Blackpool Teaching Hospitals NHS
NHS Foundation Trust

Annual DIPC Infection Prevention Report

1st April 2012 – 31st March 2013

And

Annual Programme

April 2013 – March 2014

Authors

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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 2012 to March 2013. 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 the period April 2012 to March 2013 the Trust was not inspected by the CQC with regards to Infection Prevention issues.

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 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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1.5 The information given regarding Infection Prevention at the Blackpool Fylde and Wyre Hospitals NHS Foundation Trust in 2012/13 will be of interest to patients' carers and staff but may also be of interest to members of the public in general.

1.6 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.

1.7 Access to information about this aspect of hospital 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 Dr Rashmi Sharma continues in the role of DIPC. Mrs. Johanne Lickiss, continues in the role of Nurse Consultant Infection Prevention.

2.1.3 The Director of Nursing and Quality, Marie Thompson continues to have the lead Executive Director responsibility for Infection Prevention. The operational responsibility for management of the Infection Prevention nursing team is that of the Nurse Consultant for Infection Prevention.

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

2.1.5 Key duties of this 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 directly and through the Executive Director of Nursing and Quality.
- 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 (IP) 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: -

- Dr Rashmi Sharma – 1wte Consultant Clinical Microbiologist, DIPC
- Johanne Lickiss, Nurse Consultant IP, Band 8b permanent, fulltime.
- Sharon Mawdsley, Lead Nurse Band 8a, permanent, full time
- Patricia Cross, IPN Band 7 permanent 20 hours, Community
- Andrea Caldwell, IPN Band 7 permanent 30 hours, Community - now vacant
- Sheena Cottam, IPN Band 6, permanent 28 hours
- Joan De Vega, IPCN Band 6 permanent, full time
- Nicola Cousins, Audit and Surveillance Nurse Band 5, fixed term, full time.
- Sharon Staff, Information and Data Analyst, permanent, full time
- Dr Ruth Palmer – 1wte Consultant Clinical Microbiologist
- Dr Achyut Guleri- 1wte Consultant Clinical Microbiologist

Patricia Cross and Andrea Caldwell Community Infection Prevention Nurse's joined the Trust Infection Prevention team in August 2012. Andrea Caldwell has since left the trust and that post is now vacant.

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
- Lancashire Clinic
- Garstang Clinic
- Direct Medical Imaging – Ad hoc service

2.3 IP Team Professional Development -

- Consultant microbiologists have attended & presented at FIS/ECCMID (international) & the regional NORWIC meeting 2012-2013
- Published papers and letter to editor in 2012-2013
- Participated successfully in research involving Infection Prevention & Control
- Two members of the team attended the Infection Prevention Society Conference in Liverpool
- The IPT was shortlisted for the Nursing Times Awards
- North West Infection Prevention Group Annual Study Day
- International conferences: HAI, Antibiotic stewardship, outbreak management, audits/surveillance topics
- ECCMID London [March 31-Apr 3]: 15 presentations (orals and posters)

- National Gov Today conference: oral presentation

2.4 The Hospital Infection Prevention Committee (HIPC)

2.4.1 The HIPC 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, Health Protection Agency, NHS Blackpool and NHS North Lancashire

2.4.2 The committee is usually chaired by the, CEO/ED or the DIPC and meets bi-monthly. The HIPC is a sub-committee of the Clinical Governance Committee and reports formally to the Trust 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:

- The National Health Service Litigation Authority (NHSLA);
- The Healthcare Commission 'Standards for Better Health';
- The Patient Environment Action Team (PEAT) assessment.
- In April 2013 PEAT inspections have been replaced by Patient-Led Assessments of the Care Environment PLACE

NHSLA Standards	Level 1 was achieved demonstrating that the organisation has appropriate documentation detailing IP processes. Level 2 was achieved by demonstrating that the Trust fully implemented IP processes Level 3 was achieved by demonstrating that the Trust fully monitored IP processes The Nurse Consultant is a representative on the NHSLA committee for IP.
Care Quality Commission Standards	The Trust is compliant with the Care Quality Commission Standards including those updated in 2008.
PEAT	A formal assessment review of the environment and cleanliness is undertaken annually. Spot PEAT 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 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 2012 to March 2013 the Trust was not inspected by the CQC in relation to the Health Act 2008

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 HIPC quarterly.

3.0 INFECTION PREVENTION TEAM ACTIVITY

3.0.1 A 3 year control of Infection Strategy has been produced and will be ratified in 2013 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 AMU, ITU, HDU, escalation wards as well as other 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. These measures have all contributed towards the reduction of CDI rates in the trust.

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

3.0.3 'ATP bioluminescence' is to be introduced shortly 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	Jan 2015
Hand Hygiene Procedure	Jan 2015
Management of Inputting MRSA and Clostridium Difficile Data on to the Healthcare Associated Infections (HCAI) Data Capture System	Sept 2013
Management of Staphylococcus aureus (SA) - Meticillin resistant (MRSA) and meticillin - (MSSA)	Aug 2014
Policy	**Review date**
Infection Prevention Policy	March 2015
Blood and Body Spillage	Jan 2015
Hand Hygiene	March 2015
Surveillance of Health Care Associated infection	Sept 2014
Transmissible Spongiform Encephalopathy (TSE)	Ongoing 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	Jan 2015

Investigation, Management and Control of Outbreaks of Infectious Diseases in Trust Premises	Jan 2015
Environment and Infection Control Issues in the Planning and Design of Ward/Department Areas	Jan 2015
Management of Multi Drug Resistant Organisms including ESBL	Jan 2015
Management of Carbapenemase-Producing Bacteria	Jan 2015
Management of Patients with Severe Acute Respiratory Syndrome (SARS)	Jan 2015
Polices/Procedures under review	**Review/ Completion Date**
Management of Chickenpox/Shingles in Hospital	Under review
Respiratory Virus Infection including RSV	Under review
Prevention of Nosocomial Invasive Aspergillosis during Demolition, Construction and Renovation Activities	Under Review

3.2 Infection Prevention Link Champions

Link Champions are assigned from each Ward and Department. 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.

Additionally the Link Champion role is currently being rolled out to areas in the community with the initial meeting planned for April 2013.

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.

3.3.3 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.

3.3.4 To demonstrate compliance with hand hygiene and raise the importance of hand hygiene throughout Community Health Services (CHS), a rolling programme of monthly hand hygiene compliance self-audits has continued during 2012-2013. The self-audit is based on the World Health Organisation (WHO) 5 moments for hand hygiene and asks staff to examine their hand hygiene practice when dealing with 4 clinical situations.

3.3.5 This audit has been co-ordinated by the clinical audit team, 1254 forms have been sent out to 91 teams, with 949 forms being returned (75.7% response rate). These figures include teams that were re-audited. As the audit department no longer has the capacity to deal with the volume of work generated by this audit, alternative ways of assessing hand hygiene technique are to be considered for 2013/14 e.g. looking at staff knowledge and assessment of practice.

3.3.6 Analysis of some of the staff comments generated during the audit revealed a lack of understanding and further education and training sessions will be organised to address this.

3.3.7 During 2012/13 a programme of covert observed hand hygiene audits has been established in the community. Monthly audits are performed in clinical areas by members of staff that have been trained to complete the audit process, using an audit tool which reflects the World Health Organisation (WHO) 5 moments for hand hygiene; opportunities for hand hygiene at the point of care. Although it was acknowledged that not all areas of CHS would be able to carry out covert audits due to the nature of their work i.e. being lone workers, alternative ways are being explored to address this, three areas were identified that could conduct this audit, Sexual Health Services, Community Dental Services and Foot and Ankle Surgery.

3.3.8 The overall purpose of the audits is to monitor adherence to Trust procedure and identify staff groups/ practices where future training is needed.
As part of the audit, names of any staff that have been non-compliant are fed back to their appropriate managers for discussion and appropriate action.

3.3.9 Compliance with the covert audits has been extremely good and possible new staff groups and locations are being considered for 2013/14.

3.4 Antimicrobial Stewardship Programme

3.4.1 Antibiotic stewardship programme has already seen the introduction of a revised, evidence based antibiotic formulary for adults, a separate formulary for paediatrics and antibiotic prophylaxis guidelines in surgery all emphasising prudent antibiotic prescribing.

3.4.2 Regular ward rounds are also conducted by consultant microbiologists/antimicrobial pharmacist to encourage prudent antimicrobial prescribing.

3.4.3 Compliance with formulary is audited at quarterly intervals and fed back to the divisions and individual consultants.

3.4.4 ‘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.

3.4.5 Michelle Wong, Antimicrobial Pharmacist who commenced in post 1st June 2011 is on maternity leave since December. Essential duties have been re-allocated

3.4.6 The DIPC Strategic Group is a sub-committee of the Hospital Infection Prevention Committee (HIPC), and reports to HIPC on a bi-monthly basis.

3.4.7 The group meets bi-monthly to not only discuss specific & general Infection Prevention issues and the strategy to address this but also issues related to antimicrobial stewardship, and has the following membership:

- Director of Infection Prevention and Control (Chairperson)
- Director of Pharmacy or deputy
- Antimicrobial Pharmacist
- Consultant Microbiologists
- Nurse Consultant – Infection Prevention
- Lead Nurse- Infection Prevention
- Procurement-once in 2 months

3.4.8 The Antibiotic Infection Management group have a programme for revision of core antimicrobial policies. The group also conducts audits involving junior 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.

Procedures	Review date
Antibiotic Review/Stop Date (Adult patients)	1st January 2014
Protocols	**Review date**
Vaccination and Antimicrobial prophylaxis for patients undergoing elective or emergency splenectomy or those who are asplenic or have a dysfunctional spleen	Under Review
Guidelines	**Review date**
Antibiotic Assay - (included as part of the Antimicrobial Formulary)	1st Dec 2014
Antimicrobial Formulary – for the management of Common Infections in Adults within General Medicine and Surgery	1st Dec 2014
Use of Vancomycin in adults – (included as part of the Antimicrobial Formulary)	1st Dec 2014
Change from IV to oral antibiotic policy (CHORAL) (included as part of the Antimicrobial Formulary)	1st Dec 2014
Antimicrobial Formulary – for the management of common infections in Paediatric patients (including the neonatal Antibiotic Policy)	01/02/2016
Gentamicin Adult Dosing Treatment	Under Review
Antibiotic Prophylaxis in Adults undergoing Surgery	For Review
Procedures/Protocols/Guidelines under development	**Review/Completion date**
Antifungal Policy	Under review
Gentamicin Guideline for Neonates	01/11/2014

3.5.5 The DIPC strategic group has an annual rolling audit programme. Antimicrobial Formulary and Antibiotic Stop/Review compliance Point Prevalence surveys are conducted on a quarterly basis, with feedback at Divisional level and at the HIPCC meetings. The results from these audits are 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. Antibiotics Prescribing Indicators audit on individual consultants are conducted on a regular basis with feedback to individual consultants to encourage prudent antibiotics prescribing. Examples of indicators reviewed include recording of indication, compliance to formulary, evidence of review of intravenous

antimicrobials if >48hours. Smaller more specific audits are conducted on an ad-hoc basis, with feedback to the relevant Directorate. Audits this year have included retrospective audit on Gentamicin monitoring, antibiotics allergy recording and effect on antibiotics prescribing. Audits this year have included a retrospective audit on Vancomycin monitoring, audit of antibiotic prescribing on Cardiac ITU and an audit based on start smart then focus document in surgery.

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

3.4.10 The Microbiologists and Antimicrobial Pharmacist provide a comprehensive education and training programme for medical and pharmacy staff and non-medical prescribers. Appropriate use of antimicrobials has now been included as part of the Medicines Management training for nursing staff. Education sessions on prudent antimicrobial prescribing will also be introduced.

3.4.11 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.

3.4.12 The Microbiologists and Antimicrobial Pharmacist devote a large amount of time to clinical ward rounds covering the whole Trust.

3.4.13 The Antibiotic Infection Management group continue to work closely with medicines management colleagues in Primary Care to help combat the problem of healthcare associated infections.

3.4.14 The Trust participated actively in the Europe wide initiative- 'Antibiotic Awareness Day'. Educational presentations & a quiz were made available on the Trust intranet.

3.4.15 The team are on the process of updating the *Clostridium difficile guidance in* line with the recent guidance issued by the advisory committee on ARHAI (Antimicrobial Resistance & Healthcare Associated Infections)

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. This has related principally to a number of areas in the past year notably:

- New builds including – Multi Storey Car Park, New entrance, New Stroke Unit, McMillan Unit.
- Privacy and Dignity issues

3.5.2 Water Safety Group has been established in the Trust in line with the recent recommendation made by the DH

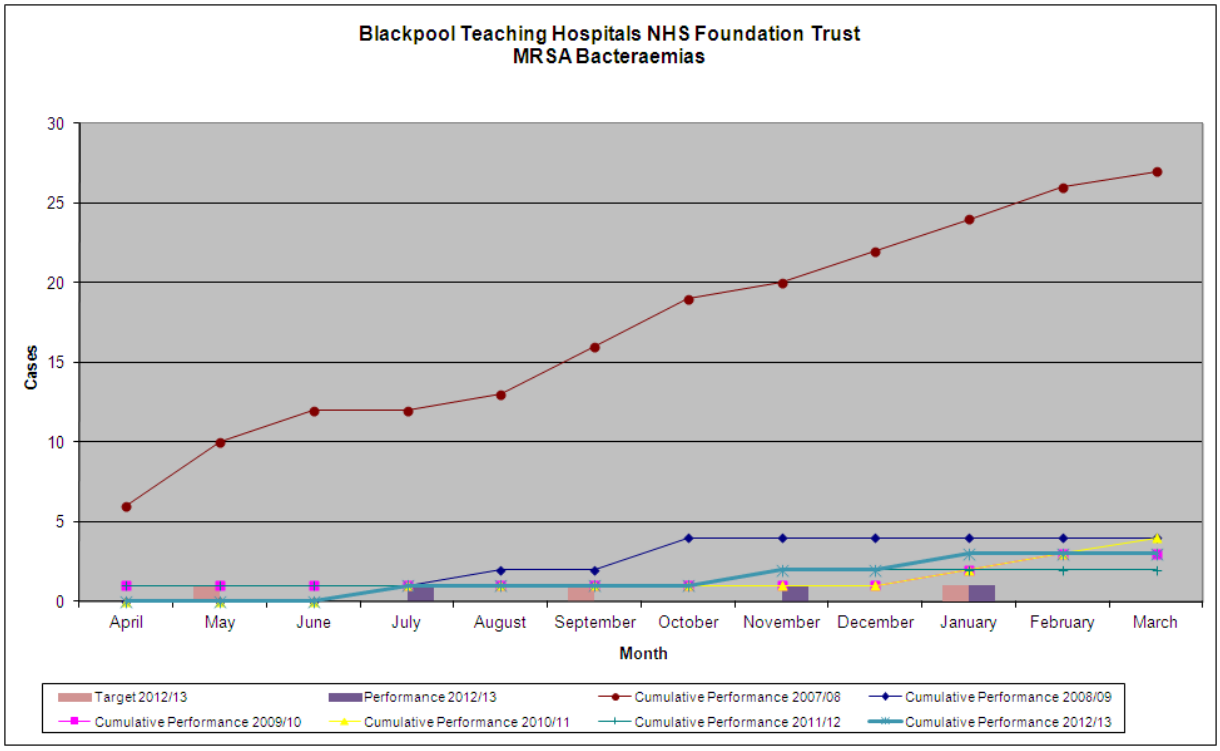
3.6 Decontamination

3.6.1 The Decontamination Committee is lead by Estates and has IP representation with responsibility to the HIPC

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 agreed with the PCTs a set at a total of 3 for the year, the Trust achieved 3.



3.7.3 Actions taken to maintain low levels of MRSA Bacteraemia:

- Ongoing '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.
- Ongoing 2% Chloraprep for the insertion of peripheral line, central line and the taking of blood cultures
- Updated procedures for takings blood cultures, inserting & managing central lines and peripheral lines.
- Daily inspection sheet for all indwelling devices. This requires acknowledgement of an ongoing 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 RCA conducted by the Lead Clinician, Directorate Manager, Matron and Nursing 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, Deputy Medical Director/DIPC 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
- PCR 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
- New 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 continued to decrease between April 2012 and March 2013 equating to 3 incidences attributable to the Acute Trust against a trajectory of 3. IMT meetings have highlighted a number of issues such as non-compliance with the policy with regards to screening and decolonisation treatment. In the third incidence of MRSA Bacteraemia, it was deemed that the incident was unavoidable. 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 1 bacteraemia cases. Clearly preventing these cases relies upon co-operative working with the CCG's.

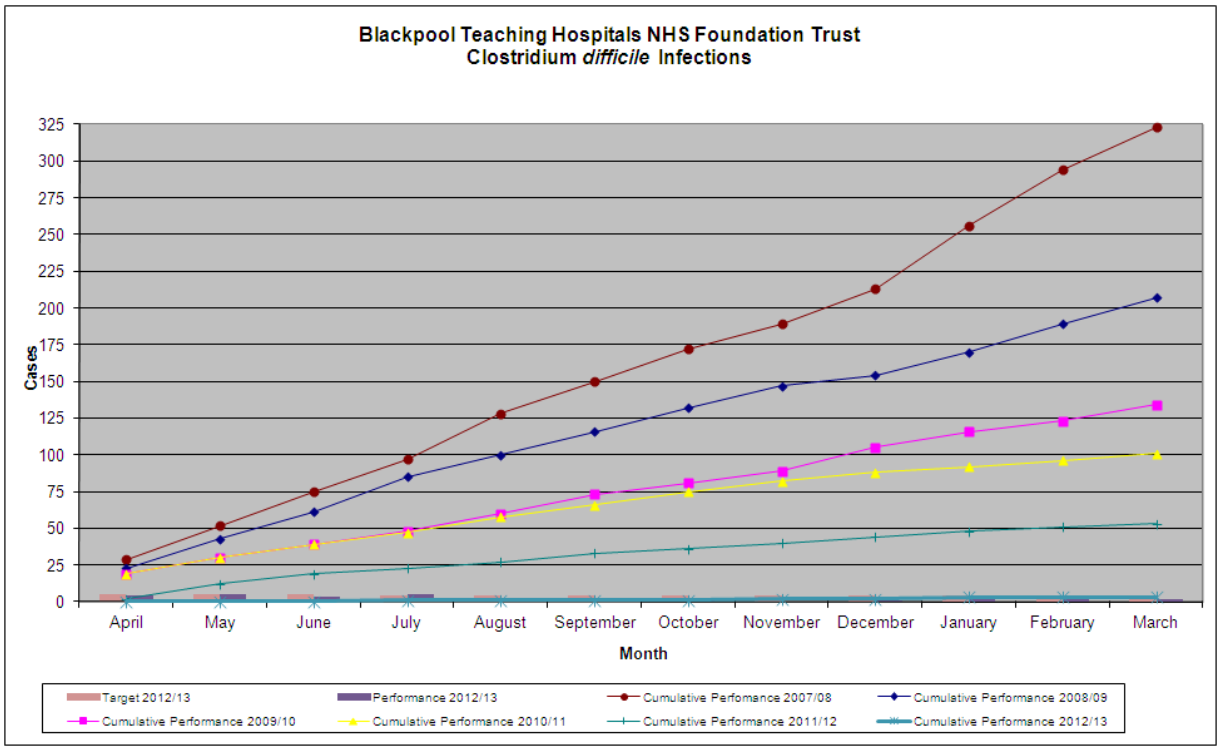
3.7.6 Monthly totals of new cases of MRSA Bacteraemia are produced and current data reported to HIPC. The Health Protection Agency mandates that all MRSA Bacteraemia be reported on the HCAI Data Capture System, which is locked down by the 15th of the following month. The IP team complies with this requirement.

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 ongoing 2008/2011 53% reduction from the DH was agreed with the PCTs and set at a total of 51 for the year, the Acute Trust achieved 28. This is an 86% reduction of figures from 2007/2008.



3.8.3 Measures to combat CDI

- 48-hour/5 day stop/review policy for antibiotics
- The prescription sheet was changed to ensure that antibiotics are only prescribed for five days.
- Embedding restricted antibiotic formulary
- Changed treatment policy for CDI
- Monthly covert hand hygiene audits
- Regular ward rounds by consultant microbiologists on Acute Medical Unit (AMU) and other high risk wards to ensure prudent antibiotic prescribing
- Root Cause Analysis conducted on cases of Cdiff 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

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

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 Bacteria policy has been compiled to address issues of multi drug resistant bacteria. 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.

3.10.2 **Avian flu (H7N9) and the Novel Corona Virus –**

As of 2 May 2013, 128 human cases of influenza A **(H7N9)** infection, including 26 deaths, have been reported from ten provinces and cities in eastern China. Significant morbidity is associated with H7N9 infections in humans. There is currently no evidence of sustained human-to-human transmission. Investigations into three familial clusters have been unable to rule out human-to-human transmission, and common exposure remains a possibility. Despite extensive investigations, the source of A(H7N9) infection to humans is still unclear, the potential pandemic threat presented by this virus demands continued close monitoring in both human and animal populations in China and worldwide.

The new coronavirus was first identified in September 2012 in a patient who died from a severe respiratory infection in June 2012. As of 9 May 2013 there have been 33 cases detected globally. However, this is a dynamic situation and more cases may be reported.

E-mail with information on the relevant links (PHE), diagnosis, management and IPC precautions was sent out to the stake holders with particular emphasis on transferring suspected cases to the isolation ward immediately, inform IPC team and ensure clinical staff were fit tested with high efficiency respiratory masks.

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 April 2012 to June 2012 all data collected was reported to the HPA. A further three months of Orthopaedic surveillance was continued in-house.

3.11.2 Surveillance has also been conducted with patients undergoing Vascular Surgery and Caesarian Section patients. The Audit and Surveillance role was filled in August 2012, and an annual programme of surveillance has been conducted. Incorporating:

- Orthopaedic
- Vascular
- Caesarian Section
- Cardiac
- Bowel Surgery

3.12 **Audit and Feedback Activity**

3.12.1 To ensure that Infection prevention objectives are met and completed it is important to implement an annual programme of audit of infection prevention polices and procedures as well as environmental audits 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:

- Environmental Audits - wards and departments audited by manager or link personnel on a monthly basis
- ICNA Audits done at least every other year by IPN for all ward areas.
- 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.
- Saving Lives HII – audits are conducted quarterly by link nurses and clinical departments/areas

    - Central line insertion
    - Central line maintenance
    - Peripheral line insertion
    - Peripheral line maintenance
    - Urinary catheter care
    - Ventilated patient care
    - Pre and peri-operative care
    - Renal Dialysis Insertion and ongoing care
    - Reduce the risk of Clostridium difficile
    - Matching Michigan project- monthly surveillance of central venous catheters in ITU/HDU
    - Covert Hand Hygiene audits monthly
    - Theatre Cleaning weekly monitored audit
    - PEAT Inspection – annual.

3.13 **Patient Environment Action Team (PEAT)**

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

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

3.14 Outbreaks

As in previous years Norovirus continues to cause outbreaks was the during the winter months. There were fewer ward closures and lost days of elective activity in the Trust compared with last year. In total between April 2012 and March 2013, 36 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.

3.15 Incidents

3.15.1 CPC outbreak on Haematology: -

There were three patients on the Haematology Ward who screened positive for Carbapenemase Producing Coliforms (CPC). All three isolates have been confirmed as being positive for blaKPC like non-metallo-carbapenemase gene. The outbreak was dealt with in conjunction with colleagues from HPA.

An action plan was formulated to address the following issues:

- Deep Clean
- Increased hand hygiene awareness and enhanced environmental cleaning
- Increase sanitary cleaning instigated by ISS Mediclean
- Strict adherence to IP Practices
- Admission screening in line with update policy as well as discharge screening from haematology
- Policy for transfer of patients to other hospitals was strictly adhered to
- A CPC leaflet which can be given to patients and their relatives for future cases
- Clear and Concise information and Communication with our GP's and community colleagues was maintained at all times

3.15.2 **Anthrax in heroin users**.

The first case in the United Kingdom was identified in Scotland on the 25th of July 2012. Anthrax was the cause of mortality in two patients who presented on the 17th of August and the 10th of September with completely diverse symptoms mimicking other infectious diseases and late in to the course of their disease. Early diagnosis in the second case prevented organ donation from an infected patient. The lessons learnt were disseminated through presentations locally and nationally.

3.16 **Education and Training**

3.16.1 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.

3.16.2 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.

INFECTION PREVENTION PROGRAMME 2013/2014

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 Standards for Better Health, CNST and the Health Act 2006.

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 Board	April 2013
Hospital Infection Prevention Committee (HIPC)	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 • Bi-monthly meetings of the CHS Infection Prevention and Control Working Group (IPCWG).	Ongoing
Compliance with the CQC standards	DIPC/Nurse Consultant	• Quarterly 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	Ongoing
To ensure Compliance with NHS litigation Authority (NHSLA)	DIPC/Nurse Consultant	• Attend NHSLA meetings as appropriate • Ensure electronic evidence file is up to date on shared drive • Ensure Policies and Strategy comply with NHSLA	Ongoing

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Active Surveillance, Investigation and incident monitoring **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.	DIPC/ Consultant Microbiologists/ Nurse Consultant Audit & Surveillance Nurse/Data Analyst	• Mandatory three month 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 introducing SSI stickers for ease of diagnosis and data collection working with the Divisions.	Ongoing July-August 2013
Promote Hand Hygiene Compliance across the acute trust and community Deal with non compliance as per trust policy	DIPC/ Nurse Consultant/ IPC Team Audit & Surveillance Nurse/Data Analyst HH champions/ward managers/DIPC/Divisional Directors/ED.	• Monthly Covert hand hygiene audits • Monthly results presented to the HIPC and Divisions • Monthly audit of patient hand hygiene • Implementing suggested 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 • HH Data base • Exploring alternative “unbiased” methods of conducting HH compliance audits [e.g. remote video monitoring]	Ongoing

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Phased introduction of 'Wound Care Management' pathway across the WHE	DIPC/Consultant Microbiologist/Nurse Consultant Infection Prevention /IPT/Tissue viability nurse/district Nurses/IT/members from patient& public forum	Creating a working group of stakeholders in the first instance	Phased implementation
Ensuring compliance with the MRSA Screening policy • Phased introduction of Root Cause Analysis of MRSA wound infections [post 48hrs in the first instance] from new or known MRSA colonised patients • Introducing MSSA RCA as expected by DOH	DIPC/ Nurse Consultant/ Lead Infection Prevention Nurse/Audit & Surveillance Nurse/Data Analyst HODs/Ward Managers with support from DIPC & the IPT	• Quarterly monitoring of the compliance with the MRSA Screening policy. Results to be presented to the HIPC and Divisions. • Education & increasing awareness amongst staff • Evidenced by completion of the RCA tool. • Evidenced by completion of MSSA RCA • Implementation requires support from EDs	Ongoing Ongoing May 2013

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	• Quarterly monitoring of compliance with MRSA integrated care pathway. Action plan to be monitored by DIPC / IPC Team. Results presented to HIPC and Divisions • Education & increasing awareness amongst staff	Ongoing
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	Ongoing
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	Ongoing

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Ensure compliance with ANTT and Aseptic Technique	DIPC/ Nurse Consultant/ /Data Analyst	• Annual monitoring of ANTT and Aseptic technique	Ongoing
Central Venous Catheter Programme [central lines; hickman lines; PICC/mid lines] ○ Training & assessment ○ Infection monitoring ○ As part of HII audits	DIPC/Nurse Consultant/Practice Development Sisters Lead Infection Prevention Nurse Audit & Surveillance Nurse/Data Analyst	• Central CVC monitoring programme including: ○ Training & assessment records ○ Monitoring of all CVC insertions & infections • Reported at the DIPC strategic/operational group meetings & fed back to HIPC & Divisions	31/08/2013
Standardise central line insertion & maintenance protocol across the trust	DIPC/Nurse Consultant/Practice Development Sisters		31/08/2013

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Ensure Hospital and Community premises cleanliness is monitored	DIPC/ 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	Ongoing
Ensuring smooth implementation of objective measures for monitoring environmental hygiene and cleanliness of shared patient equipment	DIPC/Nurse Consultant/Lead Nurse Infection Prevention/data analyst		June 2013
Ensure smooth implantation of 'GlossAir'	DIPC/Nurse Consultant/Estates/ ISS Mediclean	• Evidenced by audit records kept by ISS Mediclean, Estates and IPCT	June 2013
Environmental Audits	Nurse Consultant/Lead Infection Prevention Nurse	• Ward and Department Managers to ensure that monthly Environment audits are completed and action plans are implemented • Presented to Divisions • Establish across the organisation into specified Community settings	Ongoing
Isolation/Barrier Nursing Facilities compliance	Nurse Consultant/ Audit and Surveillance Nurse	• Annual audit of use of facilities, review action plan and progress and present to HIPC and Divisions	Ongoing

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Maintain ongoing reduction of *Clostridium difficile* rates in line with directive from the DH	DIPC / Nurse Consultant / Consultant Microbiologists	• Trajectory set at 29 for Acute Trust • Collaborative work across the WHE to ensure best practice • Each Division performance managed to reduce HCAI rates • Phased introduction 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.	Ongoing April 2013 September 2013
New Builds and Refurbishment To ensure close communications with Facilities are maintained Water Safety compliance with regards to monitoring for pseudomonas in augmented care and legionella as mandated by DOH.	DIPC/Nurse Consultant/ Consultant Microbiologists Water Safety Group	• Maintain involvement in new build and refurbishment projects in liaison with Microbiologist of the clinical area • Evidenced by water safety group minutes and regular water monitoring results	Ongoing Ongoing
Decontamination	DIPC/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.	Ongoing

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 • Peripheral intravenous cannula care • Prevention of surgical site infection • Care for ventilated patients (or tracheostomies where appropriate) • Urinary catheter care • Reducing the risk of *Clostridium difficile* • *Decontamination of equipment* • *Enteral feeding* • *Management of chronic wounds*	DIPC/ Nurse Consultant	• Quarterly audit programme • To attain 95% compliance • Audit results to be reviewed by DIPC • Audit results presented to the HIPC • Audit results made available to Trust Staff • Action Plans including progress reviewed by IPT and monitored by the HIPC	Ongoing May 2013
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	• 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	Ongoing

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	• Induction • Mandatory Updates • E-learning programme • Ward based education on antibiotic stewardship & infection prevention • Grand round - Speciality specific teaching. • Including Nurses, AHP's Doctors and Medical Students • Ensure evidence of attendees, non-attendees and follow-ups are provided by Learning and Development for NHSLA • Specific education and training outside the remit of the Induction and Mandatory updates to be provided as necessary • Training figures to be reported to the HIPC/IPCWG and Risk Committee • GPs, consultants, nurses & junior doctor study days to include IPC teaching / raising awareness as standard items	Ongoing

Objective/Action	Lead Person/ Persons Responsible	Comments	Deadline
Antibiotic Stewardship **Acute Trust** **Community**	DIPC/ Consultant Microbiologists/ Director Pharmacy/ Ward pharmacists DIPC/Consultant Microbiologists/ Nurse Consultant/ Community pharmacist lead/NMP Lead	• Evidenced by minutes of the DIPC strategic group meetings • Audits of 'antibiotic choice' compliance with the antibiotic formulary conducted by the pharmacists • Use of narrow spectrum and prudent prescribing encouraged throughout the trust by consultant microbiologists covering specific areas, at trust induction & medical grand rounds • Review of antibiotic policies in the acute trust and community • Education to prescribers through 'Bridging the Gap' sessions • Develop relationships with Non Medical Prescribing Leads and non-medical prescribers • Working with the NMP Lead to review themes from NMP antibiotic audit undertaken during February 2013. • Complete audit cycle	Ongoing
High Impact Action Group for CAUTI	Nurse Consultant/ Consultant Microbiologist	• High Impact Action Group • Whole health economy integrated care pathway • Catheter passport • Work collaboratively towards the reduction in infections from indwelling urinary catheters. • Bi-annual audits across the organisation Incorporate the Safety Thermometer data and provide monthly reports across the organisation	
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. • Create Policy / procedure review calendar Ensure policies updated within a defined time line	ongoing