ROYAL LIVERPOOL & BROADGREEN UNIVERSITY HOSPITALS NHS TRUST

INFECTION PREVENTION AND CONTROL ANNUAL REPORT

2017-18

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1. Introduction

This report consists of two parts; the development and performance related to Infection Prevention and Control (IPC) during 2017-18 and the broad plan of work for 2018-19 to reduce the risk of Healthcare Associated Infections (HCAIs).

The report outlines the Trust's zero tolerance approach to reducing the risk of avoidable HCAIs for patients and the challenges faced. The Royal Liverpool and Broadgreen University Hospitals NHS Trust is committed to leading on, and supporting, initiatives to reduce HCAI. Good IPC practice is essential to ensure that people who use the Trust services receive safe and effective care. Effective IPC practices require the hard work and diligence of all grades of staff, clinical and non-clinical. Good practice must be applied consistently by everyone. The publication of the Trust's annual report is a requirement to demonstrate good governance and public accountability.

1.2 Executive summary

The report outlines the Trust's Infection Prevention and Control (IPC) activity in 2017-18. In addition it highlights the role, function and reporting arrangements of the Director of Infection Prevention and Control (DIPC) and the Infection Prevention and Control team (IPCT).

There are national contractual reduction objectives for MRSA bloodstream infections (BSIs) and Clostridium difficile infections and there are six infections that are mandatory for reporting to Public Health England listed below. These will be included in the report.

- Methicillin Resistant Staphylococcus aureus (MRSA) BSI
- Clostridium difficile infections
- Meticillin Sensitive Staphylococcus aureus (MSSA) BSIs
- Escherichia coli (*E.coli*) BSIs
- Klebsiella sp BSI
- Pseudomonas aeruginosa BSIs

The IPC forward plan relates to the 10 criteria outlined in the Health and Social Care Act 2012; Code of Practice on the prevention and control of infections and related guidance.

1.3 Key Achievements 2017-18

Table 1: Trust Attributable HCAI 2017-18

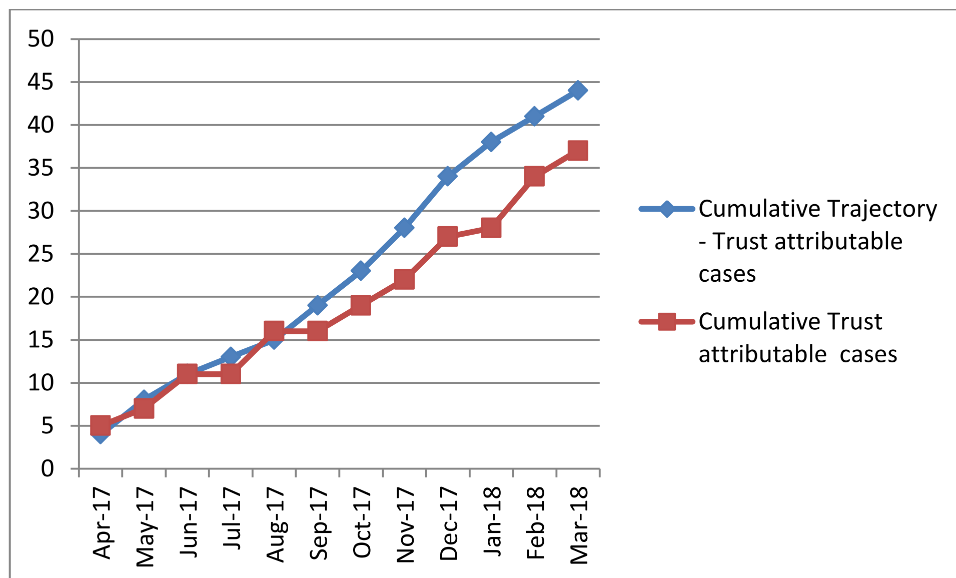
Organism	April 2015 - March 2016	April 2016 - March 2017	April 2017 – March 2018
Clostridium difficile infection (CDI)	29	56	37
Meticillin resistant *Staphylococcus aureus* (MRSA)	2	1	2
Meticillin sensitive *Staphylococcus aureus* (MSSA)	26	28	18

1.4 *Clostridium difficile*

As can be seen from Table 1 and figure 1 the Trust improved its performance in reduction of HCAI in 2017-18 for *Clostridium difficile* infection (CDI).
37 cases were reported against a trajectory of 44 for the time period April 2017 to end March 2018. The Trust was successful in 6 appeals with the Clinical Commissioning Group (CCG) and confirmation that there did not appear to be any breaches or lapses in practice. This demonstrated a significant improvement in reported cases from the previous year.

Root Cause Analysis (RCA) of the Trust acquired cases where improvements could be made identified; samples not always being taken in a timely fashion, patient risk assessment being underscored and delays in undertaking root cause analysis so that issues and lessons learnt can be identified and dealt with promptly. It is in these key areas where focus is being concentrated.

Figure 1: *Clostridium difficile infection* – performance against trajectory 2017-18



1.5 Meticillin resistant *Staphylococcus aureus* (MRSA)

By the end of March 2018 the Trust reported two MRSA bacteraemia, both from ITU, against a target of zero.

Following a post infection review the first case was identified as a contaminant. No clear lapses in practice in relation to acquiring the infection were identified for the second case however the focus of prevention continues to be around Aseptic Non Touch Technique (ANTT).

2. Infection Prevention and Control Team

During 2017-18 the Infection Prevention and Control Team (IPCT) comprised:

- Director of Infection Prevention and Control – Lisa Grant – Director of Nursing
- Infection Prevention and Control Doctor – Dr Tim Neal – Consultant Medical Microbiologist.
- Lead Nurse – Alison Thompson - appointed August 2017

IPCT members provide support for the two trust clinical divisions of unscheduled and scheduled care.

Unscheduled

- Band 7 – 0.8 WTE
- Band 6 – 1 WTE (vacancy)
- Band 6 – 0.8 WTE
- Band 6 Divisional skills trainer (ANTT) – 16 hours per week (from Jan 2018 reduced hours from 30hrs to 16, for 12 months)
- Band 3 Health Care Assistant – 1 WTE

Scheduled

- Band 7 – 1 WTE
- Band 7 – 1 WTE (vacancy)
- Band 6 – 1 WTE
- Band 6 – 1 WTE (vacancy)
- Band 6 Divisional Skills trainer (ANTT) – 14 hours (secondment for 12 months from ITU from Feb 2018)
- Band 3 Health Care Assistant – WTE - commenced March 2018

Admin/clerical/secretarial support
- Band 4 Clinical Information Officer – 0.8 WTE
- Band 3 Secretarial/Admin Support – 0.8 WTE

The Band 7 and Band 6 Infection Prevention and Control nursing team provide a support service during weekdays from 8am to 5pm and 8am to 4.00pm at weekends. The weekend advice within the hospital presently is only able to be provided on Sundays due to the vacancies within the Team; however this input will be reviewed when the team staffing numbers are increased.

Out of hours there is an on call service for urgent infection prevention and control advice accessed via the hospital switchboard. This is provided by medical microbiologists and virologists.

The team current staffing establishment has vacancies of two band 6 posts which are hoped to be recruited into during the first Quarter of 2018. There is also has a WTE Band 7 post which became vacant after a retirement in November 2017. Due to

the current financial pressures within the Trust the service has been requested to agree to not appointing to this post.

3. Governance and Monitoring
The Board of Directors has collective responsibility for keeping to a minimum the risk of infection and recognises its responsibility for overseeing IPC arrangements in the Trust. The DIPC and Lead Nurse for IPC deliver an annual HCAI reduction report and annual plan to the Board of Directors based on the national and local quality goals.
The Trust report situation reports on a weekly basis internally and to the CCG and PHE

Infection Prevention and Control Group (IPCG)

Bi-monthly meetings of the Trust Infection Control Group scheduled during 2017-18 were rescheduled to Quarterly from January 2018 to come in line with other Trust governance structures. The group provides a forum to support the delivery of a zero tolerance approach to avoidable HCAIs. The IPCG has clear terms of reference and is chaired by the Medical Director.

The terms of reference of the ICG are included as **Appendix A**

The IPCG receives reports from the Trust Decontamination group, Water safety group, Air safety Group, Hotel Services, clinical areas and Antimicrobial Stewardship

The Infection Control Group reports through the Patient Safety Sub-Committee to the Quality Governance Committee.

4. External Reporting arrangements

4.1 Liverpool Clinical Commissioning Group (CCG) Assurance Framework

Assurance data is reported monthly to the CCG and at Infection Control Group and incorporates performance data, exception reporting, audit data and screening compliance.

4.2 Mandatory Surveillance

The IPCT undertakes continuous surveillance of target organisms and alert conditions. Pathogenic organisms or specific infections, which could spread, are identified from microbiology reports or from notifications by ward staff. The IPCT advises on the appropriate use of infection control precautions for each case and monitors overall trends.

The Trust has used ICNet surveillance system for many years, used in collaboration with Liverpool Clinical Laboratories, Aintree University Hospital (AUH) and Liverpool Heart and Chest Hospital (LHCH).
The trust submits data on MRSA, MSSA, E *Coli, Klebsiella, Pseudomonas aeruginosa* and *Clostridium difficile* infections (CDI) by the 15th day of each month to the Public Health England via an online Health Care Associated Infection Data

Capture System. HCAI data is also submitted each month for the Trust Quality Report and Corporate Information.
All isolates of Carbapenemase producing Enterobacteriaceae (CPE) are routinely notified to Public Health England. The Trust also submits enhanced surveillance data to Public Health England and has participated in Regional Network Meetings.

5. Education

The Infection Prevention and Control team members deliver sessions on numerous training programmes. Core skills and Preceptorship, Liverpool University Degree nursing course, John Moores Infection Prevention and Control link practitioners course, Liverpool University Medical Students Infection Prevention and Control patient safety sessions, medical students induction and junior doctor's induction, Consultants core skills. The Infection Prevention and Control team also host student nurse placements of four to six weeks duration which have been well evaluated with positive feedback.

5.1 Link Practitioner's Study Days

There are 170 link practitioners in the Trust from a number of disciplines. An Infection Prevention Link practitioner's study day was held in October 2017 with average attendance of 77 link practitioners from across the trust. A further study day is planned in April 2018. See **Appendix C** for Agenda.

5.2 Flu Vaccination Training

121 members of staff attended influenza vaccination training to support the 2017-2018 seasonal flu vaccination campaign and ensure optimal uptake.

5.3 Aseptic non touch technique (ANTT) compliance.

Lapses in practice associated with the insertion and management of Vascular Access Devices contribute to the development of blood stream infections. During the 2015-16 year two Divisional Infection Prevention Clinical Training Facilitators were appointed for a year to roll out a robust trust wide ANTT peer review process with an initial focus on Nursing Staff's appropriate application of asepsis to the preparation and administration of Intravenous medication.

Due to the effectiveness of Infection Prevention's ANTT peer review strategy the decision was made to include Medical staff and Allied Health Professionals in this process. Unfortunately this programme was compromised during the year due to sickness leave. Two Infection Prevention and Control Specialist Nurses have been trained in ANTT in order to support the Trust-wide competency programme. A network of approximately 150 Nursing ANTT Links has been sustained throughout the Trust ensuring the delivery of ANTT training and peer review to all applicable staff members. ANTT compliance for Nursing Staff is monitored through the clinical governance structure of Perfect Ward. Ward Managers submit ANTT data on a monthly basis. The IPCT have had no notification of any clinical areas struggling to maintain ANTT compliance.

5.4 RLB Infection Prevention and Control Health Care Assistant Programme

A RLB HCA programme was established in December 2107 supported by Clinical Skills. The programme runs over 3 days and includes a formal assessment. See **Appendix D** for course outline

6. Policies and Guidelines

IPCT policies and guidelines are in place. A gap analysis was carried out in 2017-18 with Aintree IPCT to identify the difference in the content of the policies.
An overarching policy was written in 2017 and a guideline for the use of portable sinks. The IPCT policies will require review in the first Quarter of 2018 along with patient information leaflets.

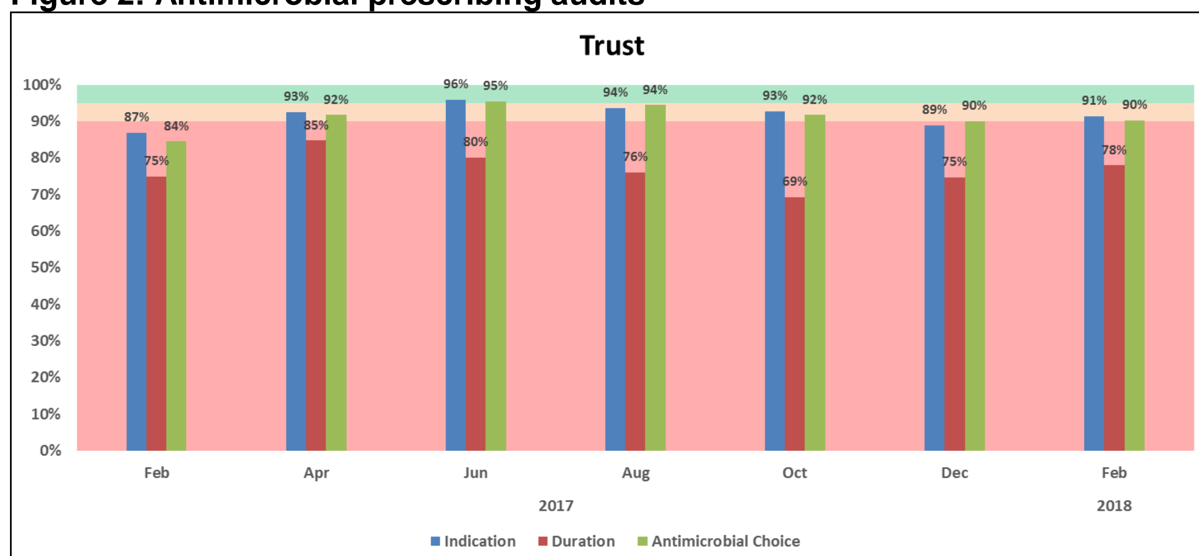
7. Audit Programme

7.1 Antibiotic stewardship

Antimicrobial prescribing audits are completed on alternate months for all antibiotic prescriptions within the Trust. The results are disseminated through a formal report to Governance Leads, Pharmacists, Infection Control Group, Antimicrobial Management Group and *Clostridium difficile* - steering group (see Figure 2). In addition, results are fed back to individual ward teams during the *Clostridium difficile* Infection (CDI)/bacteraemia Post Infection Review (PIR) meetings and via the Director of Infection Prevention and Control (DIPC). The results are also circulated to ward managers and matrons with ward KPI data and during 'Perfect Ward' meetings.

Although there is significant variability, audit results are considerably improved compared to when the audit was initiated, however, it requires constant review to maintain standards.

Figure 2: Antimicrobial prescribing audits



7.2 Hand Hygiene Audits

Hand hygiene audits were completed monthly during 2017-18 by infection prevention and control link practitioners with average reported compliance of 96% for ward in-patient areas. These audits are supplemented with occasional quality check audits on the 50 ward inpatient areas co-ordinated by IPCT.

The following RAG rating is in place for Hand Hygiene audits within the Trust.

Below 89%	90-99%	100%
RED	AMBER	GREEN

Feedback is provided directly to individual teams. Audit results are also directly accessible via **Infection Control Audit** on the intranet menu page with ward managers requiring to complete action plans and provide assurance that compliance will improve.

7.3 Hand Hygiene Promotional Activity

The IPCT became aware of a new and innovative system available to buy or rent for training good hand hygiene technique. The system is called the Semmelweis Hand in Scan Hand Hygiene system and has been developed by a company to give immediate feedback to hospital staff on how well staff hands are being decontaminated and has been shown elsewhere to improve hand hygiene technique due to the immediate feedback feature and the fact that each attempt is monitored.

The equipment was brought into the Trust on a trial basis this year and used on ITU, 4A and the Emergency floor, evaluating very well so the Team are planning to produce a business case for submission next year to rent the equipment to support the hand hygiene training provided for staff.

7.3.1 Covert Personal Protection Audit

A covert personal protective equipment (PPE) audit was undertaken by 3rd year Student Nurses facilitated by the IPCT and PEF teams across the Trust in December 2017. It was the second covert PPE audit undertaken in 2017. However it is the fifth covert PPE audit conducted by the IPCT overall.

The audit tool required the students to observe healthcare staff performing routine tasks and record 10 observations that identified if:-

- Hands were decontaminated before application of PPE
- PPE choice was appropriate for the task undertaken
- PPE disposal was completed correctly
- Hands cleaned following removal of PPE

A total of 37 audits were completed in clinical areas on the 6th December 2017.

Overall audit findings –

13 Clinical ward areas scored above 90% = Pass
22 Clinical ward areas scored 60 - 89% = Caution
6 Clinical ward areas scored below 60%. = Fail

The overall average Trust compliance score was 79% = Caution

Overall themes listed in order of non- compliance frequency –

1. Hands not decontaminated after removal of PPE.
2. PPE worn/Not appropriate for clinical task.
3. Hands not decontaminated before applying PPE.
4. PPE incorrectly disposed of.

This covert hand hygiene report demonstrated that there are PPE and hand hygiene non-compliance issues across several staff groups within the organisation. However health care assistants, RGNs and student nurses were the groups with the highest non-compliance rates and need for improvement.

The results of the audit were fed back and discussed with the ward teams and the senior nursing management team. Wards with compliance issues have been offered additional support and training by the Infection Prevention and Control team.

7.4 Annual Infection Prevention and Control Link Practitioners Audit Programme 2017-18

Link practitioners undertook a programme of monthly audits during 2017/18. The audit programme and tools are accessed via Sharepoint on the intranet menu page. The programme included weekly hand hygiene audits, PPE Observation audit and an overarching Link Practitioner audit. Care bundle audits i.e. intravascular insertion and ongoing care and urinary catheters were also included. Results are accessible for all staff to view and there is a facility to review details of individual audits, email results and record action plans. A summary of results is circulated each month to ward managers and matrons. The results are also included in Perfect Ward.

7.5. Aseptic Non Touch Technique (ANTT) Practice Audit

Infection Prevention's Trust-wide Aseptic Non Touch Technique (ANTT) peer review training process has ensured ANTT is embedded in clinical practice. The IPCT provide training for peer reviewers, however there previously had been no audit process in place to measure ANTT practice across the hospital.
An audit tool to assess ANTT practice therefore has been devised and an audit plan commenced in February. The audit programme has been discussed with the medical and nursing Quality leads with the whole hospital planned to be audited in the coming year.

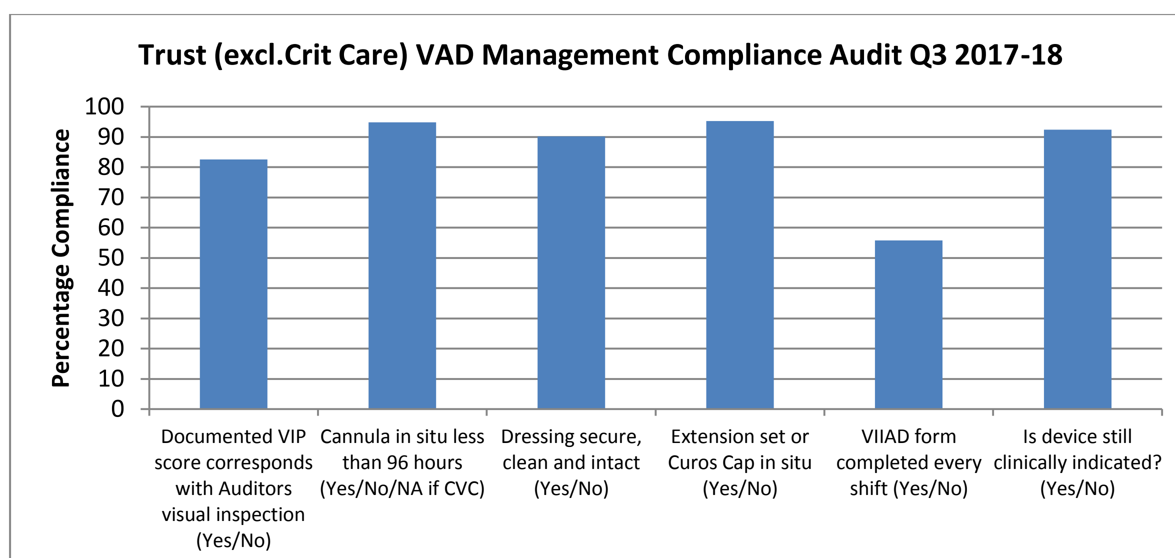
7.6 Intravascular Device Audits

In December 2017, the IPCT conducted a Trust wide "*Period Prevalence*" audit of Vascular Access Devices (VAD). A total of 297 devices were reviewed (276 on general wards / 21 on Critical Care)

Table 2: Overall Compliance Scores

	Documented VIP score corresponds with Auditors visual inspection (Yes/No)	Cannula in situ less than 96 hours (Yes/No/NA if CVC)	Dressing secure, clean and intact (Yes/No)	Extension set or Curos Cap in situ (Yes/No)	VIIAD form completed every shift (Yes/No)	Is device still clinically indicated? (Yes/No)
Trust % Compliance (excluding Crit Care)	82.6	94.9	90.2	95.3	55.8	92.4
% Compliance Critical Care only	100	100	95.2	95.2	85.7	100

Figure 3: Trust Compliance with VAD Management (excluding Critical Care)



With the exception of Emergency Surgery and Palliative Care, no Directorate achieved >90% compliance with all six compliance criteria.

The vascular access devices reviewed as part of this audit were generally safe. However, the documentation was often incomplete and on occasion absent.

The results have been discussed with the Senior Nursing team and have been passed to Perfect ward for monitoring. Further evidence of completion of VIIAD documentation will be available in the future via daily ward auditing processes reporting into Prefect ward. The audit is to be repeated by the IPCT on annual basis to inform practice and provide assurance.

7.7 Catheter Associated Urinary Tract Infections (CAUTI) and Documentation Audit

A point prevalence audit was performed by the Infection Prevention and Control Team (IPCT) in December 2017 to identify how many patients were being treated for a confirmed Catheter Associated Urinary Tract infection (CAUTI) against the number of patients with a catheter and to identify if each catheter has the correct and completed documentation including an insertion record, a monitoring sheet and a Houdini document for identification for prompt removal.

The results identified that out of 827 patients reviewed a total of 148 catheters were identified with only 1 patient being identified with a definite CAUTI and 0 having a possible CAUTI.

The results identified low rates of CAUTI which is suggests that practice is good. However the audit indicated that documentation requires improvement. This was discussed with the senior nursing team and added to a revised ward audit programme, the results of which are monitored at Perfect Ward.

7.8 IPCT Audit Programme 2017-18

The IPCT audit programme has included the annual comprehensive IPCT audit. The audit schedule and results can be seen in **Appendix E**.

The link practitioners have continued to undertake a monthly hand hygiene/PPE audits and high impact intervention (HII) audits including urinary catheter and IV device insertion and maintenance, however compliance with the audits is not good in some areas. The IPCT have worked with the ward teams involved to improve the audit response rate.

All results will continue to be recorded and accessible for view on the Infection Control Audit site accessed via the intranet menu page, and recorded on SharePoint to support monthly performance reviews by the Perfect Ward team.

The audit schedule was not completed in the year due to staff vacancies. The audit tool and schedule have been reviewed for the coming year.

8. Surveillance

8.1 Notification of Alert Micro-Organisms from Liverpool Clinical Laboratories to IPCT

The IPCT receive notification of alert micro-organisms isolated in the microbiology and virology laboratories continuously throughout the day electronically into an infection prevention and control system ICNET which is linked to PAS (patient administration system).

These alerts include positive *Clostridium difficile*, new CPE colonisations, all blood stream infections and MRSA colonised patients, additional test results which indicate

potential for cross infection and a need to alert ward staff and conduct follow up visits. All in-patients identified for follow up are visited weekly and visit records are reviewed by the team and the Infection Control Doctor on a weekly basis.

During 2017-18 ICNET system was upgraded with further work being undertaken which would allow results from Liverpool Clinical Laboratories to be electronically notified to Aintree Hospitals and Liverpool Heart and Chest hospitals with the potential to incorporate additional trusts.

The upgraded system can also support enhanced surveillance activity incorporating antibiotic, surgical site and intravascular device templates which can be accessed by staff in addition to the Infection Prevention and Control team. This also has the potential to improve inter-trust communication regarding patients requiring special precautions.

8.2 *Escherichia Coli (*E.coli) Bacteraemia

The Trust has reported 64 cases in the year April 2017 – March 2018 (69 in 2016 - 17). Public Health England developed an *E coli* bacteraemia Toolkit released in April 2017. The Clinical Commissioning Group has been encouraging a whole health economy approach to reduce by 10% the total numbers of cases. The Trust has been involved in the working groups and achieved a 7% reduction in cases compared to the previous year. Whilst this is a reduction further focus and collaborative working between IPCT and clinical teams, including the sepsis nursing team, may help to highlight further priorities for action.
The CCG target for the coming year relates to reducing healthcare associated Gram-negative bacteraemia by 50% by 2021.

8.3 Glycopeptide Resistant Enterococci (GRE) / Vancomycin Resistant Enterococci (VRE)

A decrease in GRE/VRE bacteraemia cases has been identified during 2017-18 financial year compared with 2016-17 i.e. 16 cases against 19 in the previous financial year.

8.4 Klebsiella
The Trust reported 15 Klebsiella bacteraemia in 2017/18. This data was not collated in previous years.

8.5 *Pseudomonas aeruginosa*
There have been 11 reported cases of *Pseudomonas aeruginosa* bacteraemia in 2017/18. This data was not collated in previous years.

8.6 Identifying Lessons Learnt
All mandatory reportable infections are subject to multi-disciplinary team review and results are presented to a weekly meeting where ‘lessons learnt’ are identified and an action plan is approved. These are collated on the Trust Datix system and monitored through the Trust ‘Perfect Ward’ and Patient Safety Committee.

8.7 MRSA Colonisation Acquisition

Although there is a focus on reporting MRSA blood stream infection there is the potential for patients to become colonised with MRSA whilst in hospital, without infection. This has been actively monitored during 2017-18. 21 patients were identified with potential acquisition of MRSA which is an improvement from 2016-17 when there were 36 cases identified. For areas where MRSA acquisition was seen to have occurred monitoring continued with an aim to improve, as colonisation may be the precursor to infection.

Prontoderm antiseptic foam was introduced 2 years ago which can be applied directly to the skin after showering/washing. Prontoderm nasal gel was also introduced. The effectiveness of this treatment continues to be monitored by the IPCT by patient weekly screening, review and follow-up of patients of results.

9. Seasonal Influenza Vaccination 2017-18

A comprehensive plan to deliver staff flu vaccinations was devised for the 2017-18 flu season. IPCT provided education sessions to the vaccinators which commenced in April. Key Trust personnel were recruited to the membership of a Flu Vaccination group with regular meetings taking place between.
Supplies of the vaccine arrived in the Trust during the week commencing 25th September 2018. Vaccinations commenced during that week with programme of vaccination in clinical areas delivered by identified vaccinators. To deliver vaccine to non-ward staff Trust Foyer sessions were established Monday to Friday for a period of 6 weeks.

The Trust achieved the CQUINN target of 75%, with 87% front line staff vaccinated which was 6th highest reported of all Trusts in England. A total of 3506 frontline staff were vaccinated from a total of 4036.

All vaccinations were undertaken by trained staff in clinical areas of the trust supported by members of the IPCT.

10. Emerging Infection Prevention and Control Issues

10.1 Carbapenemase Producing Enterobacteriaceae (CPE)

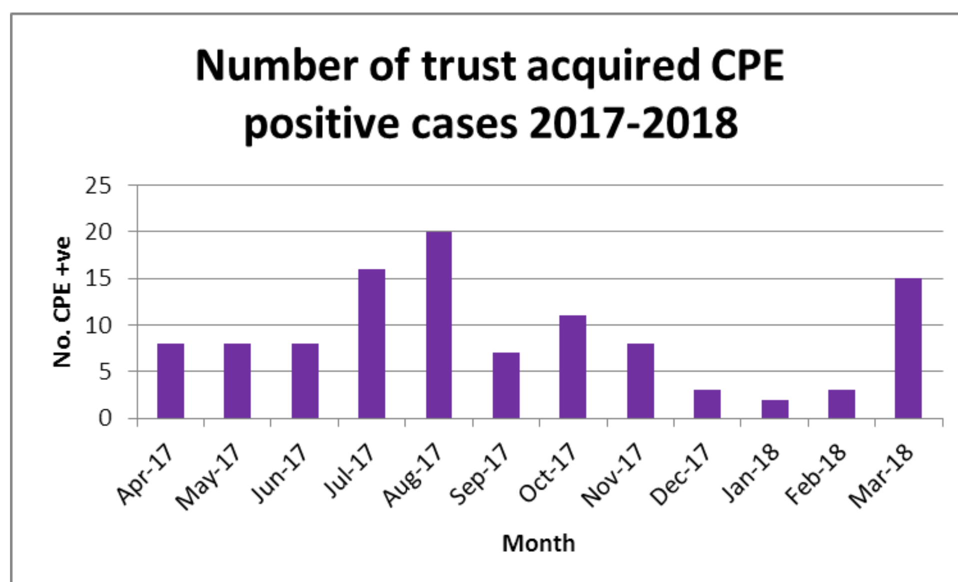
CPE are multiple antibiotic resistant strains of bacteria which are carried harmlessly in the bowel e.g *Escherichia coli*, Klebsiella, Enterobacter. These bacteria can cause infections if transferred to another site on the body e.g. urinary tract or blood stream. The antibiotics available to treat such infections are limited which increases the risk of treatment failure.

CPE Screening

During 2017-18 screening for CPE has continued with admission and weekly screening on high risk units i.e. Haematology and Critical Care Units and readmission screening for all patients who have been in the Trust during the previous year. In addition patients whose in-patient stay is 30 days or more are

rescreened. All transfers in from other trusts are screened and also patients who have been hospitalised abroad during the previous year.
In January 2017, PCR testing was introduced for screening new admissions who meet the criteria, and contacts of patients identified in bays. This allows prompt identification of new cases, reducing bed closures and minimising disruption to patient flow. For number of new colonised patients identified per month during 2017-18 (see Figure 4).

Figure 4: Number of new colonised patients 2017-18 (n=109)



11. Surgical Site Surveillance (SSI)

The development of infection at a surgical incision site following surgery results in a poor patient experience, a requirement for antibiotics and extension of the recovery period. The Trust participates in the mandatory surveillance of elective orthopaedic surgery which is supplemented with additional locally initiated prospective surveillance in line with the mandatory programme.

Table 3: Orthopaedic Surgical Site Surveillance

SITE	Surgery	No. of operations	No. of infections	%
Broadgreen	THR primary and revisions	243	4	1.64
Broadgreen	TKR primary and revisions	326	5	1.53
Royal Liverpool	Hip replacement	93	2	2.2
Royal Liverpool	Reduction of long bone fracture	106	1	0.9
Royal Liverpool	Repair of NOF#	312	1	0.3

12. Incidents and Outbreaks

12.1 Norovirus

A total of 4 norovirus outbreaks were reported across the Trust in Quarter 3 (Table 4). This compares to a total of 9 outbreaks reported for the same period in 2016..

Table 4: – Norovirus Outbreaks 2017-18

Ward	Date of onset	Last date of onset	Ward closed?	No. of patients affected	No. of staff affected	No. confirmed cases	Bed days lost
3A	5.12.17	21.12.17	Yes	21	9	12	55
ACU	12.12.17	14.12.17	No	3	0	2	3
9X	16.12.17	20.12.17	Yes	12	9	8	38
5X	31.12.17	08.01.18	Yes	10	4	5	8

A total of 46 patients reported symptoms with 27 patient cases being confirmed with Norovirus across the affected wards. Additionally there were 22 staff reporting symptoms with 104 bed days were lost.

Once outbreaks were identified, all wards affected were prompt in obtaining samples from symptomatic patients.

The Infection Prevention and Control Team visited each ward several times a day, liaising with ward managers, staff, matrons, ISS and AHPs, placing an emphasis on hand hygiene and environmental decontamination. Each symptomatic patient and their contacts was risk assessed on a daily basis to ensure that outbreaks were not prolonged and that appropriate interventions were in place.

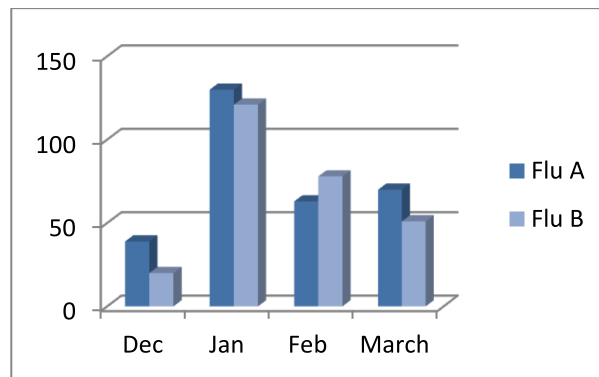
Outbreak meetings were held as necessary to ensure that patient safety was maintained with minimal disruption to patient flow. Full ward closures were initiated following assessment during outbreak meetings and after discussions with the Infection Control Doctor and/or Consultant Virologist.

The Infection Prevention and Control Team attended daily bed meetings and provided a daily summary by email to ensure that communication was optimised regarding the outbreak. The CCG were notified via email of any updates for the duration of the outbreaks.

12.2 Influenza Summary 2017-18

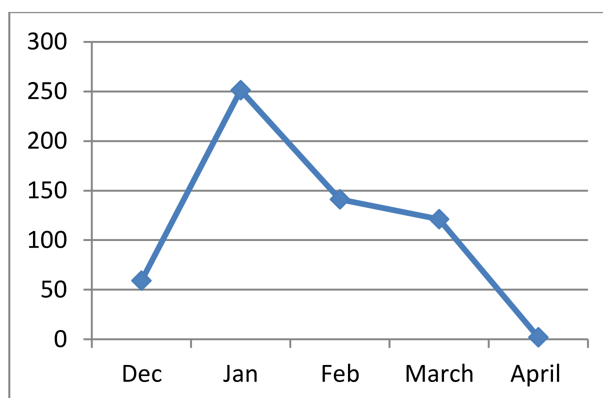
A total of 573 Influenza cases were identified at Royal Liverpool Hospitals between December 2017 – March 2018. This was a large outbreak mirrored across the country with Flu A and B circulating at the onset of the outbreak. 363 cases were identified as Influenza A and 271 identified as Influenza B (Fig 5). This represents a dramatic increase from 2016-17 flu season when 65 Influenza A cases and 1 Influenza B case were identified.

Figure 5: Distribution of Influenza A and B Cases



Cases were considered Trust attributable if patients were screened more than 5 days after admission. Of the 573 cases identified, 83 (14%) were Trust attributable.

The number of Influenza cases identified peaked in January 2018 at 251.



Due to the number of cases identified, it was not possible to isolate all positive patients. Where patients were unable to be isolated, bay contacts received prophylactic Oseltamivir to reduce transmission risks.

Consideration was given to cohorting of positive patients, however due to different Influenza strains and clinical priorities of patients; this was not feasible.

The Infection Prevention and Control Team worked with the wards affected to support with the management of Influenza positive patients.

13. Risk Register

The most significant infection risk on the Trust risk register is the identification of patients within the Trust colonised with multidrug resistant bacteria. Limited isolation facilities, a lack of a national recommendation for universal screening, no identified external funding for rapid testing and the need to maintain optimum practice at all

times despite severe pressures on the Trust from the numbers of admissions underpin the risk of spread. However, actions are in place to minimise such risks as identified in section 12 such as CPE screening, installation of pods and education.

The lack of a ward decant facility has meant that whole ward deep cleans have not been carried out since 2013-14 although individual bays have been decanted as required to allow terminal cleaning and hydrogen peroxide misting. In a busy ward bacteria such as *Clostridium difficile* can accumulate over time and persist and intermittent deep cleaning is advised.

Prevention of blood stream infections remains an important risk to manage due to the significant number of invasive procedures undertaken on vulnerable patients within the Trust and the fact that patients colonised with antibiotic resistant bacteria are being identified within the Trust.

14. Forward Plan 2018 - 19. (Appendix E)

The Trust has seen an overall improvement in some bloodstream infections and the *Clostridium difficile* infection target was met. Challenges for 2018 -19 will include the proposed 50% reduction in healthcare associated Gram-negative bloodstream infections to be achieved by 2021. An internal target has been set of 20% reduction in these infections for the coming year. Prevention priorities for the forthcoming year will continue to focus on these areas for improvement and include:

- Further focus on reducing Gram negative blood stream infections and *Clostridium difficile* infections.
- Continuing to reduce the turnaround of post incident reviews to have more prompt information, analyse trends/issues and share lessons learnt in a more timely fashion.
- Continuing to foster more ownership and engagement within directorates particularly in relation to PIR and action plans.
- A focus on measures to minimise the risks to patients from antibiotic resistant bacteria including optimal use of isolation facilities and reinforcing compliance by healthcare staff with basic infection prevention measures
- Minimising infection risk from invasive devices and procedures.
- Ensuring essential facilities e.g. hand wash basins, toilets, showers are maintained against a background of overall diminishing investment in the current hospital as the move to the new hospital originally due for 2017 approaches. This has now been delayed further. Therefore there is a need to still ensure the current build is fit for purpose.

This plan will be monitored through the Infection Control Group, the Trust Patient Safety Sub – Committee and Quality Governance Committee.

Report Prepared by:

Alison Thompson – Lead Nurse Infection Prevention and Control
Dr Tim Neal – Consultant Microbiologist/ Infection Control Doctor

Ms Lisa Grant – Chief Nurse and Chief Operating Officer/ Director Infection Prevention and Control

Contributors to report:

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Ms Kate Vaudrey – Antimicrobial Pharmacist
Ms Jacqui Pennington - Head of Hotel Services
Ms Lisa Mercer- SSI Surveillance Nurse Vascular and Hepatobilliary
Ms Kerry Anson- SSI Surveillance Nurse Orthopaedics RLH
Ms Karen Herdman – SSI Surveillance Nurse Orthopaedics BGH

Appendix A

Infection Control Group Terms of Reference	
Name:	**Infection Control Group (ICG)**
Constitution:	The ICG shall be responsible for advising the Trust on all matters relating to infection prevention and control, including operational policies; infection control practice, training, surveillance, audit and education; outbreak management and policy development and review. The ICG will receive assurance reports from various listed subgroups to ensure adequate monitoring and action plans to prevent infection.
Purpose of Group:	• To ensure that Trust guidelines are produced that follow and adopt all relevant national and regional reports and guidelines, with modification where necessary; and that these guidelines are implemented effectively • To ensure that relevant local guidelines relating to all aspects of infection control are produced, updated and implemented effectively; • The Divisions have a robust process in place to ensure that individual directorates are aware of and implement recommendations of the ICG • To investigate any activity within these terms of reference and seek any information it requires from any area of the Trust • To oversee the activities of the Trust Infection Prevention and Control Team • To advise the Trust in all issues relating to infection prevention and control • To ensure that all Risk Management and Clinical Governance concerns related to infection control are properly considered • To receive the Annual Report of the Director of Infection Prevention and Control • To request and consider environmental and infection control audits • To receive and consider outbreak and incident reports • To monitor Trust compliance with Health Act and Social Care Act and NHSLA and other programmes as they occur • To oversee the activities and receive assurance reports from its working groups including: • IPCT • Divisions – Scheduled care and unscheduled care • Flu Group • Clostridium difficile Steering Group

	• IV Access Group • Antimicrobial Prescribing Group • Health and Safety Group / Needlestick • Water and Air Groups • Hotel Services • Waste Group • SSI Surveillance • Effectiveness Group • To prepare an Annual Report for the Trust Board • Monitor and update Forward Plan
Membership/ Attendance:	• Director of Infection Prevention & Control • Medical Director and /or Deputy DIPC • Chief Nurse • Infection Control Doctor • Infection Control Team representative • Consultant Virologist • Occupational Health Representative • Divisional Chief Nurse Medicine / Surgery • Clinician Medicine / Surgery • Consultant in Public Health Medicine (CCDC) • CCG representataive • Decontamination Lead for Trust • Head of Hotel Services • Pharmacy Lead, Antibiotic Prescribing • Estates Manager • Health & Safety Manager Members may designate an appropriate individual to sit on the committee on their behalf. The **Chairman of the Group** shall be chosen at a meeting of the Group from amongst the members with approval of the Trust Medical Director and the Director of Infection Prevention & Control (neither of whom are excluded from also serving as chairman of the ICG)
Quorum:	10 members
Frequency:	Quarterly
Reporting Arrangements:	Patient Safety Sub Committee
Accountability	Direct link to Executive team via DIPC or Deputy DIPC
Review Date	Annually – November 2018
Date Approved	November 2017

Appendix B

Infection and Prevention and Control Forward Plan 2017/18
Infection and Prevention and Control Forward Plan 2017/18 Q4
DASHBORD RATINGS/EXCEPTION REPORTING

	Objectives	**Sub-objectives**	**Points for discussion (exception reporting)**	**Q1**	**Q2**	**Q3**	**Q4**
1	Ensure strategy in place to achieve CDI target 2017-2018	12	37 cases to date. 7 under set trajectory. 6 cases successfully appealed.				
2	Ensure zero tolerance for MRSA bacteraemia	12	2 Trust attributable cases to ITU this year. (One contaminant in Q2). Action plans in place				
3	Minimise risk of patient colonisation and infection with CPE	8	Screening compliance monitored in AMAU. BI support to explore use of whiteboard to improve compliance. Compliance still requires improvement				
4	Ensure 10% reduction in E coli bacteraemia`	4	10% reduction internal target in place. Part of wider community GNBSI group. 5% reduction achieved				
5	To reduce all gram negative bacteraemia	4	Part of wider community GNBSI group.				
6	Prevent surgical site infections	5	Ongoing				
7	Ensure compliance with NICE Quality Standard 61, 113 and PH 36	2	Audits of compliance completed. Some incomplete documentation issues seen. Trust actions in place				
8	Ensure compliance with CQUIN	4	Ongoing. Flu vaccination campaign in place. Achieved CQUIN target				
9	To provide a quality Infection Prevention and Control Team and service	13	Current staff vacancies, service provided needing review until recruitment. Work continues in relation to amalgamation with University Hospital Aintree				
10	To ensure compliance with Water and Air Safety Plan	3	Water and Air safety Group providing assurance				
11	To ensure new build fit for purpose	2	New build delayed				
12	To comply with Decontamination Guidelines	2	To reconvene Decontamination Group Meetings due April 2018				

Total = 11		71	OVERALL RAG RATING				

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
1	**Ensure strategy in place to achieve CDI target 2017-2018**	Health and Social Care Act NICE QS61 Statement 1, NICEQS 121, NICE QS49 CQUIN Risk ID 3168 CDI objective Risk ID 4238 Sub optimal compliance with undertaking timely PIR	• Monitor compliance against trajectory • Monthly and annual case numbers below trajectory	• Trust C difficile Action Group	March 2018					**Q1:** 11 cases to date with 1 successful appeal and 1 due for appeal in Sept. **Q2:** 16 cases to date, 2 successfully appealed to CCG. Under trajectory **Q3:** 27 cases to date, 4 cases waiting to be appealed. Currently 7 under trajectory **Q4:** 37 cases reported, 6 appealed. under trajectory
			• Review and support all PIR/RCA processes • Ensure action plans and lessons learnt completed • Promote ownership and	• Consultants Divisional Leads	Ongoing					**Q1:** Improving returns **Q2 :** Improving returns, processes being reviewed to speed up cases being presented through to Patient safety **Q3** : Improving returns, risk reduced on risk register **Q4:** Improving returns

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			engagement at ward level and shared in timely manner • Increase number of RCA completed promptly **KPI = 75% of RCA completed within a month**							
			• Monitor compliance with Antimicrobial usage audits • **KPI= 90% compliance with antimicrobial prescribing**	• Antimicrobial Action Group	Quarterly					**Q1:** Compliance remains an issue although some fluctuations in scores. AMAU requiring improvement **Q2:** Fluctuations in scores seen in August scores. **Q3:** As above **Q4:** As above
			• Compliance and focus on Trust wide standard precautions with practice • **KPI = 90% of areas audited to achieve pass rate**	• Divisional Lead Nurses/Matron s/Ward	Quarterly					**Q1:** 80% of areas achieved pass rate **Q2 :** Overall score achieved was 83%, due for re audit in Q3 **Q3:** Audit completed. Demonstrates 79% areas compliant**.** **Q4 :** Re audit planned for next year

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Education and training	• Matrons • Learning & Development	Quarterly					**Q1:** Mandatory training now on e-learning **Q2**: Process in place to ensure training **Q3:** As above **Q4:** As above
			• **KPI = No Trust acquired MRSA bacteraemia**	• Clinical Skills Support • IPCT Nurse educators • IV Access Team & IV Access Group	March 2018					**Q1**:No Trust attributable MRSA in Q1 **Q2: 1** Trust acquired MRSA case identified as a contaminant **Q3:** Trust acquired case from ITU. Action plan in place **Q4:** No cases
2	**Ensure zero tolerance for MRSA bacteraemia (including reduction in MSSA and GRE Bacteraemia)**	Health and Social Care Act Risk ID 3169 Patient safety Risk of MRSA bacteraemia Risk ID 4238 Sub optimal compliance with undertaking timely PIR	• MRSA Screening & decolonisation • Audit Compliance with Screening and Management Policy • Audit of admission screening • **KPI = >90% of areas to screen for MRSA on admission**	• IPCT						**Q1:** Poor compliance with MRSA screening **Q2:** Screening compliance improved slightly, issues remain **Q3:** As above, exploring data collection processes to ensure robust **Q4:** Screening requires improvement. Additional staff in place in A&E to improve screening

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Monitor MRSA acquisition rates and ensure learning is actioned	• IPCT	Ongoing					**Q1:** In progress. Discussed at weekly IPCT Surveillance meeting. **Q2:** As above **Q3:** As above **Q4:** As above
			• Action plans following identified acquisition events	• IPCT	Ongoing					**Q1:** Ongoing. Working with clinical area leads. **Q2:** As above **Q3:** As above **Q4:** As above
			• ICNet database of patient weekly reviews by IPCT	• IPCT	Ongoing					**Q1:** In progress. Discussed at weekly IPCT Surveillance meeting **Q2:** As above **Q3:** As above **Q4:** As above
			• IV Access team to progress surveillance of complication rates associated with intravascular devices inserted by team.	• IV Access Team	Q2					**Q1:** Met with Leads. IPCT forwarding bacteraemia surveillance and meetings in place. **Q2:** Plan to use ICNET for surveillance of central lines **Q3:** As above, meetings in progress. **Q4**: ICNet training completed. IV team to begin to use system for new line insertion

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Promote compliance/adherence to the principles of Aseptic Non Touch Technique (ANTT) in relation to the insertion and Care Of Vascular Access Devices (COVAD)	• IPCT • Practice Educators • Matrons	Ongoing					**Q1:** Poor compliance with practice. Audit undertaken and feedback to areas concerned and action plan in place. **Q2;** ANTT training dates planned for peer reviewers during Q3 **Q3:** ANTT training to be reviewed and audit to be commenced **Q4:** Point prevalence line audit tool completed and audit programme commenced
			• Monthly audits of HH, PPE in clinical environment	• IPCT Link Practitioners						**Q1:** Not all areas undertaken audits. Plan in place for monitoring and escalating **Q2:** Not all areas undertaken audits. Plan in place for monitoring and escalating **Q3:** As above **Q4:** As above
			• Review of audit programme	• IPCT • Quality Matrons	Q1					**Q1:** Met. **Q3** Programme to be reviewed **Q4**: Programme of audit due to be reviewed in Q1
			• Care bundle audits	• IPCT	Ongoing					**Q1:** Not all areas undertaken

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			– Cannulae/catheter	• Link Practitioners						audits. Plan in place for monitoring and escalating. **Q2:** As above **Q3:** As above **Q4** Audits not being completed by ward link nurses. Discussed at perfect ward
		ANTT strategy MRSA zero tolerance objective Risk ID 3169	• Structured 1/4 matrons reports to IPCC	• Matrons	Quarterly					**Q1:** Met with matrons and report discussed and agreed. **Q2:** As above **Q3:** Reporting is improving from matrons **Q4:** As above
			• Education and focus provided to areas where acquisition identified	• IPCT	Ongoing					**Q1:** Ongoing. **Q2:** Ongoing **Q3**: Ongoing **Q4:** Ongoing

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
3	**Minimise risk of patient colonisation and infection with CPE**	Risk ID 31578 IPC Risk of multi drug resistant organisms	**Screening:** • Continue to expand the screening programme • Move focus of screening to admitting area rather than ward • Audit of screening • **KPI= >90% of areas to screen for CPE on admission** **Isolation:** Develop risk assessment tool to ensure appropriate tailored isolation facilities **Training and education** • Education and focus provided to areas where acquisition identified		Ongoing					**Q1:** Screening to be commenced in AED and AMAU on July. Screening remains sub optimal across the Trust. **Q2:** Screening remains suboptimal, progress being monitored **Q3**: Screening compliance improved, progress continues **Q4:** Screening monitored. Any missed screens are followed up. **Q1:** Part of Isolation Policy. **Q2:** As above **Q3:** As above **Q4:** As above **Q1:** Met. Education ongoing. Posters produced. Roadshow **Q2**.Education continues **Q3:** As above **Q4:** As above

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Action plans following identified acquisition events							
4	**To reduce *E coli* bacteraemia by 10% in line with PHE objective**	PHE 10% reduction target ANTT strategy	• Work with community colleagues to undertake joint working group to address	IPCT (IPCC) Matrons	March 2018					**Q1:** Work ongoing. Meeting held internally and externally with all key stakeholders. **Q2: GNBSI** Strategy developed, led by CCG **Q3** As above **Q4:** 5% Reduction achieved
			• Prompt RCA of all Trust acquired E coli bacteraemia	IPCT/Matrons	Ongoing					**Q1:** Poor compliance with PIR process. Forms reviewed to help process and slight improvement.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Work with Trust colleagues to review lessons learnt from RCA and to implement action plans • **KPI = 75% of RCA completed within a month**							Escalated via governance structures**.** **Q2:** Improved engagement and return of PIRs , **Q3:** Returns improved but working with Risk team to improve speed **Q4:** As above
5	**To reduce all gram negative bacteraemia**	PHE Gram –ve 50% reduction target by 20/21 ANTT strategy **Risk ID 31578**	• **As above**	• **As above**	Ongoing					**Q1:** As above **Q2: GNBSI** Strategy developed, led by CCG **Q3**: as above **Q4: as above**
			• Support directorates with local ownership of SSI surveillance and action plans	• IPCT						**Q1:** SSI Nurses in place. **:** Issues with infection rate in breast surgery under investigation. **Q2:** No identified issues **Q3:** as above **Q4:** as above
6	**Prevent surgical site infections**	ANTT strategy	• Mandatory Surveillance to continue for Elective Orthopaedic procedures and	• Directorate IPC Lead and Surveillance Nurse (IPCC)	Ongoing					**Q1:** In place. **Q2:** In place **Q3:** In place **Q4:** In place

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			orthopaedic trauma surgery.							
			• Directorates to report quarterly to ICG and IPCC	• Directorate IPC Lead and Surveillance Nurse	Quarterly					**Q1:** In place **Q2**: In place **Q3:** In place **Q4:** In place
			• Develop and improve surveillance capability on ICNet- NG	• IPCT	Ongoing					**Q1:** Meetings in place with UHA **Q2:** Meetings continue with UHA, LWH and LHCH **Q3:** As above **Q4:** As above, work progresses with ICNet
			• Ensure Trust comply with ANTT Strategy	• IPCT • Practice Educators • Matrons	Ongoing					**Q1:** Planned new educational ANTT strategy in process of being rolled out. **Q2:** New educational strategy in place. IPCT core trainer off on long term sick, IPCT have planned training dates for peer reviewers. **Q3:** Training delivered to peer reviewers by IPCT. Core trainer to return on reduced hours Q4.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
										Q4: ANTT audit commenced. 14 hours seconded into from ITU staff for 12 months.
			• Address any practice issues highlighted as part of ongoing surveillance	• IPCT • Practice Educators • Matrons	Ongoing					**Q1:** Issues addressed as highlighted. Audit programme also in situ. **Q2**: Ongoing **Q3:** Audit programme requires improvement. Plan in place. **Q4:** Ongoing.
7	**Ensure compliance with NICE Quality Standard 61, 113 and PH 36**	NICE Guidance H & S Care Act	• IPC Forward Plan supports compliance • Quarterly updates to ICG and IPCC	IPCT (IPCC, NICE Strategy Group Clinical and cost Effectiveness Subcommittee**)**	Ongoing					**Q1:** Work in progress. Audit of VIAD undertaken and catheter passport utilisation**.** **Q2:** Work in progress to review registered Audits and responsibilities. **Q3:** Audits completed, however did not demonstrate full compliance. **Q4:** Audits to be repeated in Q3 next year.
8	**To ensure compliance**	NICE NG51 Flu targets	• Support achievement of	ICG	March 2018					**Q1:** Work in progress for Flu Plan. Fit testing training update remains outstanding.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
	with CQUIN	Sepsis 6	Influenza vaccination CQUIN • Full CQUIN Targets will be achieved **KPI= >75% staff vaccinated** • Support achievement of antimicrobial resistance (AMR) CQUIN • Support achievement of Sepsis 6	 AMG Sepsis Group						**Q2** : Plan in place for staff vaccination programme **Q3:** Vaccination programme commenced. 85% compliance achieved. **Q4:** 87% compliance reported **Q1:** Audits continued. Poor compliance in AMAU **Q2:** Audits continued. Poor compliance in AMAU **Q3:** Audits improved. **Q1:** Work ongoing with sepsis Team **Q2:** Work ongoing with sepsis Team **Q3:** As above **Q4:** As above
9	**To provide a quality Infection Prevention and Control Team and service**	NICE QS62 NICE Quality Standard QS61 • 6 Cs -- Commitment Communication	• Appropriate skill mix in place • Appropriate job descriptions**:** Recruited to Band 8B. PDR							**Q1:** PDR complete. ¼ PDR in progress and monthly 1:1**:** Recruited to Band 8B. PDR completed. Need to recruit to vacant Band 7 and Band 3 posts following skill mix review.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
		Care Capacity Health & Social Care Act 2008	completed. • **KPI +100% of IPCT PDR up to date by June 2017**							Work in progress in relation to amalgamation with University Hospital Aintree. **Q2:** Skill mix review undertaken. Plan in place to advertise posts. **Q3:** Posts not advertised due to hold on jobs. **Q4:** Band 6 Post to be advertised. Band 3 in post.
			• Regular service review process		Ongoing					**Q1:** Meetings held with Ward Mangers/Matrons to look at further service provision/process. Positive feedback. **Q2:** Ongoing. **Q3:** Ongoing. **Q4:** Ongoing.
			• To review terms of reference of IPCC annually in Aug 2017		Q2					**Q1:** Due August 2017. **Q2:** Reviewed. **Q3:** Reviewed, meetings now quarterly. **Q4:** Ongoing.
			• To ensure prompt and efficient laboratory services		Ongoing					**Q1:** Process in place. ICNet being reviewed to improve process and amalgamation with UHA.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
										Q2: Continues. **Q3:** Continues.
			• Effective and committed Link Practitioner Group and champions at all level of the organisation • **KPI =Link Practitioners to be held a minimum of quarterly** • **KPI = Link Practitioners to attend a minimum >80%meetings /additional training**							**Q1:** Link Practitioner meetings held bi-annually. Good attendance. To increase number in specific areas. **Q2:** Meetings continue, well attended. **Q3:** As above, no meetings this quarter. **Q4:** As above.
			• Engender collaborative working with other Trusts and Community IPCT to ensure a Health Economy approach is	IPCT	Ongoing Ongoing					**Q1:** Meetings held with community colleagues to progress *E.coli* work. Attendance at meetings. **Q2:** Meetings continue. **Q3:** Meetings continue. **Q4:** As above.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			adopted • Establish quarterly themed meeting with local acute Trusts & community teams • Monthly with LCH to share practice/review HCAI across whole health economy • Working together with UHA to amalgamate							**Q1:** Joint meetings already held. To meet with DON Q2. **Q2**: Continues. **Q3:** Continues. **Q4:** Continues.
10	**To ensure compliance with Water and Air Safety Plan**	Trust Water Safety Plan HTM-01-04	• Water Safety Risk Assessment undertaken in augmented care facilities • Water Safety Action Plan	Facilities Management (Water Safety Group, IPCG)	Ongoing					**Q1:** Water and Air Safety Group Meetings held. Further training required. **Q2:** Water and Air Safety Group Meetings held. Further training required. **Q3:** ICN attending meetings, water safety plan in place. **Q4:** As above.

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Water sampling for pseudomonas undertaken in all clinical areas as a baseline and 6 monthly in augmented /high risks areas. Sampling frequency to be increased as outlined in water safety plan if any failures • Trust to agree key performance indicators for water quality specific formal objectives							
11	**To ensure new build fit for purpose**	IPC in the Built Environment	• IPCT to be involved in all relevant aspects of new build • Monthly meetings with Coordinator	Carillion Facilities Managements (IPCG)	March 2018					**Q1:** Meetings held with New Build Lead. **Q2:** Meetings held with move leads, IPCN to liaise with ward teams about working differently in new build. **Q3:** New Build delayed, IPCT

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
										attending all meetings. **Q4**: As above.
12	**To ensure compliance with decontaminatio n Policy**		• Decontamination Meetings • Decontamination Audits	Decontamination Lead IPCT Decontamination Committee IPCG	Ongoing					**Q1:** Meeting held with decontamination lead. No meetings held for past year. To be reconvened asap. **Q2:** Meetings due to reconvene in Q3 and report into IPCC. **Q3:** Meetings planned to reconvene in Quarter 4 with planned reports to IPCC. **Q4:** As above.

The IPC Forward Plan outlines the objectives to be achieved in 2017-18 by designated individuals on behalf of the DIPC to ensure that the Trust is compliant with the Health & Social Care Act (2008 –revision 2015).
The plan Links into the Trust Strategy and Values
The Health & Social Care Act 2008 (Revision 2015). This was revised to reflect the structural changes of the NHS which came into force after April 2013 and the role of Infection Prevention (including cleanliness) in optimising antimicrobial use and reducing antimicrobial resistance.

The delivery plan also outlines actions required to ensure compliance with the documents below.

- NICE quality standard QS113 Healthcare associated infection published 11 February 2016
- NICE quality standard QS121 Antibiotic stewardship published 21 April 2016
- NICE quality standard QS49 Surgical site infection published 31 October 2013
- NICE quality standard QS61 Infection prevention & control published 17 April 2014
- Quality Contract: Infection Prevention & Control measures
- Trust Values
- 6 Cs

Appendix C

Infection Prevention & Control Link Nurse Study Day

5th October 2017

Lecture Theatre RLUH

09.00 - 09.15	Registration	
09.15 - 09.45	Welcome & Update	IPC Team
09.45 –10.15	Flu Update	Dr Ian Hart
10.15 - 10.30	Sepsis Update	Sepsis Team
10.30 – 10.45	Break	
10.45 – 11.45	Infection Control issues when caring for a deceased patient	Barbara Peters
11.45 – 12.30	Hand Hygiene	Sue Simcox
12.30 – 13.30	Lunch	
13.30 – 14.00	Water Safety	Dr Tim Neal
14.00 – 15.00	Audit Workshop	IPC Team
15.00 – 15.45	Human Factors	Lauren Gould/Alison Thompson
15.45 – 16.00	Evaluation & Close	

Next dates - **Tuesday 10th April 2018** and **Tuesday 8th October 2018** for all staff across the Trust.

Thank you to the following companies for supporting this

Study Day with an educational grant:

Medipal MWE
Gojo Hygiene Solutions
Bbraun Vygon 3M

Appendix D

RLB HCA Programme – Infection Prevention and Control Portfolio

Introduction

Infection Prevention and Control is an essential element of patient safety regardless of work area. This programme has been designed to enhance the knowledge and skills of HCAs, developing competent, effective practitioners to promote best practice and maintain patient safety.

Pre-Requisites:

- Permanent staff within Trust or Bank staff at RLUH
- At least 6 months experience in a clinical setting
- Support of the line manager to facilitate attendance at all study days
- Commitment to attend all study days

Course Aims:

- To improve the knowledge and skill of practitioner in relation to infection prevention and control
- To develop competent, effective practitioners
- To enable the practitioner to identify, manage and escalate potential infection risks

Learning objectives:

- Perform screening and specimen collection in an appropriate and timely manner
- Undertake cleaning procedures in the correct manner with the correct product
- Identify and demonstrate the correct precautions to be used with infections
- Demonstrate the use of standard precautions in practice
- Identify issues related to indwelling devices and escalate to Registered Nurse
- Perform hand hygiene in accordance with WHO's 5 moments using Ayliffe technique
- Demonstrate correct use of PPE within a clinical environment

Assessment:

Assessment will take place through practical assessments and a short written assessment to establish knowledge. Practitioners will also be expected to complete a reflective piece of work, linking learning to practice.

Learning in Practice Portfolio

As part of the programme you will be required to complete a practice portfolio with the following focus;

1. Record of competencies. These will be signed off by an Infection Control Nurse, Ward Manager or link nurse on demonstration of achievement via formal assessment and/or practical assessment
2. Reflective log. You will be required to complete a short reflective log identifying how your learning will improve your clinical practice.

Recommended Resources

There are numerous textbooks available on the subject of Infection Prevention and Control; however they quickly become outdated as new evidence emerges.

Public Health England are a useful resource, as well as guidance that forms IC policies, there is also a useful alphabetically ordered section on infectious diseases. This can be found by clicking on the link below:

https://www.gov.uk/topic/health-protection/infectious-diseases

The Infection Prevention Society are an international body comprised of Infection Control Practitioners. They provide guidance on all aspects of practice, particularly education and audit. The link to the website https://www.ips.uk.net/

Appendix E

	Month	Scheduled care	Result	Re audit results	Action plan returned	Unscheduled care	Result	Re audit results	Action plan returned
Quarter 1	April	8Y	94%	N/A	01.05.17	6A	99%	N/A	No
		8X	96%	N/A	20.08.17	7Y	93%	N/A	No
		5A	94%	N/A	01.05.17	6Y	97%	N/A	No
	May	3A	86%	Pending	NO	6X	95%	N/A	02.10.17
		ITU	92%	N/A	21.09.17	ED	86%	90%	09.05.17
		4A	91%	N/A	NO	ESAU	84%	95%	18.05.17
		Gastro	86%	Pending	No	2A	91%	N/A	10.07.17
	June	4B	81%	97%	11.07.17	AIFU	90%	N/A	06.06.17
		Ward 5	93%	N/A	25.09.17	9HDU	94.50%	N/A	15.07.17
		HEC/CCU	91%	N/A	25.09.17	AMAU	92.60%	N/A	No
Quarter 2	July	5X	96.30%	N/A	10.08.17	2B	94.50%	N/A	02.08.17
		9Y	88%	95%	19.07.17	4Y	98%	N/A	20.07.17
		8HDU	96%	N/A	NO	7A	94%	N/A	19.07.17
		11Z	92%	N/A	21.08.17	7B	85.80%	97%	21.09.17
	Aug	5Y	90%	N/A	18.08.17	2Y	88%	98%	21.09.17
						3X	92%	N/A	25.09.17
	Sept					9X	85%	Pending	20.10.17
		Phlebotomy RLH	86.70%	89%	No	Ortho Therapies BGH	85%	Pending	no
		OPD RLH	84%	90%	18.10.17	Therapies RLH	81%	Pending	No
Quarter 3	Oct	Fracture Clinic RLH	87%	89%	28.11.17	Nuclear Medicine	89%	pending	No
		Ortho Clinic BGH	93%	n/a	29.11.17	Linda Mc	88%	92.70%	19.11.17
		Roald Dahl	96%	n/a	NO	Linda Mc Breast Unit	89%	Pending	No
	Nov	GUM	93%	n/a	No	Cardio Resp	96%	N/A	NO
		Ophthalmology Clinic	85%	Pending	No	X Ray	90%	n/a	No
		Vascular Clinic	89%	Pending	NO				
		Interventional Theatre	80%	Pending	no				
		St Pauls Day Ward	93%	N/A	30.01.18				
	Dec	St Pauls Primary Care	93%	n/a	25.01.18	10Z	93%	n/a	no
		Theatre BGH				Ward 9			
		Audiology Clinic RLH							
		Gerentology Clinic	98%	N/A	03.01.18				
		Dental							
Quarter 4	Jan	Theatre RLH				7X	97.50%	pending	no
		BGH Ward 2				3Y	94%	N/A	No

	5B				X Ray A&E	93%	N/A	18.02.18
	CRU							
Feb	Ward 1	96%	NA		7Y DW			
	PACCU				Ward 8			
	Dermatology Clinic				6B			
	BGH DCU							
	Ward 3				9A			
March	PACCU				11C			
	8A	93%	n/a	No	Ward 11			
	York Clinic							
	BGH Ward 4							

Appendix F: Infection and Prevention and Control Forward Plan 2018-19

	Objectives	Sub-objectives	Points for discussion (exception reporting)	Q1	Q2	Q3	Q4
1	Ensure strategy in place to achieve CDI target 2018-2019	12					
2	Ensure zero tolerance for MRSA bacteraemia	14					
3	Minimise risk of patient colonisation and infection with CPE	8					
4	To reduce all healthcare associated gram negative bacteraemia by 20%	4					
5	Prevent surgical site infections	6					
6	Ensure compliance with NICE Quality Standard 61, 113 and PH 36	2					
7	Ensure compliance with flu vaccination CQUIN	4					
8	To provide a quality Infection Prevention and Control Team and service	13					
9	To ensure compliance with Water and Air Safety Plan	3					
10	To ensure new build fit for purpose	2					
11	To comply with Decontamination Guidelines						
Total = 11		72					

Handler	ID	Clin Group	Directorate	Risk Subtype	Title	Risk Level (initial)	Risk Level (current)	Opened	Review Date	Closed Date
Alison Thompson	3578	Corporate Services	IPCT	Clinical Risk	IPC Multi drug resistance	High Risk	Medium Risk	08/04/15	05/06/18	
Alison Thompson	3404	Corporate Services	IPCT	Operational/Business/ Financial	Drainage and potential infection control risk	High Risk	Medium Risk	14/10/14	30/06/18	
Alison Thompson	3169	Corporate Services	IPCT	Patient Safety Risk	Patient Safety Risk of MRSA Bacteraemias	High Risk	Medium Risk	25/11/13	05/09/18	
Alison Thompson	3405	Corporate Services	IPCT	Operational/Business/ Financial	Lack of ward decant facility	Medium Risk	Medium Risk	14/10/14	30/06/18	
Alison Thompson	4238	Corporate Services	IPCT	Clinical Risk	Compliance with undertaking timely PIR	Medium Risk	Low Risk	18/07/17	05/09/18	
Alison Thompson	4390	Corporate Services	IPCT	Clinical Risk	Staff vacancies within the team	Medium Risk	Medium Risk	18/01/18	05/06/18	

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
1	**Ensure strategy in place to achieve CDI target 2018-2019**	Health and Social Care Act NICE QS61 Statement 1, NICEQS 121, NICE QS49 CQUIN Risk ID 3168 CDI objective	• Monitor compliance against trajectory • Review and support all PIR/RCA processes • Ensure action plans and lessons learnt completed • Increase number of RCA completed promptly • **KPI = 75% of RCA completed within a month** • Monitor compliance with Antimicrobial	• Trust C difficile Steering Group • Divisional Lead Nurses/Matrons/Ward Managers/ AMG	March 2019					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			usage audits • **KPI= 100% compliance with antimicrobial prescribing** • Promote ownership and engagement at ward level and shared in timely manner • Education and training • Monthly and annual case numbers below trajectory	• IPCG						
2	**Ensure zero tolerance for MRSA bacteraemia (including reduction in MSSA and**	ANTT strategy MRSA zero tolerance objective Risk ID 3169	• No Trust acquired MRSA bacteraemia • MRSA Screening & decolonisation	IPCT Clinical Skills Support IPCT Nurse educators	Ongoing					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
	GRE Bacteraemia)		• Audit Compliance with Screening and Management Policy • Monitor MRSA acquisition rates and ensure learning is actioned • IV Access team to progress surveillance of complication rates associated with intravascular devices inserted by team. • Ensure patients reviewed weekly by IPCT	IV Access Team & IV Access Group						

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			• Promote compliance/adherence to the principles of Aseptic Non Touch Technique (ANTT) in relation to the insertion and Care Of Vascular Access Devices (COVAD). • Monthly audits of HH, PPE in clinical environment • Review of audit programme • Care bundle audits – Cannulae/cannula • Structured 1/4 matrons							

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			reports to IPCG • Audit of admission screening • **KPI = >90% of areas to screen for MRSA on admission** • Education and focus provided to areas where acquisition identified • Action plans following identified acquisition events • ICNet database of patient reviews							
4	**To reduce all healthcare related gram**	PHE 50% reduction target of 50% by 2021	• Work with community colleagues to	IPCT (IPCG)	March 2019					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
	negative bacteraemia by 20% **Working towards the PHE objective of 50% reduction by 2021**	ANTT strategy	undertake joint working group to address • Ensure surveillance data communicated • Prompt RCA of all Trust acquired Gram neg bacteraemia • (including E coli, Klebsiella sp and Pseudomonas aeruginosa • Work with Trust colleagues to review lessons learnt from RCA and to implement action plans • **KPI = 75% of RCA**	Matrons IPCT/Matrons Matrons						

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			completed within a month							
5	**Prevent surgical site infections**	ANTT strategy	• Support directorates with local ownership of SSI surveillance and action plans • Mandatory Surveillance to continue for Elective Orthopaedic procedures and orthopaedic trauma surgery. • Directorates to report quarterly to IPCG • Develop and improve	• Directorate IPC Lead and Surveillance Nurse • IPCG	March 2019					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			surveillance capability on ICNet- • Ensure Trust comply with ANTT Strategy • Address any practice issues highlighted as part of ongoing surveillance							
6	**Ensure compliance with NICE Quality Standard 61, 113 and PH 36**	NICE Guidance H & S Care Act	• IPC Forward Plan supports compliance • Quarterly updates to IPCG	IPCT (IPCG, NICE Strategy Group Clinical and cost Effectiveness Subcommittee)	Ongoing					
7	**To ensure compliance with CQUIN**	NICE NG51 Flu targets Sepsis 6	• Support achievement of Influenza vaccination CQUIN • Full CQUIN Targets will be	AMG IPCG Sepsis Group	March 2018					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			achieved **KPI= >75% staff vaccinated** • Support achievement of antimicrobial resistance (AMR) CQUIN • Support achievement of Sepsis 6							
8	**To provide a quality Infection Prevention and Control Team and service**	NICE QS62 NICE Quality Standard QS61 • 6 Cs -- Commitment Communication Care Capacity Health & Social Care Act 2008	• Appropriate skill mix in place • Appropriate job descriptions • Ensure opportunities for all staff education and update. • Compliance with Mandatory Training • **KPI +100% of IPCT PDR up**		Ongoing					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			to date by June 2018 • Regular service review process • To review terms of reference of IPCG annually • To ensure prompt and efficient laboratory services • IPCT to receive timely reports from all laboratory services • Effective and committed Link Practitioner Group and champions at all level of the organisation • **KPI =Link**							

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			Practitioners to be held a minimum of bi-annually • **KPI = Link Practitioners to attend a minimum >80%meetings /additional training** • Engender collaborative working with other Trusts and Community IPCT to ensure a Health Economy approach is adopted • Attend bi monthly CCG led themed meeting with local acute							

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			Trusts & community teams							
9	**To ensure compliance with Water and Air Safety Plan**	Trust Water Safety Plan HTM-01-04	• Water Safety Risk Assessment undertaken in augmented care facilities • Water sampling for pseudomonas undertaken in all clinical areas as a baseline and 6 monthly in augmented /high risks areas. Sampling frequency to be increased as outlined in water safety plan if any	Facilities Management (Water Safety Group, IPCG)	Ongoing					

No	Objective	Links to other objectives/ Directives/risks	Action required/Method of assurance /KPI	Responsible Owner/Lead (Monitoring Committee/ Group)	Timescales for delivery	Q 1	Q 2	Q 3	Q 4	Progress/current situation
			failures • Trust to agree key performance indicators for water quality specific formal objectives							
10	**To ensure new build fit for purpose**	IPC in the Built Environment	• IPCT to be involved in all relevant aspects of new build • Monthly meetings with Coordinator	New Build Facilities Managements (IPCG)	March 2019					
11	**To comply with Decontamination Guidelines**	• Decontamination Meetings • Decontamination Audits	Decontamination Lead IPCT Decontamination Committee IPCG	Ongoing						

The IPC Forward Plan outlines the objectives to be achieved in 2017-18 by designated individuals on behalf of the DIPC to ensure that the Trust is compliant with the Health & Social care Act (2008 –revision 2015).
The plan Links into Trust Strategy and Values
The Health & Social Care Act 2008 (Revision 2015). This was revised to reflect the structural changes of the NHS which came into force after April 2013 and the role of Infection Prevention (including cleanliness) in optimising antimicrobial use and reducing antimicrobial resistance.

The delivery plan also outlines actions required to ensure compliant with the documents below.

- NICE quality standard QS113 Healthcare associated infection published 11 February 2016
- NICE quality standard QS121 Antibiotic stewardship published 21 April 2016
- NICE quality standard QS49 Surgical site infection published 31 October 2013
- NICE quality standard QS61 Infection prevention & control published 17 April 2014
- Quality Contract: Infection Prevention & Control measures
- Trust Values
- 6 Cs