitals as well as patients who are resident or have had inpatient stays abroad.	2019/20	IPCT /IC Doctor	Continuous
18	Microbiological monitoring of the final rinse water of endoscope washer disinfectors in conjunction with Estates	Analysis of water testing results (TVC, Pseudomonas, Mycobacteria) and giving appropriate advice to Estates	2019/20	IPC Doctor	Continuous
19	Microbiological monitoring of the water supply for heater coolers in conjunction with Estates	Analysis of water testing results (TVC, Coliforms, <i>E.coli</i> , Pseudomonas, Legionella, Mycobacteria) and giving appropriate advice to Estates with regard to decontamination process	2019/20	IPC Doctor	Continuous

## 7.2 IC Annual Audit Programme 2019/2020 (Criterion 1-10)

Title	Frequency
Hand Hygiene	Monthly
HII*	Monthly
ANTT	Bi Annual
MRSA Screening	Monthly
Isolation	Monthly
CPE	Monthly
Waste disposal	Annual
Mattress	Monthly

Title	Frequency
Commodes	Quarterly
Raised Toilet Seats	Quarterly

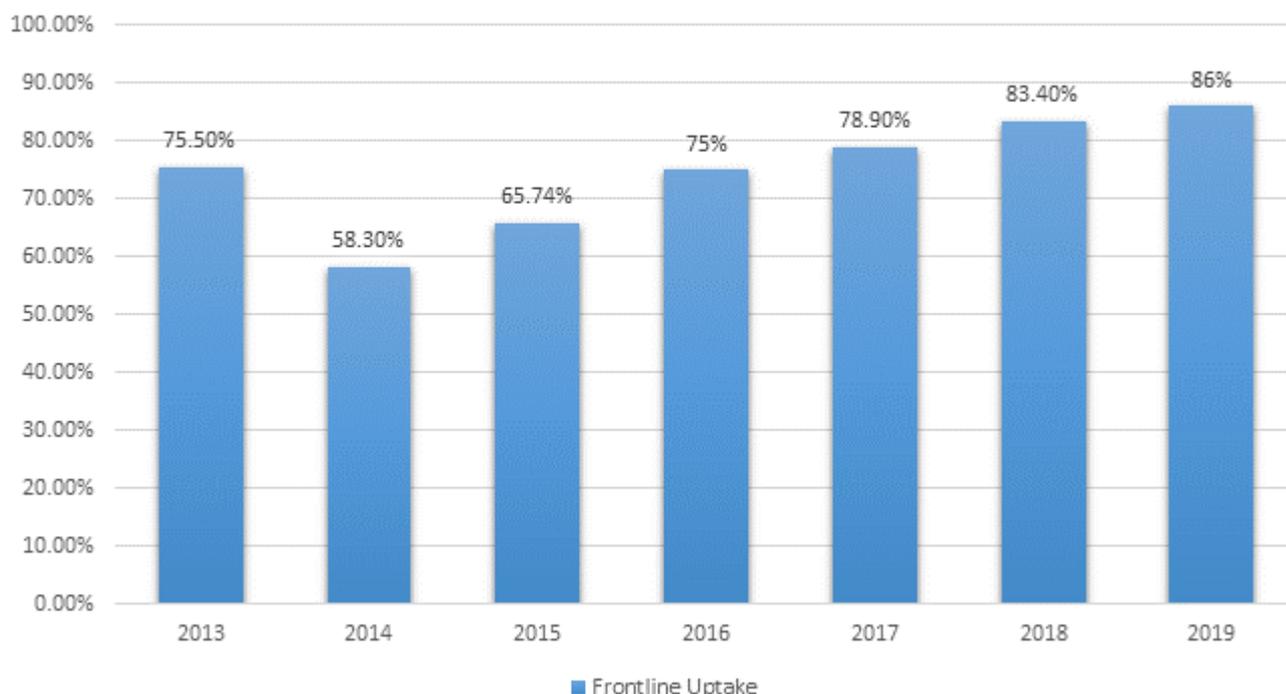
Title	Frequency
Sharps	Annual
Linen	Annual
Environment	Annual
Alcohol Gel	Annual
Hand Hygiene technique	Annual
The Spinal Hospital	Annual
Waste	Annual
CVC BSI	Rolling
Scrubbing and Gowning	Rolling
Skin Prep	Rolling

\*High Impact Interventions  
 HII1 – CVC insertion and ongoing care  
 HII2 – PIV insertion and ongoing care  
 HII4 – Prevention of surgical site infection  
 HII5 – Ventilated patients  
 HII6 – Urinary catheter insertion and ongoing care  
 HII8 – Cleaning and decontamination of clinical equipment

### 8. Influenza Vaccine uptake for 2019/20 Season (Criterion 1, 10)

Staff Group	Number of Vaccines administered						Number in post						Percentage								
	2013	2014	2015	2016	2017	2018	2019	2013	2014	2015	2016	2017	2018	2019	2013	2014	2015	2016	2017	2018	2019
Doctors	125	101	103	120	142	152	179	203	202	207	235	142	216	230	61.50%	49.00%	49.60%	51%	60%	70%	78%
Nurses	451	352	430	421	446	497	525	604	652	684	635	446	651	673	74.60%	50.40%	62.60%	66%	70%	76%	78%
Other Professionally qualified Staff	178	167	172	210	362	253	225	261	267	243	218	362	268	243	68.10%	62.50%	70.80%	96%	100%	94%	93%
Support to Clinical Staff	332	261	291	387	242	323	540	369	390	378	422	242	334	562	89.90%	66.10%	77%	91%	85%	97%	96%
Others	149	180	178	120	171			402	416	389		171			37.00%	43.00%	45.75%			315	
<b>Total</b>	<b>1235</b>	<b>1061</b>	<b>1174</b>	<b>1258</b>	<b>1363</b>			<b>1839</b>	<b>1927</b>	<b>1901</b>		<b>1363</b>			<b>67.10%</b>	<b>55.00%</b>	<b>61.75%</b>			<b>1498</b>	
<b>Frontline Staff</b>	<b>1086</b>	<b>881</b>	<b>996</b>	<b>1131</b>	<b>1192</b>	<b>1225</b>	<b>1469</b>	<b>1437</b>	<b>1511</b>	<b>1512</b>	<b>1510</b>	<b>1192</b>	<b>1469</b>	<b>1708</b>	<b>75.50%</b>	<b>58.30%</b>	<b>65.74%</b>	<b>75%</b>	<b>78.90%</b>	<b>83.40%</b>	<b>86%</b>

## Frontline Uptake



Immunisation of frontline staff against influenza reduces the transmission of infection to vulnerable patients.

This year's flu programme was delivered from 30th September 2019 to 28th February 2020. Drop in clinics were offered at specific floors (hot-spots), but also at central hospital locations. During the campaign, there were delivery vaccine issues due to manufacturing reasons and mitigation measures were taken in response to this (controlled vaccinations and stock). Vaccinations were also offered by Local Vaccinators, who covered weekends and late shifts. Inductions were attended in order to vaccinate new starters.

To ensure managers had an up to date record of staff that have received the flu vaccination it was added to the e rostering system, which also helped in reporting for department flu vaccination uptake.

The flu data is uploaded to Public Health England via the ImmForm system each month. The flu programme has now been completed for the 2019/20 season. 2050 vaccines have been ordered for next seasons programme.

### 9. Inoculation injuries 2018/19

#### 9.1 Annual quarterly figures

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2019/20	3	10	10	11	34

## 9.2 Areas reporting Incidents

	NPH Cardiac Surgery	NPH Cardiology	NPH Cath Labs	NPH CF	NPH Critical Care	NPH CT	NPH Day Ward	NPH Lung Defence	NPH Outpatients	NPH Theatres	NPH Thoracic Surgery	NPH Transplant	All specialities	Cardiac Surgery (Old Site)	Theatres (Old Site)	Total
19/20 Q1	2	0	0	1	2	0	1	0	0	2	0	0	1	1	2	12
19/20 Q2	0	0	2	0	0	1	0	0	1	2	1	0	0	0	0	9
19/20 Q3	2	1	0	0	2	0	0	0	0	2	0	1	2	0	0	10
19/20 Q4	1	0	1	1	1	0	0	1	0	1	0	0	2	0	0	11
<b>Total</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>42</b>

## 9.3 Dirty sharps injuries

	Contact with sharps – dirty needlestick
19/20 Q1	12
19/20 Q2	8
19/20 Q3	9
19/20 Q4	11

## 10. References and resources

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

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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]