Infection Prevention & Control Annual Report 2018/2019- Final

Board of Directors Approval date:	
Infection Prevention & Control Committee Submission date:	
Q&R Submission date:	28.05.19

Contents

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 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 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. 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 *Clostridium 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 the 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.

Royal Papworth Hospital NHS Foundation Trust monitored incidence of C.difficile during 2018/19 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 2018/19. 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 have engaged with patient environment rounds which includes 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 5 programmed activities (20 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 Addenbrookes hospitals. Specialist advice in virology is provided by the Addenbrookes 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 Directorate managers together with managers who have responsibility for Operational Support, Clinical Governance and Risk Management. The remit of the team includes:

- To have in place policies, procedures and guidelines for the prevention, management and control of infection 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, taking into account national guidance, to key Trust committees.
- 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

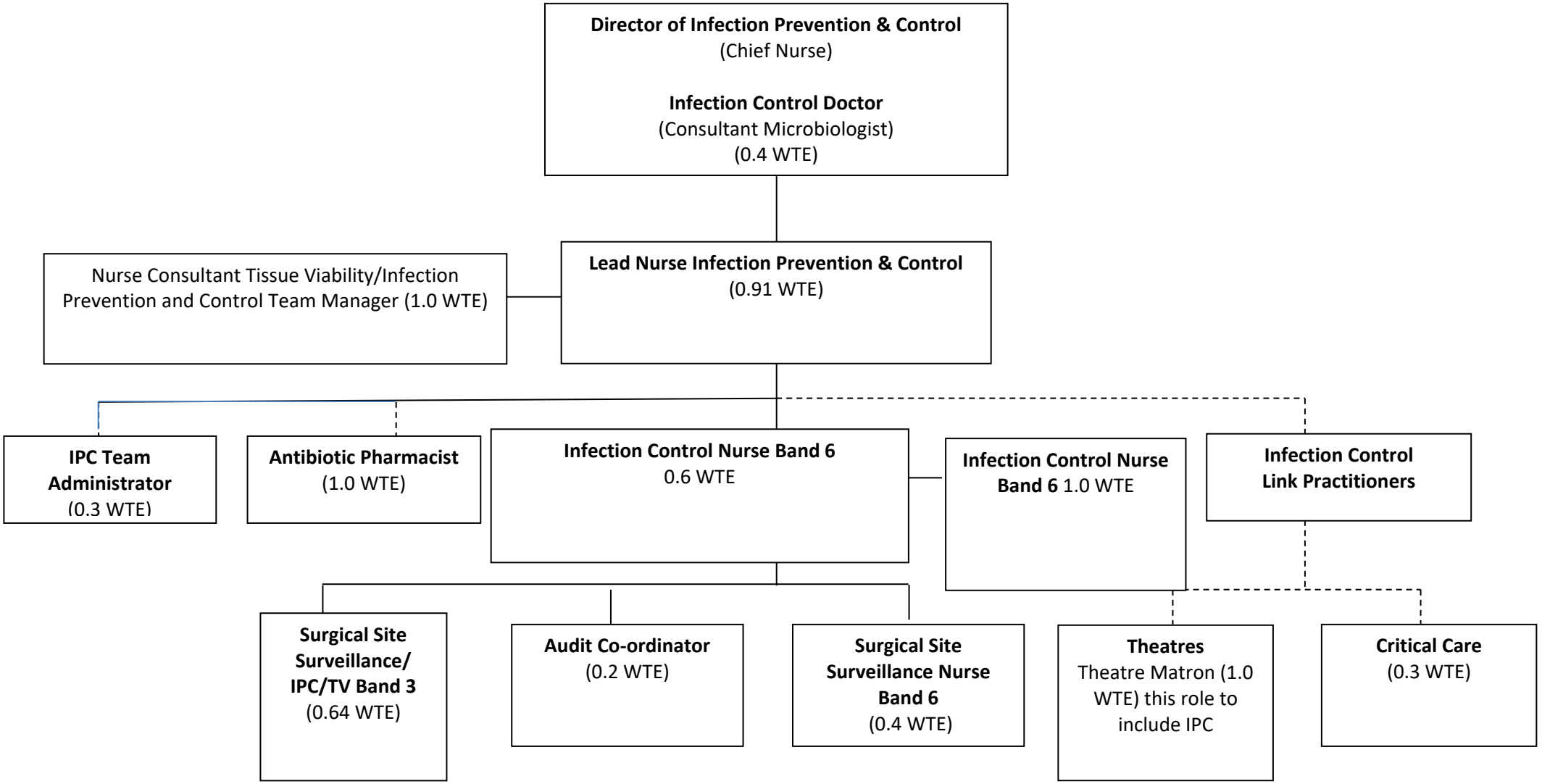
The Infection Control and Pre and Perioperative Committee (ICPPC) is the main forum for discussion concerning changes to policy or practice relating to infection prevention and control. This Committee, instigated in June 2015, replaced the previous separate Infection Prevention and Control Committee (IPCC) and Pre- and Peri-operative Group (POCG) as it was recognised that there was a great degree of overlap of business items between IPCC and POCG, and it was felt that it would be more efficient and effective if the two were combined. The membership of the Committee is multi-disciplinary and includes representation from all Directorates 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.

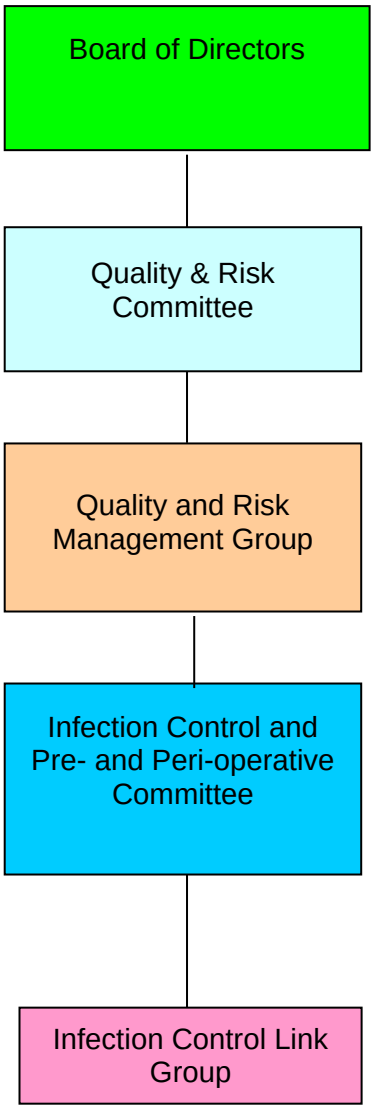
Royal Papworth Hospital
NHS Foundation Trust

Infection Prevention & Control Team (Criterion 1)



Position at 1st April 2018
WTE = whole time equivalent.

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 2018/19 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.

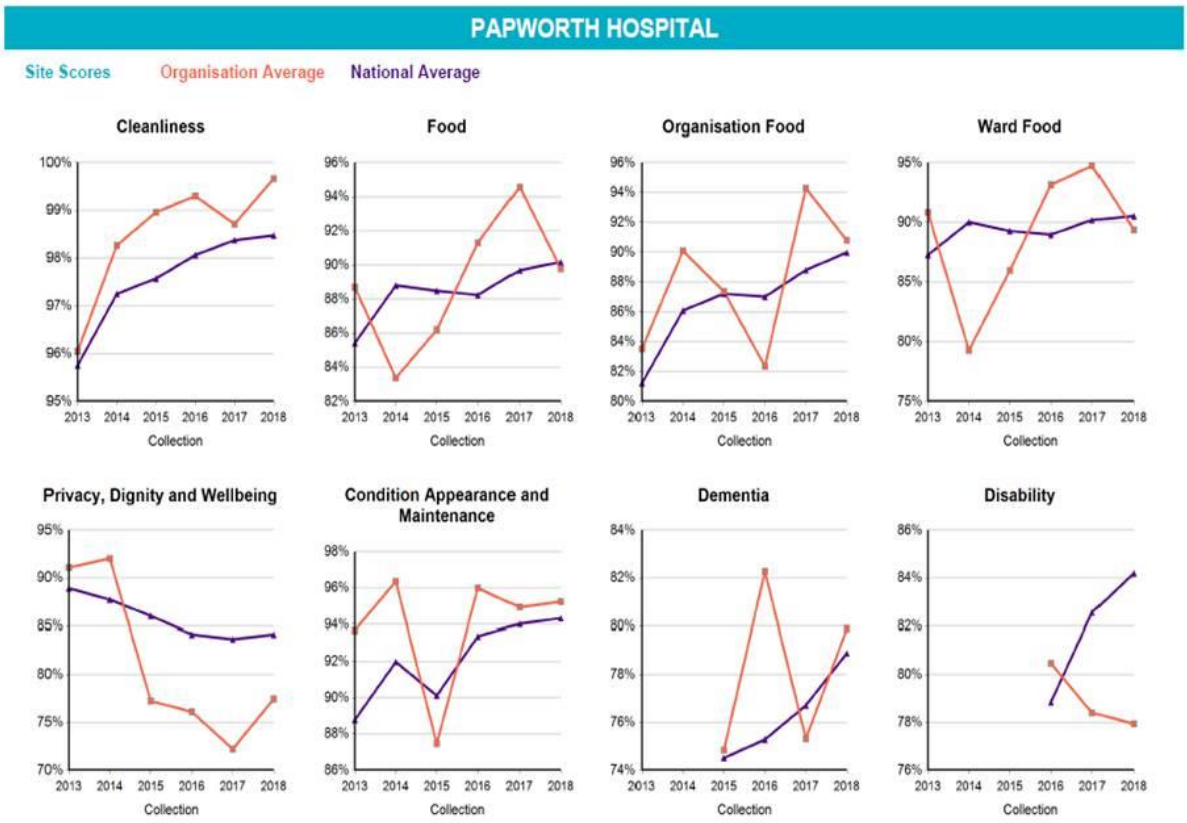
PHE Data Capture Mandatory reporting (Criterion 1)

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 2018/19; MRSA bacteraemia 1 (against a ceiling target of 0) There were 2 MRSA bacteraemia cases altogether, 1 was attributed to another hospital/community care provider. C.difficile was reported as 2 attributable*****cases (against a ceiling target of 4). There were 11 C. difficile cases altogether, 1 was pre 72 hour and 8 were deemed not to be on our trajectory.

***** Papworth attributable cases are those that occur more than two days after admission to Royal Papworth Hospital NHS Foundation Trust and which, after discussion at a scrutiny panel meeting, are deemed to be placed on our trajectory by the CCG Matrons.

PLACE Audit Results table 2018/19 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:

- 0.91 WTE Band 8 Lead Nurse in Infection Prevention and Control
- 0.6 WTE Band 6 Infection Control Nurse
- 1.0 WTE Band 6 Infection Control Nurse0.45 WTE 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/TV
- 1.0 WTE Band 3 Health care support worker SSI secondment
- 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 Administrative support is provided via a team administrator) and the PA to the DIPC.
- 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 2018/19 (Criterion 1 & 4)**

Work undertaken by the Infection Prevention and Control Team during 2018/19 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 during2018/2019.

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

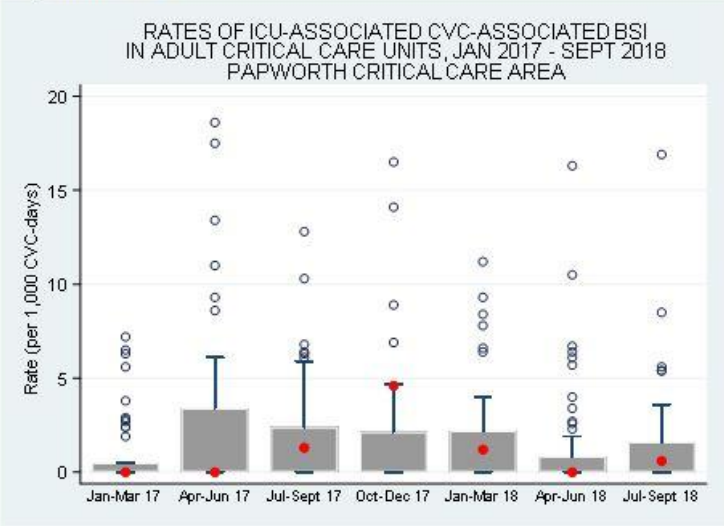
4.1 Infection In Critical Care Quality Improvement Programme (ICCQIP)
The ICCQIP board was set up in 2016 to address the concerns of hospital-associated Infections (HAI) in intensive care units (ICU) in England, following on from the publication of the successful 'Matching Michigan' study.

The ICU surveillance programme aims to characterise and monitor all ICU and central venous catheter (CVC) (associated and related) 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.

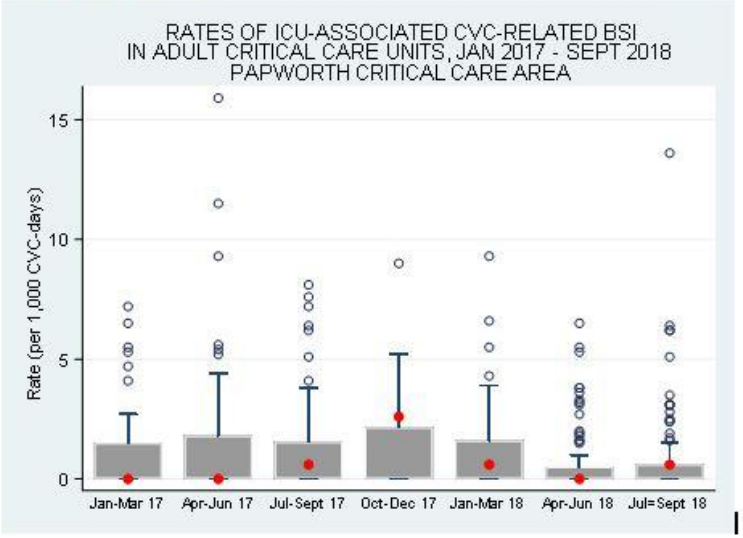
There are two major criteria the hospital is assessed against: CVC-associated and CVC-related infections

The latest results for 2018/19 year can be presented in the form of a graph and they are as follows:

Box and whisker plots of the rate of ICU-CABSIs per 1,000 ICU CVC days* in adult critical care units, January 2017-September 2018



Box and whisker plots of the rate of ICU-CRBSIs per 1,000 ICU CVC days* in adult critical care units, January 2017-September 2018



The Royal Papworth hospital is indicated by the red dot on both graphs and, as it can be seen, it is within the national interquartile range in the majority of cases.

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 2002)

01.04.05 to 31.03.06	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
14	4	5	1	2	1	1	2	0	1	0	0	5 (3 on trajectory)	2 (1 on trajectory)

The ceiling for MRSA bacteraemias set for Royal Papworth for 2018/19 by the CCG was zero. There were 2 cases of MRSA bacteraemia reported from Royal Papworth. MRSA screening of all elective and emergency admissions continued to be performed in 2018/19. Compliance with screening in 2018/19 was 95 %. 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 to the Trust and which, after discussion at a scrutiny panel meeting, are deemed to be placed on our trajectory by the CCG Matrons.

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
C. difficile >65 yrs	7	4	4	5	2	4	6
C. difficile < 65 yrs	1	3	5	4	0	3	5
Total	8 (7 attributable)	7 (4 attributable)	9 (3 attributable)	9 (3 attributable)	2 (0 attributable)	7 (3 attributable)	11 (2 attributable)

The ceiling set for Royal Papworth by the CCG for 2018/19 was 4 attributable 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).

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Methicillin sensitive Staphylcoccus aureus bacteraemias (MSSA)	21	18	10	18	9	16	21	17	14	22	9

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. However the Trust formulated an E.coli reduction programme in line with the national initiative. The target was to achieve a 10% reduction of E.coli bacteraemia on the previous year the Trusts ceiling target was 9 bacteraemia up to the end of March 2019. The target has been achieved.

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

4.3 Other Surveillance Reports

4.3.1 GRE/VRE and ESBL bacteraemia

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/6	2016/17	2017/18	2018/19
Glycopeptide (or Vancomycin)-Resistant *Enterococcus* (GRE/VRE) bacteraemias	4	0	4	8	2	4	3	8	11	8
Extended spectrum B-lactamase producers (ESBL) bacteraemias	3	1	0	3	0	0	3	5	3	1

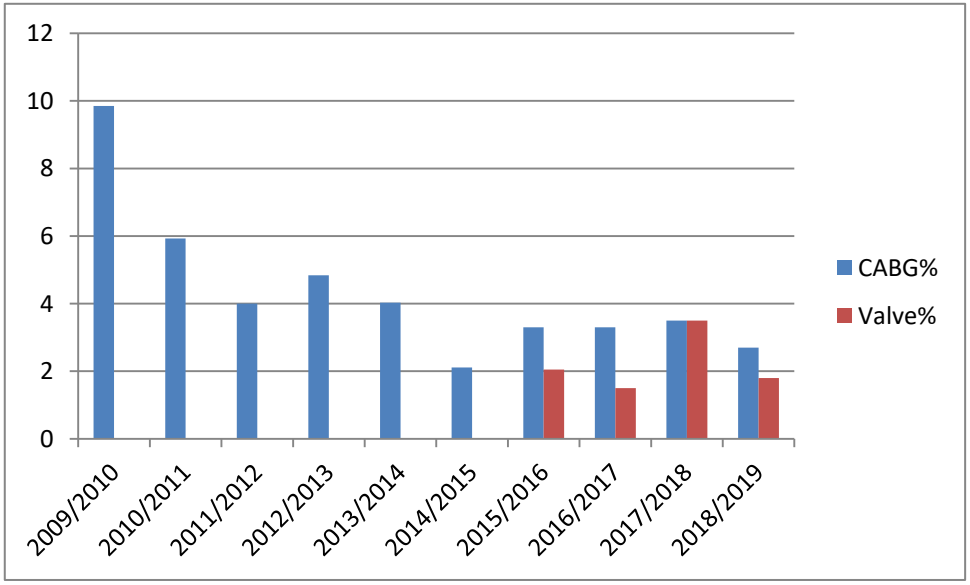
VRE bacteraemias and ESBL bacteraemias are reported to the Infection Prevention and Control Committee and to Public Health England quarterly. There are no ceilings set by external authorities for these healthcare associated infections.

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

From April 2009 we have undertaken continuous surgical site surveillance of 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 3.5% for CABG in 2017-2018 for inpatient and readmissions only. Current national benchmark for inpatient and readmissions for SSI in CABG is 3.5% (PHE 2018).

Since September 2015 the Infection Control/SSI Team have also carried out continuous SSI surveillance on patients who have had valve surgery only. This group of patients are also in surveillance for one year for any sternotomy wound infections post-operatively. Therefore, each one year period of surveillance takes two years to complete.

Current SSI figures for 2018/19
April 18 – March 19 CABG +/- valve = -2.7%
April 18 – March 19 Valve only = 1.8%



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

We are continuing with surveillance in both CABG and Valve patients and our rates have remained consistent and within national benchmarks over the last 12 months. 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. As we move to the new Royal Papworth site in the coming months we will be monitoring our SSI rates as before to ensure patient safety and quality of care is maintained.

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

Data from Public Health England (PHE)'s **English surveillance programme for antimicrobial utilisation and resistance** (ESPAUR) report 2018, published in October 2018 showed that, overall antibiotic use in secondary care in England increased by 7.7% between 2013 and 2017. This increased level of antibiotic prescribing in hospital may be in part connected to the shortage in the supply of broad-spectrum antibiotic piperacillin/tazobactam and the need to use 2 or more alternative antibiotics to give the same degree of antibacterial coverage. The acute Trusts in Midlands and East appear to have an increase of 4.9% in antibiotic use with a 10% growth in Carbapenem use. As a specialist tertiary centre, Royal Papworth Hospital NHS Foundation Trust, remains an outlier in the region, with an average 14.5% increase in total antibiotic use between 2017/18 and 2018/9. Antibiotic use in Q3 2018/19 was significantly higher than all other quarters in 2018/19 and reflects a tough winter period with sicker and more complex patients than has been seen in previous quarters. If we accept that we had sicker and more complex patients in Q3 and take the average percentage increase in antibiotic use from Q1, Q2 and Q4, the increase in antibiotic use in 2018/19 is 9.1%.
Antibiotic usage data can be accessed via the Public Health England portal https://fingertips.phe.org.uk/profile/amr-local-indicators/

Trustwide Antibiotic Usage (expressed as Defined Daily Dose/1000 admissions)

	2017/18	2018/19	% Difference
Quarter 1	8,443.50	9,315.29	10.3% increase
Quarter 2	8,828.10	9,272.68	9.8% increase
Quarter 3	8,350.90	10,918	30.7% increase
Quarter 4	10,512.22	9,755.37	7.2% increase
Four quarter average	9,033.68	9,815.34	8.65% increase

NICE published Antimicrobial Stewardship guidelines in August 2015 that recommended systems and processes for effective antimicrobial use, in particularly, antimicrobial stewardship programmes, antibiotic prescribing and the introduction of new antimicrobials. In 2018/19, our Antimicrobial Stewardship Team (AST) has been restructured and currently consists of 1 PA Consultant Microbiologist (4 hrs), 0.5WTE Specialist Antimicrobial Pharmacist (18.75 hours) and 0.8WTE Antimicrobial Pharmacy Technician (30 hours). The Consultant Microbiologist and Clinical Pharmacist have focussed their efforts on attending ward rounds, engaging with prescribers and providing feedback to prescribers, updating Trust guidelines and the MicroGuide® app, formulary applications and education to clinical staff. The Clinical Pharmacy Technician has focussed his attentions on clinical audits, management of the on-going antibiotic shortages and running a successful World Antibiotic Awareness Week in November 2018. The electronic patient record system (Lorenzo) is currently unable to produce workable bespoke antimicrobial reports. As a result, all patients on wards are identified as having antimicrobials prescribed by manually entering into each individual patient record. This is a timely process and has impacted the clinical service that the AST can provide to our patients. The introduction of a 7 day Pharmacy Service has also impacted all pharmacists including the Antimicrobial Stewardship Pharmacist as all pharmacists must now work weekends in non-specialist roles, with time re-imbursed the following week. In practice, this has meant that an additional 6 weeks per year is unavailable as Antimicrobial Stewardship Pharmacist time.
On 24th January 2019, the Department of Health and Social Care published a 20-year vision and 5-year national action plan for how the UK will contribute to containing and controlling AMR by 2040.
The plans include targets, such as:
•cutting the number of drug-resistant infections by 10% (5,000 infections) by 2025
•reducing the use of antibiotics in humans by 15%

•preventing at least 15,000 patients from contracting infections as a result of their healthcare each year by 2024

A major focus of the plan is to make sure current antibiotics stay effective by reducing the number of resistant infections and supporting clinicians to prescribe appropriately. New technology will also be used to gather real-time patient data, helping clinicians understand when to use and preserve antibiotics in their treatment. This could be followed and adapted all over the world, building the database on antibiotic use and resistance.
The 2018/19 CQUIN relating to anti-microbial resistance, has been normalised and is now included as a contractual requirement of the 2019/20 NHS Standard Contract and requires providers to have regard to key national guidance on antimicrobial stewardship and to strive to achieve ongoing reductions in antibiotic usage. The requirement in 2019/20 is a 1% reduction in antibiotic usage against 2018 baseline data.
Within the Prescribed Specialised Services CQUIN there is a Medicines Optimisation trigger which relates to Antifungal Stewardship. The 3 key objectives of the Antifungal Stewardship CQUIN are:
• Improved Antifungal Stewardship across the NHS in England
• Greater standardisation in the use of antifungals across the NHS in England
• Optimise use of generic products wherever clinical appropriate to ensure best value

The focus of the AST in 2019/20 will be a 1% reduction in antibiotic usage and successful completion of the Antifungal Stewardship CQUIN and a 1% reduction in antibiotic usage against 2018 baseline data across the trust as per the 2019/20 NHS Standard Contract.

	Actions	Progress
1.Antimicrobial stewardship management team	Antimicrobial Stewardship Group meetings take place quarterly Antimicrobial Stewardship Lead reports to the Drugs and Therapeutics Committee. (or the Antimicrobial Pharmacist in her absence) A ward focused antimicrobial stewardship team consists of Antimicrobial Stewardship Lead and Antimicrobial Pharmacist with regular weekly ward rounds.	The AST met on April 25th 2018, August 22nd 2018, December 19th 2018 and March 13th 2019. This has been established and membership has been increased to include an Advanced Nurse Practitioner and a member of the ALERT Team. Regular weekly AMS rounds on Mallard, Varrier Jones and Critical Care.
2.Antimicrobial guidelines and policies	The following policies have also been updated this year Antibiotic Assays Guidelines - DN026	Completed

	• Antibiotic Guidelines for the Treatment of Common Infections - DN024 • Critical Care: Empirical Antibiotics for infection on the Critical Care Area - DN073 • Surgical Prophylaxis: Antibiotics for Surgical Prophylaxis - DN027 • Antibiotic Assays Guideline – DN026 • Antibiotic Guidelines for the management of EP device related infections (PPM/ICD) DN564 • Antibiotic prophylaxis procedure permanent pacemaker and ICD insertion DN025 Antimicrobial Procedure for ventricular assist devices and total heart devices DN529 Antimicrobial Prophylaxis Procedure for Extracorporeal Membrane Oxygenation DN635 Guidelines for treatment of adult patients with Cystic Fibrosis DN512 Maintain and update MicroGuide® application on a regular basis Fidaxomicin formulary application Review NICE guideline Antimicrobial Stewardship Baseline Assessment Tool on annual basis	In Progress Major publication MicroGuide® due early 2019/20 In progress Completed 18/12/18
3. Audit and quality improvement programme	The following audits have been performed this year • Monthly audits of key prescribing indicators • Quarterly antibiotic consumption across the trust • Blood Stream Infections at RPH • Ceftazidime with Avibactam Usage • Ceftolozane with tazobactam Usage • Magnificent 7 Critical Care Documentation	Completed for all months Completed and incorporated into quarterly reports Completed 19/12/18 Completed 12/3/19 Completed 18/12/18 Completed 4/9/18

	• Posaconazole Usage • Critical Care/Ward Interface Antimicrobial Prescribing Standards	Completed 12/3/19 Completed 19/8/19
4.Education and training	Provide mandatory core training in antibiotic use for doctors according to education department plan Provide educational sessions in antimicrobial prescribing for pharmacists (yearly) and Non-medical prescribers. Provide educational sessions for registered and technical staff on antimicrobial resistance according to education department plan Continue ward based one-to one teaching in antimicrobial use and prescribing at weekly ward rounds Introduction of an E-learning training tool from Health Education England on Antimicrobial Resistance as mandatory training for all clinical staff	Sessions every 4 months. Training provided in July and August and programme incorporated in annual Pharmacist Mandatory Training Plan. Antimicrobial Resistance Session incorporated into annual mandatory training for all clinical staff On-going. In progress
5.Antimicrobial prescribing	Produce monthly reports on main indicators with feedback to prescribers Provide antibiotic prescribing audit data to the Trust board (quarterly) Introduce systems to encourage correct documentation of indication on Lorenzo electronic prescribing systems and prompt antibiotic review	In progress Completed Completed
6.Surveillance and monitoring of antimicrobial consumption and resistance	Review Trust antimicrobial consumption data quarterly at ASG meeting report Piperacillin/Tazobactam and meropenem consumption to the board and to clinical specialties (quarterly) Monitor antimicrobial consumption on Define Obtain and disseminate data on local antimicrobial resistance Regular monitoring of antimicrobial stock levels due to unprecedented shortages	Completed and data sent to PHE https://fingertips.phe.org.uk/ On-going Completed ongoing

	in the industry and close liaison with microbiologists to ensure appropriate alternatives are in place	Weekly monitoring of antibiotic stock levels. Ongoing
7. Ward focused antimicrobial stewardship team	Antimicrobial stewardship ward rounds by Consultant Microbiologist and Antimicrobial Pharmacist	2 ward rounds/week on surgery and cardiology 3 ward rounds/ week in Critical Care
8.Restrictions and new antibiotics	Review the list of restricted antibiotics on a yearly basis Consider new antimicrobials for clinical practice	Annual review In progress.

4.6 Incidents and Outbreaks (Criterion 1-10)

Incident and outbreak investigations occurring in 2018/19 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 2018/19 and staff were strongly encouraged to have the vaccine. The Occupational Health Department co-ordinated a successful programme and the Trustwide uptake rate was 79%. This was helped greatly by a mobile flu clinic.

During this period, Papworth continued to be a registered ECMO (extra corporeal membrane oxygenation) centre. This is treatment used for patients who have respiratory difficulties including H1N1. 6 patients were admitted under the Respiratory ECMO service with confirmed Influenza during 2018/19.

In February 2019 there was an outbreak of influenza which affected Hugh Fleming, Mallard and Varrier Jones wards. The outbreak led to the closure of both Hugh Fleming and Mallard Wards, resulting in cancelled operations and admissions. Over this period 186 beds were empty and closed on Hugh Fleming from the 05/02/19-13/02/19 and once reopened on the 14/02/19 through to the 22/02/19 there were 87 beds which remained empty and closed as these were unable to be staffed safely. Mallard Ward had 219 beds closed between the 06/02/19 and the 22/02/19. Varrier Jones Ward was also affected with one bay closed and 10 beds closed and empty between the 15/02/19 and the 18/02/19. The outbreak was declared as a major incident on the 7th February. A full Serious Untoward Incident (SUI) Report was completed.

Norovirus

There were no incidents of ward closures due to confirmed Norovirus during 2018/19, however there were 12 bay closures in total over eight different periods of time due to viral gastroenteritis.

- Four bays were closed on Mallard ward in April.
- One bay was closed on Varrier Jones ward in July.
- One bay was closed on Mallard ward in August
- One bay was closed on both Mallard and Hugh Fleming ward in November.
- One bay was closed on Mallard ward in December
- Three bays were closed on Mallard ward in January.

The total number of bed days lost due to viral gastroenteritis in 2018-19 was 68.

Clostridium difficile

In 2018/19 there was a period of increased incidence of C. difficile during the month of July and August. A period of increased incidence meeting was held alongside the CCG and a full review of each case was undertaken. However following the review it was deemed that each case was not related.

MRSA

There was 1 case of MRSA bacteraemia in 20187-19. A thorough investigation was carried out and any lessons learned actioned and monitored through the ICPPC. There were 4 bay closures for MRSA contact screening in 2018/19 and a total of 14 bed days lost.

Tuberculosis

There were no incidents during 2018/19. All cases were individually assessed and were followed up as appropriate.

Mycobacterium abscessus in cystic fibrosis (CF) patients.

No increase in the rate of acquisition within CF population has been noted in 2018/19.

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 us as a Trust to identify increases in these organisms and act accordingly. There were no outbreaks of VRE or ESBL in 2018/19.

Carbapenemase Producing Enterobacteriacae (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 2018-19 there were 5 patients diagnosed with CPE 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 2018/19. All cases were individual assessed and were followed up as appropriate.

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

5.1 Cleaning Services

ISS continue to provide cleaning services across the Trust.

- Details of the roles and responsibilities and cleaning routines are available on the entrance of all clinical areas. Please find extracts in the tables below.
- In the event of a QC failing, ISS will rectify the failings immediately and the area is QC'd again once completed.
- Ongoing works are continuing between ISS & E&F to ensure sufficient staffing levels are maintained.

Very High Risk		
Task	**Frequency**	**Responsibility**
Sanitary Areas		
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
Bays/Bedrooms		
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
Kitchen Areas		
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
Floors/walls		
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
Additional Equipment		
Waste receptacles	Daily	Domestic
Linen trolley	Weekly	Portering Staff

High Risk		
Task	**Frequency**	**Responsibility**
Sanitary Areas		
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

Bays/Bedrooms		
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
Kitchen Areas		
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
Floors/walls		
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
Additional Equipment		
Waste receptacles	Daily	Domestic
Delivery linen trolley	Weekly	Portering Staff

Significant Risk		
Task	**Frequency**	**Responsibility**
Sanitary Areas		
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
Bays/Bedrooms		
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
Kitchen Areas		
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
Floors/walls		
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
Additional Equipment		
Waste receptacles	Daily	Domestic
Delivery linen trolley	Weekly	Portering Staff

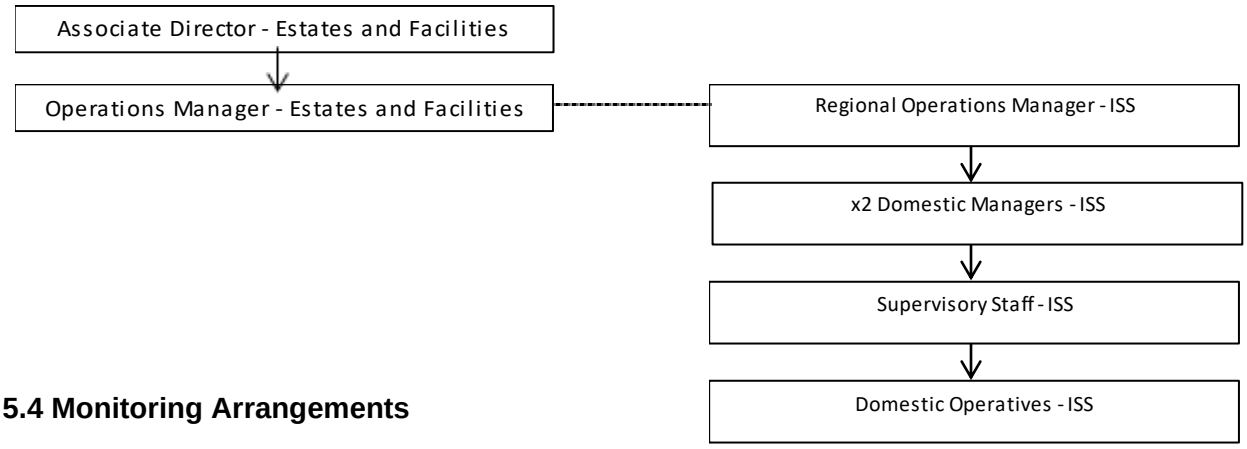
Low Risk		
Task	**Frequency**	**Responsibility**
Sanitary Areas		
Mirrors	Weekly	Domestic
Dispensers	Weekly	Domestic
Toilets	Daily	Domestic
Sinks	Daily	Domestic
Bays/Bedrooms		
Chairs	Weekly	Domestic
Floors/walls		
Switches / sockets	Weekly	Domestic
Radiators / ventilation grills	Monthly	Domestic
Walls	Monthly	Domestic
Doors	Spot Check Weekly / Full Clean Monthly	Domestic
Floors - polished / non-slip / soft	Weekly	Domestic
Low / high surfaces	Weekly	Domestic
Additional Equipment		
Waste receptacles	Daily	Domestic

5.2 Deep Cleaning Programme

A rolling monthly deep cleaning programme is in place to ensure all hospital clinical areas are deep cleaned annually. The progress of the programme and any concerns are monitored at the ICPPC meetings. 100% compliance was achieved for 2018-19.

5.3 Management Arrangements

ISS is overseen by the Associate Director of Estates & Facilities and Operations Manager from the Trust and the ISS 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 employment of supervisors 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. ISS

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 bleep 807.

QCs are undertaken at the following frequencies, and QC teams consist of a matron or nursing representative, ISS, Estates and Facilities:

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

5.5 Budget Allocation

The budget provision for ISS output specification contract, including all routine cleans, deep cleans and ad hoc cleans is £1.35 million.

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 Addenbrookes Hospital if for any reason both scope washers are out of action. A new modular unit will accommodate two washer disinfectors at New Papworth Hospital.

5.7 Linen Service

Our linen service is provided by central laundry, our contract with them is for clean linen to be delivered to site three times a week 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 porters. The dirty linen is collected from the wards by the porter and collected by Central Laundry for processing.

5.8 Water Safety

The Trust has a Water Safety Group, which reports to the Quality & Risk Management Group. The Water Safety Steering Group meets regularly to be updated and 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 and Pseudomonas Management Programmes across all sites.The group consists of the Trust Responsible Person (water) and Deputies, Infection Control Doctor, Modern Matron or Ward Based Representative, Risk Manager, Estates Operation Manager, Authorising Engineer and Skanska representatives.
A new Water Safety Plan has been developed recently to reflect joint Trust and Skanska water management at New Papworth Hospital.

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 **all** 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
Consultant annual mandatory update via the Market place presentation	Six times yearly	Presentation
Yearly update for qualified nurses in cardiac and thoracic directorate via the Market place presentation	At least monthly	Presentation provided and reviewed by IPC team; supervised by education team
Yearly update for non-qualified nurses in cardiac and thoracic directorate via the Market place presentation	At least monthly	Presentation provided and reviewed by IPC team; supervised by education team
Yearly hand hygiene update for all other clinical staff	Skills/CPR weeks	IPCT/Education team
Training session for Housekeepers	At least quarterly	IPC team

Infection Control & Hand Hygiene Training April 18 - March 19	
	Compliance
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 2018	SSI Nurse/IC Nurse	
		Business case for Band 3 TV/IC Specialist Support Nurse	Jan 2019	Lead ICN/Lead TVN	On hold

	Action	Goal	Timeline	Responsible	RAG Rating
2	MRSA screening	Maintain and monitor screening compliance. Provide feedback on compliance to all areas via the ICPPC	Monthly Eight weekly	Matrons ICPPC	
3	Audit	Annual review of annual audit programme Including Care bundles. Take through ICPPC. Continuous application and monitoring of annual audit programme	Sept 2018 2018/19	Lead ICN/IC Doctor IPCT/Link nurses/ Antimicrobial pharmacist/ Audit department/ relevant others	
4	Review of new build projects, designs and estates	Infection control input to New Papworth Hospital (NPH)	2015-19	IPCN/ IC Doctor	
5	Onsite upgrades and new builds	Support and advise Estates as required.	2018/19	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.	2018/19	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 Market place (Stat and Tech) – update annually. Band 4 HCSW training Housekeeper training Estates Training Volunteers training	2018/19	IPC team (including IPC Doctor)	

	Action	Goal	Timeline	Responsible	RAG Rating
		Attendance of the water management course	December 2018	Estates to organise	
8	Deep Clean Programme	Continued monitoring of deep clean programme through IPCC. Data held with ISS and QC results reported via Matrons balanced score card and issues flagged to ICPPC. Submission of Estates Compliance report to ICPPC	2018/19 8 weekly to ICPPC 2018/19 8 weekly to ICPPC	ISS/Estates/ DIPC/Modern Matrons/ IPCN Estates/DIPC	
9	Surgical Site Infection Surveillance	Register for Year 10 PHE surveillance programme. SSI surveillance programme to cover CABG +/- valve & valve only (supported by seconded band 4 HCSW). Data to be submitted to the PHE for one quarter only for CABG +/- valves Engagement with surgical teams to discuss deep/organ space infections	Q1 2018/19 December 2018	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.	2018/19	IPCT/Modern Matrons/Ward areas	Continuous

	Action	Goal	Timeline	Responsible	RAG Rating
11	Monitoring *E.coli*, Klebsiella and Pseudomonas bacteraemias Rate reduction as advised for all NHS Trusts	Mandatory reporting of *E.coli* cases required from June 2011 and voluntary reporting of Klebsiella and Pseudomonas cases from April 2017 Review of plan- for the Trust to reduce *E.coli* bacteraemia and healthcare associated Gram-negative blood stream infections by 50% by March 2021	2018/19 2018/19	IC Doctor/Lead IPCN 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 (ICCQIP) website. Continue submitting data on CVC-BSI in respiratory patients to the Matron for their own analysis.	2018/19	IC Doctor	Continuous
13	Routine tasks including managing patients on Lorenzo	IPCNs ▪ Regular review of inpatients with IC issues/nursing ward round. ▪ Action positive results and advise on inpatient treatment/ send GP/hospital/patient letters ▪ Document advice on Lorenzo ▪ Alert positive patients on Lorenzo/Tomcat, this includes new categories of alerts on Lorenzo. ▪ Give patient advice leaflets and visit newly positive patients on the ward. ▪ Monthly isolation surveillance. IPCNs/ICDs ▪ Telephone advice ▪ DIPC Annual report ▪ Provide support to ward staff with IC matters. ▪ Management of patients with diarrhoea ▪ Outbreak management ▪ Review and create policies and procedures ▪ Participation in external audits and inspections ▪ Monthly QRMG DIPC report ▪ Monitoring of quarterly/CCG	2018/19	IPCT	Continuous

	Action	Goal	Timeline	Responsible	RAG Rating

		dashboard
		▪ Providing figures for Matrons and Nursing scorecards
		▪ Meeting attendance
		  ▪ IPCNs-attend regular meetings.
		  ▪ ICDs-attend upwards of 8 regular meetings.
		
		ICD
		▪ CCA ward rounds
		▪ Transplant ward rounds
		▪ Respond to FOI requests and complaints
		▪ Preparation of reports (e.g. SUI, alert organism monthly reports) and annual reports/plans
		▪ Monthly Trust board reporting			

14	ED Environmental Rounds	To maintain a safe environment for patients and staff. Ensure the aging estate is maintained to a safe standard.	2018/19	ICNs/Matrons /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.	2018/19	IPCT	Continuous
16	IC outpatients procedure for New Papworth	Produce an IC specific OPD procedure for specific relevant organisms	Jan 2019	IPCN/IC Doctor	
17	Water Safety Plan (including management at NPH)	Pseudomonas/Legionella Monitoring with Estates	2018/19	IPCT/IPC Doctor/Estates	
		Advising on water management at New Papworth Hospital NHS Foundation Trust. Regular attendance at Water Safety Group meetings.	March 2019	Estates	

	Action	Goal	Timeline	Responsible	RAG Rating
18	CPE Management and prevention	Ongoing monitoring/ screening and incident management of CPE; includes additional screening of patients who have been in Addenbrookes and London/Manchester hospitals	2018/19	IPCT/IC Doctor	Continuous
19	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	2018/19	IPC Doctor	Continuous
20	Microbiological monitoring of the water supply for heater coolers in conjunction with Estates	Analysis of water testing results (TVC, Coliforms, *E.coli*, Pseudomonas, Legionella, Mycobacteria) and giving appropriate advice to Estates with regard to decontamination process	2018/19	IPC Doctor	Continuous

7.2 IC Annual Audit Programme 2018/19 (Criterion 1-10)

INFECTION CONTROL AUDIT MANAGEMENT PLAN 2018/2019- AUDIT LEAD: HELEN WICKENDEN/KATY RINTOUL.

Project Title:	Project Contact:	Project Type:	Audit Reg. Number:	Agreement Date:	Status:	Progress:	Deadline Update:
Hand hygiene		Local				Rolling	Monthly audit. Chase IPC linknurses to check its be done. Take monthly summary report to IC meetings to report back any action plans required / summary of findings.
Ward audit (High Impact Interventions)		Local				Rolling	Monthly audit. We take monthly summary report to IC meetings to report back any action plans required / summary of findings.
Alcohol gel audit		Local	1487		In Progress		June - October 2018. UPDATE: email and forms sent to wards June 18. Report written Feb 2019 sent to KR for approval.
ANTT audit		Local	1612		In Progress	Rolling	6 monthly audit in May and November. Needs forms sending out to each area, chasing and reminding of deadlines. Then analysis and report. UPDATE: 15/05/18 formic form amended for 2018 and sent out with deadline 31/05/18. deadline extended to the July 31st. update: HY written draft report , sent to KR 29/08/18 for approval. **24/01/18 HY writing report for Nov Audit. report written sent to KR Feb 19, HY to add wards that scored low compliance to report. Report to be ratified at ICPPC meeting 4/04/19**
MRSA screening		Local			Rolling	Rolling	Monthly rolling monitoring
Commodes audit & CCA commode audit	Katy Rintoul	Local	1300		Rolling	Rolling	Quarterly. On formic form. Doreen Pullen does data collection quarterly and drops off here. Need to scan in and do brief summary of results. UPDATE 27/11/18 Q2 & Q3 completed and sent to KR for approval. Ratified at ICPPC meeting 17/12/18. Mar 19 HY writting Q4 audit. **Report ratified at ICPPC meeting 04/04/19**
Environment audit		Local	1505		In Progress		Running Dec 2018-Jan 2019 Needs forms sending out to each area, chasing and reminding of deadlines. Then analysis and report. UPDATE: 24/01/18 updated formic form and emailed KR to aprove start of Audit. **Feb 19 audit in progress**
Isolation precautions	katie Rintoul	Local	1532			Rolling	Monthly audit. Anne does everything and we report the results back at IC meeting.
Departmental waste handling and disposal DN375		Local	1519		In Progress		Running Jan - March 2018. Needs forms sending out to each area, chasing and reminding of deadlines. Then analysis and report. **update Jan 19Audit in progress**
Waste Management	Waste Management Committee						No involvement
CVC BSI (Matching Michigan)		Local				Rolling	Under theatres and Anaesthetics (no involvement)
Scrubbing and Gowning	Anita Frith	National	1714			In Progress	Under Theatres and Anaesthetics UPDATE 25/05 - due to begin 4 June. 50 forms to be completed.HY sent draft report to AF 15/08/18.
Skin prep	Anita Frith - Cath Labs Anita Frith-Theatres	Local	1473?			Rolling	Yearly audit. Under theatres and Anaesthetics. Just need to make sure it has been done. **Cath Labs and Theatres reports done Feb 18. UPDATE: 02/01/19 Anita Frith to begin next cycle of audit, will send to HY when 50 complete.**
Linen audit	Doreen Pullen	Local	1631		In Progress	in progress	September to December - Report due December 2018. UPDATE March - DP advised audit not done, now in progress
Raised toilet seats	Doreen Pullen/Brie Moul	Local	1504			Rolling	To run Feb 2018 and then quarterly. Q2 & 3 completed and ratified at ICPPC Dec 18. March - HY writing Q4 report. **Q4 report ratified at ICPPC 04/04/19**
National Surgical Audit	Kunal Bhakhri	National	1625				Project is being led by the **Surgical Directorate**. Nov 16 - Oct 17. Don't need to chase infection control, controlled via surgical directorate.
Safe handling and disposal of sharps	Katy Rintoul/ helen Wickenden	Local	1740		Completed		Report written and sent to KR for approval 29/10/18. Emailed for update 28/11/18. **Update Jan 19: final report ratified at ICPPC Dec 18**
CPE Protocol	Katy Rintoul	Local	1455			Rolling	Monthly monitoring

Proposed Audits that still require Registration:		
Project Title:	**Project Contact:**	**Date Advised:**
Sharps Audit	Helen Wickenden	08/02/2018
Audit Project Forward Plan 2018/2019:		
Project Title:	**Project Contact:**	**Registered?**
Alcohol gel audit	IPC Team/ICLPs	YES
Antibiotic audits (in separate antibiotic stewardship document)	Dr Allen/Netta Tyler	
Aseptic non-touch technique DN561	IPC team/ICLPs	YES
Departmental waste handling and disposal DN375 (amended ICNA tool 4.5)	IPC Link co-ord.	
Waste Management DN375 (ICNA tool 4.4)	Waste Management Committee	
Environmental audit (ICNA tool 4.1) DN11, DN89 & DN441	IPC Team/Link co-ord.	
Management of linen (ICNA tool 4.3)	IP & C Team	Yes
Hand hygiene opportunities @ point of care	IP & C Team/Link Co-ord.	Yes
Hand hygiene technique	IP & C Team/Link Co-ord.	Yes
Isolation procedure DN89 and DN317	IP & C Team	Yes
MRSA Screening compliance (linked to MRSA procedure DN339) & MRSA procedure DN339	Clinical audit (Monthly screening compliance audit)	Yes
TB procedure DN93 (included in monthly surveillance audit.)	IP & C Team	
Catheter related urinary tract infections (DN557) point prevalance audit	IP & C Team/Clinical audit/ICLPs	
CCA QC	CCA IPC co-ordinators	Rolling -
Central line blood stream infections, CVC BSI on CCA only	CCA IPC co-ordinators/Modern Matrons	
Scrubbing and gowning	Theatres	Yes
Skin prep	Theatres	
HIGH IMPACT INTERVENTIONS (App 1 for prog)		
HII 1 CVC insertion and ongoing care	IP & C Team/Link Co-ord.	
HII 2 PIVC insertion and ongoing care	IP & C Team/Link Co-ord.	
HII 4 Prevention of surgical site infection (linked with DN335)	IP & C Team/Link Co-ord.	
HII 5 Ventilated patients	IP & C Team/Link Co-ord.	
HII 6 Urinary catheters insertion and ongoing care	IP & C Team/Link Co-ord.	
HII 8 Cleaning and decontamination of clinical equipment	IP & C Team/Link Co-ord.	
MISCELLANEOUS		
Commodes	IP & C Team/Modern Matrons	
Raised toilet seats	IP & C Team/Modern Matrons	
Patient-Led Assessments of the Care Environment (PLACE)	External	
Domestic services Quality Control	Domestic Services/Modern Matrons/HODs - linked to Scorecard	
Surgical Site Infection (linked to SL HII 4)	Fiona Downie/IP & C Team	
CPE protocol	IP & C Team	

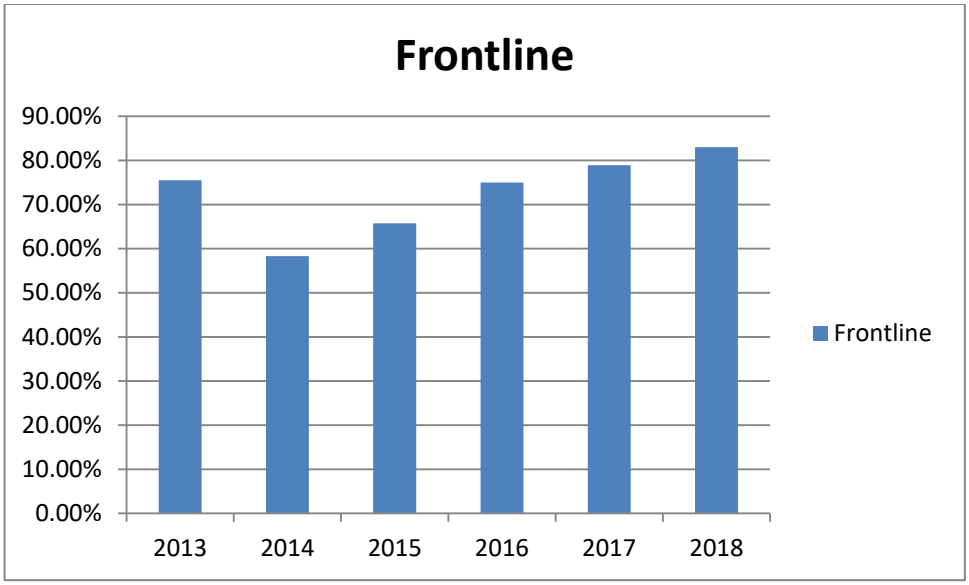
NICE Guidance:				
NICE Ref:	**Title:**	**Published:**	**Lead:**	**Relevance/Compliance Status:**

twice a year April & October

8. Influenza Vaccine uptake for 2018/19 Season (Criterion 1, 10)

Staff Group	Number of Vaccines administered					Number in post					Percentage					
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2018
Doctors	125	101	103	120	142	203	202	207	235	142	61.50%	49.00%	49.60%	51%	60%	70%
Nurses	451	352	430	421	446	604	652	684	635	446	74.60%	50.40%	62.60%	66%	70%	76%
Other Professionally qualified Staff	178	167	172	210	362	261	267	243	218	362	68.10%	62.50%	70.80%	96%	100%	94%
Support to Clinical Staff	332	261	291	387	242	369	390	378	422	242	89.90%	66.10%	77%	91%	85%	98%
Others	149	180	178	120	171	402	416	389		171	37.00%	43.00%	45.75%			315

Total	1235	1061	1174	1258	1363	1839	1927	1901		1363	67.10%	55.00%	61.75%			1498
Frontline Staff	1086	881	996	1131	1192	1437	1511	1512	1510	1192	75.50%	58.30%	65.74%	75%	78.90%	83.00%



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

This year's flu programme was delivered from 1st October 2018 to 28th February 2019. During October Clinics were offered twice a day in different areas of the Trust, workshops at the Christopher Parish building each morning. Early morning and weekend clinics were also offered. Any staff that were unable to access these clinics could contact Occupational Health directly to arrange an appointment or do walk in clinics at certain times in Occupational Health. We attended each new starter induction at the start of each month to offer vaccines for staff members.

To ensure managers have an up to date record of staff that have received the flu vaccination it was added to the e rostering system and kept on an OH spreadsheet for record. Each month we would receive a leavers list and the staff who had left the trust would be removed and the monthly figure would change at the end of each month.

The flu data is uploaded to Public Health England via the ImmForm system each month.

The flu programme has now been completed for the 2018/19 season.

1500 quadrivalent vaccines (in line with Public Health England guidance) have been ordered for next seasons programme. The staff at Occupational Health and Well-being will work with Royal Papworth Hospital to deliver this programme.

9. Inoculation injuries 2018/19

9.1 Annual quarterly figures

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2018/19	10	25	18	14	67

9.2 Areas reporting Incidents

Quarter	Theatres	CCA	Wards/others	Cath Labs
Q1	2	2	3	3
Q2	5	3	9	7
Q3	4	2	8	4
Q4	3	1	4	6

9.3 Staff Group Sustaining Injury

Quarter	Doctors	Nurses	Others
Q1	2	4	4
Q2	8	12	4
Q3	4	10	4
Q4	1	8	5

10. 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].