2015/16

Infection Prevention Annual Report

"We will be a leading centre in healthcare driven by excellence in patient experience, research, teaching and education."

Helen Bucior

In Conjunction with the Infection Prevention Team

University Hospitals of North Midlands

June 2016

Foreword by Chief Nurse/Director of Infection Prevention and Control (DIPC)

Infection Prevention and Control Annual Report 2015-16

This Annual report covers the period 1st April 2015 to 31st March 2016 and has been written in line with the ten criteria as outlined in the Health and Social Care Act 2008 Code of Practice in the Prevention and Control of Infection (updated July 2015). The ten criteria outlined in the code are used by the Care Quality Commission to judge a registered provider on how it complies with Cleanliness and Infection Prevention & Control requirements detailed in the legislation.

2015/16 proved to be another busy and challenging year for the Infection Prevention Team, which included the continued integration and development of an innovative Infection Prevention manual which significantly enhances the quick location of key infection prevention guidance by our front line staff. The Trust experienced heightened pressure over the latter part of the winter months from increased numbers of patients who needed admission into hospital presenting with influenza like symptoms and to a lesser extent norovirus.

MRSA bacteraemia and *Clostridium difficile* remains a high priority for the Trust, gathering of information from Root cause analysis, post infection reviews and listening to front line staff has helped develop action plans and programmes of work to target areas where we can make a difference by improving patient safety/outcomes. The introduction of human probiotic infusion treatment has made a significant difference to our patients with recurrent Clostridium *difficile.*

The Infection Prevention team structure is now embedded within our organisation, focusing on prevention and supporting our front-line colleagues to optimise the safety of our patients.

Healthcare associated infection remains high on the media and political agenda, being seen as a visible and unambiguous indicator of quality and safety of patient care. The infection prevention agenda faces many challenges including the ever increasing threat from antimicrobial resistant micro-organisms, growing service development, national guidelines and targets/outcomes.

The IP Team do not work in isolation; the successes over the last year are due to the commitment to infection prevention that is demonstrated at all levels within the organisation. It is crucial that this commitment continues to ensure that high standards are maintained. I would like to thank everyone for the part they played in achieving and sustaining the significant reductions in avoidable infections, and improving safety for our patients. The emphasis continues to be on sustaining and improving outcomes for 2016-2017.

Liz Rix
Chief Nurse and Director of Infection Prevention and Control (DIPC)

There have been a number of key achievements during 2015 - 2016:

- Integration and development of an innovative Infection Prevention Question and Answer Policy Manual
- New build and upgrade projects to help infection prevention and improve patient experience
- Integration of IP Teams across both across both hospitals
- Planned programme for the installation of IC Net, NG surveillance system. This will enable further integration of IP systems and provide the team with robust and timely information and further enhance the IP Team presence within the clinical setting
- Antimicrobial software application (App) in place to allow clinical staff access to antimicrobial information via mobile devices at the point of care
- Health economy approach to IP which included sharing best practice and discussing trends in antimicrobial prescribing and any related actions
- Collaborative work with commissioners in relation to MRSA bacteraemia and CDI root causes
- CDI action plan
- Programme of CDI training sessions available for all staff
- Four Isolation pods constructed around bed spaces in West Building at Royal Stoke Hospital.
- Senior Nursing Assistant who undertakes hand hygiene assessments, education and Mask fit training
- Standardisation of Hand hygiene products across both hospitals
- On-going use of human probiotic infusion for patients with recurrent CDI or patients who do not respond to typical CDI treatment
- Successful staff influenza vaccination programme. UHNM have vaccinated 2,024 more staff then the same period last year

Abbreviations

ASG	Antimicrobial Stewardship Group
CCG	Clinical commissioning groups
C *difficile*	Clostridium *difficile*
CCG	Clinical Commissioning Group
CDI	Clostridium *difficile* infection
CEO	Chief Executive Officer
CIS	Clinical Information system
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation Payment Framework
DH	Department of Health
DIPC	Director of Infection Prevention & Control
EIA	Enzyme immunoassay
ESBL	Extended Spectrum Beta Lactamase
GDH Ag	Glutamate dehydrogenase antigen of *C. difficile*
GRE	Glycopeptide Resistant Enterococcus
HCAI	Health Care Associated Infection
HCW	Healthcare Worker
ICD	Infection Control Doctor
IM&T	Information & Technology
IPC	Infection Prevention & Control
IPCC	Infection Prevention & Control Committee
IPN	Infection Prevention Nurse
IPT	Infection Prevention Team
MGNB	Multi resistant gram negative bacilli
MHRA	Medicines and Healthcare Products Regulatory Agency
MRSA	Meticillin Resistant *staphylococcus aureus*
MSSA	Meticillin Susceptible *staphylococcus aureus*
NICU	Neonatal Intensive Care Unit
NOF	Neck of Femur
PCR	Polymerase Chain Reaction
PIR	Post Infection Review
PFI	Private Fund Initiative
PHE	Public Health England
PLACE	Patient-led assessments of the Care environment
PPE	Personal Protective Equipment
RAG	Red, amber, green
RCA	Root Cause Analysis
RSUH	Royal Stoke University Hospital
SHA	Strategic Health Authority
TB	Tuberculosis
TKR	Total Knee replacement
UHNM	University Hospitals of North Midlands
VNTR	Variable-number tandem-repeat

Introduction

This report summarises the combined activities of the Infection Prevention Team (IP Team) and other staff at University Hospitals of North Midlands (UHNM) in relation to the prevention and of healthcare associated infections (HCAIs).

The Trust recognises that the effective prevention and control of HCAIs is essential to ensure that patients using our services receive safe and effective care. Effective prevention and control must be an integral part of everyday practice and applied consistently to ensure the safety of our patients. In addition, good management and organisational processes are crucial to ensure high standards of infection prevention and control measures are maintained.

This report demonstrates how the Trust has systems in place, for compliance with the Health and Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.

The Trust set out to continue the commitment to improve performance in infection prevention practice. As outlined in the Health and Social Care Act 2008, at the heart of this law there are two principles:

- to deliver continuous improvements of care
- and that it meets the need of the patient

With this in mind, patient safety remains the number one priority for the Trust. Infection Prevention is one of the key elements to ensure UHNM has a safe environment and practices which is reflected in the Trust '2025 Vision' and 3 years objectives and milestones – turning the vision onto a reality.

Compliance Criteria 1:

Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider how susceptible service users are and any risks that their environment and other users may pose to them

Infection Prevention and Control Team
At UHNM the DIPC is also the Chief Nurse and has overall responsibility for the IP team. The Associate Chief Nurse (Infection Prevention) at UHNS also has the role of Deputy DIPC.

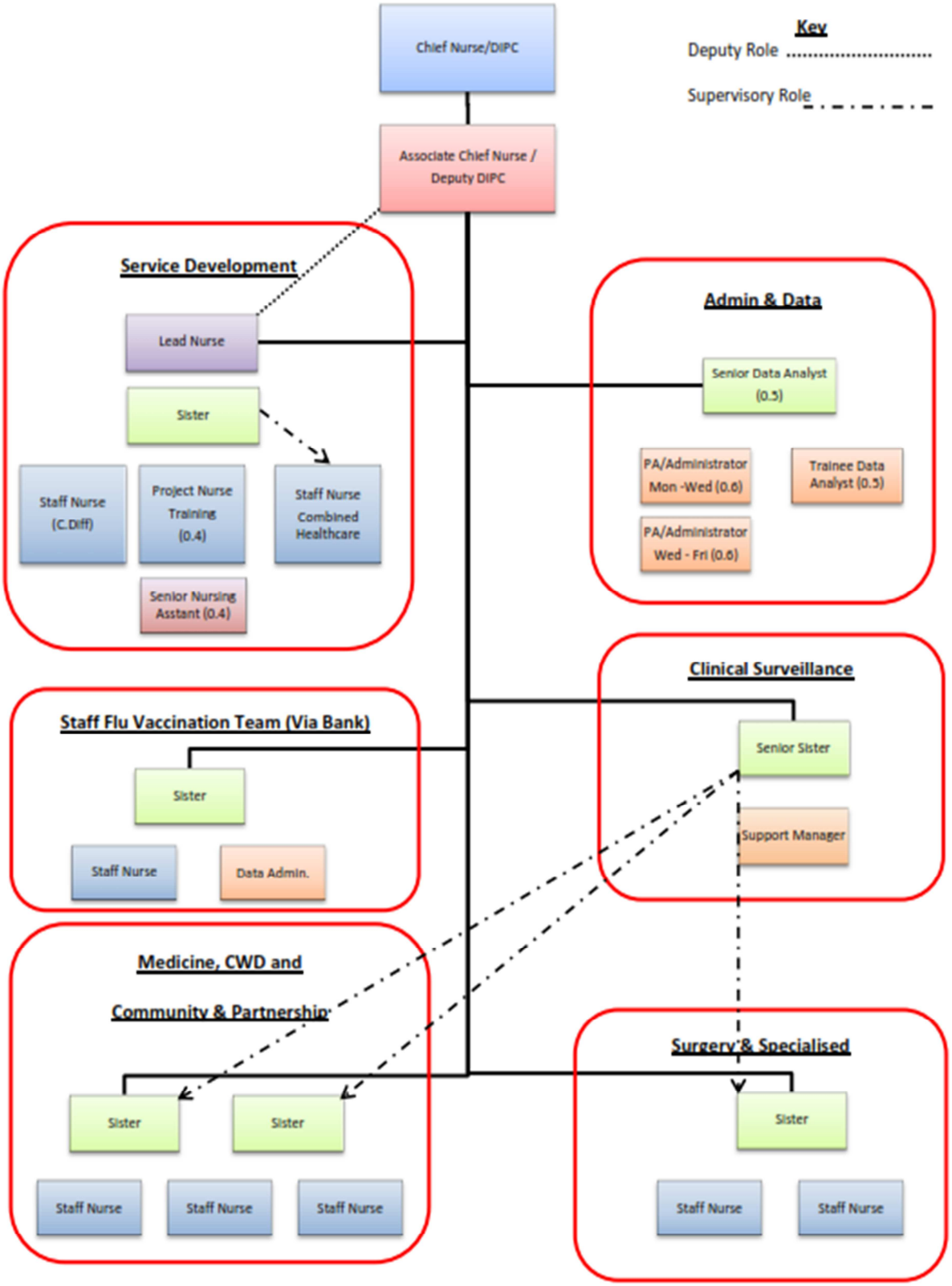
The IP Team work collaboratively alongside the front-line clinical leaders. Supporting proactivity with improved clarity and defined alignment to clinical services. The introduction of new technologies, allows the IP Team to be present within the clinical settings for the majority of their time.

Quality Nurses remain an integral part of service delivery at RSUH and there is a plan to extend this programme at County Hospital time scale. Quality Nurses have a significant role in patient safety explicit within their responsibilities. This provides a key lynch-pin, and an ideal opportunity for the IP Team to meet the challenges and significantly change the method of service delivery to front-line colleagues.

The Infection Prevention service is provided through a structured annual programme of works which includes expert advice, education, audit, policy development, and review and service development. The Trust has 24 hour access to expert advice and support

Infection Prevention Structure – 2016

University Hospitals of North Midlands NHS Trust



Committee structures and assurance processes

Trust Board

The Code of Practice requires that the Trust Board has a collective agreement recognising its responsibilities for infection prevention and control. The Chief Executive has overall responsibility for the control of infection at UHNM. The Chief Nurse is the Trust designated Director of Infection Prevention and Control (DIPC). The DIPC attends Trust Board meetings with detailed updates on infection prevention and control matters. The DIPC also meets regularly with the Chief Executive. An Infection Prevention and Control Task force is in place with responsibility to monitor progress against the Infection Prevention Strategy and Delivery plan. The Task Force meet bi-monthly and is chaired by the Chief Nurse; members include the Medical Director, Lead Consultant Microbiologist, Associate Chief Nurse (Infection Prevention), Lead IPN County Site, Clinical Governance Manager, Chief Pharmacist and Facilities Management Deputy Director.

Quality Assurance Committee

The Governance and Risk Committee is a sub-committee of the Trust Board and is the committee with overarching responsibility for managing organisational risks. The Governance and Risk Committee reviews high level performance data in relation to infection prevention and control, monitors compliance with statutory obligations and oversees management of the risks associated with Infection Prevention and Control.

Quality and Safety forum

The Quality and Safety (Q&S) forum meet monthly and is responsible for ensuring that there are processes for ensuring patient safety; and continuous monitoring and improvement in relation to Infection Prevention. The Q&S forum receives assurance from IPCC that adequate and effective policies and systems are in place. This assurance is provided through a regular process of reporting. The IP team provide a monthly report on surveillance and outbreaks.

Infection Prevention and Control Task Force

The Infection Prevention Task Force was established as a forum for providing direct assurance to the Director of Infection Prevention. The main objective of the Task Force is to provide a strategic drive in ensuring improved performance in relation to health care associated infections.

Following a review of the governance arrangements and assurance and monitoring against the infection prevention agenda the Infection Prevention Task Force have reviewed the terms of reference.

As the Director of Infection Prevention is assured that the Infection Prevention Committee is monitoring and providing assurance on the delivery of the infection prevention agenda the members of the Task Force have agreed to meet on an ad hoc basis.

The meetings will continue to monitor the infection prevention agenda but on a less frequent basis.

Infection Prevention and Control Committee

IPCC meet bi-monthly this meeting is chaired by the Chief Nurse/DIPC. Prior to integration County Hospital held IPCC meetings monthly. IPCC is a statutory standing committee with responsibility for ensuring delivery of the Infection Prevention and Control Strategy. This includes the review of policies, maintenance of the risk register, receipt of regular audit findings, performance monitoring, ensuring delivery of actions in relation to the on-going and

effective operational delivery of infection prevention and control across the organisation. This committee reports to Trust board through the Quality Assurance Forum.

Divisional Infection Prevention Groups
These groups are responsible for monitoring local performance in relation to Infection Prevention. Assurance is provided by Divisional IP groups, and Infection Prevention meetings are held. Groups provide assurance to the Trust Infection Control Committee that adequate systems and processes are in place within wards and departments and that performance and risks are being monitored.

Antimicrobial Stewardship Group
The Antimicrobial Stewardship Group (ASG) is a multidisciplinary group responsible for the monitoring and review of good antimicrobial stewardship within the Trust. The ASG reports directly to the IPCC and meets on a 2 monthly basis. The Group drives forward local activities to support the implementation of international and national initiatives on antimicrobial stewardship including Start Smart then Focus and the European Antibiotic Awareness Campaign. The ASG produces and updates local antimicrobial guidelines which take into account local antibiotic resistance patterns; regular auditing of the guidelines; antimicrobial stewardship practice and quality assurance measures; and identifying actions to address poor compliance with guidelines. Antimicrobial audit results are reported widely throughout the organisation, for example at Divisional Clinical Governance and Speciality Morbidity and Mortality meetings. There is an escalation process for clinical areas that do not follow clinical guidelines and there is active engagement at Executive level with senior clinicians in Specialities with repeated non-compliance.

There is a separate **Health Economy Antimicrobial Group** chaired by one of the Consultant Microbiologists. The Group meets quarterly, and has representation from all key stakeholders, including general practitioners. A regular report is submitted to IPCC.

Decontamination Meetings
The Trust Decontamination Lead is the Chief Executive. The management of Decontamination and compliance falls into three distinct areas: Estates, IP Team and the equipment user, details are outlined later in the report.

Water Safety Group
The Water Safety group is a sub group of IPCC and meets quarterly It is chaired by the Deputy DIPC with multi-disciplinary representation.

Mortality Review group
The Trust Mortality Review group meet monthly and Chair for the group is the Deputy Medical Director (Patient Safety). This group reports directly to Quality and Safety Forum, providing an understanding of the interpretation and application of Dr Foster and other mortality data. The Group has initiated a proactive approach to reviewing mortality alerts and providing prompt assurances to both the Trust and its external stakeholders in relation to any potential alerts relating to mortality. The mortality information and analysis is also reported to the Quality Assurance Committee to allow for non-executive review and challenge around the robustness of the data and the processes in place for reviewing mortality and providing assurances to the Trust Board.

The corporate structure for reporting and monitoring on mortality issues is outlined below:

Clostridium *difficile* 30 day all-cause mortality information is included in the Infection Prevention dashboard.

Surveillance of Healthcare Associated Infection (HCAI)

MRSA bacteraemia

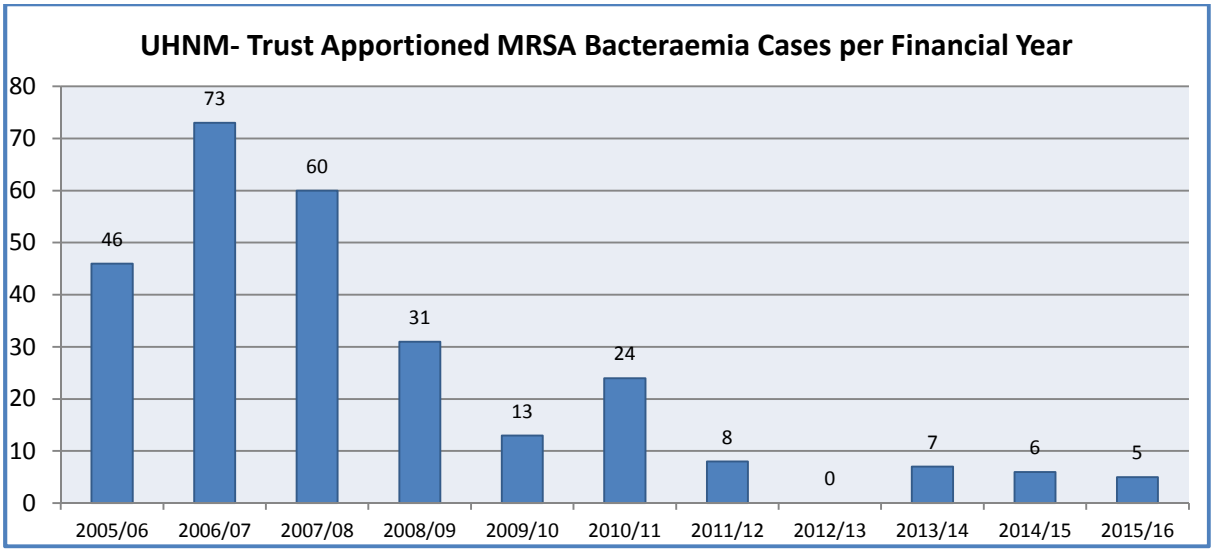
The Department of Health (DH) began mandatory surveillance of MRSA bloodstream infections (bacteraemia) in 2001. This includes all bloodstream infections with MRSA whether acquired in hospital or in the community and any that are considered to be a contaminant or not. Data is reported to the DH, via Public Health England (PHE) through the national HCAI database monthly.

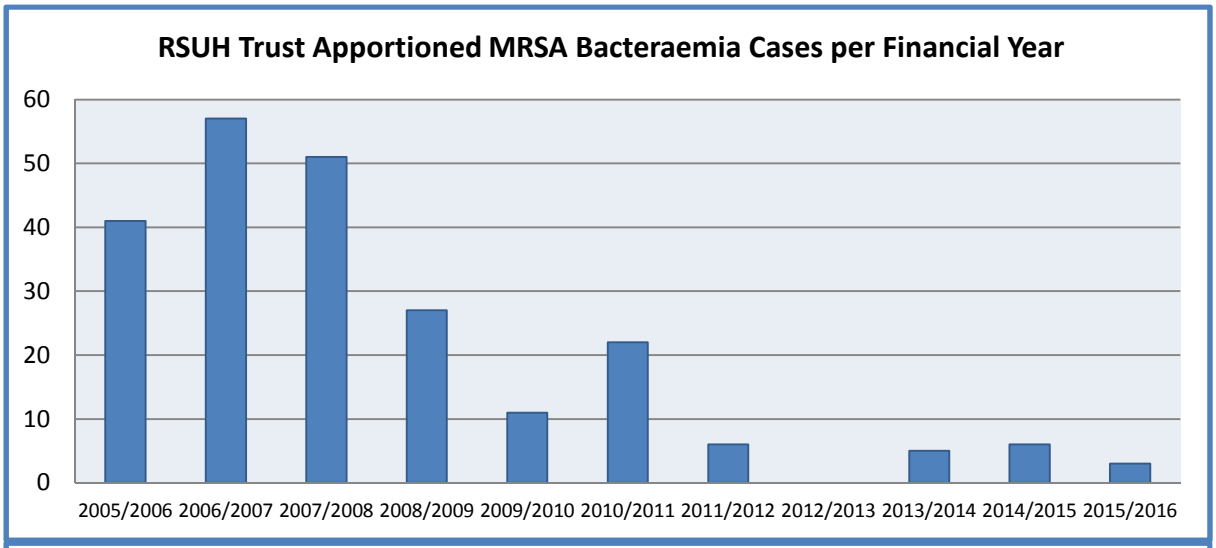
There continues to be a national zero target for all MRSA bacteraemia, as part of this zero tolerance approach an in-depth Post Infection Review (PIR) is undertaken for all MRSA bloodstream infection cases which includes an external review, the purpose is to identify any possible failings in care and to identify the organisation best placed to ensure improvements are made.

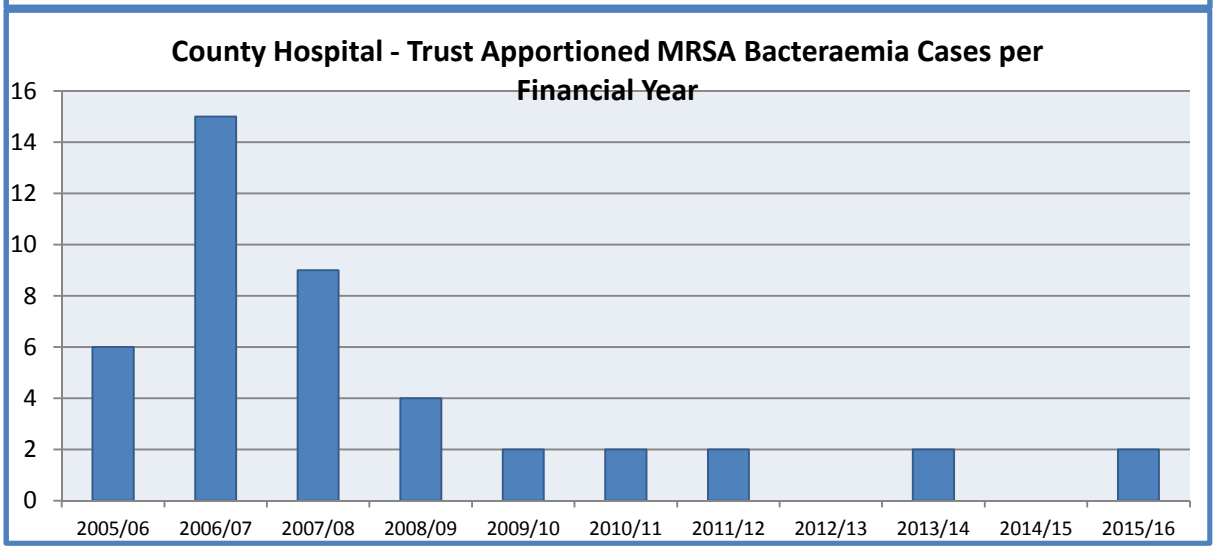
Trust apportioned cases are defined as blood culture taken "on or after the 3rd day of admission".

For the period covered by this report UHNM had 5 Trust apportioned MRSA bacteraemia which is a 17% decrease in the number of MRSA acquisition cases compared to the previous year.

The lessons learned were circulated widely throughout the organisation, as well as with other health services, where relevant. The external panel deemed 2 unavoidable, and in three cases were deem avoidable.


UHNM- Trust Apportioned MRSA Bacteraemia Cases per Financial Year
80
70
60
50
40
30
20
10
0
46
73
60
31
13
24
8
0
7
6
5
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16


RSUH Trust Apportioned MRSA Bacteraemia Cases per Financial Year
60
50
40
30
20
10
0
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
2014/2015
2015/2016


County Hospital - Trust Apportioned MRSA Bacteraemia Cases per Financial Year
16
14
12
10
8
6
4
2
0
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16

***Clostridium difficile* infection (CDI)**

Clostridium *difficile* is a bacterium that can cause colitis. Symptoms range from mild diarrhoea to a life threatening disease. Infections are often associated with healthcare, particularly the use of antibiotics which can upset bacterial balance in the bowel that normally protect against CDI. Infection may be acquired in the community or hospital, but symptomatic patients in hospital may be a source of infection to others. A proportion of the healthy population have Clostridium *difficile* normally residing in their gut without causing any illness.

In March 2012 the Department of Health (DH) issued revised guidance on how to test, report and manage CDI. The new guidance aimed to provide more effective and consistent diagnosis, testing and treatment of CDI. It provided the ability to categorise patients into one of three groups:

- CDI likely
- Potential Clostridium *difficile* excretors (carriers)
- CDI unlikely

Identification of potential Clostridium *difficile* excretors may aid infection control measures. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_133016.pdf

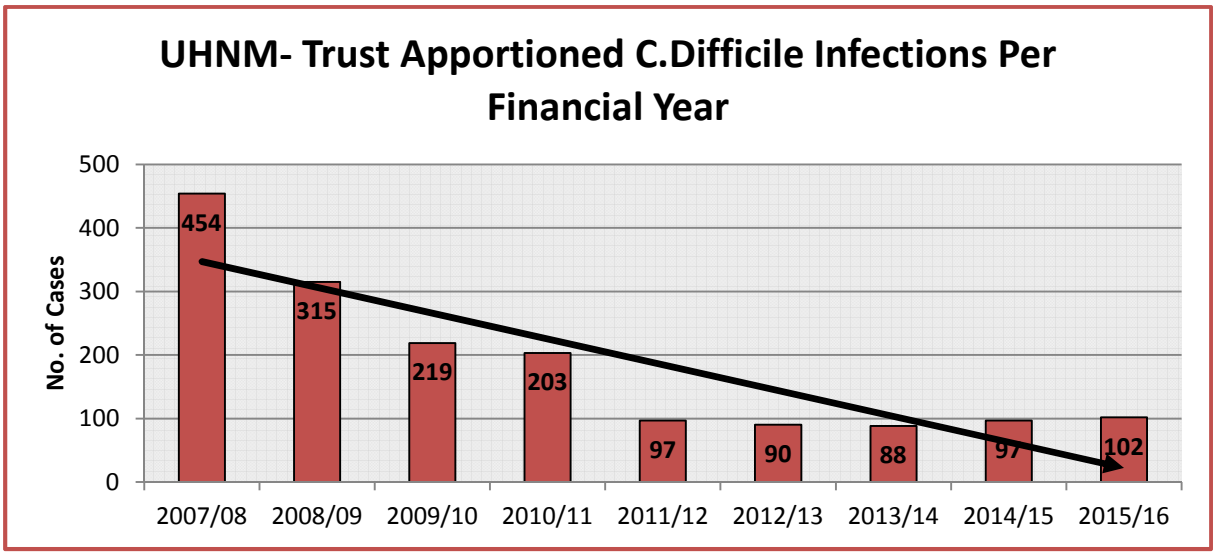
UHNM is compliant with DH testing guidance for CDI.

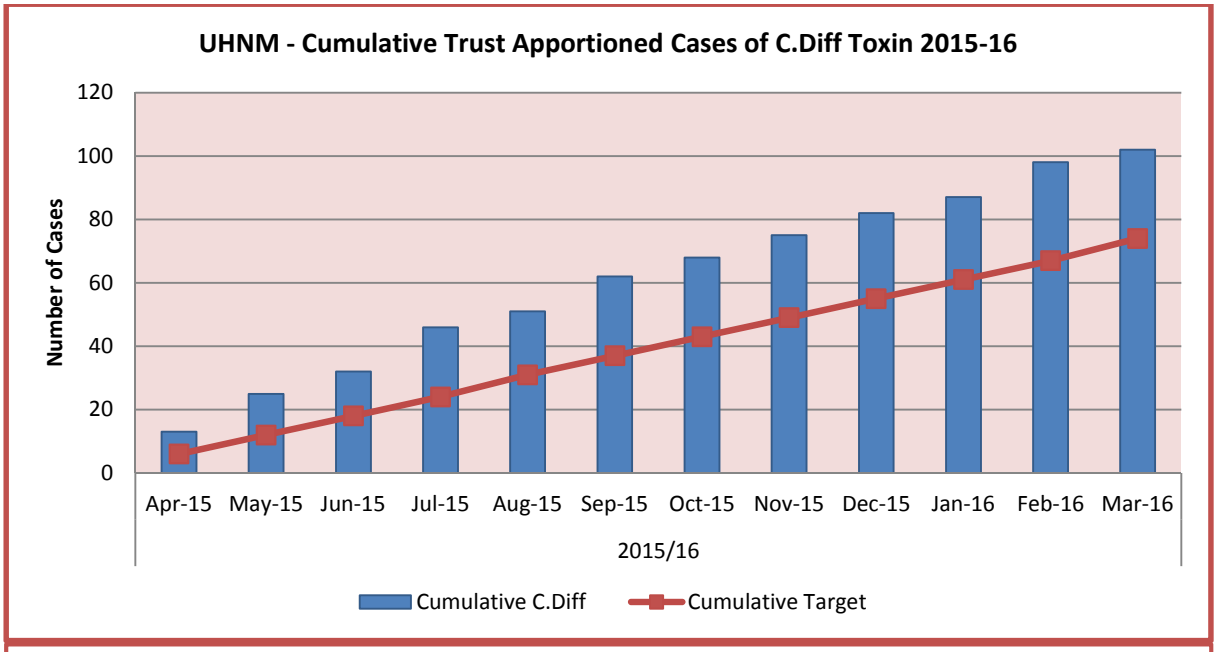
All patients with a toxin A/B positive or a toxin B gene PCR test positive report are isolated until at least 72hrs free of symptoms and a formed stool has been achieved.

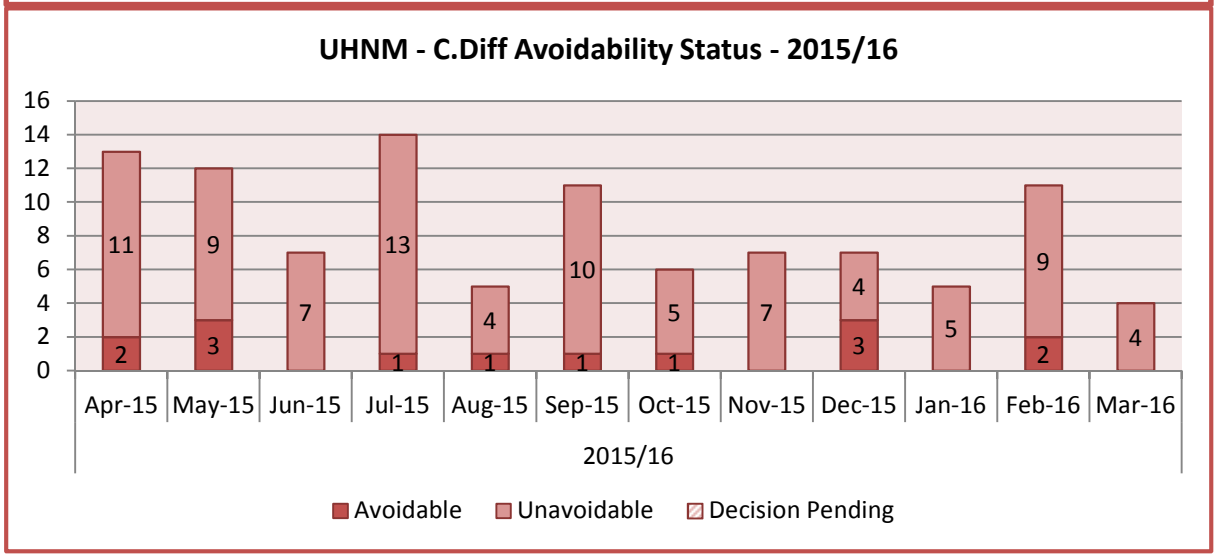
Cases of CDI that are considered to have been acquired in that Trust are defined as sample taken "on or after the 4th day of admission".

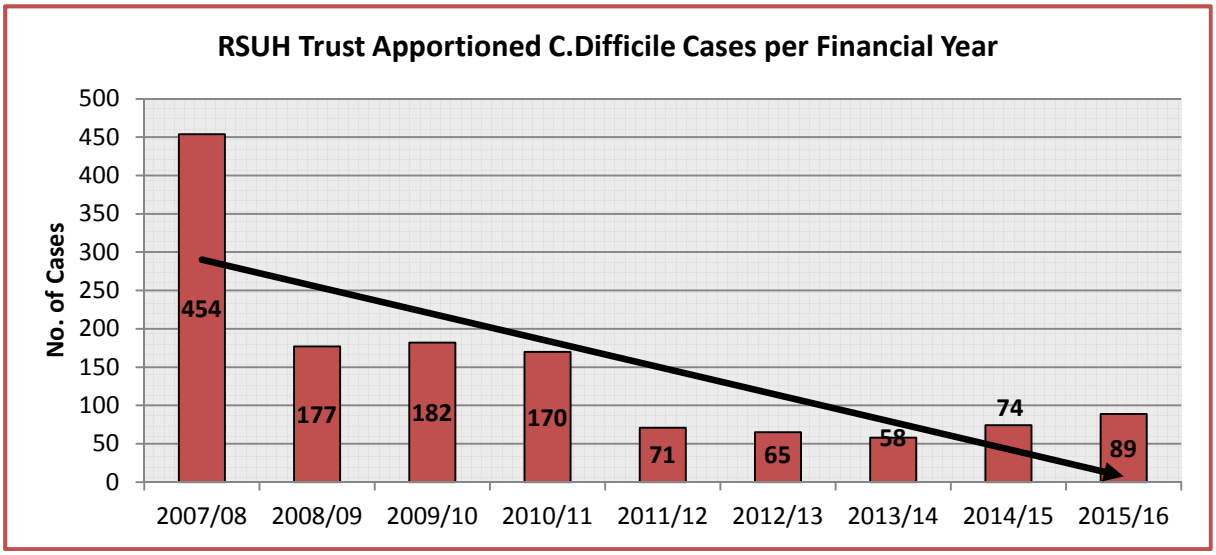
The target set by NHS England for Trust acquired cases at UHNM 2014-15 was 74 as with the previous year. UHNM reported a total of 102 cases which is a 5% increase on the previous year, missing the target set for the period covered by this report.

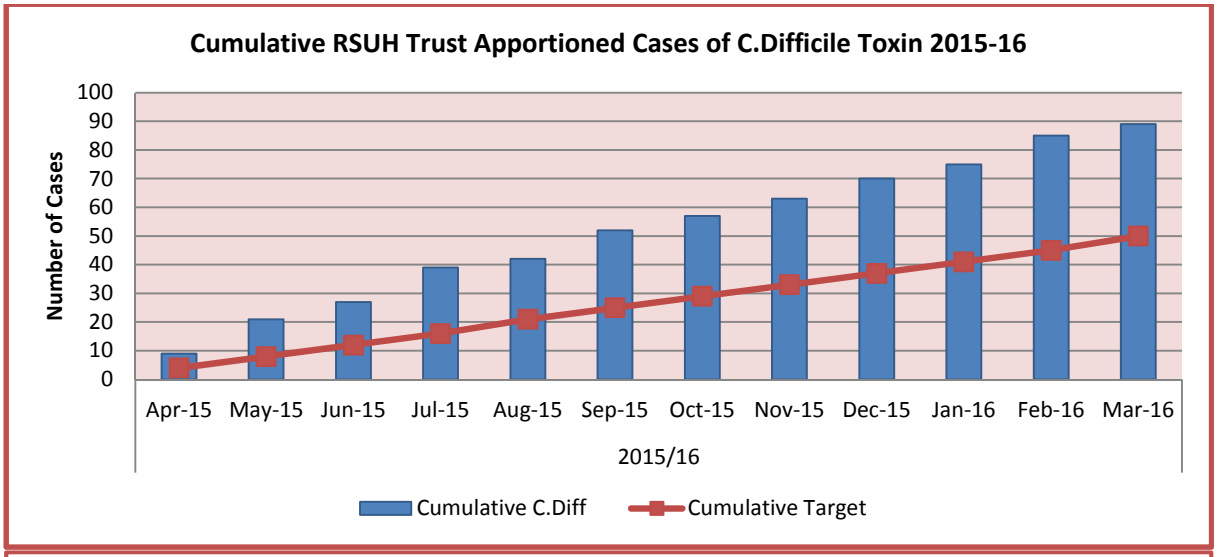
At the time of writing this report 81 cases were deemed as unavoidable.

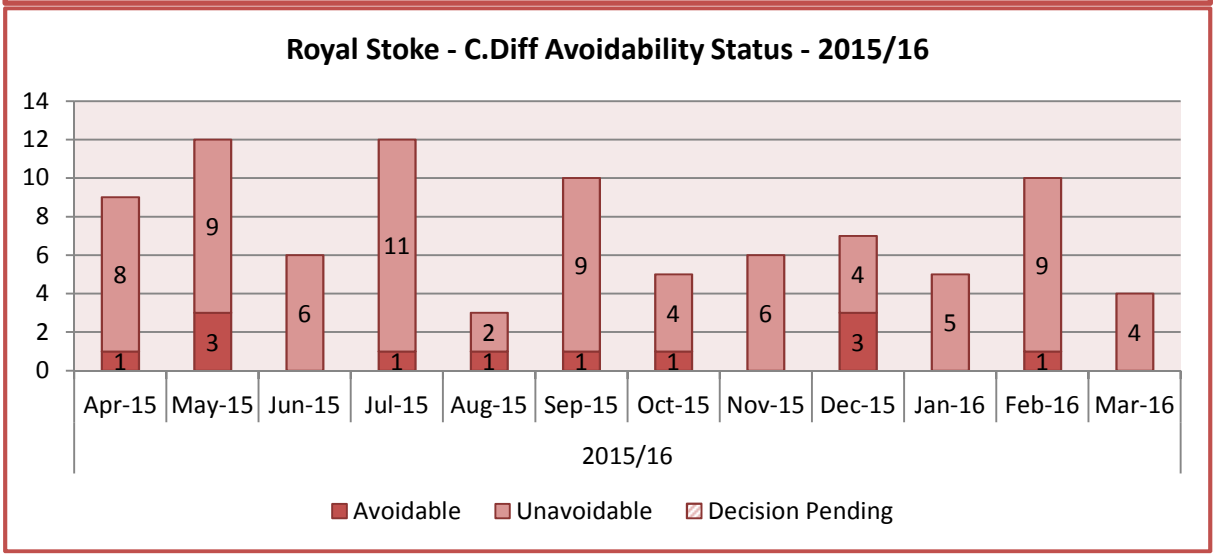


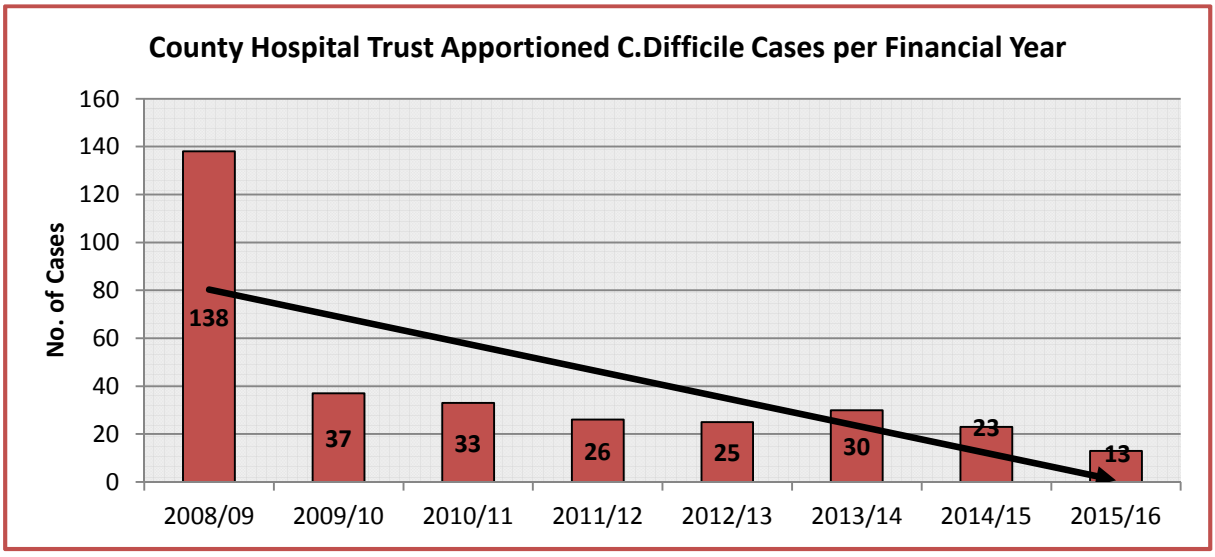

UHNM - Cumulative Trust Apportioned Cases of C.Diff Toxin 2015-16
Number of Cases
120
100
80
60
40
20
0
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Nov-15
Dec-15
Jan-16
Feb-16
Mar-16
2015/16
Cumulative C.Diff
Cumulative Target

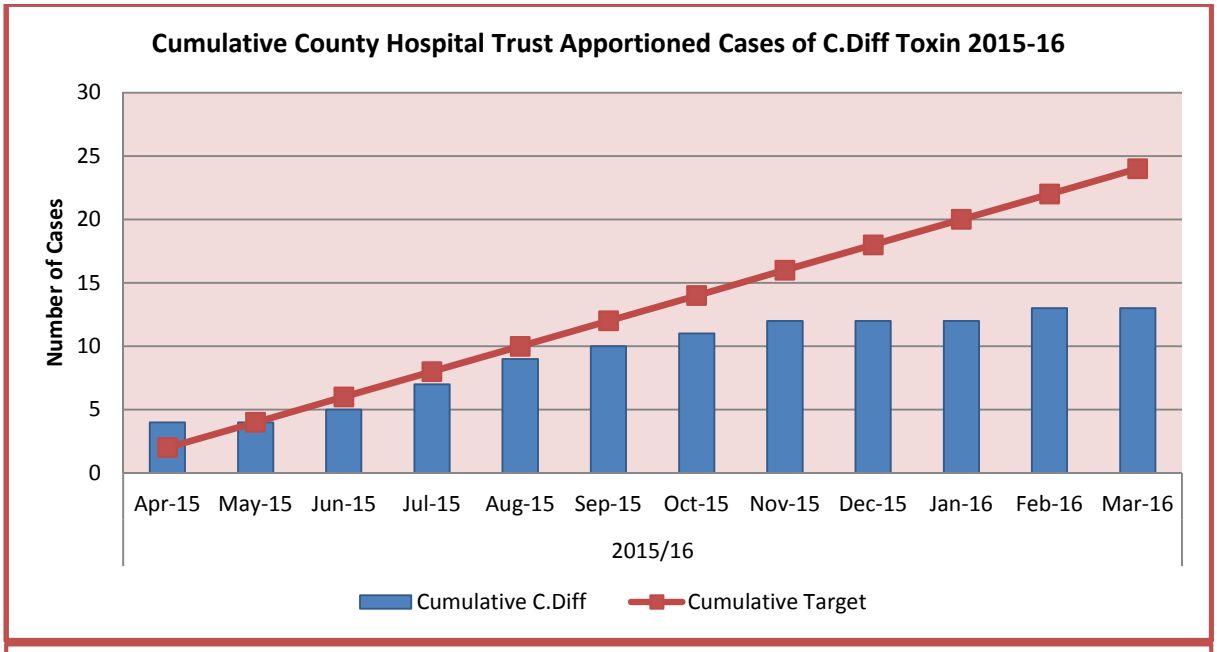

UHNM - C.Diff Avoidability Status - 2015/16
16
14
12
10
8
6
4
2
0
11
2
9
3
7
13
1
4
1
10
1
5
1
7
4
3
5
9
2
4
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Nov-15
Dec-15
Jan-16
Feb-16
Mar-16
2015/16
Avoidable
Unavoidable
Decision Pending

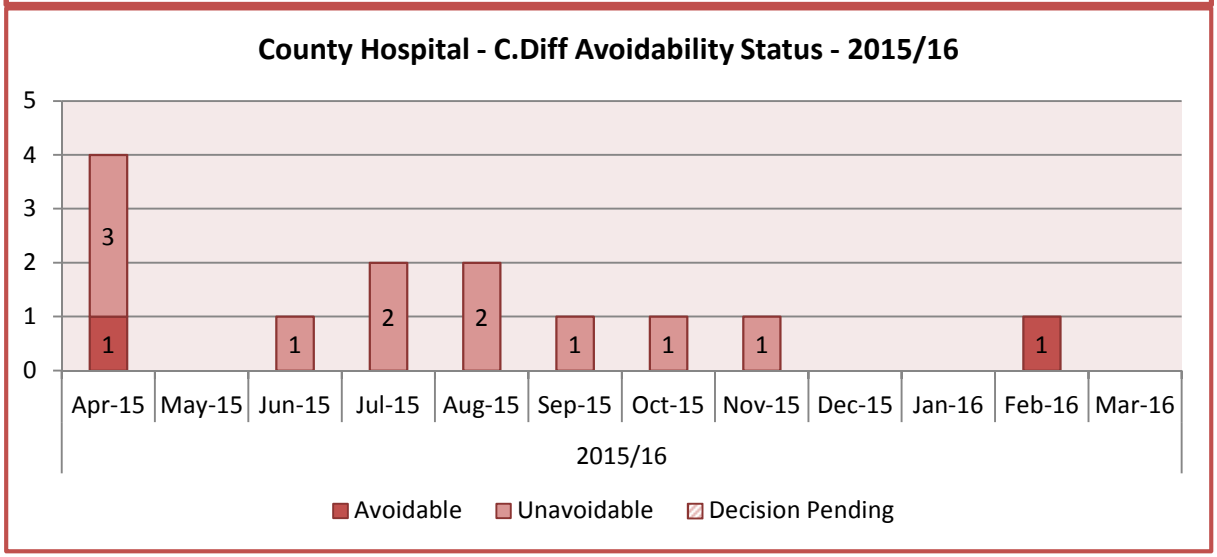

RSUH Trust Apportioned C.Difficile Cases per Financial Year
No. of Cases
500
450
400
350
300
250
200
150
100
50
0
454
177
182
170
71
65
58
74
89
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16


Cumulative RSUH Trust Apportioned Cases of C.Difficile Toxin 2015-16
Number of Cases
100
90
80
70
60
50
40
30
20
10
0
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Nov-15
Dec-15
Jan-16
Feb-16
Mar-16
2015/16
Cumulative C.Diff
Cumulative Target


Royal Stoke - C.Diff Avoidability Status - 2015/16
14
12
10
8
6
4
2
0
8
1
9
3
6
11
1
2
1
9
1
4
1
6
4
3
5
9
1
4
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Nov-15
Dec-15
Jan-16
Feb-16
Mar-16
2015/16
Avoidable
Unavoidable
Decision Pending


County Hospital Trust Apportioned C.Difficile Cases per Financial Year
No. of Cases
160
140
120
100
80
60
40
20
0
138
37
33
26
25
30
23
13
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16





Clostridium *difficile* action plan

Preventing and controlling the spread of Clostridium *difficile* is a vital part of the Trusts quality and safety agenda by a multifaceted approach and the proactive element of early recognition and isolation of Clostridium *difficile* toxin positive cases and of those cases that are Clostridium *difficile* carriers (PCR positive).

All Hospital acquired Clostridium *difficile* positive samples or cases where the patient has had a recent hospital stay at UHNM are submitted to public Health England for ribotyping. Samples with the same ribotype are then examined further VNTR .This helps to identify wards or areas where patient to patient transmission is likely to have occurred, with enhanced focus on control measures, with decanting and deep-cleaning of the patient areas if necessary.

UHNM closely monitor Periods of increased incidence (PII) of patients with evidence of toxigenic Clostridium *difficile* in any ward or area. The definition of a PII is 2 or more patients identified with evidence of toxigenic Clostridium *difficile* within a period of 28 days and associated with stay in the same ward or area.

Sporicidal disinfect is used routinely for cleaning of the general environment and non-invasive equipment used in wards/departments e.g. commodes across both sites.

The above approach has assisted greatly in the early identification and termination of any outbreaks of CDI.

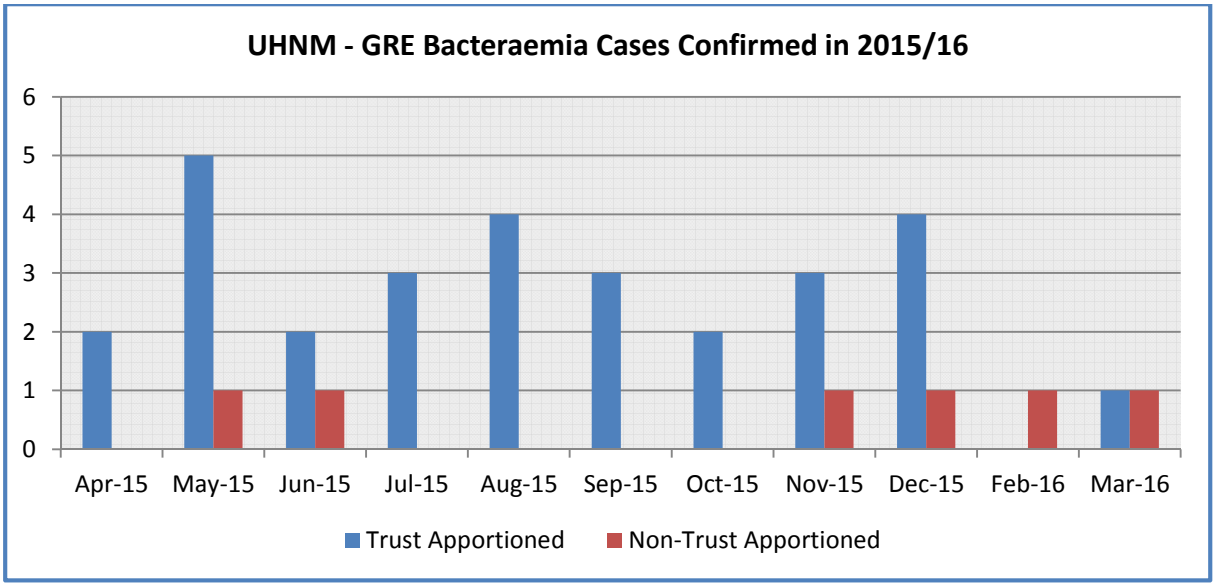
The Trust continues to use human probiotic infusion when required. This treatment involves the infusion of healthy human donor flora bacteria into the bowel of the affected patient. The indications for the treatment were recurrent diarrhoea or no response to aggressive CDI management.

All patients with CDI are provided with an information leaflet which contains the Clostridium *difficile* passport (green care), this card is for the patient to keep and then show to any doctor, pharmacist, dentist or healthcare provider.

Glycopeptide resistant Enterococcus (GRE) bacteraemia

Enterococci are bacteria commonly found in the bowel and GRE are enterococci that have become resistant to glycopeptides (for example vancomycin). Reporting of bacteraemia caused by GRE has been mandatory for NHS acute Trust in England since September 2003.

The Trust reported 35 of this type of blood stream infection (see chart below), with 27 cases recorded at UHNM in 2014-2015.



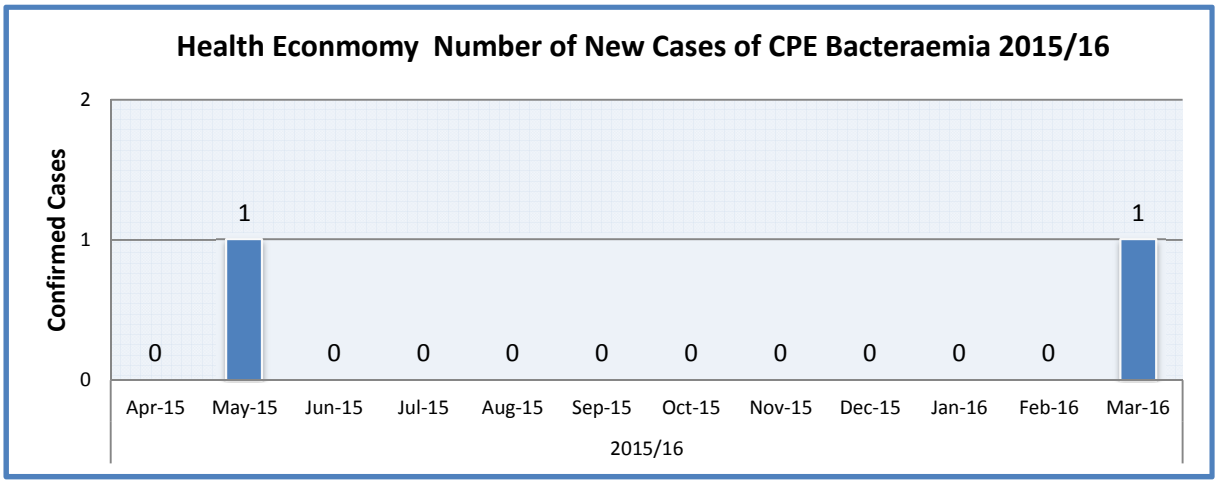
Carbapenemase – producing Enterobacteriacea (CPE)

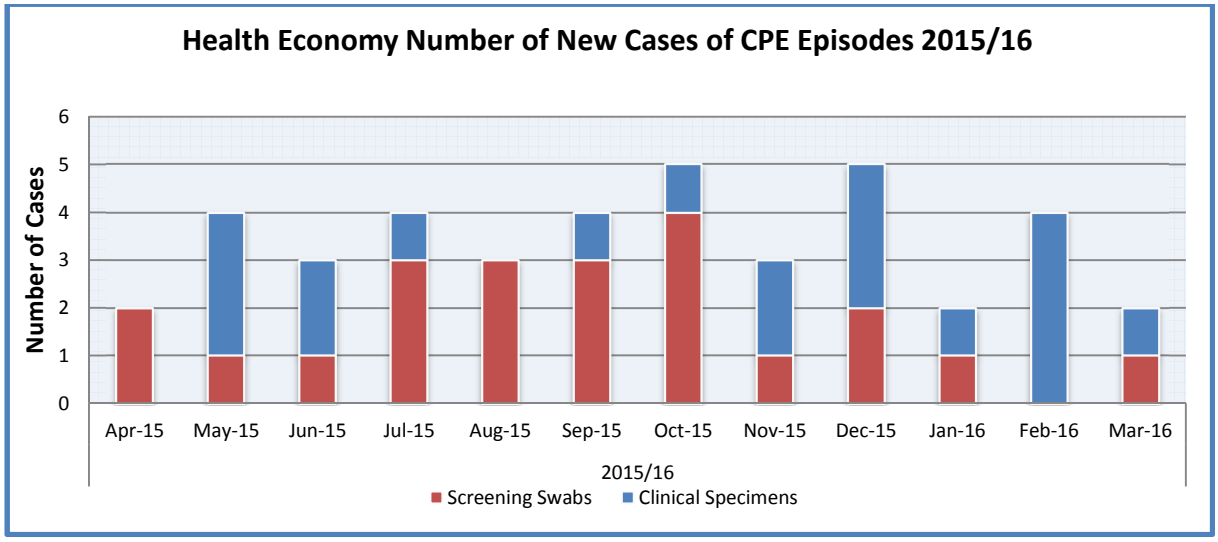
Public Health England published a toolkit for the early detection, management and control of CPE in December 2013. The toolkit provides expert advice on the management of CPE to prevent or reduce spread of these bacteria into (and within) health care settings, and between health and residential care settings.

The Trust has a CPE policy in place for some time; this reflects screening guidance recommended by Public Health England.

In addition to national guidance UHNM perform routine admission and weekly screening on the following wards: adult Intensive Care Unit, Renal ward, Infectious Diseases ward, and all elderly care wards.

UHNM have changed screening method (for rectal swab & catheter sample urines) to a culture plate that can detect both ESBL and CPE and for identified hospitalised close contacts of confirmed CPE UHNM perform a PCR tests on rectal swabs to enable rapid results and subsequent actions.





Audit programme to ensure key policies are implemented

UHNM have a programme of audits in place, action plans are devised by areas where issues are highlighted and fed back to the IPCC via the Matron for the area.

Audits of hand hygiene practice

Hand hygiene remains central to the audit programme. There is a Senior Nursing Assistant who undertakes unannounced random hand hygiene assessments in clinical areas, as well as providing weekly hand hygiene training sessions.

The Trust continues to focus on four main components:

- Alcohol hand rubs at point of care prominently positioned by each patient so that hands can be cleaned before and after care within the patient's view.
- Audit of hand washing practice at least monthly. Wards that do not achieve 95% repeat the audit after 2 weeks.
- Patients are encouraged to challenge staff if they have any doubts about hand hygiene and in cases of repeated non-compliance, escalation of concerns.
- Raised awareness of hand hygiene and the 'Bare below the elbow' dress code.

Senior IP Nurse group

The IP Team at UHNM, CCG's and Lead nurses from the health economy attend the Health Economy IP Nurse Group. This group meets quarterly, and part of the remit is to ensure that lessons learnt from RCA's are shared and discussed.

Staff information and training

Staff information

- Alert Organism surveillance is reported to the organisation by the IPNs daily
- Monthly ward based/Divisional surveillance data is produced, including surveillance

information on MRSA, Clostridium *difficile*, ESBL and MGNB. This information is used to update ward dashboards which are on display on the wards. This informs the public on ward performance.

- IP promotional activities have been held throughout the year promoting infection prevention and control with good practice being targeted at both staff and visitors to the Trust.
- Intranet: IP continues to make use of the intranet for providing staff with an easy access portal for information, policy guidance and team contact details. This information is regularly updated.
- IP Team continue to lead the Infection Prevention Link Practitioner scheme
- Norovirus and other toolkits are available for all ward areas. This toolkit includes everything that staff require to help them manage infections, such as posters, information for relatives/visitors etc.
- Posters and information leaflets are displayed throughout the Trust. These provide key infection prevention messages and actions for staff, public and visitors

Staff Training

The IP Team continue to have a strong training role within the UHNM. Educational sessions have been delivered throughout the year, which includes, MRSA screening and decolonisation, influenza, norovirus and tuberculosis.

IP training during 2015-16 included mandatory training sessions, Clostridium *difficile* training, mixing and testing of virusolve disinfection.

UHNM provided a training day for Aseptic Non-Touch Technique (ANTT) in October 2015. This was supported by educational material such as posters and video available via the Trusts intranet. The principles of ANTT will continue to be embedded throughout the year with support from the Clinical Surveillance Team.

Staff Supervision

IPN's are allocated their own areas of responsibility for wards/departments/Matrons. This enables IPNs to link in with ward staff to provide relevant training and expert advice to staff as well as monitoring compliance in those areas. In this way, the work of staff in the Trust was subject to scrutiny and supervision but more importantly clinical staff felt supported and knew who their point of contact was.

Bed Management and movement of patients

The IPNs work closely with the Clinical Site team especially during the winter period, providing timely and expert advice on the management and movement of potentially infected patients. There is a RAG rating system for the use of side room/isolation facilities available for staff to use to ensure that as far as possible informed decisions are made when considering patient placement.

Compliance Criteria 2:

Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections

Monitoring Processes

There is a designated lead Manager for cleaning services that are managed in house, as well as a team of FM contract performance managers. They are committed to providing an outstanding service which is reflected in our Patient-Led assessments of the care

environment (PLACE).

The Trust Contract Performance Management(CPM) Team work closely with Sodexo to drive and sustain improvements

- Trust CP Management Team continue to work closely with Sodexo on-site and their National Senior Management Team, Matron's and Clinical colleagues to regularly monitor, review progress and address/resolve any issues or concerns promptly
- Weekly meetings between Sodexo management representatives and Trust Matrons to review cleaning performance and ensure that improved performance is sustained and confidence in the service is maintained
- Frequency of joint spot-checks and unannounced cleanliness audit inspections continues at an increased level
- FM Team continue to work closely with IP Team

PLACE audits were completed at UHNM during 2015.

Royal Stoke Hospital

Standard	Site score	National Average
Cleanliness	99.16%	97.57%
Food	91.11%	88.49%
Privacy, Dignity and Wellbeing	87.90%	86.03%
Condition Appearance and Maintenance	96.20%	90.11%
Dementia	87.67%	74.51%

Royal Stoke Hospital All areas reviewed scored higher than the national average with cleanliness scoring 99.16% against the national average of 97.56%, and the condition, appearance and maintenance achieving 96.20% against the national average of 90.11%. This is a remarkable result for the Trust and one that the Estates and Facilities teams worked hard to achieve.

County Hospital

Standard	Site score	National Average
Cleanliness	96.03%	97.57%
Food	90.11%	88.49%
Privacy, Dignity and Wellbeing	86.40%	86.03%
Condition Appearance and Maintenance	94.08%	90.11%
Dementia	83.26%	74.51%

PLACE Audit at County Site The biggest improvement was in the Food result, from 79.23% in 2014 to 90.11%. The condition, appearance and maintenance scored 94.08% against the national average of 90.11 this is a really good result considering all of the changes and work being carried out. These results show that improvements are being made and are excellent for the Trust, the site and all the teams who have worked hard to achieve these results. Work continues with the development program to improve the privacy & dignity

and dementia scores.

The water Safety Group

The Water Safety group is a sub group of IPCC and meets quarterly, reporting directly to IPCC. The Water Safety Group is chaired by the Deputy DIPC.

Management of Decontamination

Management and compliance currently falls into three distinct areas i.e.

- Estates – for medical device reprocessing equipment. UHNM provides Estates Services and also those provided by Sodexo as part of their estates (hard FM) management responsibilities within the PFI contract.

- Infection Prevention – for monitoring/audit of compliance of medical devices with Trust Policies.

- User – to comply with Trust Policies and to ensure all decontamination equipment within their area is fit for use and subject to periodic testing and maintenance.

The Decontamination group is a sub group of IPCC and meets bi monthly, reporting directly to IPCC.

Cardiac Surgery Bypass Machine

It has been reported that a case of post-operative wound infection from mycobacterium has been reported in Switzerland. It is thought that there may be a link to the bypass machines used during cardiac surgery. A European wide surveillance programme has been established, led by PHE in England.

UHNM is, as are all cardiac surgery centres, continue to work closely with PHE and the MHRA on this initiative as the identified model of bypass machine is in use at UHNM.

Refurbishment projects

The Infection Prevention Team provided advice on number of refurbishment projects throughout the Trust.

County Hospital

An extensive ward refurbishment programme is in progress at County Hospital with the first wards due for completion in June 2016.

The refurbishment will provide more single rooms with ensuite facilities and ensuite 4 bedded bays.

The wards have been planned as generic as possible to enable staff to work across units if required.

All refurbished wards will have a minimum of 2 Dirty Utility rooms, each to serve half of the ward to facilitate cohorting in case of a norovirus outbreak.

County refurbishment works that are in progress

- Emergency Department
- Day case oncology Unit
- Theatres
- Wards
- Out patients Department
- Pathology Laboratory

Refurbishment projects completed include:

- Renal Unit County Hospital

- Laminar flow theatres

Royal Stoke Hospital
The Royal Stoke Hospital has also undergone reconfiguration and refurbishment works during this financial year.

- Oncology unit
- MRI Scanner – The Valley Centre
- Eye theatre – Poswillo Suite
- New discharge lounge
- Special Care Surgical Unit Pod 6
- Ward 101 Surgical Ambulatory Unit
- Ward 110-111 were converted back to wards
- Ward 117 office and staff areas moved and upgraded
- Maternity Block – Transitional Care Unit
- ITU ventilation upgrade
- Lyme building entrance

Pods have been installed into 4 bed spaces on ward 76b in West Building These are tailor made single occupancy room which is designed specifically for a designated bed-space.

The Pod incorporates specialist lighting and HEPA filtered air to reduce further the chances of healthcare associated infection.

Compliance Criteria 3:

Ensure appropriate antibiotic use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.

Antimicrobial Stewardship (AMS)

The Trust Antimicrobial Stewardship Group (ASG) is supported by an Antimicrobial Pharmacist and an Antimicrobial Technician based at Royal Stoke University Hospital, and also a Surgical Pharmacist with an interest in antimicrobials based at County Hospital**.**
The UHNM has continued to build on the foundations put in place last year when good practice, opportunities and lessons learned from each hospital prior to the merger were incorporated into antimicrobial stewardship policy and practice throughout the new Trust. Core functions which are routinely undertaken include:

- A regular review of the ASG membership to include representatives from both hospital sites so that local champions will support engagement with good antimicrobial stewardship.
- A regular update of the Trust Antimicrobial Stewardship Policy. Quarterly audits measure compliance with this policy. There is an escalation process for clinical specialities that require support to achieve compliance.
- A rolling Antimicrobial Audit Programme in line with Start Smart then Focus has been in place at Royal Stoke for a number of years and this has been embedded at County Hospital during 2015-2016. The results of the audits are available on the Trust Intranet so that trends can be reviewed by specialities and their peers. The ASG review and support the development of action plans in areas of poor compliance and specialities are required to report progress against these at the ASG.
- The Trust's Antimicrobial Treatment and Prophylaxis Guidelines were reviewed: new guidelines have been developed this year including Treatment Guidelines for Orthopaedic and Surgical Infections in Child Health.
- The antimicrobial content of Medical, Surgical and Paediatric Bedside Partnership Guidelines were also reviewed
- The Antimicrobial Guideline App (Microguide) for mobile phones is now fully utilised across all hospital sites and a search facility was introduced. This continues to engage prescribers by facilitating easy access of antimicrobial guidelines at the point of prescribing.
- There is an Antimicrobial Education and Training Strategy. Antimicrobial presentations are available on the Trust Intranet. Antimicrobial stewardship educational sessions for Pharmacy Staff at County Hospital were undertaken to support a uniform approach to antimicrobial stewardship and the quarterly antibiotic audit process. In addition, workshops on the prescribing, dosing and monitoring of two high risk drugs, gentamicin and vancomycin, were delivered at County Hospital to familiarise Pharmacists with the vancomycin and gentamicin dosing calculators and associated guidelines already in place at Royal Stoke, so that consistent advice and information is provided to prescribers and nursing staff.

There are 6 Consultant Microbiologists and 2 Consultant Physicians in Infectious Diseases, providing antimicrobial stewardship by telephone and face-to-face on ward rounds and during teaching sessions. New developments include regular microbiologist support for Paediatrics including Neonatal Intensive Care Unit and Children Intensive Care Unit. The Critical Care Unit Pods 1-6 are visited twice weekly, whilst other key areas such as Renal, Haematology/Oncology, Surgical Special Care Unit, and the Neurosurgery Ward and Elderly Care wards are visited weekly (unless a microbiologist was on leave).

In common with other trusts in the UK, UHNM faced challenges as a result of shortages of some antimicrobials due to manufacturer's supply problems in 2015-2016, often at short notice. In particular, the availability of aztreonam injection was restricted for part of the year: this is the antibiotic of choice in many of the Trust's Antimicrobial Treatment and Surgical Prophylaxis Guidelines for patients who are allergic to penicillin. The ASG, Microbiology and Pharmacy Departments worked collectively to ensure that alternative agents were available for patients in a timely manner and to support the Trust's surgical programme:

- antimicrobial guidelines were reviewed and aztreonam was replaced with alternative choices taking into account antimicrobial stewardship and local resistance patterns, benefits and risks of proposed alternatives, including cost pressure to the Trust;
- alternative medicines were sourced, purchased and made available in key areas via review of stock lists;
- information on dosing, administration and side effects of the new alternative was communicated to prescribers, nursing staff and pharmacists
- aztreonam was conserved for those patients in whom an alternative was not an

option for example due to patterns of resistance, co-morbidities, or side effects.

The ASG continues to be actively engaged with the development of the electronic prescribing system in the Trust to build in systems which support good antimicrobial stewardship practice and activities, minimise risks and support the antimicrobial audit process. The ASG receives a regular report on progress with the implementation of the system as the rollout of electronic prescribing is pivotal in facilitating new antimicrobial stewardship initiatives in line with the UK Five Year Antimicrobial Resistance Strategy.

A number of new initiatives have taken place in 2015-2016:

- The first World Antibiotic Awareness Week took place to coincide with European Antibiotic Awareness Day (EAAD), an annual event held across Europe on 18th November. UHNM regularly supports, EAAD with an extensive campaign targeting both clinical and non-clinical staff, patients, carers, and members of the public. Both of these events are designed to raise awareness of the growing threat to public health from rising antibiotic resistance around the world.
    - This year the Trust built on links with the Keele School of Pharmacy: Pharmacy undergraduates from all years worked alongside clinicians, pharmacists, pharmacy technicians and nurses engaging with members of staff and patients at multidisciplinary stands in the Trust.
    - The event was advertised on Social Media for the first time
    - An interactive Grand Round on antimicrobial stewardship and resistance for prescribers took place at County Hospital and this was well received
    - A collaborative working group was formed between Staffordshire and Shropshire with Pharmacy/Medicines Optimisation, Infection Prevention and NHS England representatives from secondary care (acute, community and mental health trusts), primary care, and community pharmacy. Ideas were shared from previous years and a co-ordinated campaign developed across the wider health economy.
- An on line calculator and guideline for the dosing, monitoring and administration of vancomycin by continuous infusion to patients in Critical Care was introduced
- The Trust participated in the national ESPAUR antibiotic consumption validation programme in July 2015. This programme was designed to gather data on antibiotic consumption in acute trusts across England, for the development of a database by PHE and to set a baseline for benchmarking and comparison purposes.
- Antifungals choices were reviewed by the ASG and a new agent introduced to rationalise care and deliver cost savings for the Trust and NHS England
- This year the management of Urinary Tract Infection was audited and new initiatives implemented in Elderly Care and Acute Medicine were rolled out throughout the Trust as part of the action plan to improve the care of patients with this condition.

Feed-back from users on these changes has been positive.

The above initiatives have been underpinned by on-going formal and informal antimicrobial stewardship education and training for new and existing Medical, Nursing and Pharmacy staff. The Trust also supports antimicrobial stewardship training for undergraduates and newly qualified staff.

The antimicrobial work is fully supported by the Chief Executive, Chief Nurse and Medical Director who receive regular updates on progress.

Compliance Criteria 4:

Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion.

Communication programme
The Trust has a dedicated communication team. Outbreaks where there may be interest from the media, the Communications Team are invited to meetings and their support and guidance on preparing Press statements is invaluable. The IP Team ensures that Communications team are involved in the following:

- Advertising infection prevention events
- Communication campaign to inform GPs and the public around management of Influenza and Norovirus
- Updating the Trust website
- Press statements during outbreaks

Trust website and information leaflets
The Trust website promotes infection prevention issues and to guide people to performance information on MRSA, Clostridium *difficile* and other organisms.
The IP Team have produced a range of information leaflets on various organisms.

UHNM subscribe to ICNet surveillance system which enables information to be shared with colleagues in the health economy.

During 2016/17 ICNet will be upgraded to the ICNet NG version.

The Trust has a policy on transfer of patients between wards and departments.

Compliance Criteria 5:

Ensure prompt identification of people who have or develop an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.

IPNs attend a daily review of laboratory alert organism surveillance attended by Consultant Microbiologists and members of the laboratory team.

The Trust has a policy for screening both elective and emergency patients for MRSA and a system is in place for monitoring compliance.

iPortal system
The Lead Consultant Microbiologist/Infection Control Doctor worked closely with IM&T team regarding patient alerts. This system provides clinical staff with real time alerts and access to information from other hospital systems. Infection Control real-time alerts on iportal include Red and Amber alerts for patients with a very recent and relatively recent history, respectively, of MRSA, CDI, PVL-toxin producing *S. aureus*, and ESBL or Carbapenemase producing multi-resistant Gram Negative Bacilli. These alerts enable staff on wards and departments to promptly identify patients who have recently had an alert organism identified, allowing wards/department to timely isolate and follow-up patients appropriately and to prescribe appropriate empiric antibiotics if antibiotic treatment is indicated.

iportal is due to be rolled out at County Hospital during 2016.

Surgical Site Surveillance
During the period reported UHNM participated in the following PHE Surgical Site Surveillance:

SSI SURVEILLANCE 2015-16			
QUARTER	**PERIOD**	**SURVEILLANCE**	
		Royal	**County**
1	Apr – Jun	Coronary Artery Bypass Graft	Nil
2	Jul – Sep	Abdominal Hysterectomy	Total hip replacements Total knee replacements
3	Oct – Dec	Spinal surgery	Nil
4	Jan – Mar	Cranial Surgery	Nil

Methodology for surveillance
The surveillance was undertaken by the Infection Prevention Nurses. Each patient was reviewed prospectively whilst they remained in hospital. The participating wards were visited 2-3 times per week to facilitate this process.

	RSUH 2015-16			
Operation	**Number of operations**	**Number of SSIs**	**% infected**	**Date**
Coronary Artery Bypass Graft	139	0	0.00%	Qtr 1
Abdominal Hysterectomy	86	0	0.00%	Qtr 2
Spinal Surgery	171	5	2.92%	Qtr 3
Cranial Surgery	65	3	4.62%	Qtr 4
Total	**461**	**8**	**1.74%**	

	All Hospitals			
Operation	**Number of operations**	**Number SSIs**	**% infected**	**Date**
Coronary Artery Bypass Graft	30,076	2,091	7.0%	Jan 11 – Dec 15
Abdominal Hysterectomy	4,492	207	4.6%	Jan 11 – Dec 15
Spinal Surgery	45,125	822	1.8%	Jan 11 – Dec 15
Cranial Surgery	6,929	133	1.9%	Jan 11 – Dec 15
Total	**86,622**	**3,253**	**3.8%**	Jan 11 – Dec 15

IPNs work closely with specialities that report infections during the surveillance period. Investigations are carried out and reported through Surgical Division and Tissue Viability group. Surgical Site Surveillance is a standing item on IPCC agenda with a report by IP Team presented.

Orthopaedic surgical site surveillance
The Department of Health requires all hospitals performing orthopaedic surgical operations to monitor surgical site infections (SSI) for a minimum of three month period each year. As part of this scheme, the Trust is required to take part in the surgical site infection surveillance scheme (SSISS). This work was completed between July and September 2015 for total hip and knee replacement operations.

Results

	County Hospital 2015-16			
Operation	**Number of operations**	**Number of SSIs**	**% infected**	**Date**
Hip replacement	11	0	0.00%	Q2
Knee Replacement	28	0	0.00%	Q2
Total	**39**	**0**	**0.00%**	

	All Hospitals			
Operation	**Number of operations**	**Number SSIs**	**% infected**	**Date**
Hip replacement	255,995	2,851	1.1%	Jan 11 – Dec 15
Knee Replacement	266,742	4,203	1.6%	Jan 11 – Dec 15
Total	**522,737**	**4,203**	**1.3%**	Jan 11 – Dec 15

Managing outbreaks of infection - Responses to incidents and outbreaks

The IP Team are involved in the management of outbreaks and incidents.

There were several ward areas closed in April and May 2015 due to D&V/Norovirus at both the Royal Stoke University Hospital and the County Hospital.

There was one ward closed with influenza in March 2016 – Ward 122, and one critical care pod dedicated to influenza patients.

Compliance Criteria 6:

Systems to ensure that all care workers (including contractors and volunteers) are aware of the discharge of and discharge their responsibilities in the process of preventing and controlling infection.

At the UHNM infection prevention is included in all job descriptions**.** All clinical staff receive training and education in optimum infection prevention practices.

Occupational Health services are provided by Team Prevent.

Compliance Criteria 7:

Provide or secure adequate isolation facilities.

Royal Stoke Hospital

Single bed rooms & En suites

Trent Building

	No. of Single Rooms	No. of En Suites
Ward 120/121	6	0
Ward 122/123	6	0
Ward 124	5	0

Lyme Building

	No. of Single Rooms	No. of En Suites
SSCU	2	0
Ward 100/101	5	3
Ward 102/103	8	4
Ward 104/105	7	3
Ward 106/107	8	4
Ward 108/109	8	4

Maternity Centre

	No. of Single Rooms	No. of En Suites
Delivery Suite & FMAU	29	29
Neonatal Unit	6	6
Obstetric Dept.	24	24
Midwifery Waiting	4	4

Cancer Centre

	No. of Single Rooms	No. of En Suites
Oncology Day Unit	6	6
Haematology & Oncology Inpatients	18	18

West Building

	No. of Single Rooms	No. of En Suites
FEAU	4	4
Ward 78/79	12	2
Ward 80/81	2	0
Ward 76a	2	2
Ward 76b	3	1

Ward 76b have 4 pods a round bed spaces

	Single Rooms	4 Bedded Bay spaces
Main Hospital Building		
LG2 (ITU)	10	40

Level LG1 (CDU)	9	20
Level G (Paediatrics)		
Paediatrics	27	24
PICU	4	4
Adult beds	16	12
Level 1 (Heart and Lung)	48	74
Level 2 (adult beds)	52	64
Level 3 (adult beds)	52	64
Lyme (Retained Estate)	53	206 (3-6 bedded bays)
Trent (Retained Estate)	16	84 (5 & 6 bedded bays)
West Buildings (excl FEAU)	16	60

Isolation Rooms	
PICU	2 single rooms with positive pressure gowning lobby
Emergency Department	1 isolation room with balanced pressure gowning lobby
Infectious diseases (Ward 117)	4 negative pressure isolation rooms

Side rooms within Critical Care	
Standard Side Room (No gowning lobby, neutral air pressure	
Pod 1	Side room1
Pod 2	Side room 9
Pod 3	Side room 24
Pod 4	Side room 25
Pod 5	Side room 33
Pod 6	Side room 4

Side rooms within Critical Care	
Isolation Side room (Gowning lobby which is positively pressurised to + 10pa, side room neutral pressure)	
Pod 1	Side room 8
Pod 2	Side room 16
Pod 3	Side room 17
Pod 4	Side room 32

Side rooms within Critical Care	
Protective isolation room, with gowning lobby, side room positively pressured)	
Pod 5	Side room 35

Side rooms within Critical Care	
Isolation side room (Gowning lobby which is positively pressurised, side room is negatively pressured to – 10ka)	
Pod 6	Side room 3

County Hospital

County Hospital

Due to single sex compliance a number of side rooms have restricted use. In addition Ward closures have reduced the amount of side rooms available throughout the financial year. Critical Care Unit does not have single room facilities.

ISOLATION ROOM FACILITIES						
Area	**Number of Side Rooms**		**Facilities**			**Comments**
			Sink	**Toilet**	**Shower**	
Ward 1	**Double**	**0**	**0**	**0**	**0**	**Medical ward**
	Single	**4**	**3**	**3**	**0**	

Ward 10	**Double**	**0**	**0**	**0**	**0**	**Elderly care, merged with Cohort Ward**
	Single	**1**	**1**	**1**	**1**	
ASU/Ward 7	**Double**	**0**	**0**	**0**	**0**	
	Single	**3**	**3**	**3**	**0**	
Ward 12/12a	**Double**	**1**	**1**	**0**	**0**	**Medical Ward**
	Single	**5**	**5**	**2**	**2**	
A&E	**Double**	**0**	**0**	**0**	**0**	
	Single	**4**	**4**	**0**	**0**	
AMU	**Double**	**0**	**0**	**0**	**0**	
	Single	**3**	**3**	**3**	**0**	
AAU	**Double**	**0**	**0**	**0**	**0**	**Assessment Unit**
	Single	**2**	**2**	**1**	**1**	
Children's Emergency Centre	**Double**	**0**	**0**	**0**	**0**	**Assessment Centre**
	Single	**4**	**4**	**0**	**0**	
Clinical Decisions Unit	**Double**	**0**	**0**	**0**	**0**	
	Single	**0**	**0**	**0**	**0**	
Area	**Number of Side Rooms**		**Facilities**			**Comments**
			Sink	**Toilet**	**Shower**	
Elective Orthopaedic Unit	**Double**	**0**	**0**	**0**	**0**	**Clean surgical unit**
	Single	**1**	**1**	**1**	**1**	
Ward 6	**Double**	**1**	**1**	**1**	**0**	
	Single	**2**	**2**	**2**	**0**	
HDU	**Double**	**0**	**0**	**0**	**0**	**No isolation facilities**
	Single	**0**	**0**	**0**	**0**	
Day Ward	**Double**	**0**	**0**	**0**	**0**	
	Single	**2**	**2**	**2**	**1**	**1 side room with bath**
Free Standing Midwifery Unit	**Double**	**0**	**0**	**0**	**0**	
	Single	**3**	**3**	**1**	**0**	

Side rooms within Critical Care	
Standard Side Room (No gowning lobby, neutral air pressure	
Pod 1	Side room1
Pod 2	Side room 9
Pod 3	Side room 24
Pod 4	Side room 25
Pod 5	Side room 33
Pod 6	Side room 4

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Isolation Side room (Gowning lobby which is positively pressurised to + 10pa, side room neutral pressure)	
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Side rooms within Critical Care	
Protective isolation room, with gowning lobby, side room positively pressured)	
Pod 5	Side room 35

Side rooms within Critical Care	
Isolation side room (Gowning lobby which is positively pressurised, side room is negatively pressured to – 10ka)	
Pod 6	Side room 3

County Hospital
Due to single sex compliance a number of side rooms have restricted use. In addition Ward closures have reduced the amount of side rooms available. Critical Care Unit does not have isolation facilities this has been raised as a risk on the Divisional Risk Register.

Compliance Criteria 8:

Secure adequate access to laboratory support as appropriate

Laboratory services for UHNM are located in the purpose built Pathology Laboratory on-site at RSUH. The Microbiology Laboratory has full Clinical Pathology Accreditation (CPA) and has been recommended for UKAS Accreditation to ISO standard 15189.

Compliance Criteria 9:

Have and adhere to policies, designed for the individual's care and provider organisations that help to prevent and control infections

During 2015-16 Infection Prevention Policies from both hospitals were updated and integrated into an innovative question and answers manual and an overarching policy, this significantly enhances the quick location of key infection prevention guidance by our front line staff.

The overarching policy is written in line with the Trust Governance policy which outlines requirements for responsibility, audit and monitoring of policies to provide assurance that policies are being adhered to.

All policy and manual are available for staff to view on the Trust intranet. Clinical Governance has produced a directory of policies alerting when policies are due for update. Policies are also updated prior to review date if guidance is updated.

Compliance Criteria 10:

Providers have a system in place to manage the occupational health needs of staff in relation to infection.

All job descriptions include infection prevention responsibility and this message is reiterated during mandatory training. The IP team participate in mandatory updates for all staff groups (clinical and non-clinical). The IP Team regularly meet with representatives of the Occupational Health service to ensure compliance with Criteria 10.

Staff training
This has been documented earlier in this report.

IPN development
2 infection Prevention Nurses and the Infection Prevention Support Manager attended the Infection Prevention Society (IPS) conference held in September 2015. IPNs have also attended several study days on different aspects of Infection Prevention throughout the year.

Three have completed the Infection Prevention Course at Birmingham City University.

All new staff to the IP team undergo a 2 week supernumerary induction programme on Infection Prevention, as well as being issued with a personal copy of a relevant textbook.

Occupational Health and Tuberculosis (TB) meetings
Since 1st October 2012 Occupational Health (OH) services have been provided by Team Prevent.

OH attends IPCC quarterly and presents a report. The remit of the report is to ensure there are robust systems and processes around proactive and reactive staff screening, staff health issues which may be a risk to other staff or patients, incidents relating to staff health and vaccination programmes. This report may be required more frequently by exception.

The lead IPN meets with OH and Consultant Microbiologist at least 4 times yearly. The lead IPN is also invited to TB meetings when we have in-patient TB cases or updates on contact tracing when required. TB meetings include:

- Consultant in Communicable Disease Control (CCDC) Health Protection Unit (HPU)
- Chest Physician
- Infectious Diseases Consultant
- Lead Nurse TB service
- IPN UHNM as required

The IP team are invited to the UHNM Health & Safety Committee, and Sharps Incidents sub-group. Regular reports are submitted to IPCC around sharps incidents.

Conclusion

Infection Prevention is a key marker of patient safety within UHNM, as it encompasses a broad range of factors, from the state of the environment through to the effect of antibiotic use on the selection of organisms such as *C. difficile* and MRSA. This requires the involvement of all grades of staff, on an on-going basis, and the Infection Prevention Team are central to this

At UHNM we acknowledge that the Trust has a number of challenges:

- Reducing the incidence of CDI
- Reducing the incidence of MRSA bacteraemia
- Sustainability
- Monitoring of pharmacy/prescribing data
- Monitoring of Surgical Site infections
- National/international threats, e.g. multi-resistant Gram Negative Bacilli; emerging respiratory viruses

Appendix 1 Annual Programme of Works 2016-2017

Infection Prevention Programme of Works for the period April 2016- March 2017

The Trusts aim is to care for patients in a safe environment protecting them from harm with a zero tolerance to avoidable hospital attributable infections.

The document sets out the Trust's objective and priorities risk of infection for the period 1st April 2016 - 31st March 2017.

The intentions detailed below aim to sustain and strengthen the Trust's position in achieving compliance with The Health and Social Care Act 2008: Code of Practice on the Prevention and Control of Infection and Related Guidance (updated 2015) and other key national documents.

The programme details the essential components of the infection prevention service including-

- Surveillance
- Policy development and review
- Outbreak prevention and management
- Quality improvement and audit
- Education and training
- Specialist advice including promoting compliance with regulation, legislation, guidance and evidence based practice.

The following abbreviations are used throughout the document:

DIPC- Director of Infection Prevention and Control
IPN- Infection Prevention Nurse
IPT – Infection Prevention Team
ICD- Infection Control Doctor
CCG- Clinical Commissioning Group
TDA- Trust Development Authority
PLACE - Patient Led Assessment of the Care Environment

Objective	Actions	Person/s Responsible	Time Scale & Priority
Criteria 1 Systems to manage and monitor the prevention and control of infection	**Assurance Framework** Key committees including Quality and Safety Committee and the Trust Board will receive reports and presentations, monthly as a minimum for the former and quarterly for the latter from the Director of Infection Prevention and Control. The DIPC will ensure the Trust Board agree and approve the: • Annual Programme of Works • Annual report • Policy, procedure and guidance documents • Cleanliness and Patient Led Assessment of the Care Environment (PLACE) scores The DIPC will ensure that the Trust Board is made aware of: • Emerging issues with the potential to impact upon patient safety and the delivery of clinical services • Unforeseen issues impacting upon progress of the annual programme	 DIPC DIPC DIPC Support Services DIPC Deputy DIPC	 Quarters 1-4 Quarter 1 Quarter 1 Quarters 1-4 Annually Quarter 1-4 Bi monthly

Objective	Actions	Person/s Responsible	Time Scale & Priority
	Ensure the progress of the annual programme is monitored by the Infection Prevention Team and any identified or emerging issues affecting the programme are reported to members of the group and where necessary escalated to the Trust Board.	DIPC	Quarter 1-4
	Ensure that the Infection Prevention Control Committee meet bi-monthly and is chaired by the DIPC.	Deputy DIPC	Bi -monthly
	Infection Prevention Team to attend Health Economy Antimicrobial Meetings	Deputy DIPC	Quarterly
	Infection Prevention Nurse to attend CCG Infection Prevention Group.	Deputy DIPC	Quarterly
	Infection Prevention Nurse to attend Trust Antimicrobial Stewardship Group	Lead Nurse Infection Prevention	Bi Monthly
	Performance Management Ensure that the Performance Team receive appropriate information to support on-going registration with the Care Quality Commission and NHSLA assessments.	Governance	As required
	Ensure that monthly data summaries, incidents and outbreaks are included in the Quality and safety reports.	Deputy DIPC	Monthly
	Deputy DIPC meeting with CCG to review Clostridium *difficile* root cause analysis and agree unavoidability/avoidability	Deputy DIPC	BI-Monthly

Objective	Actions	Person/s Responsible	Time Scale & Priority
	Update any Infection Prevention risks on risk register	Deputy DIPC	As required
	Make a suitable and sufficient assessment of the risks of infection and take actions to minimise the risk	IPT / ICD/Consultant Microbiologist	Daily
	Using ICNet, review laboratory reports during periods of duty and provide specialist advice to clinical teams on the management of individual patients.	Infection Prevention Team	Daily
	Undertake alert organisms surveillance report to IPCC	ICD and Senior Data Analyst	As required but at least bi monthly
	Outbreaks		
	• Respond to and advise on the management of outbreaks of infection	IPT	Within 24 hours
	• Where required report outbreaks of infection as a SI through Trust reporting systems. Inform the DIPC, senior management, Heads of Services, Performance Management and key individuals of outbreaks	IPT	No later than 48 hours after incident or lapse in care is identified

Objective	Actions	Person/s Responsible	Time Scale & Priority
	• Initiate the Root Cause Analysis investigation process	IPT	Within 24 hours
	• Prepare outbreak summary reports and submit to IPCC, Quality and Governance Committee and the Board.	IPT	At next IPCC
	Root cause analysis performed for hospital attributable clostridium *difficile* cases • Learning and actions owned and received at divisional IP meetings and summary to IPCC	Associate Chief Nurse/Matron/Ward Sister/Ward Charge Nurse for the Division/ IPT	As required
	Post infection review for all MRSA bacteramia • Learning and actions owned and received at divisional meetings and summary to IPCC	Associate Chief Nurse/Matron/Ward Sister/Ward Charge Nurse for the Division/ IPT	As required
	Facilitate Screening of alert organisms e.g. MRSA, CPE, Multi drug resistant organisms admitted or transferred to UHNM in accordance with national guidance and evidence based practice	IPT/Senior data analysis/IP support Manager	Quarter 1-4

Objective	Actions	Person/s Responsible	Time Scale & Priority
	Participate in multi- disciplinary review of Clostridium *difficile* toxin positive patients	Infection Prevention Nurse/Microbiologist Dietician/Pharmacist/ Gastroenterologist/ICD Surgeon	Weekly
	Maintain and review Clostridium *difficile* action plan	Deputy DIPC	Quarterly
	Surgical Site Surveillance Infection Surveillance programme in place. Feedback to Directorate Meetings	Clinical Surveillance Team	Quarters 1-4
	IPT to attend and provide specialist advice:		
	• Infection Prevention Divisional meetings	IPN	Monthly
	• Infection Prevention Task Force	DIPC/Deputy DIPC	As required
	• Seasonal influenza vaccination planning group	Deputy DIPC	
	• Trust Antimicrobial Group	Deputy DIPC	BI Monthly
	• Quality and Safety Forum	Deputy DIPC/DIPC	Monthly
	• Health & Safety	Deputy DIPC	Bi Monthly
	• CCG infection prevention group	Deputy DIPC	Quarterly

Objective	Actions	Person/s Responsible	Time Scale & Priority
	• Ventilation group • Health Economy Antimicrobial group **NHS Improvement: 90 day event: Infection Prevention, Control Collaborative** Aim of project : Improve assessment, practice and care of Urinary catheters on 3 Elderly Care wards at UHNM, to reduce the risk of Catheter Associated Urinary Tract Infections (CAUTI) in 90 days	Deputy DIPC Deputy DIPC Lead Nurse IP DIPC, Deputy DIPC , IPT	Bi annual Quarterly Quarters 1 - 2
Criteria 2 Provide and maintain a clean and appropriate environment in managed premises that facilities the prevention and control of infections	Infection Prevention Nurse to attend and provide specialist advice: • Multi- Disciplinary Environmental Strategy Group • Water Safety Group • Environmental Health food hygiene inspections • Refurbishment and Building Meetings • Infection Prevention Cleaning Services (soft FM) • Decontamination Group • Standardisation Group	Infection Prevention Nurse Deputy DIPC Infection Prevention Nurse IPT/Service Development Team IPT/Service Development Team IPT/Service Development Team IPT/Service Development Team	Monthly Quarterly Annually As required Monthly Monthly Monthly

Objective	Actions	Person/s Responsible	Time Scale & Priority
	• Sharps Steering Group	IPT	Monthly
	Quality Improvement Audits		
	IPN to conduct period of increased incidence (PII) audits when PII is identified. Feedback to ward, Matron and Divisions.	Infection Prevention Nurse	As required
	IPN to conduct Clostridium *difficile* audit following each hospital acquired case	Infection Prevention Nurse	As required
	IPN's will undertake a programme of unannounced audits in clinical areas, including hand hygiene audits	Infection Prevention Nurse/Hand hygiene Trainer	As required
	Audit tools and programme in place for Divisions/areas to monitor environment. IPN's to support service leads, Matron and Ward Sisters/Charge Nurse	Associate Chief Nurses/Matrons/ Ward Sister/Charge Nurse	Weekly/Monthly/Quarterly
	Cleaning for Credits (C4C) audit programme in place - feedback bi -monthly at IPCC	Facilities Manager	Bi Monthly
	IPCC to receive summary progress and action plans for Divisions	Associate Chief Nurses/Matron	Bi Monthly
	Building works and refurbishments IP team to advise on building and refurbishments.	IPT/Service Development Team	As Required
	IP Team to advise on new cleaning products and deep clean programmes	Deputy DIPC/IPT	As Required

Objective	Actions	Person/s Responsible	Time Scale & Priority
Criteria 3 Ensure appropriate antibiotic use to optimise patient outcomes and to reduce the risk of adverse event and antimicrobial resistance	Work with partner organisations to ensure that the Trust has systems and procedures which minimise the risk from emerging and resistant organisms	Advance Specialist Pharmacist Antimicrobials/Microbiologist/ICD DIPC	Quarters 1-4
	Representation at Local Health Economy Antimicrobial Group Meeting	Deputy DIPC/Microbiologist	Quarterly
	Antimicrobial pharmacist to report antibiotic snap shot audits IPCC	Advance Specialist Pharmacist Antimicrobials Microbiologist,	Bi monthly Quarter 1-4
	Trust signed up for National Antimicrobial CQUIN	Advanced Specialist Pharmacist Antimicrobials Orthopaedic Consultant Consultant in Infectious Disease	Quarter 3
	Antimicrobial stewardship initiatives • Updating of antimicrobial guidelines and Antimicrobial Micro guide App	Advance Specialist Pharmacist Antimicrobials	
	Access to Microbiologist to advise on appropriate choice of antimicrobial therapy	Microbiologist	Quarters 1-4

Objective	Actions	Person/s Responsible	Time Scale & Priority
Criteria 4 Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion.	Access to microbiology diagnosis, susceptibility testing and reporting of results DIPC to liaise with Communications Team to deliver public messages in times of outbreaks	ICD/Microbiology Manager DIPC	 As required
	Patient information leaflets available for the public. IPT to actively participate in promotional activities across the Trust, raising awareness of good practice e.g. visitor's stands / Infection Prevention Awareness Week/ Hand hygiene World Health Organisation Day Review public internet page Roll out of updated isolation door signs Clostridium *difficile* letter to patients GP following discharge from hospital All Clostridium *difficile* given a "green alert card" to be presented when receiving future healthcare	IP/Service Development Team Development Team ICD/ IPT/Development Team service Development Team/IPT	Quarter 1-4 Quarter 1 Quarter 1 Quarter 2 As required

Objective	Actions	Person/s Responsible	Time Scale & Priority
Criteria 5 Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people	Alert tag system place at Royal Stoke to allow staff to check for current and previous alert organisms to enable proactive approach to IP. RAG rated priority chart available to staff to assist with risk assessment for side room priority allocation. Norovirus signage displayed throughout the Trust.	IPT IPT/ICD IPT	As required As required As required
Criteria 6 Ensure that all staff and those employed to provide care in all settings are fully involved in the process of preventing and controlling infection.	**Education and Training** Liaise with the Education and Learning Team, Service Leads and Business Managers to ensure all staff are suitably educated in the prevention and control of infection. IPT to attend • Teaching and Education • Corporate induction • Mandatory training days • Scheduled programme of updates • Infection Prevention Link Practitioners study days Planned programme for Student Nurses to shadow the IPT	 IPT IPT IPT IPT Service Development Team IPT	Time scale in accordance with documented programmes Quarters 1-4 Quarters 1-4 Quarters 1-4 Quarters 1-4 Quarters 1-4 Quarters 1-4

Objective	Actions	Person/s Responsible	Time Scale & Priority
	Contribution for the continuous personal development programme for medical and other staff.	IPT/ICD	Quarters 1-4
	Provide cascade training for volunteers/porters/catering assistants/domestics about the importance of complying with good practice.	IPT	Quarters 1-4
	Use variety of educational approaches to engage staff e.g. ATP monitoring, PowerPoint, shadowing.	IPT	Quarters 1-4
Criteria 7 Provide and secure adequate isolation facilities	To advise/make recommendations on isolation facilities during refurbishment programmes	IPT	As required
	Inform DIPC where there is lack of isolation rooms of when requirements change e.g. threat of alert organism	Deputy DIPC	As required
Criteria 8 Secure adequate access to laboratory support as appropriate	Ensure CPA accreditation of laboratories is current	ICD/Lab Manager	Annually
	Daily laboratory bench round with "on call" microbiologist	IPT	Daily
Criteria 9 Have and adhere to policies, designed for the individuals care and provider organisation that will help to prevent and control infections	Amend polices or guidance and any related documents in response to legislation, regulations and evidence based practice.	IPT	As required
	Ensure that existing policies with a review date falling within this period are revised and comply with legislation, regulations, current guidance and evidence based practice: Infection prevention Question and Answer manual in place – review after 6 months	Service Development Team	Quarter 3-4

Objective	Actions	Person/s Responsible	Time Scale & Priority
Criteria 10 Providers have a system in place to manage the occupational health needs of staff in relation to infection	Liaise with and support the Occupational Health Department in protecting healthcare workers from infections through: The review and follow up of inoculation and/or splash injury Work with partner organisation to ensure that the Trust has systems and procedure in place which reduces the risk from emerging and resistant organisms. Lead the planning and delivery of the staff seasonal influenza immunisation programme. Team Prevent to report to IPCC	Team Prevent ICD IPT Health and Safety Department ICD IPT Deputy DIPC Team Prevent	Quarters 1-4 Quarters 1-4 Quarters 1-4 Quarters 1-4 Quarters 1-4

References

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