Infection Prevention & Control Annual Report 2017/2018

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

Position at 1st April 2017
WTE = whole time equivalent.

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 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 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.

Royal Papworth Hospital NHS Foundation Trust monitored incidence of C.difficile during 2017/18 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 2017/18. 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.

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.

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) 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 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 1)

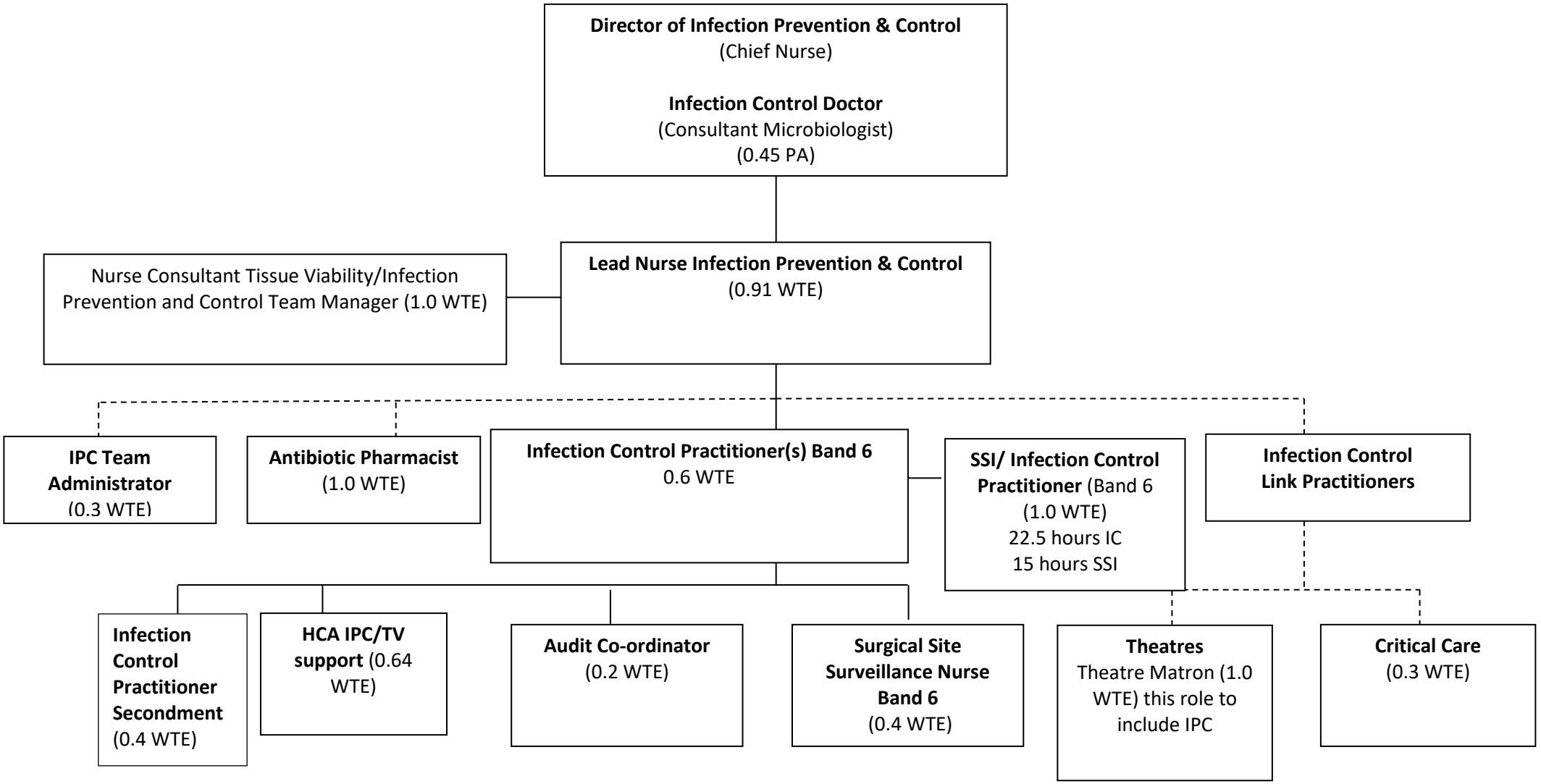
The Infection Control and Pre and Perioperative Committee (ICPPC) is the main forum for discussion concerning changes to policy or practice relating to infection prevention and control. This Committee, instigated in June 2015, replaced the previous separate Infection Prevention and Control Committee (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 *Standards in Infection Control in Hospitals* (prepared by the infection control standards working party) 1993. The Terms of Reference also incorporate Saving Lives: A Delivery Programme to Reduce HCAI (DoH 2010). Signing up to this programme by the Trust demonstrates its commitment to patient safety and reduction of HCAI.

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.

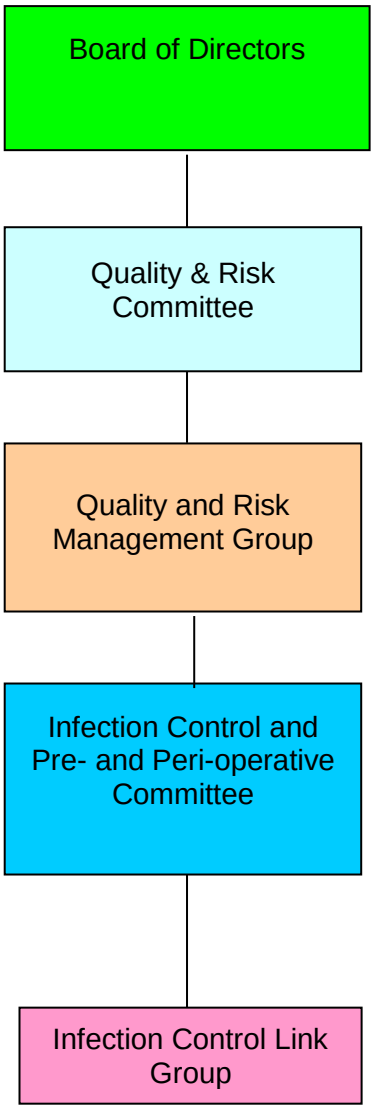
Papworth Hospital NHS
NHS Foundation Trust

Infection Prevention & Control Team (Criterion 1)



Position at 1st April 2017
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 2017/18 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.

The Trust reported the following for 2017/18 MRSA bacteraemia 3 (against a ceiling target of 0). C.difficile reported 3 attributable*cases (against a ceiling target of 5). There were 7 C. difficile cases altogether, 2 were pre 72 hour and 2 were deemed not to be on our trajectory.

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 2017/18 MRSA bacteraemia 3 (against a ceiling target of 0). *C.difficile* reported 3 attributable*****cases (against a ceiling target of 5). There were 7 C. difficile cases altogether, 2 were pre 72 hour and 2 were deemed not to be on our trajectory.

NHS Improvement (Criterion 1)

During 2017/18 the Trust was visited by NHS Improvement at the request of the Director for Infection Prevention and Control. The visit consisted of a sit down session to look into the assurance methods in place within the Trust particularly in relation to infection control, plus a visit to three ward areas. There were some improvement requirements identified and as a result a rapid action plan was developed and completed. A follow up visit was convened and NHS Improvement were happy with our progress and with the completion of the rapid action plan. The visit was well received and offered advice and support.

***** 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 2017/18 inspection (Criterion 1 & 2):

The below table is a view of the 2017/2018 Site Scores and the National Averages.

Area	2017 Site Scores	2018 Site Scores	2018 National Average	Comments
Cleanliness	98.72%	**99.66%**	98.47%	The Trust's cleaning service ISS are continuing with their recruitment initiatives as the turnover of staff increases due to the forthcoming move. They have maintained staff numbers throughout the year. The audit results show cleaning has again this year scored above the national average.
Food	94.56%	**89.78%**	90.17%	Food scores have seen a minor decrease this year. In efforts to improve the training/education/ management of the Housekeepers, the Trust has employed a new Patient Catering Manger. The introduction of the Manager will help develop house keeping staff skills such as presentation, allergen understanding and service times to maintain an effective housekeeping relationship, which in turn will allow us to deliver a more efficient food service to our patients.
Privacy, Dignity & Wellbeing	72.21%	**77.44%**	84.16%	We have seen an increase in the scores this year. We expect to see a further increase in the scores within this category when we move to New Royal Papworth Hospital, with the introduction of single en-suite rooms, enhanced patient entertainment systems and a more patient focused care environment.
Condition, Appearance & Maintenance	94.93%	**95.23%**	94.33%	The Trust has provided a focused investment in this area to maintain the condition and maintenance of the site particularly focusing on clinical areas. Significant progress has been made in addressing the impending backlog maintenance, this includes refreshing the site's road markings, new flooring, gardening , decorating and major critical plant works. It is essential and remains a priority for the estate and facilities directorate, that we continue to deliver a safe and well maintained environment for our patients and visitors.
Dementia	75.32%	**79.89%**	78.89%	The Trust has maintained similar scores within these categories this year, considering the age of the estate the Trust is not fully Dementia or Disability friendly. In some areas it is difficult to achieve fully, but where possible we aim to reach these standards. The shortfalls will be rectified with the move to New Royal Papworth Hospital.
Disability	78.40%	**77.94%**	84.19%	

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:

- 0.9 WTE Band 8 Lead Nurse in Infection Prevention and Control
- 0.6 WTE Band 6 Infection Control Nurse
- 0.4 WTE Band 6 Infection Control Nurse secondment post commenced 9/1/17
- 1.0 WTE Band 6 Infection Control/SSI Practitioner
- 0.5 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
- Scientific support and technical capability is funded within the contract that the Trust has with the Public Health England (PHE).
- 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 2017/18 (Criterion 1 & 4)**

Work undertaken by the Infection Prevention and Control Team during 2017/18 covers the following areas:

- Compliance with the Health and Social Care Act 2008
- 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

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

The results for 2017/18 year can be presented in the form of a graph and they are as follows:

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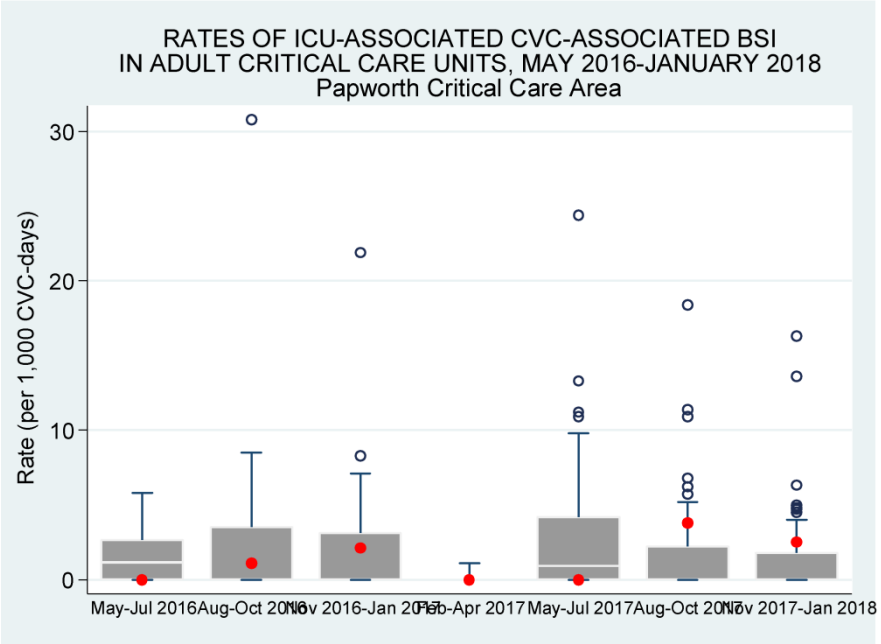
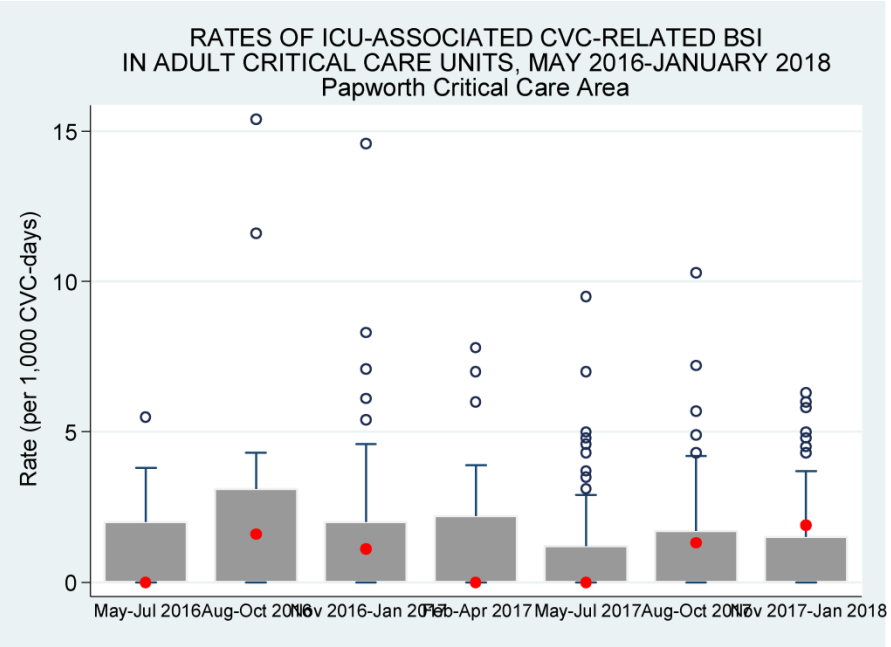




The Royal Papworth hospital is indicated by the red dot on both graphs and, as it can be seen, it is within the national interquartile range in the majority of cases.

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)

01.04.04 to 31.03.05	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
7	14	4	5	1	2	1	1	2	0	1	0	0	5 (3 on trajectory)

The ceiling for MRSA bacteraemias set for Royal Papworth for 2017/18 by the CCG was zero. There were 3 cases of MRSA bacteraemia reported from Royal Papworth. MRSA screening of all elective and emergency admissions continued to be performed in 2017/18. Compliance with screening in 2017/18 was 99 %. 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
C. difficile >65 yrs	7	4	4	5	2	4
C. difficile < 65 yrs	1	3	5	4	0	3
Total	8 (7 attributable)	7 (4 attributable)	9 (3 attributable)	9 (3 attributable)	2 (0 attributable)	7 (3 attributable)

The ceiling set for Papworth by the CCG for 2017/18 was 5 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
Methicillin sensitive Staphylcoccus aureus bacteraemias (MSSA)	21	18	10	18	9	16	21	17	14	22

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 would be 9 bacteraemia up to the end of March 2018.

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
E. coli bacteraemias	9 (Jun 11– Apr 12)	8	10	6	11	12	11

4.3 **Other Surveillance Reports**

4.3.1 **GRE/VRE and ESBL bacteraemia**

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/6	2016/17	2017/18
Glycopeptide (or Vancomycin)-Resistant *Enterococcus* (GRE/VRE) bacteraemias	5	4	0	4	8	2	4	3	8	11
Extended spectrum B-lactamase producers (ESBL) bacteraemias	1	3	1	0	3	0	0	3	5	3

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 3.8% (PHE 2017).

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 2017/18
April 17 – March 18 CABG +/- valve = 3.5%
April 17 – March 18 Valve only = 2.9%
(These figures are subject to change as patients are in surveillance for 1 year post surgery)

In Q2 July-Sept 2017 there was a noted increase in patients with wound infections/issues not only in CABG and Valve patients but in other patient groups including PTE's and Transplant, not within normal surveillance. This rise was highlighted to all the Cardio-thoracic surgeons, Chief Nurse and Deputy Chief Nurse, Matrons and Ward areas. On investigation of the incidents no common denominators were found. Multidisciplinary meetings were held to discuss areas of concern including compliance to SSI procedure, environmental cleanliness and impact of Lorenzo on clinical work load.
A comprehensive action plan was produced identifying areas that needed to be addressed to improve the SSI rate. The Infection Control team and Surgical Site Surveillance team re-iterated, and continue to highlight, the importance of good hand hygiene, good skin preparation pre-operatively with Octenisan washes as per protocol, ANTT when changing wound dressings and vigilance in monitoring the wounds in all ward areas. An education spotlight on how to prevent SSI (surgical site infection) was also run by the CCA Education team. Antibiotic prophylaxis guidelines are on display in the anaesthetic rooms to improve compliance and the relevant teams are aware of this.

Further work undertaken is the production of a patients guide to reducing SSI and the introduction of Octenisan nasal gel for patients known to be MRSA negative in an effort to bring SSI rates down further.

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

The term 'antimicrobial stewardship' is defined as 'an organisational or healthcare-system-wide approach to promoting and monitoring judicious use of antimicrobials to preserve their future effectiveness' (NG15, August 2015). Antimicrobial Stewardship operates across all clinical areas of Papworth as part of the Trusts antimicrobial stewardship programme. The goals of our antimicrobial stewardship programme are to:

- Improve Patient Outcomes
- Improve Patient Safety
- Reduce Antimicrobial Resistance
- Reduce Healthcare Costs without adversely impacting quality of care

Key areas of work identified for 2017/18:

	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.	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
2.Antimicrobial guidelines and policies	The following policies are due for review and have been updated this year: • Splenectomy prophylaxis Procedure - DN074 The following policies have also been updated this year due to unprecedented antibiotic shortages and medicine optimisations: • Antibiotic Assays Guidelines - DN026 • 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 Take part in development of sepsis guidelines in critical care to make sure that main criteria are incorporated Anti-Microbial Resistance and Reducing the impact of serious infections CQUINN 2017/18	In progress The trust achieved its targets for 2C and 2D CQUINN in 2017/18.

	Maintain and update MicroGuide application on a regular basis • Formulary approval granted for Ceftolozane-Tazobactam, Ceftazidime-avibactam, Pivmecillinam and Posaconazole. Review NICE guideline Antimicrobial Stewardship Baseline Assessment Tool on annual basis	MicroGuide application updated following approval by DTC of any antimicrobial guideline/policy. Completed 19/12/16
3. Audit and quality improvement programme	The following audits have been performed this year • Compliance with gentamicin prescribing for surgical prophylaxis - Reaudit • Monthly audits of key prescribing indicators • Quarterly antibiotic consumption across the trust • Antibiotic susceptibility of urine cultures in Papworth Hospital • Antibiotic susceptibility of blood cultures in Papworth Hospital	 Completed 6/11/17 Completed for all months Completed and incorporated into quarterly reports Completed 16/5/17 Completed 18/7/17
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	Mandatory Training for all junior grades of medical staff. 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.

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 in the industry and close liaison with microbiologists to ensure appropriate alternatives are in place	Completed and data sent to PHE https://fingertips.phe.org.uk/ On-going Completed ongoing Weekly monitoring of antibiotic stock levels. Ongoing
7. Ward focused antimicrobial stewardship team	Antimicrobial stewardship ward rounds by Consultant Microbiologist and Antimicrobial Pharmacist	4 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. Close working with CUH colleagues

The term 'antimicrobial stewardship' is defined as 'an organisational or healthcare‐system‐wide approach to promoting and monitoring judicious use of antimicrobials to preserve their future effectiveness' (NG15, August 2015). Antimicrobial Stewardship operates across all clinical areas of Papworth as part of the Trusts antimicrobial stewardship programme. The goals of our antimicrobial stewardship programme are to:

- Improve Patient Outcomes
- Improve Patient Safety
- Reduce Antimicrobial Resistance
- Reduce Healthcare Costs without adversely impacting quality of care

The Antimicrobial Stewardship Group (ASG) met in January 2016 to set out its annual plan to meet its obligations to deliver the Trust's Antimicrobial Strategy (DN 182). Key areas of work identified for the 2016/17 action plan:

	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	This has been established and membership has been increased to include an Advanced Nurse Practitioner and a member of the ALERT Team. Number of ward rounds increased to 8 (from 4) to provide support to prescribers managing surgical and cardiology patients.
2.Antimicrobial guidelines and policies	The following policies are due for review and have been updated this year: • Antimicrobial strategy DN 182 • Antibiotic Therapy in Lung Defence Clinic DN 016 • Tobramycin Drug Level Monitoring for Lung Defence and Cystic Fibrosis patients guidelines DN059 • Management of the Transplant Patient DN 215 Review local antimicrobial stewardship targets after the Trust and CCG discussion has taken place Maintain and update MicroGuide application on a regular basis Reach the decision whether local guidelines on antibiotic desensitisation is possible to write or not following consultations with the respiratory team Take part in development of sepsis guidelines in critical care to make sure that main criteria are incorporated Review NICE guideline Antimicrobial Stewardship Baseline Assessment Tool on annual basis	Updated – next review due 30/8/19 Updated – next review due 31/12/19 Updated – next review due 31/12/19 Updated – next review due 01/01/18 Local CQUIN targets 2017/2018 - achieved MicroGuide application updated following approval by DTC of any antimicrobial guideline/policy. Antibiotic Desensitisation Guideline written and Incorporated into Guidelines for Drug Allergies and intolerances (DN640) In progress Completed 19/12/16

3. Audit and quality improvement programme	The following audits have been performed this year • Antifungal prescribing in critical care • Compliance with gentamicin prescribing for surgical prophylaxis • Monthly audits of key prescribing indicators • Carbapenem and tazocin consumption (quarterly) • Vancomycin prescribing in critical care (re-audit) • European Centre for Disease Control Point Prevalence Survey on healthcare associated infections, devices and antimicrobial use in acute hospitals	 Completed 30/1/2017 Completed 4/7/2016 Completed for all months Completed and incorporated into quarterly reports Completed3/2/2017 Completed October 2016 – still awaiting publication and dissemination of results.
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) 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	Mandatory Training for all junior grades of medical staff. 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. Advance Nurse Practitioner and ALERT Nurse to also participate and accompany ward rounds.
5.Antimicrobial prescribing	Produce monthly reports on main indicators with feedback to prescribers Provide antibiotic prescribing audit data to the Trust board (quarterly) Introduce stickers for drug charts as a reminder to review prescribing at 72 hours	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	Completed and data sent to PHE for publication in See https://fingertips.phe.org.uk/ On-going

	Obtain and disseminate data on local antimicrobial resistance from the regional epidemiology unit	In progress
7. Ward focused antimicrobial stewardship team	Review prescriptions at ward level (weekly) Antimicrobial stewardship ward rounds by Consultant Microbiologist and Antimicrobial Pharmacist (twice weekly), Endocarditis Ward Rounds on Fridays Follow up patients on broad-spectrum antibiotics discharged from critical care Review *C.difficille* patients at weekly ward rounds	4 ward rounds/week on surgery and cardiology 3 ward rounds/ week in Critical Care Revised as above Used as basis for ward rounds In progress
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. Close working with CUH colleagues

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

Incident and outbreak investigations occurring in 2017/18 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 2017/18 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. 34 patients were admitted for ECMO treatment during the 2016/17 year

Norovirus

There were no incidents of ward closures due to confirmed Norovirus during 2017/18, however there were 4 bay closures in total over three periods of time due to viral gastroenteritis. One of the bay closures was in May on Hugh Fleming Ward and the other three bay closures occurred in November and December on Mallard Ward. The total number of bed days lost due to viral gastroenteritis in 2017-18 was 11.

Clostridium difficile

There were no incidents or outbreaks relating to Clostridium difficile infection in 2017/18.

MRSA

There were 3cases of MRSA bacteraemia in 2017-18. All of which were thoroughly investigated and any lessons learned actioned and monitored through the ICPPC. There were 4 bay closures for MRSA contact screening in 2017/18 and a total of 20 bed days lost.

Influenza

There were 2 bays closed for influenza contact in 2017/18 and a total of 10 bed days lost.

Tuberculosis

There were no incidents during 2017/18. All cases were individually assessed and cases 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 2017/18.

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 2017/18, however it was noted that in November and January we did see an increase in number of VRE in clinical sites on CCA. The Trust put together and action plan to

deal with this and this was monitored through the ICPPC. The numbers have since returned to normal levels.

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 2017-18 there were 5 patients diagnosed with CPE infection at Papworth Hospital, these were from routine screening and there was no ongoing spread of CPE. There have been no incidents or outbreaks of CPE in 2017/18.

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		

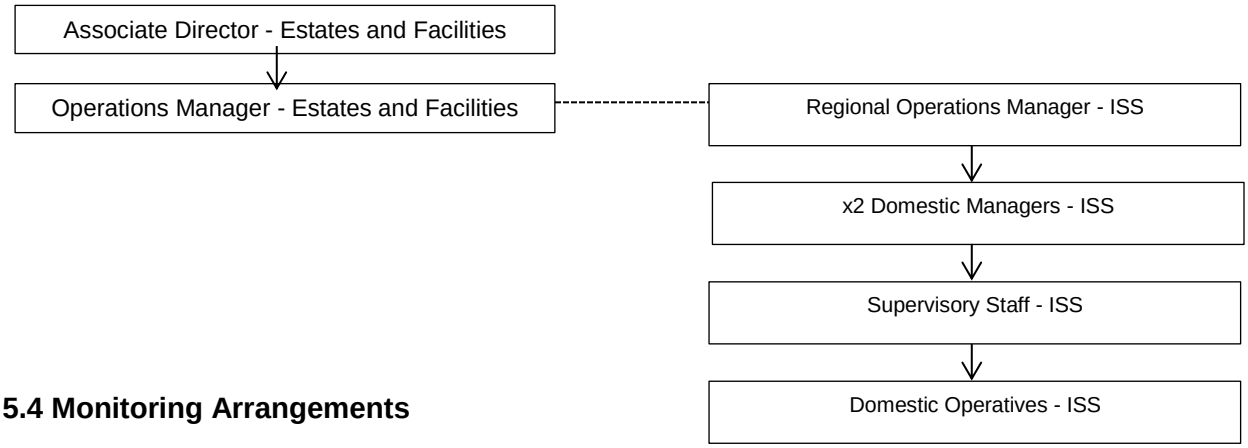
Waste receptacles	Daily	Domestic

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 2017-18.

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.

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 Quality Steering Group, which reports to the Risk Management Group. The Water Quality 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 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, Modern Matron or Ward Based Representative, Risk Manager, Estates Operation Manager and the Trust Legionellosis Management & Control Consultants. Full details on the Trusts water safety procedures are documented in DN654 Water Safety Plan available on the Intranet.

5.9 Budget Allocation

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

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	Duration	Frequency	Delivered by
Induction session for **all** new starters via the Market place presentation	Captured within 90 minute session	Monthly	Presentation provided and reviewed by IPC team; supervised by education team
Training for Foundation and Core Medical Trainees	60 minutes	Three times yearly	Education
Yearly update for qualified nurses in cardiac and thoracic directorate via the Market place presentation	Captured within 90 minute session	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	Captured within 90 minute session	At least monthly	Presentation provided and reviewed by IPC team;

			supervised by education team
Yearly hand hygiene update for all other clinical staff	15 minutes	Skills/CPR weeks	IPCT/Education team
Training session for Housekeepers	30 minutes	At least quarterly	IPC team

Infection Control & Hand Hygiene Training April 17 - March 18	
	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

	Action	**Goal**	**Timeline**	**Responsible**	**RAG Rating**
1	IPC team	Lead IPCN has Band 8a position IPC recruitment to Band 6 0.6 WTE post following retirement of one current Band 6 New contract of 12 hours a month Band 5 post IPC/SSI recruitment to Band 6 1.0 WTE post following resignation of one current Band 6	Acting until Sept 17; then full Commence Sept 2017 Commence Oct 2017 Oct/Nov 2017	JR/FD/HW	Complete Complete Complete Complete
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	On-going annual audit programme Including Care bundles.	2017/18	IPCT/Link nurses/ Antimicrobial pharmacist/ Audit department/ relevant others	

	Action	Goal	Timeline	Responsible	RAG Rating
4	Review of new build projects, designs and estates	Infection control input to New Papworth Hospital (NPH)	2015-18 Ongoing	IPCN/ IC Doctor	
5	Onsite upgrades and new builds	Support and advise Estates as required.	Ongoing	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.	IPCN/ IC Doctor	Complete with action plan
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	On-going 2017/18	IPC team (including IPC Doctor)	
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	On-going	ISS/ DIPC/Modern Matrons/ IPCN	

	Action	Goal	Timeline	Responsible	RAG Rating
9	Surgical Site Infection Surveillance	Register for Year 9 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 SIP database maintenance Further analysis to be carried out by Healthcare Economist.	Ongoing Cease submission August 2017 2017/18	IPCT/ Surveillance team IPCT Healthcare Economist/ FD/PC	
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.	On-going	IPCT/Modern Matrons	
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 Production of plan for the Trust to reduce *E.coli* bacteraemia rates by 10% during 2017/18 and healthcare associated Gram-negative blood stream infections by 50% by March 2021	On-going	IC Doctor/Lead IPCN	
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. Implement any action plan and aim to reduce CVC-BSI rate. Continue submitting data on CVC-BSI in respiratory patients to the Matron and the responsible respiratory consultant for their own analysis.	2017/18	IC Doctor	

	Action	Goal	Timeline	Responsible	RAG Rating
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 (from June 2017) for staff to see ▪ Label patient notes in short-term/if available. ▪ 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 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 ▪ Anti-microbial ward rounds ▪ Respond to FOI requests and complaints ▪ Preparation of reports (e.g. SUI, alert organism monthly reports)	2017/18	IPCT	

	Action	Goal	Timeline	Responsible	RAG Rating
		and annual reports/plans ▪ Monthly Trust board reporting			
14	Scanning of historical patient data onto eMR so that this can be accessed from Lorenzo	▪ All historical patient notes to be scanned prior to move to NPH ▪ Additional staff to be recruited for this role from temporary staffing ▪ Training required by all staff involved in process	2017/18	IPCT plus admin support	Complete
14	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.	2017/18	IPCT	
16	M.abscessus	IPCT input into management and treatment.	2017/18	IPCT/IC Doctor	
17	Water Safety Plan (including management at NPH)	Pseudomonas Monitoring with Estates NPH – awaiting guidance from Estates	Ongoing	IPCT/IPC Doctor Estates	
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	2017/18	IPCT	
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	2017/18	IPC Doctor	
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	2017/18	IPC Doctor	

7.2 IC Annual Audit Programme 2017/18 (Criterion 1-10)

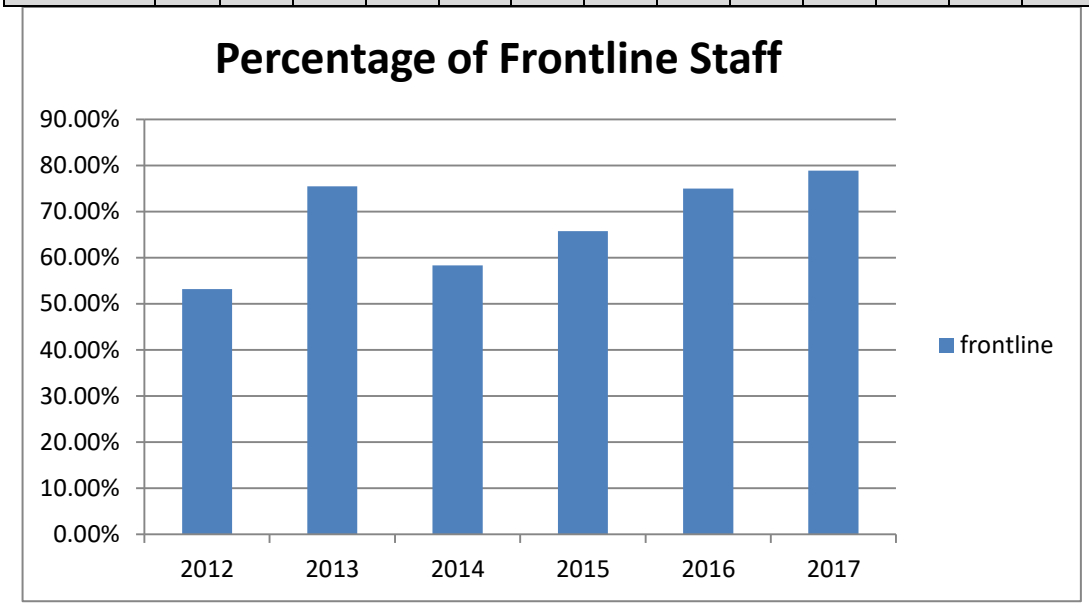
Infection Control 2017/18	**RESPONSIBILITY**	**TIMELINE/COMMENTS**
Alcohol gel audit	IPC Team/ICLPs	Annually June - October 2017
Antibiotic audits (in separate antibiotic stewardship document)	Dr Allen/Netta Tyler	As indicated on stewardship programme
Aseptic non-touch technique DN561	IPC team/ICLPs	May and November 2017
Departmental waste handling and disposal DN375 (amended ICNA tool 4.5)	IPC Link co-ord.	Annually (January - March 2018)
Waste Management DN375 (ICNA tool 4.4)	Waste Management Committee	Annually by Waste Management Group
Environmental audit (ICNA tool 4.1) DN11, DN89 & DN441	IPC Team/Link co-ord.	Annually (November 2017 - January 2018)
Management of linen (ICNA tool 4.3)	IP & C Team	Annually September - December 2017
Hand hygiene opportunities @ point of care	IP & C Team/Link Co-ord.	Monthly except Theatres weekly and Critical Care bi-monthly; from April 2017 record all non-compliances and names of staff to clinical audit
Hand hygiene technique	IP & C Team/Link Co-ord.	One-off audit of technique April 2017 - further audits if necessary
Isolation procedure DN89 and DN317	IP & C Team	Monthly
MRSA Screening compliance (linked to MRSA procedure DN339) & MRSA procedure DN339	Clinical audit (Monthly screening compliance audit)	Monthly point prevalence
MRSA decolonisation protocol audit (MRSA positive I/Ps)	IP & C Team	As required
TB procedure DN93 (included in monthly surveillance audit,)	IP & C Team	Ongoing
Catheter related urinary tract infections (DN557) point prevalance audit	IP & C Team/Clinical audit/ICLPs	July 2012, then if indicated by Safety Thermometer results. More than 4 in a quarter.
CCA QC	CCA IPC co-ordinators	Weekly reviews
Central line blood stream infections, CVC BSI on CCA only	CCA IPC co-ordinators/Modern Matrons	Monthly
Scrubbing and gowning	Theatres	Annual
Skin prep	Theatres	Annual
HIGH IMPACT INTERVENTIONS (App 1 for prog)		
HII 1 CVC insertion and ongoing care	IP & C Team/Link Co-ord.	See Appendix 1 for schedule
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.	Pre-op and post-op cardiac wards; peri-op Theatres; post-op CCA
HII 5 Ventilated patients	IP & C Team/Link Co-ord.	See Appendix 1 for schedule
HII 6 Urinary catheters insertion and ongoing care	IP & C Team/Link Co-ord.	
HII 7 C. diff (Adapted Saving Lives review tool in each RCA plus incorporates procedure DN226)	IP & C Team/Link co-ordinators/Consultant Microbiologist	
HII 8 Cleaning and decontamination of clinical equipment	IP & C Team/Link Co-ord.	Monthly all areas

MISCELLANEOUS		
Commodes	IP & C Team/Modern Matrons	IPC team quarterly/MMs use their balanced scorecard
Raised toilet seats	IP & C Team/Modern Matrons	IPC team quarterly/MMs use their balanced scorecard
Patient-Led Assessments of the Care Environment (PLACE)	External	Annual
Domestic services Quality Control	Domestic Services/Modern Matrons/HODs - linked to Scorecard	Weekly
Surgical Site Infection (linked to SL HII 4)	Fiona Downie/IP & C Team	Ongoing
CPE protocol	IP & C Team	Monthly
CODES		
Audit retired during year		

8. Influenza Vaccine uptake for 2017/18 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**
Doctors	125	101	103	120	142	203	202	207	235	142	61.5 %	49.0 %	49.6 %	51%	60%
Nurses	451	352	430	421	446	604	652	684	635	446	74.6 %	50.4 %	62.6 %	66%	70%
Other Professionally qualified Staff	178	167	172	210	362	261	267	243	218	362	68.1%	62.5%	70.8%	96%	100%
Support to Clinical Staff	332	261	291	387	242	369	390	378	422	242	89.9%	66.1%	77%	91%	85%
Others	149	180	178	120	171	402	416	389		171	37.0%	43.0%	45.75 %		
Total	**1235**	**1061**	**1174**	**1258**	**1363**	**1839**	**1927**	**1901**		**1363**	**67.1%**	**55.0%**	**61.75%**		

Frontline Staff	1086	881	996	1131	1192	1437	1511	1512	1510	1192	75.5%	58.3%	65.74%	75%	78.9%



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

This year's flu programme was delivered from 1st October 2017 to 28th February 2018. During October Clinics were offered twice a day in different areas of the Trust. 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.

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.

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

The flu programme has now been completed for the 2017/18 season.

1300 quadrivalent vaccines (in line with Public Health England guidance) have been ordered for next seasons programme. The staff at Cambridge Health at Work will work with Royal Papworth Hospital to deliver this programme.

9. Inoculation injuries 2017/18

9.1 Annual quarterly figures

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total
2017/18	13	23	13	20	69

9.2 Areas reporting Incidents

Quarter	Theatres	CCA	Wards/others	Cath Labs

Q1	5	2	3	3
Q2	3	4	13(HFx3)	3
Q3	6	5	2	0
Q4	8	4	7	1

9.3 Staff Group Sustaining Injury

Quarter	Doctors	Nurses	Others
Q1	3	6	4
Q2	5	13	5
Q3	1	7	5
Q4	5	8	7

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

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].