Blackpool Teaching Hospitals NHS
NHS Foundation Trust

Annual DIPC Infection Prevention Report

1st April 2014 – 31st March 2015

And

Annual Programme

April 2015 – March 2016

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Approved by Board:

Date:

1.0 INTRODUCTION

1.1 This report outlines the activities of the Trust relating to Infection Prevention from April 2014 to March 2015. It is presented to explain the arrangements in place to enable detection& management of patients infected or colonised with Health Care Associated Infection (HCAI) indicator microorganisms and to reduce their transmission. It also reviews the accountability arrangements, policies, procedures relating to infection prevention, audit, surveillance and feedback.

1.2 There continues to be much emphasis placed upon infection prevention in healthcare provision by the government, the media and the general public. All hospitals are subject to inspection by the Care Quality Commission (CQC) where compliance with the required standards is assessed. During January 2014 the CQC visited the Trust and some issues relating to Infection Prevention were raised in particular to hand hygiene and the cleaning of equipment on A&E. These issues were included in the Trust wide Quality Improvement plan.

1.3 The Trust places infection prevention, antibiotic stewardship along with basic hygiene at the heart of good management and clinical practice. The Trust is also 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 infection, prevention of spread of infection and the improvement of cleanliness in the Trust.

1.4 The Trust 2014/15 trajectory for CDI was 28 incidences, the Trust reported 54 cases of CDI, 24 of these cases were deemed as lapses in care, in 22 cases this was due to inappropriate antibiotic prescribing, two cases were deemed as potential transmission from one patient to another. The 30 remaining incidences were deemed as no lapse in care and were agreed with the relevant CCG as unavoidable. In December 2014, the Trust had an external review by Consultant Microbiologist, Leeds Teaching Hospital, the findings of which are discussed in section 3.8.6

1.5 Issues the Trust must consider are:

- The number and type of procedures carried out by the Trust and the systems in place to support infection prevention and decontamination.
- The different activities of staff in relation to infection prevention.
- The policies relating to infection prevention and decontamination.
- The staff education and training programmes.
- The accountability arrangements.
- The infection prevention advice received by the Trust.
- The microbiological support for the Trust.
- The integration of infection prevention into all service delivery and development activity.

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1.6 The information given regarding Infection Prevention at the Blackpool Teaching Hospitals NHS Foundation Trust in 2014/15 will be of interest to patients' carers and staff but may also be of interest to members of the public in general.

1.7 The report aims to assure the Board and the public that minimising the incidence of Health Care Associated infections, preventing their transmission and optimal management of infections that may occur is given the highest priority by the Trust.

1.8 Access to information about this aspect of health care by patients is required in order for them to make informed decisions and choices about their health care needs.

2.0 STRUCTURE, ACCOUNTABILITIES AND ASSURANCE

2.1. Corporate Responsibility

2.1.1 The DIPC responsibilities are set out in the Health and Social Care Act 2008, which superseded the Health Act 2006.

2.1.2 Director of Nursing and Quality, is the Executive lead for Infection prevention and assumed the role of Director of Infection Prevention and Control in June 2014 following Consultant Microbiologist stepping down from the role in May 2014.

2.1.3 The DIPC has lead responsibility for Infection Prevention assisted by the Consultant Microbiologists, Nurse Consultant and other members of the IPC team.

2.1.4 The operational responsibility for management of the Infection Prevention nursing team is that of the Nurse Consultant for Infection Prevention.

2.1.5 Key duties of the DIPC role are:

- To oversee local Infection Prevention policies, related policies and their implementation.
- To be responsible for the Infection Prevention team.
- To report to the Chief Executive and the Board. To have the authority to challenge inappropriate clinical hygiene practice and antibiotic prescribing decisions.
- To assess the impact of existing and new policies and plans on infection and make recommendations for change.
- To be an integral member of the organisations Clinical Governance and patient safety structures.
- To produce an annual report on the state of healthcare associated infection in the Trust and release this publicly.

2.2 Infection Prevention Team

2.2.1 Role and Remit

The Infection Prevention Team provides expert knowledge, direction and education across the Trust. The team liaises with all levels of clinical and non-clinical staff.

The team remit includes:

- The production of polices and guidelines for the prevention, management and control of infection across the organisation.
- The communication of information relating to communicable disease to all relevant parties in and outside the trust.
- The education and training of all relevant staff in the principles& practice of infection prevention.
- Working with clinicians to improve surveillance and to strengthen infection prevention within the Trust.
- Working collaboratively with staff across the Whole Health Economy (WHE) to embed evidence based principles & practice of Infection Prevention.
- The provision of appropriate advice, taking into account national guidance and policy.

2.2.2 Infection Prevention Team Members

The current establishment of the team is as follows: -

- Director of Nursing and Quality and DIPC
- Nurse Consultant IP, Band 8b permanent wte.
- Lead Nurse Band 8a, permanent wte
- IPN Band 7 permanent 0.53 wte
- IPN Band 6, permanent 0.75 wte
- IPN Band 6, permanent, wte
- IPN Band 6, permanent 0.51 wte commenced in post in March 2015
- Audit and Surveillance Nurse Band 5, permanent wte
- Information and Data Analyst, permanent, wte commenced new in post in March 2015
- Consultant Clinical Microbiologist wte
- Consultant Clinical Microbiologist wte
- Consultant Clinical Microbiologist, DIPC until May 2014 wte
- Antimicrobial Lead Pharmacist, permanent, wte

2.2.3 A Number of Service Level Agreements (SLA) are established with the infection prevention team for the provision of infection prevention advice:

- First Trust Hospital – Ad hoc service
- Lancashire Clinic – Ad hoc service
- Garstang Clinic – Ad hoc service
- Direct Medical Imaging – Ad hoc service

2.3 IP Team Professional Development -

- One member of the nursing team attended the Infection Prevention Society Conference in Glasgow.
- Lead Nurse commenced Masters in Infection Prevention
- Senior Leadership Development day.
- Flu Vaccination training-In house.
- Ebola in house training
- RCN Patient Safety First study day

2.4 The Whole Health Economy Infection Prevention Committee (WHIPC)

2.4.1 The WHIPC is the main forum for addressing/highlighting outstanding issues in IP practices and discussing any change to policy or practice relating to infection prevention. The membership of the committee is multidisciplinary and includes representation from all directorates/divisions, senior management, Public Health England, NHS Blackpool and NHS Fylde and Wyre.

2.4.2 The committee is usually chaired by the, ED or the DIPC and meets bi-monthly. The WHIPC is a sub-committee of the Quality Committee a sub-committee of the Board. Members of the IP team are also key members of other Trust committees and Directorate meetings ensuring infection prevention issues are considered appropriately.

2.5 Assurance

2.5.2 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, which include:

- Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, Fundamentals standards Regulation 12 : Safe Care and treatment and Regulation 20: Duty of Candour
- The Patient-Led Assessments of the Care Environment PLACE assessment.

Care Quality Commission Standards	The Trust is compliant with the Care Quality Commission Standards
PLACE	A formal assessment review of the environment and cleanliness is undertaken annually. Spot PLACE Inspections are conducted throughout the year at all sites within the Trust – Infection Prevention participates in all inspections. The Head of Estates and IPC team formulate an Action Plan on progression to date.
The Health and Social care Act 2008	The Trust registered in February 2009 with the Care Quality Commission and the Trust has received confirmation of unconditional compliance. During the period April 2014 to March 2015 the CQC visited the Trust and some issue linked to the Health Act 2008 were raised pertaining to hand hygiene and the cleaning of patient equipment in A&E.

2.5.3 In addition to the above measures local audits are undertaken, specifically weekly commode audits, monthly hand hygiene audits, quarterly MRSA compliance audits and quarterly Saving Lives High Impact Intervention (HII) audits. Surveillance data on Methicillin Resistant Staphylococcus Aureus (MRSA), Methicillin Sensitive Staphylococcus Aureus (MSSA, *E.coli* bacteraemia and Clostridium Difficile Infection (CDI) is monitored by the Health Protection Agency data capture system on a monthly basis.

2.5.4 The Trust continues to review and manage practice across the organisation in the key areas identified in the Saving Lives Programme utilising the HII tools. Progress is reported to the WHIPC quarterly.

3.0 INFECTION PREVENTION TEAM ACTIVITY

3.0.1 A 3 year control of Infection Strategy has been ratified with key objectives for 2013 – 2016 to ensure that the Trust has suitable and sustainable Infection prevention arrangements in place of which the key challenges were:

- To maximise reduction in HCAI rates by achieving infection rates which place the Trust among the best (lowest) in the National Health Service in England and Wales.

- Further development and implementation of initiatives to reduce HCAI encompass the following measures: Introduction of antibiotic stewardship programme in the trust that includes regular ward rounds on high risk wards to encourage prudent

antibiotic prescribing, ward implementation of 5 day review and stop policy, optimal utilisation of CDI (*C.Difficile* Infection) isolation ward facilities.

3.0.2 The Trust utilises a hydrogen peroxide fogging system to ensure enhanced cleanliness of environment and patient equipment

3.0.3 'ATP bioluminescence' has been introduced to provide an objective measure of environment cleanliness other than visual assessment of environment & equipment employed currently.

3.0.4 Continue to embed Infection Prevention practices to maintain low levels of all Health Care Associated Infections including MRSA Bacteraemia & CDI

3.0.5 Whilst considering the National Targets as the minimum, the Trust will also target reduction and monitoring of other infections beyond the national requirements.

3.1 Protocols and Policy Development

It is the responsibility of the DIPC to lead on the development of local control of infection prevention policies and their implementation.

The IP Team have a programme for revision of core Infection prevention policies. In addition some specialist areas have their own local protocols. Currently the Trust has a number of policies and procedures available on the intranet.

Procedures	**Review date**
Blood and Body Spillage	Updated sent to Policy archivist
Hand Hygiene Procedure	For approval 19.06.15
Management of Staphylococcus aureus (SA) - Meticillin resistant (MRSA) and meticillin - (MSSA)	Updated and ratified
Policy	**Review date**
Infection Prevention Policy	For approval 19.06.15
Blood and Body Spillage	Updated sent to policy archivist
Hand Hygiene	For approval 19.06.15
Surveillance of Health Care Associated infection	For approval 19.06.15
Transmissible Spongiform Encephalopathy (TSE)	The policy is updated on receipt of national guidance - On-going Changes
Management of Clostridium Difficile Infection	October 2015
Care Provision for Patients with known or Suspected Pulmonary Tuberculosis Corp/Pol/177	October 2015
Management of a patient with suspected Viral Haemorrhagic Fevers (VHF) or other Hazard Group 4 Pathogens Policy	Approved

Investigation, Management and Control of Outbreaks of Infectious Diseases in Trust Premises	For approval 19.06.15
Environment and Infection Control Issues in the Planning and Design of Ward/Department Areas	For approval 19.06.15
Management of Multi Drug Resistant Organisms including ESBL	For approval 30.09.15
Management of Patients with Severe Acute Respiratory Syndrome (SARS)	For approval 19.06.15
Management of Chickenpox/Shingles in Hospital	For approval 19.06.15
Managing Infection risks of deceased Patients who are being transferred to the Mortuary including the use of Body Bags	For approval 30.09.15

3.2 Infection Prevention Link Champions

3.2.1 Link Champions are assigned from each Ward, Department and across teams in the community. They are responsible for IPC issues within their area and have completed a Job Role Description, which has been agreed with their line Manager and Head of Department and will form part of their appraisal process.

3.2.2 During 2014/15 the number of infection prevention link champions out in the Community has increased to 57. Bi-monthly meetings which include an educational session and infection prevention updates on current issues are held in both the North and South of the organisational footprint

3.3 Hand Hygiene

3.3.1. Covert hand hygiene compliance ensures that there was a more robust system of audit. Results are presented to the Divisions on a monthly basis.

3.3.2 The issue of non-compliance will be addressed at the time rather than later to improve practice. Hand Hygiene training is delivered through annual updates and mandatory training. Work has been ongoing throughout the year to improve Hand Hygiene compliance with staff groups e.g. Nurses, Doctors, Radiographers, Physiotherapists, Porters and Phlebotomists.During 2014/15 a programme of covert observed hand hygiene audits has continued Although it has previously been acknowledged that not all areas of the Community would be able to carry out covert audits due to the nature of their work i.e. being lone workers, the audit programme has expanded to include Sexual Health Services, Community Dental Services, Community Nursing, IV Therapy/Rapid Response and Adult Therapy Services.

3.3.3 Compliance observed during the covert audits has ranged from 93-100%.

3.3.4 During 2014/15 the patient observation hand hygiene audit programme has continued.100% compliance continues to be achieved in most areas; however in December 2014 a lower compliance was reported from the Dental departments at Whitegate drive and the Dental Education Centre at Queen Victoria Hospital. Issues contributing to the lower compliance have been discussed with the link champions.

3.4 Antimicrobial Stewardship Programme

3.4.2 Antibiotic stewardship programme at Blackpool Teaching Hospital is based upon the Department of Health guidance on Start Smart – Then focus document Nov 2011 (updated 2015) and this will help to meet criterion 9 of the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance.

3.4.3 Evidence based antibiotic formulary for adults, a separate formulary for paediatrics and antibiotic prophylaxis guidelines in surgery are available to all staff to ensure prudent antibiotic prescribing. These guidelines are reviewed regularly.

3.4.4 Regular restricted ward rounds to critical care, cardiac centre, haematology and high C diff prevalence wards are conducted by consultant microbiologists. Clinical consultations with Microbiologists on wards and telephone include aspects of prudent antimicrobial prescribing and infection control. Proactive reviews of inappropriate or restricted antibiotics also occur between Lead antimicrobial pharmacist/ward pharmacists and microbiologists. Daily email lists from pharmacy dispensing system highlight the patients who have been dispensed co-amoxiclav or other restricted antibiotics the previous day (quinolones, 3rd generation cephalosporins and carbapenems) to help identify reviews. This was a change from DIPC Microbiologist leadership, proactive ward rounds across most wards in the hospital to work within available resources to accommodate an unsustainable high work load, enhanced medical documentation of consultations and new service developments of community IV therapy & Microbiologist input to Diabetic Foot Infections for the Microbiologists. Trust board has approved the case for 4th Microbiologist and new appointment to commence from October 2015.

The reactive review of amber and red antibiotics /ward rounds continued as outlined above

3.4.5 'Bridging the Gap' sessions with the GPs have been hugely successful. These have been designed by the microbiologists to encourage prudent antimicrobial prescribing as well as to strengthen the links with the commissioners.

3.4.6 Assessment of the trusts antimicrobial stewardship activities using the antimicrobial self-assessment toolkit (ASAT) was performed in 2015 and action plan devised to prioritise antimicrobial activities.

3.4.7 An Infection Prevention team meeting was established in July 2014 which meets every other week to discuss specific & general Infection Prevention issues and the strategy to address this but also issues related to antimicrobial stewardship and monitoring progress with the action plan following Professor Wilcox review, and has the following membership:

- Director of Infection Prevention and Control (Chairperson)
- Antimicrobial Pharmacist
- Consultant Microbiologist representative
- Nurse Consultant – Infection Prevention
- Lead Nurse- Infection Prevention

3.4.8 The IPT group have a programme for revision of core antimicrobial policies. The group and microbiologists also conducts/lead audits involving staff such as medical staff and pharmacists and has reinvigorated its strategy to improve awareness amongst Trust staff about the increasing and serious global threat of emerging antimicrobial resistance & prudent prescribing by presenting at 'grand rounds' and other trainee forums. Currently the Trust has a number of guidelines available on the intranet. The main Antimicrobial Formulary – for the management of Common Infections in Adults within General Medicine and Surgery has also been developed

into an ‘app’ like programme to allow prescribers to download the formulary onto their smart phone from Feb 2015 to increase access to the formulary.

Procedures	**Review date**
Antibiotic Review/Stop Date (Adult patients)	For approval Jun 15
Procedure for the Use of Probiotic Yoghurt Drinks (e.g. Actimel) to Reduce the Risk of Clostridium difficile and Antibiotic Associated Diarrhoea for Adult Inpatients	March 2018
Antifungal Policy	Oct 2015
Protocols	**Review date**
Vaccination and Antimicrobial prophylaxis for patients undergoing elective or emergency splenectomy or those who are asplenic or have a dysfunctional spleen	For approval June 15
Community Intravenous Therapy (COMMIT) – pilot scheme (formerly known as HPAT)	Approved May 15
Gentamicin Guideline for Neonates	Dec 2017
Guidelines	**Review date**
Antibiotic Assay - (included as part of the Antimicrobial Formulary)	For approval June 15
Antimicrobial Formulary – for the management of Common Infections in Adults within General Medicine and Surgery	For approval June 15
Use of Vancomycin in adults – (included as part of the Antimicrobial Formulary)	For approval June 15
Change from IV to oral antibiotic policy (CHORAL) (included as part of the Antimicrobial Formulary)	For approval June 15
Antimicrobial Formulary – for the management of common infections in Paediatric patients (including the neonatal Antibiotic Policy)	Feb 2018
Gentamicin Adult Dosing Treatment	Sept 2017
Antibiotic Prophylaxis in Adults undergoing Surgery	For approval June 2015

3.4.9 Procedure for the Use of Probiotic Yoghurt Drinks (e.g. Actimel) to Reduce the Risk of Clostridium difficile and Antibiotic Associated Diarrhoea for Adult Inpatients was introduced in Oct 2014 to help reduce the incidence of *Clostridium difficile* and antibiotics associated diarrhoea.

3.4.10 Choice of Antimicrobials and Antibiotic Stop/Review compliance Point Prevalence surveys are conducted on a quarterly basis, with feedback at Divisional level and at the WHIPC meetings. The results from these audits are also fed back to the specialist

directorate pharmacists to follow up any action necessary. These audits help identify areas of poor compliance with the Formulary and areas where additional training may be required. Choice of antimicrobials compliance have been over 89% or over in 2014-15. Following from external review report, a modified audit is being considered to better reflect compliance to antibiotic formulary.

3.4.11 Antibiotics Prescribing Indicators audit on individual consultants are conducted by clinical audit department on a specialty basis with feedback to individual consultants to encourage prudent antibiotics prescribing. Examples of indicators reviewed include recording of indication, allergy, start/stop date.

3.4.12 Defined Daily Doses (DDDs) for antimicrobials is used as a mean of monitoring antimicrobial usage. These are being fed back to the divisions regularly to help monitor any unusual change in antimicrobials usage.

Antibiotics Usage Trend - all divisions – March 2012-March 2015

- Total Average Usage increased by about 8% over last 3 years
- Increasing amoxicillin use – but formulary does recommend amoxicillin as 1st line therapy for many indication**s** (approximately by 50% increase compared Mar 12 vs Mar 15)
- Co-amoxiclav use has been decreasing for while – as now restricted in formulary since Jun 2011 – but usage appears to be rising
- Piperacillin/tazobactam use has increased (by about 50% comparing Mar 12 vs Mar 15)
- Carbapenems usage has remained low

3.4.13 Standard prescriptions charts have been revised to allow doctors to document their GMC number on the antimicrobial section of the standard prescription charts and space to document on the prescription when a 48hours review has been completed (printed doctors name). Cardiac critical care and other critical care charts will be changed over to reflect similar requirements.

3.4.14 The Microbiologists and Antimicrobial Pharmacist provide a comprehensive education and training Induction for medical (FY1) and pharmacy staff. Appropriate use of antimicrobials has now been included as part of the Medicines Management training for nursing staff.

3.4.15 All new Foundation Year doctors are required to complete an Antimicrobial Prescribing Assessment on induction at the Trust. Doctors who fail to reach the 80% pass mark are required to re-take the assessment.

3.4.16 Consultant Microbiologists, antibiotic pharmacists from community & acute review and update community antimicrobial guidelines. Consultant Microbiologists conduct interactive study day lectures with GP, pharmacist, practice manager, GPST's at surgeries. Consultant Microbiologist conduct formal GPST teaching sessions including antimicrobial stewardship.

3.4.17 The Trust participated actively in the Europe wide initiative- 'Antibiotic Awareness Day' - calendar countdown with quiz was on the trust intranet to promote this initiative to encourage all staff to recognise the importance of antimicrobial stewardship.

3.4.18 Antimicrobial pharmacist work closely with infection prevention nurse to identify patients with new MRSA acquisition, GDH and CDT patients to ensure appropriate antimicrobial prescribing.

3.5 Buildings and Environment

3.5.1 The IP Team continues to work alongside the Estates Directorate to ensure all buildings and all departments comply with IP requirements.

3.5.2 Water Safety Group was established in the Trust in 2012 following an outbreak of pseudomonas prior to the recommendation made by the DH

3.6 Decontamination

3.6.1 The Decontamination Committee is led by Estates and has IP representation with responsibility to the WHIPC

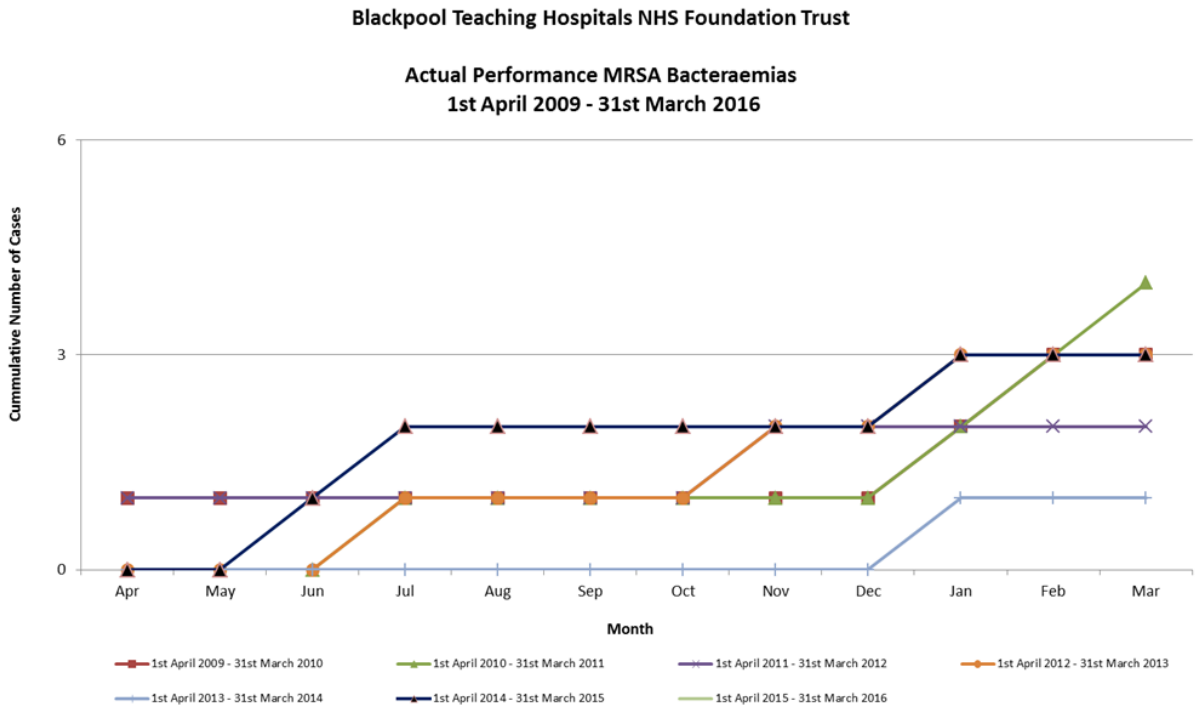
3.6.2 Within community areas any Decontamination issues have been addressed at the Infection Prevention Working Group and will continue to be discussed at the new Governance and Risk group.

3.6.3 The service level agreement with the Hospital Sterilisation and Disinfection Unit at the Royal Lancaster Infirmary, for the sterilisation of re-usable medical equipment in podiatry and some dental instruments continues.

3.7 Surveillance and Investigation – MRSA

3.7.1 New MRSA specimens are reported to the ward/department daily and the necessary advice given.

3.7.2 The MRSA Bacteraemia trajectory was set at a total of 0 for 2014/15; the Trust had three incidents attributed. Two were classed as contaminants and one was attributed to the organisation. The latter was discussed at a meeting with Blackpool CCG where it was agreed that there would be no financial penalty.



3.7.3 **Actions taken to maintain low levels of MRSA Bacteraemia**:

- On-going 'Infection Prevention standards' for all staff, a declaration that standards would be adhered to was circulated to all, requesting each member of staff to sign and return it to their line managers.
- On-going 2% Chloraprep for the insertion of peripheral line, central line and the taking of blood cultures
- Procedures for takings blood cultures, inserting & managing central lines and peripheral lines.
- Daily inspection sheet for all indwelling devices. This requires acknowledgement of an on-going need for the device as well as inspection of the site for early signs of infection.
- IV cannulation packs to standardise the technique and ensure all the required equipment is available for every cannulation
- Training on blood culture taking and standardization of Blood Culture packs
- A management procedure for every case of MRSA Bacteraemia, which involved both medical and nursing elements of the care team. Every case of MRSA bacteraemia undergoes a detailed PIR conducted by the Lead Clinician, Directorate Manager, Matron, Nursing Team and Infection Prevention Team. Learning points, areas where practice can be improved are highlighted and an action plan is devised. There is a strong focus on areas where practice can be improved and on implementing the action plan. The Infection Management Team (IMT) consists of the Director of Nursing/DIPC and or Deputy Medical Director and Nurse Consultant.
- Placing IP as the Trust's top priority
- Infection data is fed back to divisions, who are performance managed
- Introduction of MRSA screening of all admissions (except paediatric and day cases, and low risk Obstetrics and Gynae
- MRSA screening of all Emergency medical and surgical admissions
- MRSA Screening of all elective admissions as per DH guidance.
- All previously known MRSA positive patients who are admitted receive topical treatment regimen
- A review of the MRSA treatment regime
- MRSA Policy and Procedure
- Uniform and dress code policy
- Bare below elbows policy
- Quarterly Saving Lives HII audits
- Hand Wash posters in strategic positions in the Trust.
- Board to ward commitment as evidenced by the above

3.7.4 As a result of the actions and staff engagement the rate of incidence of bacteraemia remained at 1 incidence attributable to the acute organisation and 2 incidences identified as contaminants. IMT meetings have highlighted a number of issues such as non-compliance with documentation in the management in care of the Hickman line and training of staff and additionally the screening of Haematology patients. An action plan identifying issues from the Root Cause Analysis has been formulated and circulated to all staff.

3.7.5 Pre-48hour MRSA Bacteraemia represent a significant challenge as these patients are admitted to the hospital suffering from the infection. This group represented 3 bacteraemia cases. Clearly preventing these cases relies upon co-operative working with the CCG's.

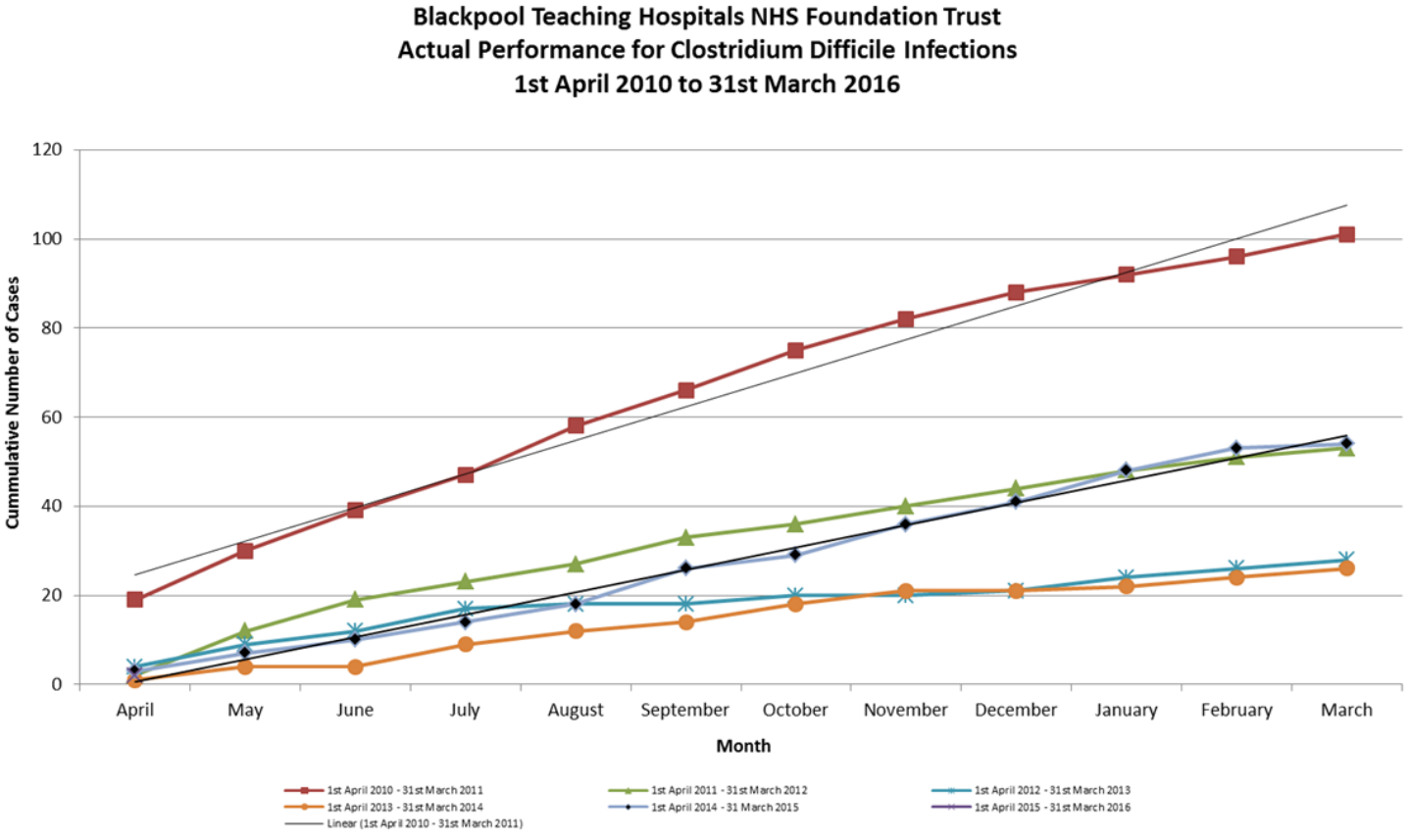
3.7.6 Monthly totals of new cases of MRSA Bacteraemia are produced and current data reported to WHIPC. Public Health England mandates that all MRSA Bacteraemia

must be reported on the HCAI Data Capture System, which is locked down by the 15th of the following month. The IP team complies with this requirement.

3.8 Surveillance and Investigation – Clostridium Difficile

3.8.1 In April 2007 it became mandatory that every faecal specimen in patients over the age of 2 years be tested for Clostridium Difficile Toxin. Such patients are considered to be suffering from Clostridium Difficile Infection (CDI). Simultaneously it became a requirement to report all positive results through the HPA HCAI Data Capture System. The Trust is fully compliant with this system.

3.8.2 The CDI trajectory in line with the required reduction from the DH the trajectory was set at a total of 28 for 2014/15 the Acute Trust achieved 54. This is a 51.5% increase in figures from 2013/14. All 54 incidences were discussed with the relevant CCG, 24 cases were identified as being avoidable due to lapses in care, and 30 incidences were deemed as unavoidable i.e. no lapses in care identified. Of the 24 cases, 22 were due to inappropriate or prolonged antibiotic prescribing, 2 cases were due to potential patient to patient transmission. Overall nationally there has been an increase in the number of incidences for CDI.



3.8.3 Measures to combat CDI

- External review by Professor Mark Wilcox, Consultant Microbiologist Leeds Teaching Hospital.
- Approval for the post of 4th Microbiologist
- Continued re-iteration of the trust policy of 48-hour/5 day stop/review policy for antibiotics
- The prescription sheet was changed to include GMC number of prescriber.

- Continued re-iteration of the current restrictions within the antibiotic formulary
- New probiotic policy
- Monthly covert hand hygiene audits
- Regular ward rounds by consultant microbiologists on high risk for C. difficile wards to ensure prudent antibiotic prescribing
- Root Cause Analysis conducted on cases of CDI conducted by Lead Clinician, Matron, Directorate Manager and Nursing Team
- IMT meetings to discuss findings and lessons learned
- Hydrogen peroxide fogging system
- Prompt isolation of patients with diarrhoea
- Equipment cleaning – weekly commode auditing
- Increased compliance with the Antibiotic formulary
- Phone app inclusive of the Antibiotic formulary
- Review of prescription sheet to include GMC number and improve accountability for prescribing.

3.8.4 It should be noted that many of the measures introduced and highlighted in the MRSA section are also preventative for CDI.

3.8.5 New cases of CDI are reported monthly to the WHIPC. In addition the DIPC presents a quarterly report to the Board. The Health Protection Agency mandates that all CDI be reported on the HCAI Data Capture System, which is locked down by the 15th of the following month. The IP team complies with this requirement.

3.8.6 All incidences of CDI are reviewed by root cause analysis (RCA) by the clinical teams, Consultant Microbiology and Infection Prevention Team. If lapses in care are identified then a meeting chaired by Marie Thompson is held to discuss how lessons can be learned and to agree that there has been a definitive lapse in care.

3.8.7 Additionally all cases are then discussed with the relevant CCG, and agreed as whether a lapse in care or not. A discussion across the whole health economy with both our CCG's is held monthly to identify issues and trends to work together to reduce the number of incidences but more importantly prevent harm to our patients.

3.8.8 Of the 24 cases deemed as lapses in care, 22 were due to inappropriate or prolonged antibiotic prescribing, a theme that is reflected across the whole health economy.

3.8.9 The Clostridium *difficile* two tier testing system recommended by the DH has been utilised since 1st April 2012

3.8.10 The organisation requested an external visit from Professor Wilcox Consultant Microbiologist from Leeds Teaching Hospital. He offered a comprehensive report within the following headings:

- Antibiotic prescribing
- Deep Clean and cleaning of the patient environment and equipment
- Hand hygiene
- Management of patients with diarrhoea
- Interpersonal issues with the Microbiology team

An action plan has been formulated which is monitored at the Quality Committee.

3.9 Surveillance – MSSA Bacteraemia

There have been 26 incidences of MSSA Bacteraemia attributed to the Acute Trust. Measures in place to reduce the incidences are akin to those of reducing the numbers of MRSA Bacteraemia

- On-going 'Infection Prevention standards' for all staff, a declaration that standards would be adhered to was circulated to all, requesting each member of staff to sign and return it to their line managers.
- On-going 2% Chloraprep for the insertion of peripheral line, central line and the taking of blood cultures
- Procedures for takings blood cultures, inserting & managing central lines and peripheral lines.
- Daily inspection sheet for all indwelling devices. This requires acknowledgement of an on-going need for the device as well as inspection of the site for early signs of infection.
- IV cannulation packs to standardise the technique and ensure all the required equipment is available for every cannulation
- Training on blood culture taking and standardization of Blood Culture packs
- Placing IP as the Trust's top priority
- Infection data is fed back to divisions, who are performance managed
- MSSA screening of patients who are scheduled for:

    - Orthopaedic implant surgery (including artificial joints, plates and screws etc.)
    - Vascular graft surgery
    - Surgery that involves implantable devices such as mesh.
    - Cardiothoracic surgery
    - Cardiology implants (such as pacemakers & intracardiac device insertion)
    - Admissions to ITU/HDU/CITU/SHCU.

- SA Policy and Procedure
- Uniform and dress code policy
- Bare below elbows policy
- Quarterly Saving Lives HII audits
- Hand Wash posters in strategic positions in the Trust.
- Board to ward commitment as evidenced by the above

3.10 Surveillance - EColi Bacteraemia

There have been 46 incidences of EColi Bacteraemia attributed to the Acute Trust. Measures in place to reduce the incidences are akin to those of reducing the numbers of MSSA Bacteraemia

- On-going 'Infection Prevention standards' for all staff, a declaration that standards would be adhered to was circulated to all, requesting each member of staff to sign and return it to their line managers.
- On-going 2% Chloraprep for the insertion of peripheral line, central line and the taking of blood cultures
- Procedures for takings blood cultures, inserting & managing central lines and peripheral lines.
- Daily inspection sheet for all indwelling devices. This requires acknowledgement of an on-going need for the device as well as inspection of the site for early signs of infection.
- IV cannulation packs to standardise the technique and ensure all the required equipment is available for every cannulation
- Training on blood culture taking and standardization of Blood Culture packs
- Placing IP as the Trust's top priority
- Infection data is fed back to divisions, who are performance managed
- Uniform and dress code policy
- Bare below elbows policy
- Quarterly Saving Lives HII audits
- Hand Wash posters in strategic positions in the Trust.
- Board to ward commitment as evidenced by the above
- SA Policy and Procedure

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- Bare below elbows policy
- Quarterly Saving Lives HII audits
- Hand Wash posters in strategic positions in the Trust.
- Board to ward commitment as evidenced by the above

3.9 HCAI data Capture System Lockdown

3.9.3 A procedure was developed to ensure that the data on the system accurately reflects the data through the laboratory. The DIPC and Nurse Consultant IP check that the numbers are concurrent and sign off the process, producing documentary evidence that gives an audit trail.

3.10 Surveillance

3.10.1 Management of Carbapenemase-producing Enterobacteriaceae policy was updated to reflect the PHE guidance on this subject. The policy details the criteria to follow when patients are transferred from other hospitals or admitted following recent travel and hospitalisation in certain countries. Screening programme has been in place since August 2012.

3.11 Surgical Site Surveillance

3.11.1 Mandatory Orthopaedic surveillance is required for a minimum of 3 months in the year. This took place from October 2014 to December 2014 all data collected was reported to Public Health England (Formally HPA)

3.11.2 Surveillance has also been conducted with patients undergoing Vascular Surgery (November – December 2014), Bowel surgery (November – December 2014), Cardiac surgery – Valve and CABG only (September – October 2014 and February - March 2014) and Caesarean Section surgery (November – December 2014)

- Annually we are required to complete surveillance for a quarter of surgical wounds following hip surgery (elective and trauma) which are then submitted to the Public Health England.
- A detailed post discharge questionnaire is sent out to patients to complete at 30 days post operatively to detect any infections that may have already occurred. Prosthetic joint patients are followed up to twelve months.
- Infections are diagnosed using specific criteria set by Public Health England (Formally HPA).
- Post operatively surgical site infections can occur from 2-3 days post operatively until the wound is healed. Or very occasionally, can occur up to several months after an operation.
- Any upward trend in infection rates is relayed to the microbiologists and the surgeons to prompt further investigation.
- As part of the mandatory surveillance, all patients with a prosthetic joint implant will be followed up for twelve months from the date of operation to monitor for any additional infections.

The mandatory orthopaedic three month surveillance has been completed for the period October 2014 – December 2014. As part of the mandatory surveillance, all patients with a prosthetic joint implant will be followed up for twelve months from the date of operation to monitor for any additional infections.

The Trust has been formally informed by PHE that it is an outlier in relation to Hip Replacement Surgical Site infection rates. A meeting has been held with the Orthopaedic clinicians and an action plan has been formulated to look at all aspects of

management of care. The action plan will be monitored by the Whole Health Economy Infection Prevention Committee.

- A rolling programme of non-mandatory 'in-house' surveillance was completed in 2014-2015 until March 2015

3.12 **Audit and Feedback Activity**

3.12.1 The Code of Practice Health and Social Care Act 2008 stipulate that a programme of audit is in place to ensure that key Infection and Prevention policies and practices are adhered to. To ensure that Infection prevention objectives are met and completed it is important to implement an annual programme of audit of infection prevention policies and procedures to maintain best practice. Audits are carried out on a monthly, quarterly and annual basis. This identifies areas of poor practice, provides valuable feedback and leads to review of working practices, policy compliance and current awareness. The following represents those activities carried out across both the acute and community settings:

- Environmental Audits - wards and departments audited by manager or link personnel on a monthly basis
- MRSA treatment compliance audit quarterly
- Commode audits monthly
- Hand hygiene facilities audit annually
- ANTT audited annually
- Aseptic technique audited annually
- Use of Isolation facilities annually.
- Sharps audit – Frontier annually
- Environmental audits of treatment rooms annually
- Hand hygiene covert audits quarterly
- Patient observation hand hygiene audits quarterly
- Clinical Waste (Facilities Team) annually
- Infection Prevention/Cleaning (Facilities Manager and IPT) annually
- Antibiotic prescribing by non-medical prescribers bi-annually
- Community Dental Services compliance with HTM 01-0 annually

- Saving Lives HII – audits are conducted quarterly by link nurses and clinical departments/areas

    - Central line insertion
    - Central line maintenance
    - Peripheral IV line insertion
    - Peripheral IV line maintenance
    - Urinary catheter care - Insertion
    - Urinary Catheter – On-going Care
    - Ventilated patient care
    - Pre and peri-operative care
    - Renal Dialysis Insertion and on-going care
    - CDI – Prevention of Spread
    - Decontamination of clinical equipment
    - Chronic Wounds – Care Actions
    - Enteral feeding

3.12 **Patient led Assessments of the Care Environment (PLACE)**

3.12.1 Internal PLACE Inspections are conducted throughout the year to all sites within the Trust and has active Infection Prevention representation participating in all Inspections.

3.12.2 The PLACE Action Plan is formulated by Head of Estates with Infection Prevention progressing on actions to date.

3.13 Outbreaks

During 2014/15 there were 16 wards affected by Norovirus this year, affecting 197 patients, 28 staff and 142 bed days lost during this period, compared with April 2013 to March 2014 when there were only 6 wards affected with 60 patients and 30 bed days lost. This can also be compared with April 2012 to March 2013 where36 Wards were affected and 319 patients, with symptoms of vomiting and or diarrhoea. Not all patients were confirmed Norovirus but were affected with symptoms at the same time as confirmed patients with Norovirus.

3.14 Serious Untoward Incident

3.14.1 **TB incident**

In February pregnant lady was admitted to Ward D with a chest infection into a bay. Although she presented with respiratory symptoms and was known to have been previously treated for TB although this was not thought to be the cause of this current infection, subsequent tests suggested a TB infection. The patient was in contact with other patients in the bay for 2 days, prior to being isolated in a side room. In total there were three post natal women in the bay, two had their babies with them. In addition 34 members of staff had contact with the woman. Contract tracing was conducted and all patient contacts in the hospital were proved to be negative for TB.

Lessons learned following the SUI detailed that a patient who has respiratory symptoms and a history of TB should be treated as being potentially infectious until proven otherwise. He/she should be admitted directly to a single room vented to the outside air, with en-suite facilities, or to a negative-pressure room. Infection control, a chest physician and the TB specialist nurse must be informed of the admission.

3.14.2 **MERS incident**

A patient was admitted directly to Ward 8 with a history or respiratory illness and of travel to Saudi Arabia with suspected Middle East Respiratory Syndrome (MERS). Infection Prevention measures were put in place to ensure that the patient was admitted directly to Ward 8 and personal protective equipment was provided for the staff on the ward. The Paramedic crew also found that all three of the patient's children had similar symptoms and a decision was taken by the Paramedics to admit the children to A&E. The children were later transferred to the Paediatric unit, where the precautions were inadequate for suspected MERS.

Lessons learned highlighted during the post review were that the children should have been admitted directly to Ward 8. To increase the amount of education for the clinical staff on Ward 8 so they can act as a base for information. Devise a flow chart of admission for patients suspected to have MERS to be incorporated into the Respiratory Policy. Also a list of equipment required should there be the necessity to manage children on Ward 8 and not on the Paediatric Unit in the future.

3.15 Education and Training

3.15.1 The IP team provides a comprehensive education and training programme for all staff. All clinical staff must attend annual IP training this is often carried out through the mandatory training programme.

3.15.2 Hand hygiene training is given to all new staff through the Induction training programme. All clinical staff must also undergo annual update training in hand hygiene and hand washing.

3.15.3 During 2014-15 staff completed their infection prevention update training via the workbook, 'e' learning or at new staff induction training .The IPT have continued to deliver some face to face training sessions to clinical and non-clinical staff. The training programme format is regularly reviewed to ensure that staff are kept up to date with any changes to infection prevention policy, guidance and legislation.

3.14 Response to Ebola Virus Disease outbreak in West Africa

In August 2014 Public Health England (PHE) advised all trusts to develop a local action plan in case a patient with suspected viral haemorrhagic fever (VHF) should present to their A&E department, or any other point of entry within the trust. Part of this plan was to ensure that adequate and appropriate PPE was available.

The IPT worked collaboratively with key members of staff and other teams to develop a comprehensive VHF plan which incorporates a number of action cards.

The multidisciplinary plan ensures that the risk of VHF transmission is minimised through the use of appropriate PPE and by placing such patients in a designated area in A&E.

The IPT implemented an extensive education and training programme which included fit testing for FFP3 respirators and the development of a donning and doffing training film.

A number of simulations exercises were carried out in A&E to ensure that the plan was fit for purpose and the trust was signed off by PHE as being compliant in December 2014. Education and training is still on-going.

INFECTION PREVENTION PROGRAMME 2015/2016

The programme sets out the proposed activities for the Trusts Infection prevention service. The programme has been developed in response to local HAI priorities, National standards, guidance and legislation incorporating elements, which contribute towards compliance with Care Quality Commission Standards and the Health Act 2008.

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
To Produce and submit annual IPC report and programme for both the acute trust and community	DIPC / Nurse Consultant	▪ To be presented to and approved by the Quality Committee (Sub-committee Board	July 2015
Whole Health Economy Infection Prevention Committee (WHIPC)	Chair of Committee	▪ Bi-monthly meetings ▪ Audit and review Terms of reference ▪ Review and monitor membership and attendance ▪ Endorse all IPC policies prior to ratification by relevant committee	On-going
Compliance with the CQC standards	DIPC/Nurse Consultant	▪ Bi-annual review of the Hygiene Code Action Plan ▪ Board Assurance Framework ▪ Corporate Risk Register ▪ Compliance with Care Quality Commission (CQC) ▪ Quality and Safety Standards ▪ Ensure evidence that standards are met is available on the trust shared drive ▪ Shared Infection Prevention Doctor role ▪ Defined roles for IPD and DIPC to ensure strategic and operational roles are covered ▪ Microbiology lead for Autoclaves ▪ Microbiology lead for Legionella	On-going

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Active Surveillance, Investigation and incident monitoring	DIPC/ Consultant Microbiologists/ Nurse Consultant Audit & Surveillance Nurse/Data Analyst	▪ Clinical team to produce annual review of sensitivity patterns and all isolates and infective conditions reporting to AMSERVE to enhance the CDAD/GDH reporting profile and expand analysis of MSSA and EColi and beyond	On-going
Mandatory surveillance Phased Introduction of SSI surveillance programme [SSISP] across all surgical specialities using standardised HPA definitions to create a reliable system for accurate data collection.		▪ Mandatory three month orthopaedic surveillance ▪ Review surveillance provision to incorporate 12 months of orthopaedic surveillance ▪ Rolling programme of three month SSI surveillance across the Trust for Orthopaedic, Cardiac, Vascular and Obstetrics. ▪ Enhanced SSI surveillance across the organisation by embedding SSI stickers for ease of diagnosis and data collection working with the Divisions ▪ Continue to work with identified leads for infection in the specialities to promote best practice	
Promote Hand Hygiene Compliance across the acute trust and community	DIPC/ Nurse Consultant/ IPC Team Audit & Surveillance Nurse/Data Analyst/ Link champions/Ward Managers/DIPC/Divisional Directors/ED.	▪ Quarterly covert hand hygiene audits ▪ Quarterly results presented to the WHIPC and Divisions ▪ Quarterly audit of patient hand hygiene ▪ Embed alternate ways of monitoring of HH in the community. ▪ Increase number of areas participating in covert auditing in the community by introducing unbiased measures, feedback in order to improve practice where necessary by education & training ▪ Hand Hygiene cards - auditing by patients	On-going
Deal with non-compliance as per trust policy		▪ Exploring alternative “unbiased” methods of conducting HH compliance audits e.g. remote electronic monitoring	

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Introduction of 'Wound Care Management' pathway across the WHE	DIPC/Consultant Microbiologist/Nurse Consultant Infection Prevention /IPT/Tissue viability Nurse/District Nurses	▪ Creating a working group of stakeholders in the first instance ▪ Finalise and ratify wound care policy	On-going
Ensuring compliance with the MRSA Screening policy	DIPC/ Nurse Consultant/ Lead Infection Prevention Nurse/Audit & Surveillance Nurse/Data Analyst/ HODs/Ward Managers	▪ Quarterly monitoring of the compliance with the MRSA Screening policy. Results to be presented to the WHIPC and Divisions. ▪ Education & increasing awareness amongst staff ▪ Modify screening guidance in light of recent ARHAI recommendation	On-going
Introduction of Root Cause Analysis of MRSA wound infections post 48hrs in the first instance from new or known MRSA colonised patients		▪ Evidenced by completion of the RCA tool ▪ Implementation requires support from ED ▪ Monitoring of patients with MRSA wound infections	
Introducing MSSA RCA as expected by DOH		▪ Implementation requires support from ED ▪ Evidenced by completion of MSSA RCA	

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Ensuring Compliance with MRSA Policy and Procedure	DIPC/ Nurse Consultant/ Lead Infection Prevention Nurse Audit & Surveillance Nurse/Data Analyst	▪ Bi –annual monitoring of compliance with MRSA integrated care pathway. ▪ Action plan to be monitored by DIPC / IPC Team. ▪ Results presented to WHIPC and Divisions ▪ Education & increasing awareness amongst staff	On-going
Maintain progress made in reducing MRSA Bacteraemia rates	DIPC/ Nurse Consultant / Consultant Microbiologists	▪ Trajectory set at “zero avoidable MRSA” ▪ Maintain Board to Ward approach to ensure IPC measures are adopted across the Trust ▪ Each Division performance managed to reduce HCAI rates ▪ Collaborative working across the WHE to ensure best practice ▪ Establish regular training and education incorporating outside agencies [as & when required] on IPC initiatives to reduce bacteraemia rates	On-going
Ensuring compliance with the CPC Screening policy	DIPC/ Nurse Consultant/ Audit & Surveillance Nurse/Data Analyst	▪ Monitoring of compliance with CPC policy and screening ▪ Education & increasing awareness amongst staff to ensure that the policy is embedded within the organisation	On-going

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Ensure compliance with ANTT and Aseptic Technique	DIPC/ Nurse Consultant/ /Data Analyst DIPC/Nurse Consultant/Practice Development Sisters Lead Infection Prevention Nurse Audit & Surveillance Nurse/Data Analyst DIPC/Nurse Consultant/Practice Development Sisters	▪ Annual monitoring of ANTT and Aseptic technique	On-going
Central Venous Catheter Programme - central lines; Hickman lines; PICC/mid lines ▪ Training & assessment ▪ Infection monitoring ▪ As part of HII audits		▪ Central CVC monitoring programme including: ▪ Training & assessment records ▪ Monitoring of all CVC insertions & infections ▪ Standardize training competencies ▪ Standardize the policy	
Standardise central line insertion & maintenance procedure across the trust		▪ Group re-established led by Clinical Improvement Lead, Surgery ▪ Incorporating acute and community representatives	

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Ensure Hospital and Community premises cleanliness is monitored	DIPC/ Nurse Consultant/Lead Infection Prevention Nurse DIPC/Nurse Consultant/Lead Nurse Infection Prevention/data analyst DIPC/Nurse Consultant/Estates/ ISS Mediclean Nurse Consultant/Lead Infection Prevention Nurse	▪ Annual PLACE Inspections ▪ Divisional PLACE spot checks ▪ Close monitoring with Domestic Contract Manager and Monitoring Services ▪ As evidenced by trends observed and data collated ▪ Evidenced by audit records kept by ISS Mediclean, Estates and IPT ▪ Roll out of Deep clean programme across the organisation targeting high risk areas in the first instance	On-going
Ensuring smooth implementation of objective measures for monitoring environmental hygiene and cleanliness of shared patient equipment		▪ ATP testing of near patient equipment rolling programme commenced results to be reported to the Division	
Utilisation of 'Glosair'		▪ Work with ISS Mediclean and Ward Managers to ensure that Glosair is utilised	
Environmental Audits		▪ Ward and Department Managers from both acute and community areas to ensure that quarterly Environment audits are completed and action plans are implemented ▪ Presented to Divisions	
Isolation/Barrier Nursing Facilities compliance		▪ Annual audit of use of facilities, review action plan and progress and present to WHIPC and Divisions	

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Maintain on-going reduction of *Clostridium difficile* rates in line with directive from the DH	DIPC / Nurse Consultant / Consultant Microbiologists	▪ Trajectory set at 40 for Acute Trust ▪ Collaborative work across the WHE to ensure best practice ▪ Each Division performance managed to reduce HCAI rates ▪ Embed use of probiotics for defined high risk group of patients ▪ Six monthly review of all CDI RCAs and refining of action plan involving Microbiologists, MD, ND and both DDs. ▪ Implement CDAD review report ▪ Bowel Management programme e-learning rolled out across the organisation ▪ Education and raising awareness for all staff through working with Link Champions and Ward Managers	On-going
New Builds and Refurbishment To ensure close communications with Facilities are maintained	DIPC/Nurse Consultant/ Consultant Microbiologists	▪ Maintain involvement in new build and refurbishment projects in liaison with Microbiologist of the clinical area	On-going
Water Safety compliance with regards to monitoring for pseudomonas in augmented care and legionella as mandated by DOH.	Water Safety Group	▪ Evidenced by water safety group minutes and regular water monitoring results	On-going
Decontamination	DIPC/Consultant Microbiologist/Nurse Consultant	▪ Giving expert advice & support to the committee as and when required. ▪ Work with the CHS governance lead to ensure that CHS are compliant with national decontamination guidelines ▪ Decontamination issues discussed at IPCWG and escalated accordingly. ▪ Advise/train staff on the principles of decontamination of equipment and environment.	On-going

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
To Maintain Saving Lives Audit Programme utilising the High Impact Interventions (HII) incorporating: ▪ Central venous catheter care insertion and on-going care ▪ Peripheral intravenous cannula care insertion and on-going care Renal Dialysis ▪ Pre-op, Peri-op and Post-op care ▪ Ventilation-associated pneumonia ▪ Urinary catheter care insertion and on-going care ▪ *Clostridium difficile*prevention of spread ▪ Decontamination of clinical equipment ▪ Enteral feeding ▪ Chronic wounds care actions and management	DIPC/ Nurse Consultant/Audit and Surveillance Nurse/Data Analyst	▪ Quarterly audit programme ▪ To attain 95% compliance ▪ Audit results to be reviewed by DIPC ▪ Audit results presented to the WHIPC ▪ Audit results made available to Trust Staff ▪ Action Plans including progress reviewed by IPT and monitored by the HIPC ▪ Review validity of saving lives tools and implement alternatives demonstrated by clear evidence	On-going
Research and development To develop the prevention of infection evidence base through participation in research, independently or collaboratively with groups and organisations	DIPC/Consultant Microbiologists/ Nurse Consultant/Lead Infection prevention nurse	▪ Consultant Microbiologist lead on several International and National level research into various aspects of HAI, C. difficile, etc. ▪ Forge links with UCLAN ▪ Disseminate appropriate information, data/research findings. ▪ Incorporate nursing research activities into the annual programme of work	On-going

Objective/Action	Lead Person/Persons Responsible	Comments	Deadline
Education and Training To ensure that a comprehensive Infection Prevention programme is provided for the Trust	DIPC/Consultant Microbiologists/ Nurse Consultant/Lead Infection Prevention Nurse	▪ Trust Induction ▪ Mandatory Updates ▪ E-learning programme ▪ Antibiotic stewardship and infection control education during clinical consultations. Limited ward based education on antibiotic stewardship & infection prevention ▪ Grand round - Speciality specific teaching. ▪ Including Nurses, AHP's Doctors and Medical Students ▪ Specific education and training outside the remit of the Induction and Mandatory updates to be provided as necessary ▪ GPs, consultants, nurses & junior doctor study days to include infection management, antibiotic stewardship & IPC teaching / raising awareness as standard items	On-going
High Impact Action Group for CAUTI	Nurse Consultant/ Consultant Microbiologist	▪ High Impact Action Group ▪ Ensure Whole health economy integrated care pathway is embedded across the organisation ▪ Audit use of pathway through the CAUTI work ▪ Continue to work with Consultant Microbiologist with regards to CAUTI results from the safety Thermometer data ▪ Embed the utilisation of the Catheter passport across the organisation ▪ Work collaboratively towards the reduction in infections from indwelling urinary catheters. ▪ Safety Thermometer data and provide quarterly reports across the organisation	On-going

O**bjective/Action**	**Lead Person/Persons Responsible**	**Comments**	**Deadline**
Antibiotic Stewardship	DIPC/ Consultant Microbiologists/ Director Pharmacy/ Ward pharmacists/ Community Pharmacist lead/NMP Lead	▪ Re-establish AIM group ▪ Audits of 'antibiotic choice' compliance with the antibiotic formulary by the pharmacists continues. ▪ Modified audits to reflect all components of an antibiotic compliance audit (following from Professor Wilcox recommendation) still require implementation ▪ Use of narrow spectrum and prudent prescribing encouraged by consultant microbiologists during clinical consultations, formal teaching sessions for junior doctors, at trust induction(TBC) & medical grand rounds ▪ Review of antibiotic policies in the acute trust and community ▪ Develop relationships with Non-Medical Prescribing Leads and non-medical prescribers ▪ Working with the NMP Lead to review themes from NMP antibiotic audit undertaken. ▪ Complete audit cycle ▪ Embed use of 'mobile app'	On-going
Procedures and policies review, update and distribution	DIPC/ Consultant Microbiologists/ Nurse Consultant	▪ Ensure all documents comply with current evidence based guidance and are updated as required. ▪ Policy / procedure review calendar ▪ Ensure policies updated within a defined time line	On-going