2016/17

Infection Prevention and Sepsis Team Annual Report

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

Helen Bucior

Infection Prevention & Sepsis Team

University Hospitals of North Midlands

July 2017

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

Infection Prevention and Control Annual Report 2016-17

This Annual report covers the period 1st April 2016 to 31st March 2017 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.

2016/17 proved to be another busy and challenging year for the Infection Prevention Team, which included the establishment of a Sepsis Team as well as the highest ever number of our staff receiving the flu vaccine. 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 Secretary for Health has launched an important ambition to reduce Gram negative blood stream infections by 50% by 2021.

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 2017-2018.

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

There have been a number of key achievements during 2016 - 2017:

- Establishment of a Sepsis Team which underpins the vital work to improving patient outcomes through the prevention, early identification and treatment of sepsis

- Over 80% of the UHNM work force vaccinated against influenza this equates to nearly 7,000 staff in both clinical and non-clinical areas and makes UHNM one of the top five Trusts in the County for ensuring staff and patient staff are protected

- New build and upgrade projects to provide new modern facilities to treat our patients which help infection prevention, improve patient experience and in some cases reduce unnecessary stay in hospital

- Strengthening of the theory and practice of Aseptic Non Touch Technique (ANTT), Standardising aseptic technique reduces variability in practice and better protects patients from preventable healthcare associated infection

- New on line education ANTT theory package to provide a varied approach to ANTT education

- NHSi Project to improve urinary catheter practice to help reduce unnecessary catheter and prevent catheter associated urinary tract infections

- 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

- Infection Prevention Team shortlisted as finalists at the Nursing times Award for the innovative Infection Prevention Question and Answer Policy Manual

- Establishment of the Infection Prevention Clinical Surveillance Team to proactively focus on blood stream infections and line infection, surgical site surveillance and ANTT education

- Health economy approach to Infection Prevention which includes 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

- Clostridium *difficile* (CDI)action plan including strengthening of CDI education opportunities for staff

- Senior Nursing Assistant who undertakes hand hygiene assessments, education and Mask fit training

- On-going use of human probiotic infusion for patients with recurrent CDI or patients who do not respond to typical CDI treatment

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 Car https://improvement.nhs.uk/resources/mrsa-guidance-post-infection-review/e Associated Infection
HCW	Healthcare Worker
ICD	Infection Control Doctor
IM&T	Information & Technology
IP	Infection Prevention
IPCC	Infection Prevention and 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
TB	Tuberculosis
TKR	Total Knee replacement
UHNM	University Hospitals of North Midlands
VNTR	Variable-number tandem-repeat
VCTM	UHNM on line learning

Introduction

This report summarises the combined activities of the Infection Prevention Team (IP Team) and other staff at the University Hospitals of North Midlands (UHNM) in relation to the prevention 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 (updated 2015), 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 and Sepsis team. The Associate Chief Nurse (Infection Prevention & Sepsis) at UHNM also has the role of Deputy DIPC.

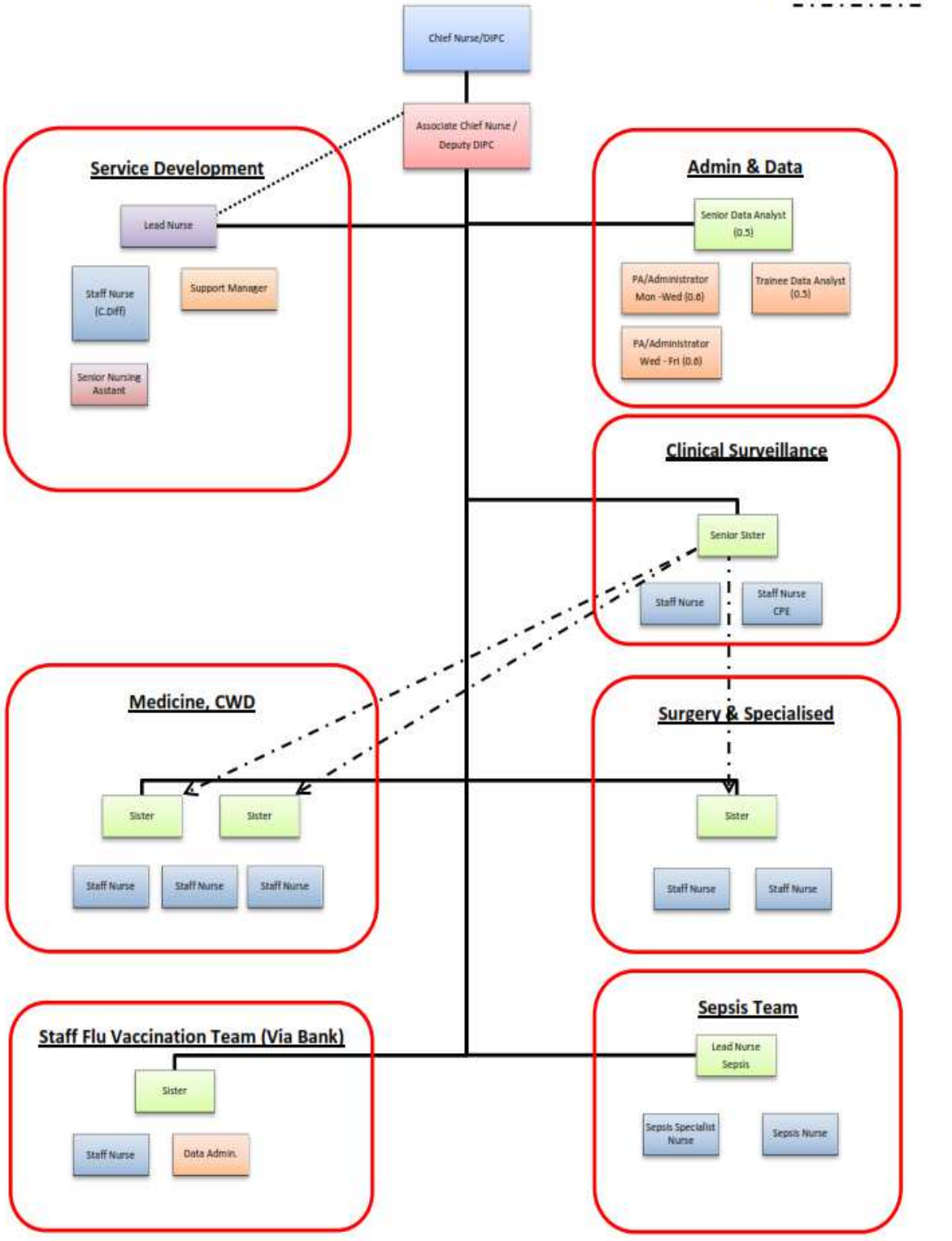
The IP Team work collaboratively alongside the front-line clinical leaders. Supporting proactivity with improved clarity and defined alignment to clinical services. The introduction of new technologies, allows the IP Team to be present within the clinical settings for the majority of their time.

Quality Nurses remain an integral part of service delivery at the UHNM. 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 & Sepsis Structure – 2017

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.

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.

The Task Force is chaired by the Chief Nurse; members include the Medical Director, Lead Consultant Microbiologist, Associate Chief Nurse (Infection Prevention & Sepsis), Lead IPN, Clinical Governance Manager, Chief Pharmacist and Facilities Management Deputy Director.

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 if required.

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 Prevention & 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.

Food Safety Task and Finish Group

The food safety task and finish group was established to work with the learning following an outbreak of Salmonella at a Hospital in the UK. A GAP analysis was undertaken by the Infection Prevention team. The Group meets monthly, and reports to IPCC

The Food Safety Task and Finish Group members includes: Matron Estates, facilities and PFI, Head of Facilities management PFI, Lead Nurse Infection Prevention, Specialist dietician, Patient Catering Manager, Sodexo and Trust, Saffron trainer, Facilities Service Manager.

Care Quality Commission (CQC) learning

CQC inspection reports from other Hospitals provide an opportunity for learning and improvement at UHNM.

The Infection Prevention Team completed a GAP analysis against the CQC inspection report from St Georges University Hospital NHS Foundation Trust which was rated inadequate. UHNM are working with the key Infection Prevention recommendations from this report.

Reports/papers received by IPCC

Policy/Procedure Updates and SOP Updates
UHNM HCAI Surveillance & Performance Reports
Outbreaks & Incidents
Divisional Reports
Environment Report
UHNM Antimicrobial Group Update
Antimicrobial CQUIN update
Local Health Economy Antimicrobial Group Update
Documents Received from other Committees, Regional & National

HCAI Monthly Bulletin
Rotational Report: Water Safety
Rotational Report: Occupational Health
Rotational Report: Decontamination
Review & Update Committee Terms of Reference
Pandemic Flu Update
Annual IP Report
Sepsis
Annual Manual Decontamination Audit
Annual Mattress Audit Report
Annual IP Link Practitioner Report
SSI Report
Blood Culture Contamination Rates Report
BSI Report
ANTT Update
PHE Update
Food Safety Group
Antimicrobial Stewardship Group Minutes
Decontamination Group Minutes
Water Safety Group Minutes
Sharps Report
Health Economy Committee

Groups/meetings Infection Prevention Team attend

Antimicrobial Group
Clinical, Equipment, Standardisation and Produce Implementation Groups
Compliance Steering Group
Clostridium *difficile* Multi-Disciplinary Meetings
Clostridium root cause analysis
Clostridium period of increased incidence meetings (PII)
Clostridium *difficile* Task and Finish Group (North Staffordshire)
Bed and Mattress
Decontamination Group
Estates refurbishments and new development projects
Food and Safety Task and Finish Group
Health and Safety
Health and Safety Imaging

Health Economy Antimicrobial Group
Patient Safety Specialised Group
Infection Prevention Divisional Groups
Infection Prevention Group Meeting, Estates, Facilities and PFI Division
Pneumatic Tube Meetings
Quality and Safety Forum
Sharps Steering Groups
Tissue Viability
Teaching and Educational Meetings
Water Safety Group

Surveillance of Healthcare Associated Infection (HCAI)

MRSA bacteraemia

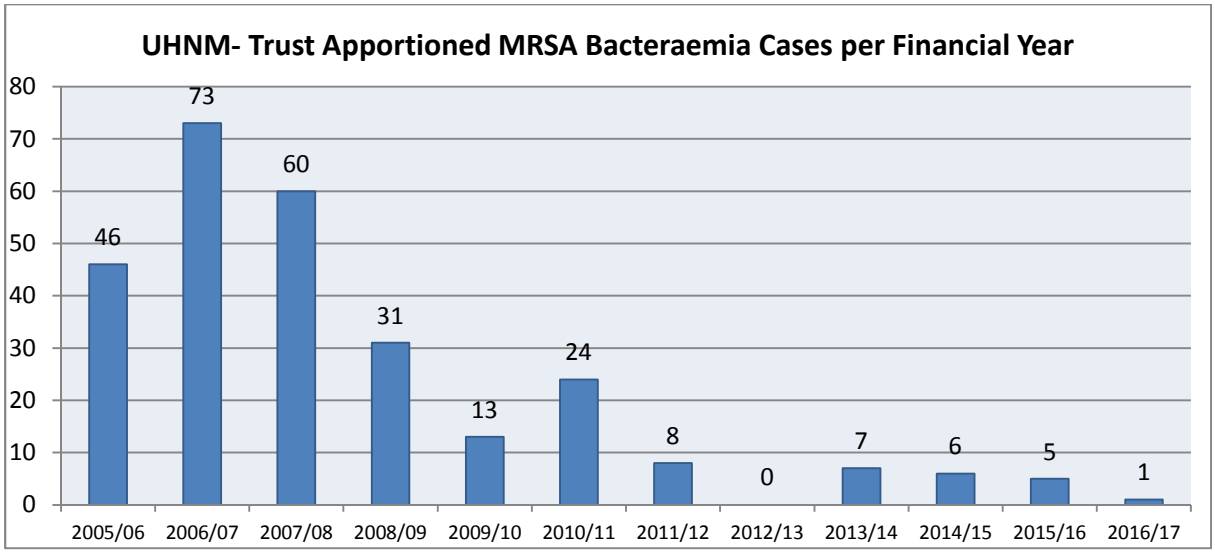
The Department of Health (DH) began mandatory surveillance of MRSA bloodstream infections (bacteraemia) in 2001. This includes all bloodstream infections with MRSA whether acquired in hospital or in the community and any that are considered to be a contaminant or not. Data is reported to the DH, via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

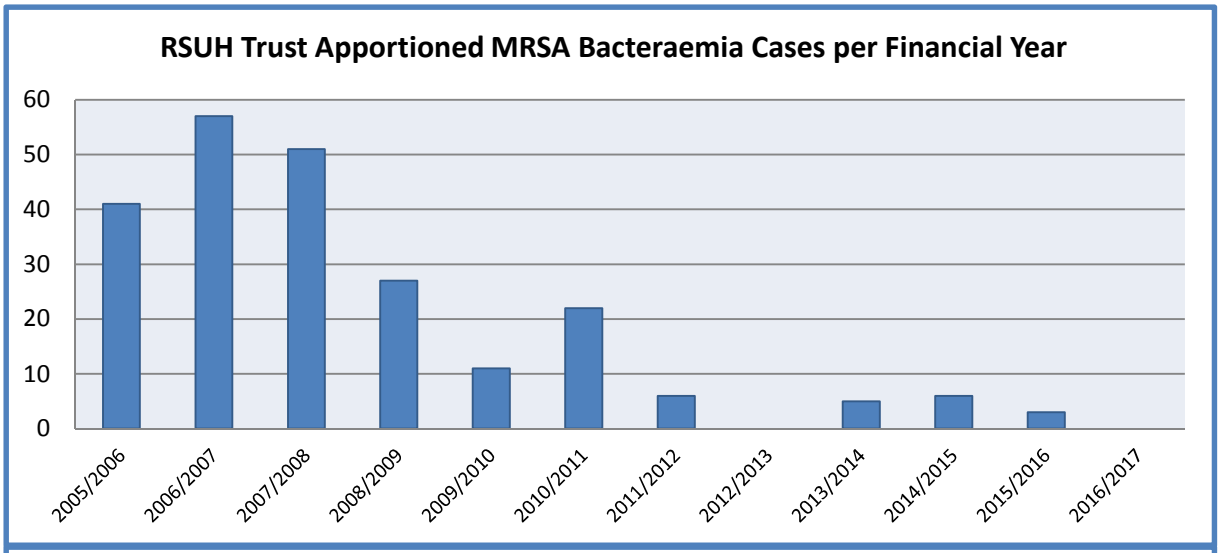
There continues to be a national zero target for all MRSA bacteraemia, as part of this zero tolerance approach an in-depth Post Infection Review (PIR) is undertaken for all MRSA bloodstream infection cases which includes an external review, the purpose is to identify any possible failings in care and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

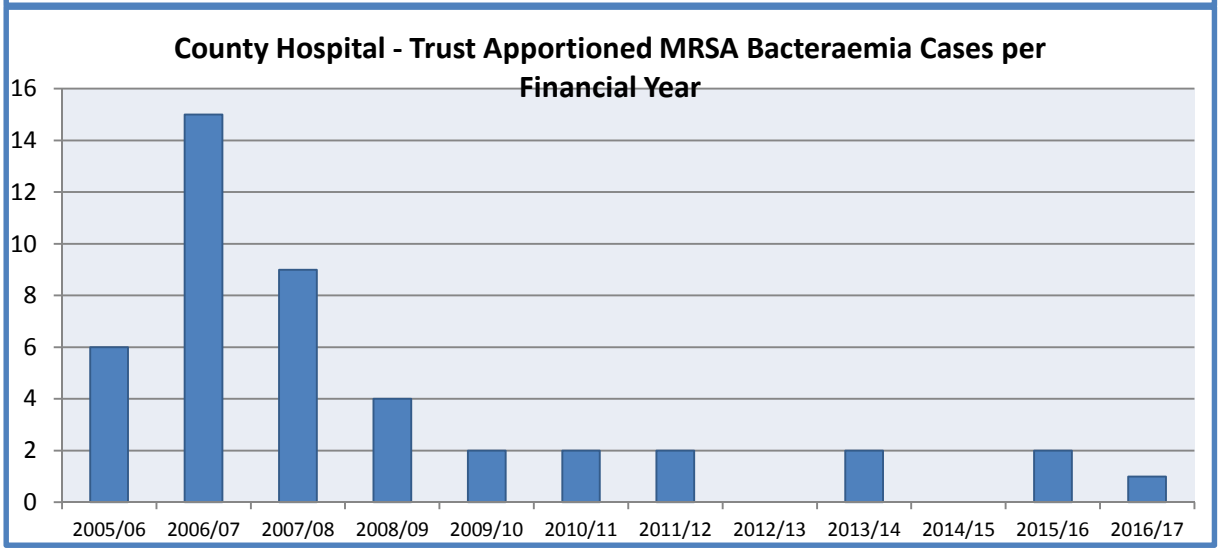
Trust apportioned cases are defined as blood culture taken "on or after the 3rd day of admission".

For the period covered by this report UHNM had 1 Trust apportioned MRSA bacteraemia which is an 80% decrease in the number of MRSA acquisition cases compared to the previous year. This case was deemed unavoidable by the PIR panel.

Where relevant any lessons learned are circulated widely throughout the organisation, as well as with other health services, if necessary. The external panel deemed 2 unavoidable and sent to NHS England for arbitration, who agreed that these two cases had no lapses in care and were attributed to a third party.


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
1
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17


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
2016/2017


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
2016/17

***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.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215135/dh_133016.pdf

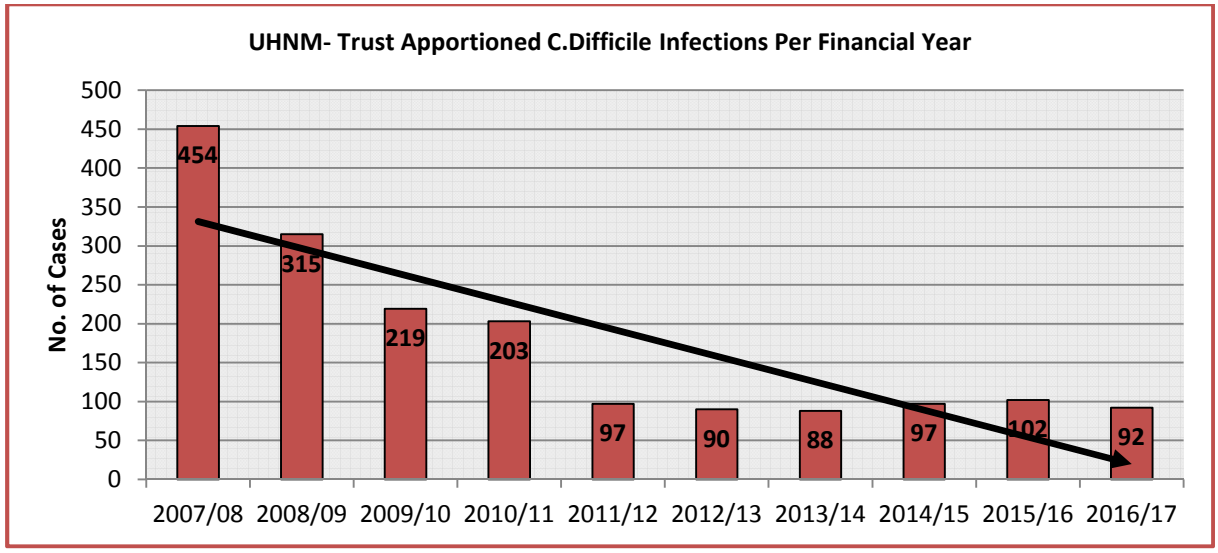
UHNM is compliant with DH testing guidance for CDI.

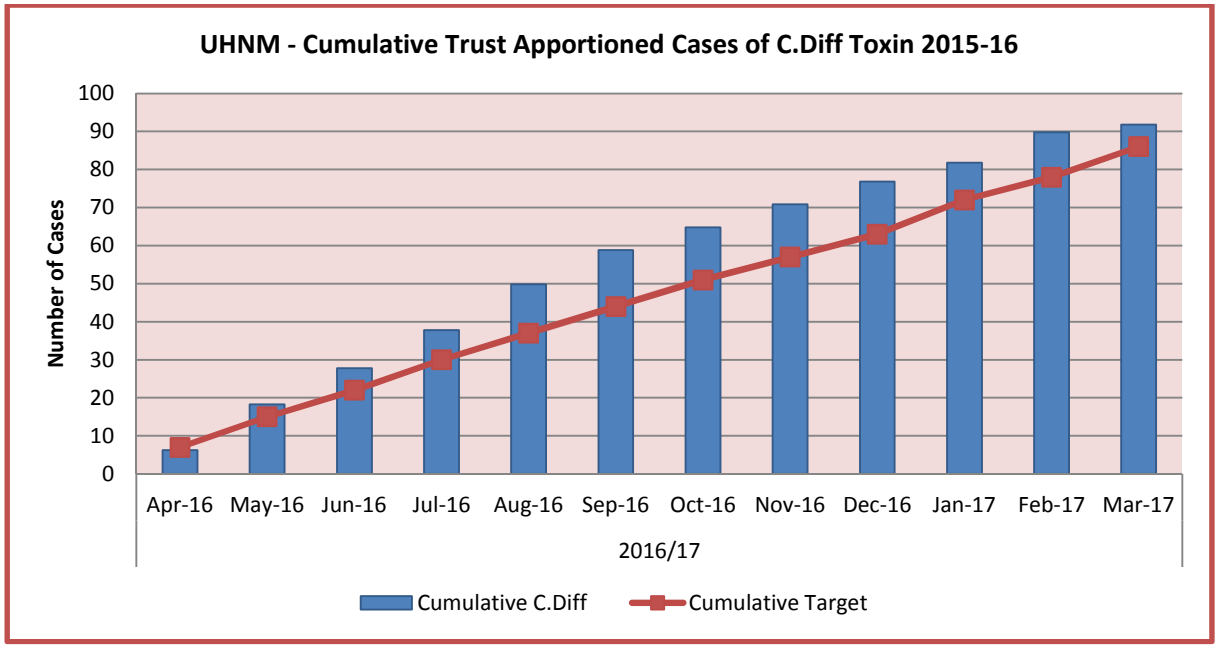
All patients with a toxin A/B positive or a toxin B gene PCR test positive report are isolated until at least 72hrs free of symptoms and a formed stool has been achieved.

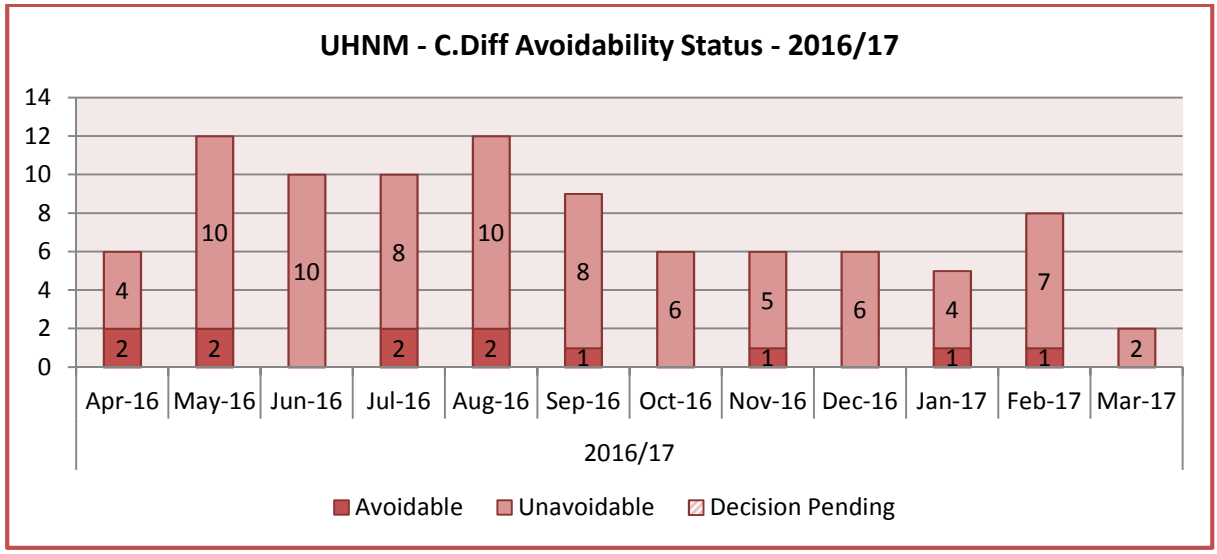
Cases of CDI that are considered to have been acquired in that Trust are defined as sample taken “on or after the 4th day of admission”.

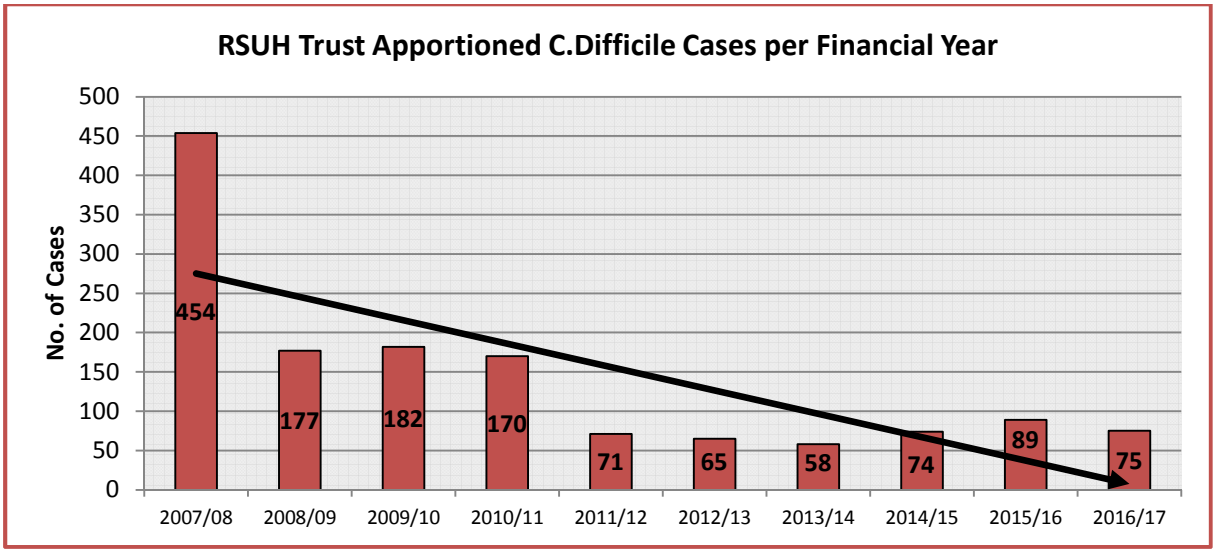
The target set by NHS England for Trust acquired cases at UHNM 2016-17 was 82 which was an increase on the previous year due to UHNM being re-classified as a large teaching trust. UHNM reported a total of 87 cases which is a 10% decrease on the previous year, missing the target set for the period covered by this report. There was an additional target of 4 cases set locally by the CCGs to cover two community hospitals, with an actual of 5 cases.

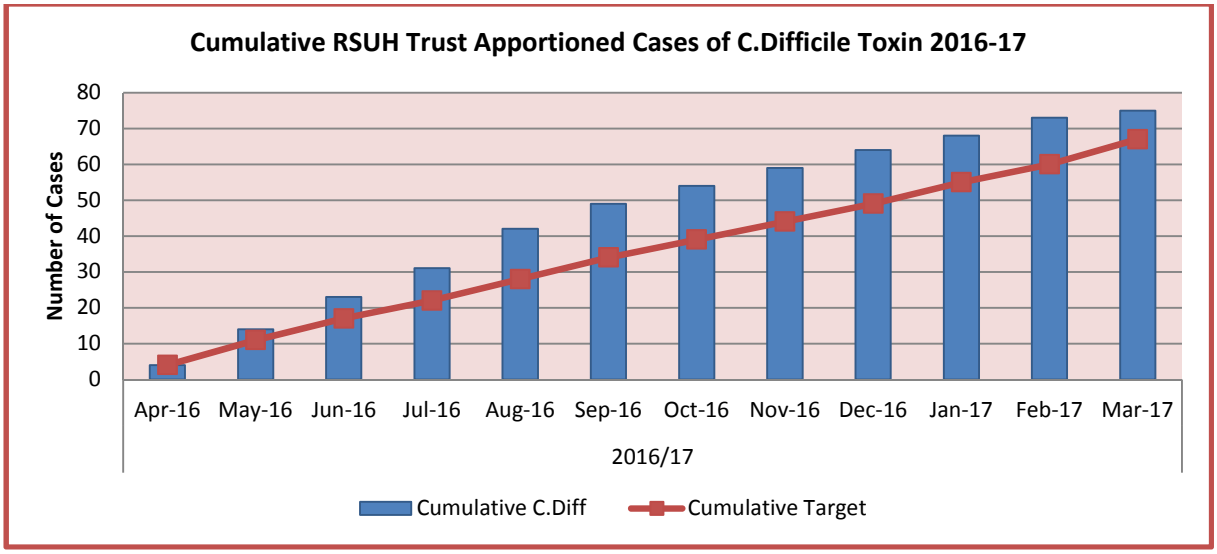
Of these 87% (n=80) of cases were deemed as unavoidable with no lapses in care identified by the CCGs.

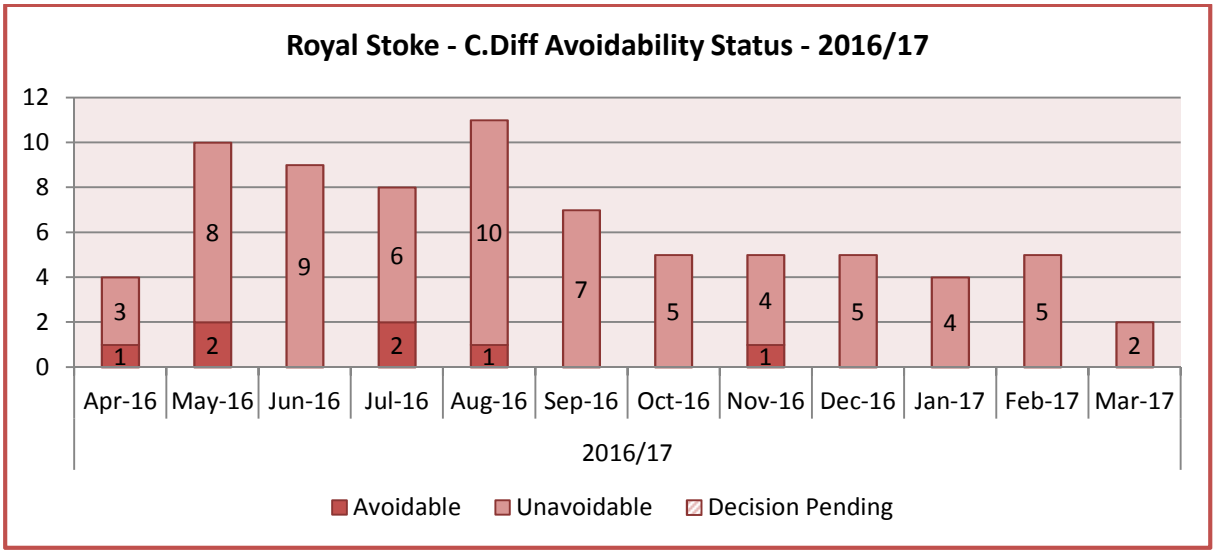

UHNM- Trust Apportioned C.Difficile Infections Per Financial Year
No. of Cases
500
450
400
350
300
250
200
150
100
50
0
454
315
219
203
97
90
88
97
102
92
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17

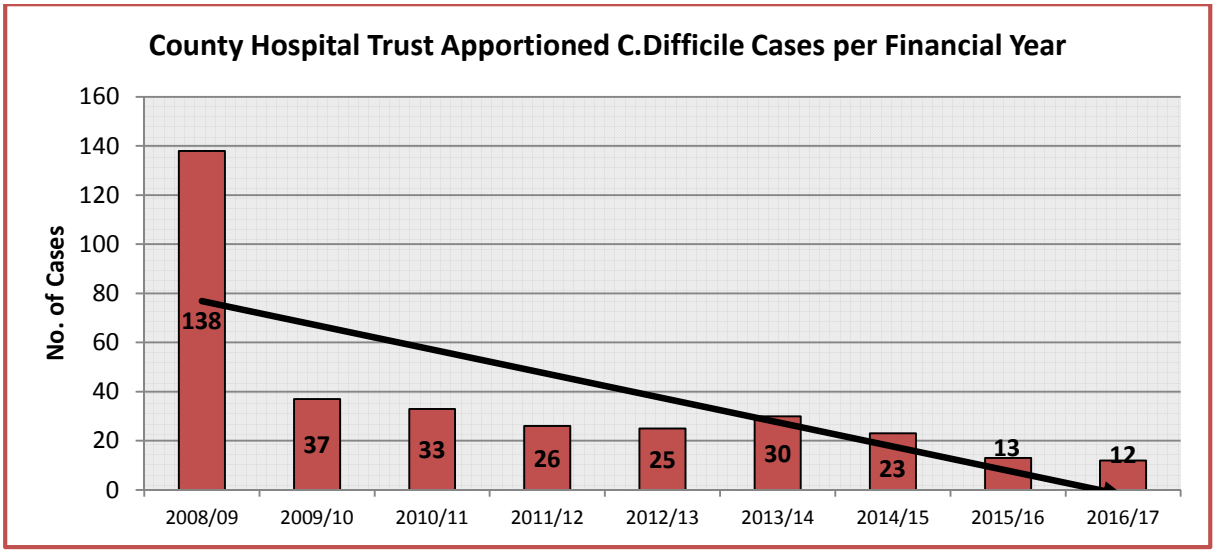

UHNM - Cumulative Trust Apportioned Cases of C.Diff Toxin 2015-16
Number of Cases
100
90
80
70
60
50
40
30
20
10
0
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Cumulative C.Diff
Cumulative Target

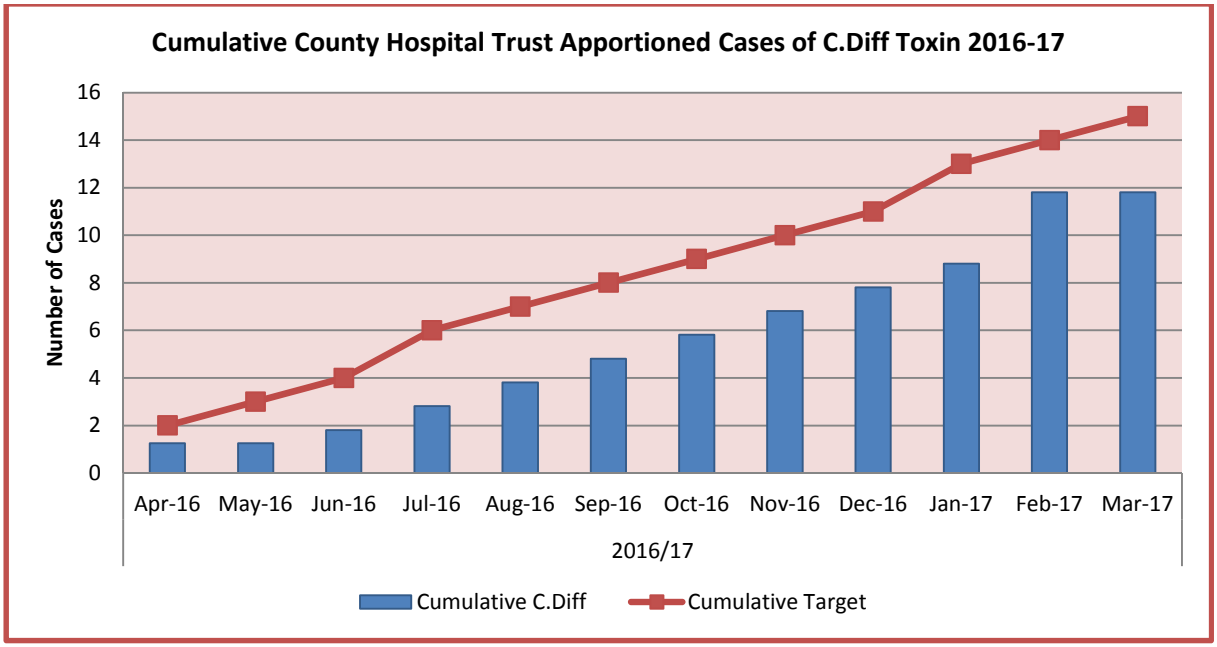

UHNM - C.Diff Avoidability Status - 2016/17
14
12
10
8
6
4
2
0
4
2
10
2
10
8
2
10
2
8
1
6
5
1
6
4
1
7
1
2
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Avoidable
Unavoidable
Decision Pending

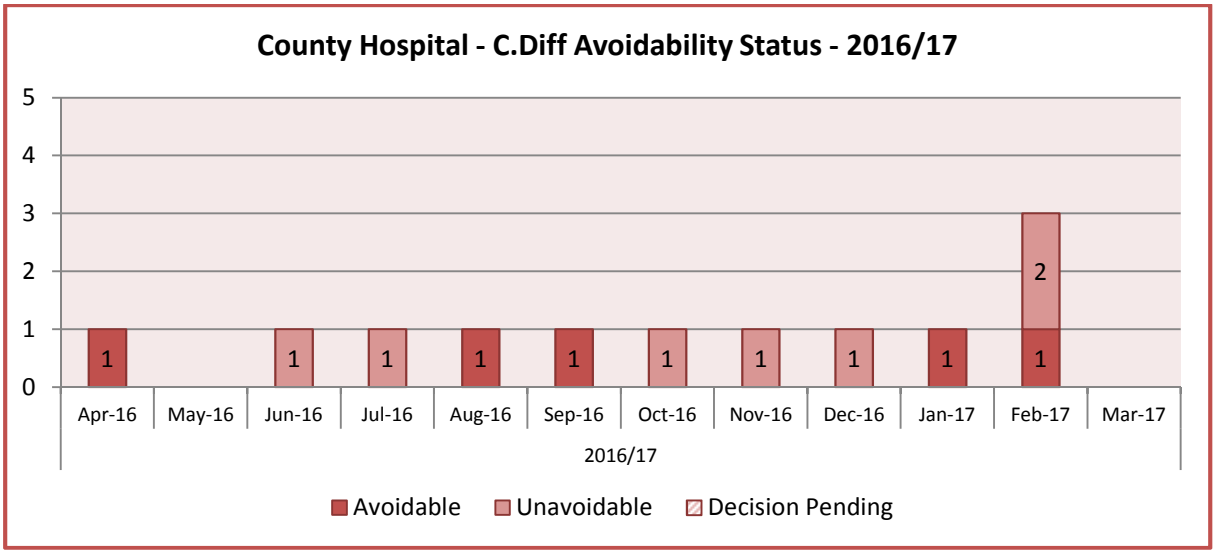

RSUH Trust Apportioned C.Difficile Cases per Financial Year
No. of Cases
500
450
400
350
300
250
200
150
100
50
0
454
177
182
170
71
65
58
74
89
75
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17

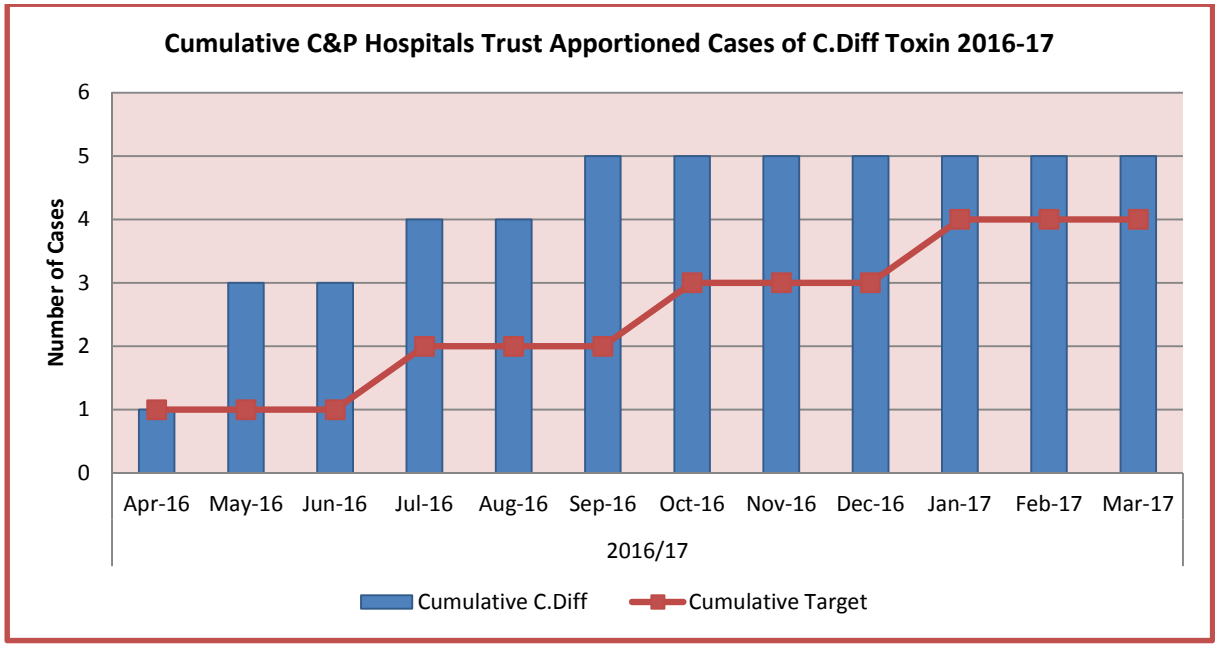

Cumulative RSUH Trust Apportioned Cases of C.Difficile Toxin 2016-17
Number of Cases
80
70
60
50
40
30
20
10
0
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Cumulative C.Diff
Cumulative Target

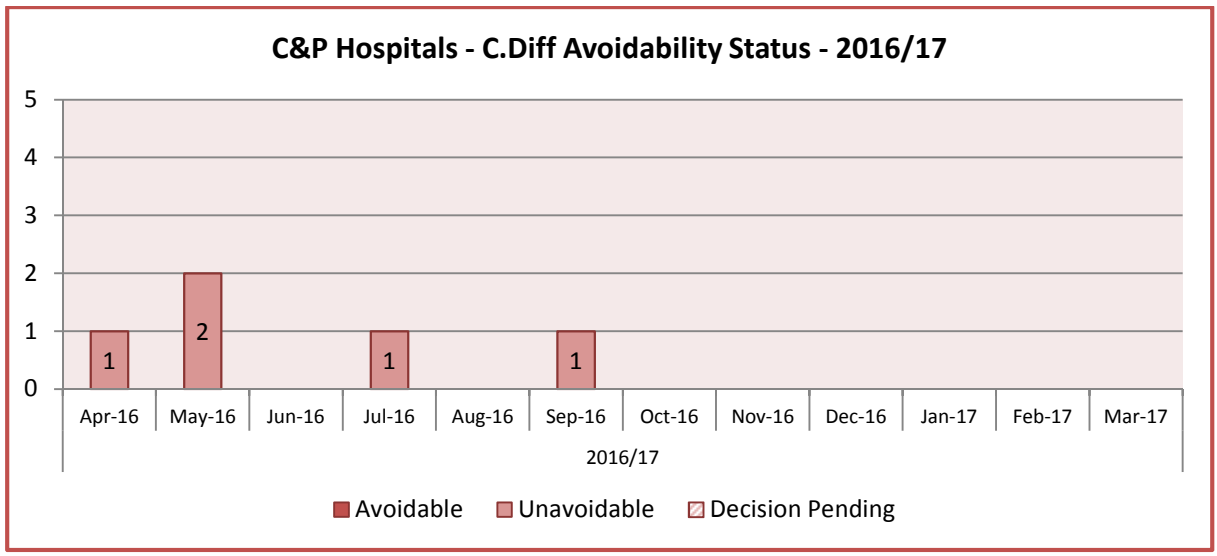

Royal Stoke - C.Diff Avoidability Status - 2016/17
12
10
8
6
4
2
0
3
1
8
2
9
6
2
10
1
7
5
4
1
5
4
5
2
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Avoidable
Unavoidable
Decision Pending


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
12
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17


Cumulative County Hospital Trust Apportioned Cases of C.Diff Toxin 2016-17
Number of Cases
16
14
12
10
8
6
4
2
0
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Cumulative C.Diff
Cumulative Target


County Hospital - C.Diff Avoidability Status - 2016/17
5
4
3
2
1
0
1
1
1
1
1
1
1
1
1
2
1
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
2016/17
Avoidable
Unavoidable
Decision Pending





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.

In all cases control measures are instigated immediately, and RCA's are reviewed. Each inpatient is reviewed by the C *difficile* nurse at least 3 times a week, and forms part of a weekly multi-disciplinary review where the patient case is discussed including antibiotics and where necessary feedback to ward doctors.

All HCAI CDI cases are subjected to root cause analysis and each case discussed with Head of IP with the Clinical Commissioning Groups to decide relation to their avoidability (lapses in care) with feedback to Infection Prevention and Control Committee and Divisions. Divisions action Duty of Candour where 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 UHNM. Emergency portals are on a 6 monthly deep clean programme.

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

There has been an increase of CDI cases in the wider health economy. A CDI Task & Finish group was established and led by the CCGs in the North of Staffordshire commencing in January 2017, with bi monthly meetings attended by the Deputy DIPC/Lead Nurse IP.

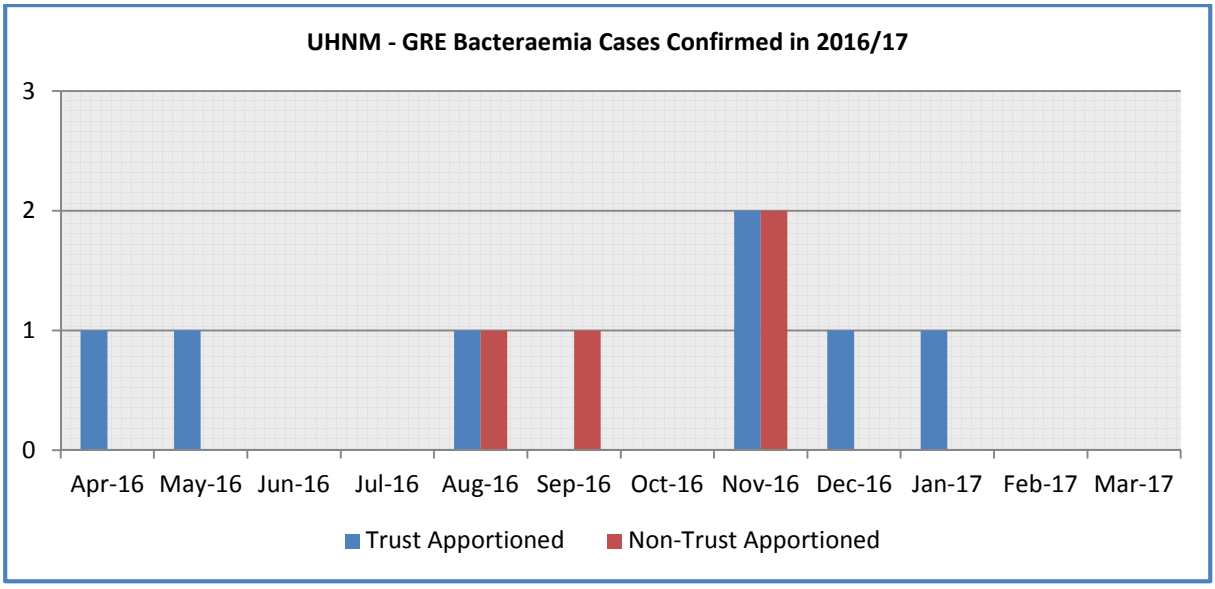
The Trust continues to use human probiotic infusion when required. This treatment involves the infusion of healthy human donor flora bacteria into the bowel of the affected patient. The indications for the treatment were recurrent diarrhoea or no response to aggressive CDI management.

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.

During 2016-2017 The Trust reported 11 of this type of blood stream infection (see chart below), with 35 cases recorded at UHNM in 2015-2016.



Carbapenemase – producing Enterobacteriacea (CPE)

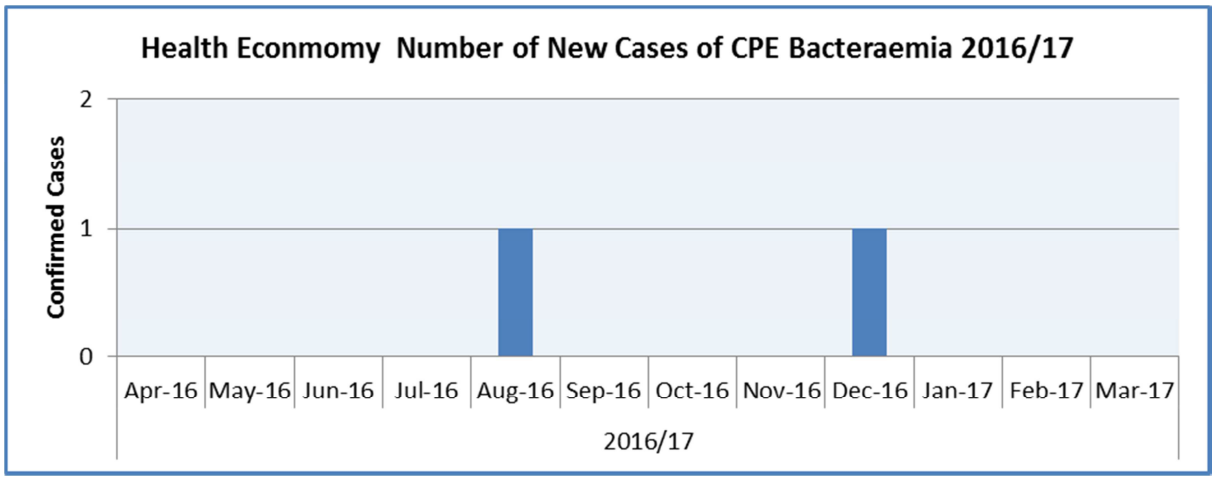
Public Health England published a toolkit for the early detection, management and control of CPE in December 2013. The toolkit provides expert advice on the management of CPE to prevent or reduce spread of these bacteria into (and within) health care settings, and between health and residential care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

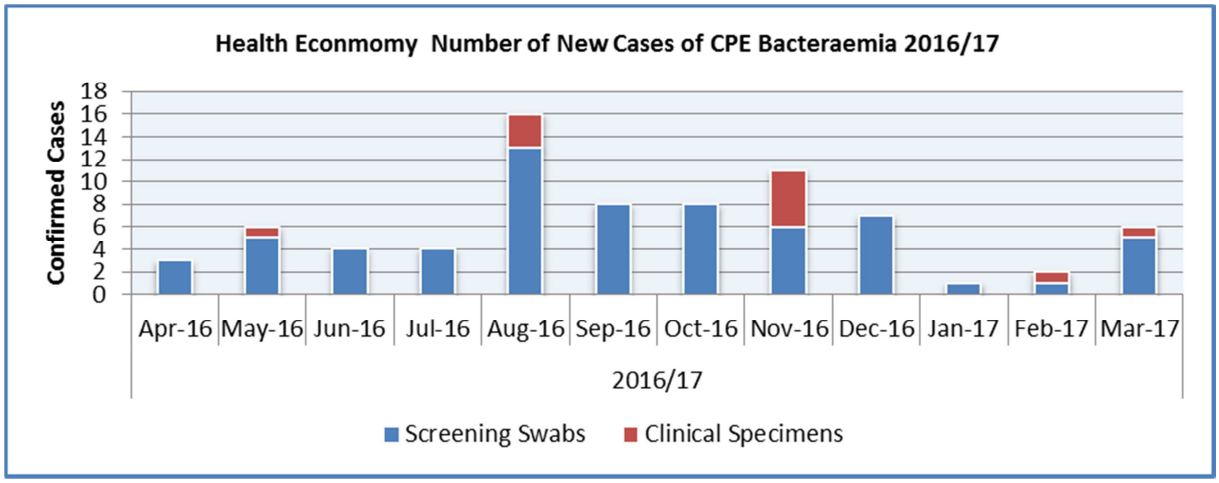
The Trust has a CPE policy in place for some time; this reflects screening guidance recommended by Public Health England.

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.

A screening close contact flow chart has been devised to assist staff in the clinical areas where contact screening of patients is required.

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 undertaken by both clinical areas and Infection Prevention Team to provide assurance around practice and ensuring that they consistently complying with evidence based practice and policies. Action plans are devised by areas where issues are highlighted and fed back to the IPCC via the Matron for the area.

The Infection Prevention Team also completed additional audits where infection numbers are highest or where there appears to be an identified risk concern so improvements in the care process can be identified quickly and put into action.

'Prompt to protect' audits

The prompt to protect audits were introduced as part of the Trust's Clostridium *difficile* plan. These audits are undertaken by the Infection Prevention Team to review patients with a hospital stay of 1 month, 2 months and >90 days. The objective is to provide assurance for common IP interventions and proactively seek improvements where necessary to reduce the risk of health care acquired infections in those with a length of stay of >30 days.

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.

Public Health England (PHE) Point Prevalence Survey (PPS) 2016
On 21st October 2016 the Trust completed data collection for the Public Health England (PHE) 5th National Point Prevalence Survey to capture data on Healthcare Associated Infections (HAI) and Antibiotic Prescribing, this surveillance was facilitated by the infection prevention clinical surveillance team. 49 in-patient wards at the Royal site were surveyed, data is currently being input to the National PHE database, A multidisciplinary team consisting of a Microbiologist, Antimicrobial Pharmacist, Infection Prevention Nurse and assistance from the ward staff completed the survey as planned collecting valuable data on prevalence of devices, antimicrobial prescribing, and origin of infections, Following the completion of data input we will be able to extract useful data for the Trust such as availability of point of care Alcohol hand rub, device prevalence and antimicrobial prescribing. An initial report will be released by PHE in Autumn 2017.

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 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 requires 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 included programme of mandatory sessions and induction days in addition Sepsis, MRSA, CPE, screening and decolonisation, influenza, norovirus, Clostridium *difficile,* winter planning, water safety/flushing and tuberculosis.

Clostridium *difficile* training was refreshed during 2016-17 and work commenced to extend this session to be available to staff on line.

Mask fit training
The IP Senior Nursing Assistant provides mask fit training for clinical staff

Seasonal Staff Influenza Vaccination Campaign
Season influenza staff vaccination campaign is well established at UHNM. Training for vaccinators was held during September 2016. The campaign officially commenced on 1st October 2016 with a wealth of information/videos available to staff on the Trust intranet, as well as the locally based influenza champions.

Sepsis
Staff were invited to a showing of starfish film, based on a families heart breaking journey through sepsis, the purpose of this showing was to drive the importance of early detection and treatment of sepsis

IP Link Practitioner Scheme: The IP Team continued to support the IP Link Practitioner with most areas having a designated link member of staff. This Scheme is open to all staff as everyone has an important role in Infection Prevention and cascading best practice in their area of work. Staff that completed the role of the IP Link Practitioner session are awarded a badge to ensure that they are identified as a Link Practitioner within the Trust. The IP team provided updates to IP Link Practitioners bi monthly

Shadowing: During 2016-17 Student Nurses continued to be allocated with the IP Nurses. This is a valuable experience to provide an opportunity for students to gain an insight into IP in the hospital setting and to improve practice whilst working in the clinical areas.

Aseptic Non Touch Technique (ANTT)
In 2015 UHNM adopted ANTT as the standard for all clinical procedures, Healthcare associated infections (HAI) can be significantly reduced when effective aseptic technique is practised. 2016/17 has seen the strengthening of the theory and practice of ANTT throughout the Trust with cascade trainers being recruited for the majority of clinical areas, supported by both theory and practical educational sessions ensuring that they have the skills and confidence to teach and assess their teams. A new VCTMS theory package was produced to ensure that all clinical staff are trained and competency assessed in the theory of ANTT. The six National ANTT clinical guidelines have been updated to reflect products and waste streams relevant to the Trust these guidelines promote the standardisation of

practice. Standardisation of equipment and medical consumables continues to be promoted across the Trust. The clinical guidelines have been added to the Infection Prevention intranet site and delivered to all inpatient areas. Additional supportive resources are available on the intranet including educational videos and assessment tools

Infection Prevention & Control 90 day Improvement Collaborative Programme
UHNM were invited by NHS improvement (NHSi) to take part in a 90 day Infection Prevention & Control (IPC) quality improvement collaborative programme. The aim of the 90 day innovation programme was to deliver an improved experience and improved outcomes for patients through delivering the best IPC practice whilst also seeking to measure, monitor and reduce the cost of care associated with avoidable infections also to promote shared learning, best practice and innovations with colleagues from other Trusts.

Four National study day events commencing in April 2016 were attended by the IP Team, Consultant in Elderly care and Quality Nurse from UHNM.

The project aim was identified by UHNM was to 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

The UHNM team produced a video for the National summary day to showcase the improvement work that had been undertaken and complied actions all resources added to the IP Trust intranet site.

Preventing CAUTI awareness training has been rolled out across the Trust to improve staff knowledge and highlight the increased risk of infection with invasive devices such as catheters.

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

Infection Prevention Meetings

- Monthly meetings are held between IP Team and CPM/Sodexo to review cleaning scores and discuss any areas of concern.

PLACE Inspection

- The annual PLACE inspections were undertaken during March 2017 across both sites, a number of wards and departments were reviewed by members of the public, specifically looking at the cleanliness, privacy and dignity, dementia, food and overall care environment. Feedback received from the inspection was positive, however the overall scores for the visit will not be known until end of August/start of September when all scores are published nationally.

Terminal cleans

All emergency portals undergo a deep clean on a six monthly bases

All terminal clean requests at Royal Stoke site are required within working hours are requested via the Infection Prevention Team.

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 and advise with pre purchase questionnaire (PPQ)

- 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.

Waste Projects
IP team continued to work closely with UHNM switch projects, collaboratively producing a new isolation sign which prompts staff to switch to the waste stream required depending on infectious status of the patient.

Cardiac Surgery Bypass Machine
In June 2015 MHRA issued a Medical Devices Alert concerning all heater-cooler machines used for cardiac surgery. This is part of a pan European issue following a case of post-operative wound infection from mycobacterium reported in Switzerland. A European wide surveillance programme has been established, led by PHE in England. A further MHRA MDA alert was issued in December 2016, together with a joint PHE/MHRA/NHS England Webinar on 27th March 2017 for all acute trusts in England that undertake cardiac surgery. Letters have been issued to all relevant patients as part of the UK wide initiative. UHNM, as are all cardiac surgery centres, continue to work closely with PHE and the MHRA on this initiative with regular updates provided at the IPCC. All required control measures were instigated following the initial MDA alert in 2015, and continue in place together with Surveillance for any potential infections.

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 completed in June 2016. The refurbishment provides 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.

Refurbishment projects completed include:

- Elective Trauma and Orthopaedic Ward
- Wards 14
- Orthodontics
- Day case oncology Unit
- Out patients Department
- Pathology Department
- Fire Safety and essential maintenance works
- Water valve upgrade
- Refit Pharmacy Department
- Gynaecology rooms
- Emergency Department

County refurbishment works that are in progress

- Third laminar flow theatre
- Wards
- Pre –Assessment Department
- Out- patient Phlebotomy Department
- Dermatology Out patients Department

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

- Critical care Pod 6 separation of sluice room to provide more storage
- Interventional radiography
- Review fire dampers
- IT system for children's intensive care unit
- Sodexo annual maintenance programme

Pods which have been installed into 4 bed spaces on ward 76b in West Building remain in place. 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.

Sepsis Team

Sepsis is potentially a life threatening condition and is recognised as a significant cause of mortality and morbidity in the NHS, with around 32,000 deaths in England attributed to Sepsis annually. Of these it is estimated that 11,000 could have been prevented (NHS England, 2016).

There is a National Sepsis CQUIN: Systematic screening for Sepsis of appropriate patients and where sepsis is identified, to provide timely and appropriate treatment and review.

A sepsis team is in place, the team provide training, support and raising awareness about sepsis Trust wide. Emergency portals now have sepsis champions and provide sepsis training and education to staff.

Sepsis champions continue to be identified in clinical areas to continually drive the process forward.

New screening tools were introduced by the Maternity Team in collaboration with the Sepsis Team and Paediatrics introduced a screening tool. This is being used in paediatric emergency portals and inpatient wards, tools are compliant with NICE 2016 Guidelines.

The Sepsis Team and Antimicrobial Team work closely together. The CQUIN for 2017-18 will be joint sepsis and Antimicrobial.

Antimicrobial Stewardship (AMS)

During 2016/17 the pharmacy team supporting the work of the Trust Antimicrobial Stewardship Group (ASG) was expanded. A business case was successful in securing the appointment of an Advanced Pharmacist Practitioner and an Antimicrobial nurse (both 1 WTE). These new members have a key role in delivering the AMR CQUINs, carrying out targeted ward reviews of antibiotic prescribing (often supporting a Consultant Microbiologist) and providing strategic leadership to ensure the antimicrobial stewardship agenda remains a high priority across all clinical areas. They join the existing Infectious Diseases Specialist Pharmacist based at Royal Stoke and the Antimicrobial / Surgery Pharmacist at County. The latter 2 pharmacists provide sessional support to the ASG and CQUIN workstreams in addition to their substantive core clinical roles. The team is also supported on an ad hoc

basis by a data analyst and clinical information technician as required to support the compiling of reports for submission to PHE and NHS England.

The expanded team brings clinical experience and expertise in all aspects of antimicrobial stewardship and, on behalf of the ASG, is supported in escalating prescribing or clinical issues relating to antimicrobials to the appropriate forum.

The UHNM has continued to build on the foundations put in place previously 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 across the Trust for a number of years. 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. This has been particularly important in supporting the achievement of the 16/17 AMR CQUIN antibiotic consumption targets.
- 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 devices continues to engage prescribers by facilitating easy access of antimicrobial guidelines at the point of prescribing. The web-based app allows more efficient updating of guidelines following review by ASG members.
- There is an Antimicrobial Education and Training Strategy. Antimicrobial presentations are available on the Trust Intranet. Antimicrobial stewardship educational sessions for Pharmacy Staff across both sites continue to be 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 again delivered at County Hospital to familiarise newly qualified 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.
- In addition to pharmacist awareness sessions, the AMS team provides training to each intake of overseas nurses recruited to UHNM in addition to the preceptorship nurse scheme. This is important to align practice amongst colleagues who may have

worked in different Trusts (and countries) with different approaches to antimicrobial stewardship.

There are 6 Consultant Microbiologists and 2.6 WTE Consultant Physicians in Infectious Diseases, providing antimicrobial stewardship by telephone and face-to-face on ward rounds and during teaching sessions. A new development is the antimicrobial stewardship ward rounds being undertaken regularly in Acute Medical Unit, Respiratory wards and some Surgical wards. These areas were selected for additional support from the expanded AMS team in order to facilitate delivery of the 16/17 AMR CQUIN. There remains 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, 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 a number of key antimicrobials due to manufacturer's supply problems in 2016-2017. Aztreonam injection was once again intermittently available throughout the year. Worldwide manufacturing and capacity issues resulted in shortages with Piperacillin / tazobactam, levofloxacin, vancomycin, trimethoprim and co-trimoxazole created issues throughout the year. 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 alternative agents chosen taking into account antimicrobial stewardship and local resistance patterns, benefits and risks of proposed substitute agents, including cost pressure to the Trust as a result of using more expensive alternatives;
- 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
- targeted ward rounds undertaken by the AMS team enabled informed choices to be made by prescribers when considering switching to alternative therapies
- 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.
- Towards the end of the year NHS E took a strategic role in managing capacity issues and their guidance required further review and implementation at UHNM led by the AMS team.

New Initiatives:

- Expansion of the AMS team has facilitated input into the OPAT and the C Difficile MDTs.
- Support for the investigation of increased incidences of C Diff and MRSA bacteraemias has been strengthened.
- Bone and joint MDT weekly meetings have been implemented and these have been supported by AMS team members.

- A requirement to provide PHE with antibiotic consumption data has been met with the input from data analyst colleagues. This reporting has been refined to allow the AMS team to provide specific feedback at divisional and specialty level.
- This consumption data has been made available to allow the production of reports to IPCC and TEC.

In order to facilitate timely review of prescribed antibiotics (as mandated by the 16/17 AMR CQUIN) the UHNM inpatient prescription chart was updated to provide clearer documentation of review decisions during therapy. This and other measures resulted in UHNM achieving the local targets for the CQUIN across the three consumption indicators in addition to the empirical 72 hour review indicator.

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

- The second 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 continued its collaboration with the Keele School of Pharmacy and initiated similar arrangements with the Medical School. Undergraduates from both Schools 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 again.
    - Building on previous year's success collaborative working was repeated between Staffordshire and Shropshire. Ideas were shared from previous years and a co-ordinated campaign developed across the wider health economy and other stakeholders.

- The Trust participated in the Public Health England 'point prevalence survey' in September and October 2016. . 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.
    - 425 (39.4%) of the hospitalized patients were on one or more antibiotic (compared to 2011:36%), totalling 559 antibiotic prescriptions
    - The indication for antibiotic prescription could not be found in the notes of 0.3% of prescriptions and 0.5% of patients, an improvement since 2011 (7.8% and 3.1% respectively. These improvements are in line with Start Smart then Focus (SStF) which was first published in November 2011. SStF states that the indication for an antimicrobial should be recorded on the prescription chart and in the medical notes
    - Where indication for antibiotic was stated, 61.9% of antibiotics was prescribed for community-acquired infection, 26.9% for hospital-acquired infection, and 0.4% for other healthcare-associated infections

- 68.6% of administration was established as parenteral an increase from 2011 (60%), 31% as oral (35% in 2011)
- In the top 10 of antibiotics prescribed, co-amoxiclav and piperacillin/tazobactam were in 1st and 2nd place again respectively. Meropenem IV was in 6th place (down from 5th) and metronidazole IV moved from 6th to 3rd place

- Collaboration with NHS E continues around procurement and rationalisation of antifungal drugs to deliver cost savings for the Trust and NHS England.

Feed-back from users on these initiatives 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, as well as for the staff flu vaccination campaign and sepsis
- 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 was upgraded to ICNet NG version. 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.

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

Compliance 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.

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.

The iPortal system was rolled out at County Hospital during 2016.

Surgical Site Infection Surveillance (SSISS)

The aim of SSISS is to enhance the quality of patient care by encouraging hospitals to use data obtained from surveillance to compare their rates of SSI over time and against a benchmark rate, and to use this information to review and guide clinical practice

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

SSI SURVEILLANCE 2016-17			
QUARTER	**PERIOD**	**SURVEILLANCE**	
		Royal	**County**
1	Apr – Jun	Coronary Artery Bypass Graft	Nil
2	Jul – Sep	Nil	Nil
3	Oct – Dec	Nil	Nil
4	Jan – Mar	Repair of neck of femur	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 2016-17			
Operation	**Number of operations**	**Number of SSIs**	**% infected**	**Date**
Coronary Artery Bypass Graft	158	1	0.63%	Qtr 1
Repair of neck of femur	138	1	0.72%	Qtr 4
Total	**264**	**2**	**0.68%**	

	All Hospitals			
Operation	**Number of operations**	**Number SSIs**	**% infected**	**Date**
Coronary Artery Bypass Graft	31,194	2,100	6.7%	Jan 12 – Dec 16
Repair of neck of femur	94,570	1,306	1.4%	Jan 12 – Dec 16
Total	**125,764**	**3,406**	**2.7%**	Jan 12 – Dec 16

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.

Radiological Inserted Gastrostomy (RIG) feeding tube, Surgical Site Infection surveillance

The Infection Prevention Clinical Surveillance Team (IP CST)
Investigate following initial work by the Trust dietetics team IPCST were invited to be involved in a multidisciplinary task and finish group established. The purpose of the group was to review current practice, explore and identify potential areas in which improvements could be made such as the tube reinsertion pathway, insertion site care and producing a patient information and device passport leaflet.

Data was collected over a 3 month period (December 2016 – February 2017), the IPCST team visited the areas where the procedure was undertaken to assess general practice as well as procedure room etiquette, observing the RIG being placed gave the team insight and understanding into the procedure.

Surgical Site Infection Surveillance national criterions which are outlined by Public Health England (PHE) were used; patient surveillance was undertaken for 30 days as there was no permanent implant in place, surgical site infection definitions were used to identify potential infections.

Recommendations

1. MSSA screening is completed pre-procedure for all patients undergoing RIG insertion as per Trust policy
2. Ensure that signs and symptoms of infection are documented fully on clinical sample request forms and in clinical notes
3. Create a Trust policy or SOP and a Multidisciplinary patient information/device passport

Managing outbreaks of infection - Responses to incidents and outbreaks

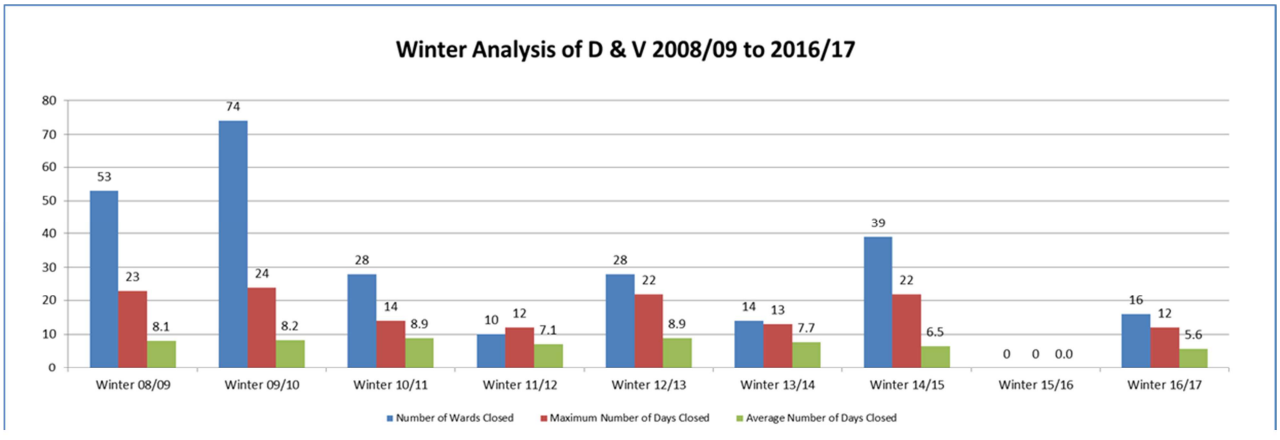
The IP Team are involved in the management of outbreaks, periods of increased incidence and incidents.

The Senior member of the IP Team attended the daily command and control meeting during period of outbreaks

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

There were several wards closed due to influenza:

December W76b (11 days)
January W76a x *2 (4 days and 16 days)
January – County W8 (8 days)
January – County SNU (7 days)
January – County W7 (2 days)



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 receives 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
Ward 110	12	12
Ward 111	12	12

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 around 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

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 room16
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
The extensive refurbishment programme has improved single room ratio in a number of wards which supports Infection Prevention and the ability to isolate patients with a confirmed or suspected infection.

Critical Care Unit does not have isolation facilities this has been raised as a risk on the Divisional Risk Register.

Ward	No. of Single Rooms	Toilet	Shower/bath
Elective Trauma and Orthopaedic Ward	13	13	13
Day Ward	4	4	2
Ward 12	12	12	12
Ward 14	12	12	12
Ward 15	12	12	12
Ward 6 (SNU)	3 (includes1 double side room)	3	0
Ward 7	4	4	0
AAU	3	0	0
AMU	3	3	0
Critical Care Unit	0	0	0

A&E	3	0	0
A&E Ambulance corridor	1	0	0
Chemotherapy Unit	3	3	0
Ward 1	4	3	0

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

An Infection Prevention Questions and Answers Manual, with an overarching policy is in place at UHNM 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 2016. IPNs have also attended several study days on different aspects of Infection Prevention throughout the year.

Two IP Nurses have completed the Infection Prevention degree Course at Birmingham City University.

IP Support Manager completed one week residential Decontamination Training at Eastwood Park:

- Introduction to decontamination process
- Decontamination Lead Roles and Responsibilities

Three members of the IP Team and Two Microbiologist completed the Legionella risk management responsibility persons training During September 2016

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.

A number of IP Team member attended UHNM in house training days e.g. Leadership, Appraisal training

Introduction of monthly education sessions between IP Nurses and Microbiologist.

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 of Infection Prevention practices across the Trust
- Monitoring of pharmacy/prescribing data
- Monitoring of Surgical Site infections
- National/international threats, e.g. multi-resistant Gram Negative Bacilli; emerging respiratory viruses
- Reduction of Gram negative blood stream infections by 50% by 2021

Appendix 1 Annual Programme of Works 2017-2018

Infection Prevention Programme of Works for the period April 2017- March 2018

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 2017 - 31st March 2018.

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
NHSI – National Health Service Improvement
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 bacteraemia • 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	
	• Sepsis planning meetings	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	Deputy DIPC	Bi annual
	• Health Economy Antimicrobial group	Deputy DIPC	Quarterly
	• Sharps Steering Group	IP Service Development	Monthly
	• Food and Safety Task and Finish Groups	IP Lead Nurse	Monthly
	• IP Divisional Meetings	Infection Prevention Nurse	Monthly
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	Infection Prevention Nurse	Monthly
	• Water Safety Group	Deputy DIPC	Quarterly
	• Environmental Health food hygiene inspections	Infection Prevention Nurse	Annually
	• Refurbishment and Building Meetings	IPT/Service Development Team	As required
	• Infection Prevention Cleaning Services (soft FM)	IPT/Service Development Team	Monthly
	• Decontamination Group	IPT/Service Development Team	Monthly
	• Clinical Procurement and Standardisation Group	IPT/Service Development Team	Monthly
	• Food Safety Task and Finish Group	IPT/Service Development Team	Monthly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	• Trial of UV light whole room technology on selected wards	IPT/Service Development Team	Quarter 1,2 & 3
	• Environmental swab analysis pre and post clean. Paper submission to IPS	Service Development Team	Quarter 1,2 & 3
	• Use of ATP to review hostess trolley cleaning processes	Service Development Team	Quarter 1&2
	• 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
	Audit platform to enable wards to record audit scores	IP data analyst /IP Lead Nurse	Quarter 2
	Cleaning for Credits (C4C) audit programme in place - feedback bi -monthly at IPCC	Facilities Manager	Bi Monthly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	Prompt to protect audits	IP Team	Weekly
	IPCC to receive summary progress and action plans for Divisions	Associate Chief Nurses/Matron	Bi Monthly
	Key Wards to trial new IP quarterly audits	Lead Nurse IP	Quarter 1&2
	Building works and refurbishments IP team to advise on building and refurbishments. IP Team to advise on new cleaning products and deep clean programmes	IPT/Service Development Team Deputy DIPC/IPT	As Required As Required
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 audits to IPCC	Advance Specialist Pharmacist Antimicrobials	Bi monthly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	Trust signed up for National Antimicrobial and sepsis CQUIN The Sepsis Team and Antimicrobial Team work closely together. The CQUIN for 2017-18 will be joint sepsis and Antimicrobial Antimicrobial stewardship initiatives • Updating of antimicrobial guidelines and Antimicrobial Micro guide App Access to Microbiologist to advise on appropriate choice of antimicrobial therapy Access to microbiology diagnosis, susceptibility testing and reporting of results Strengthening of Sepsis champions and sepsis screening Sepsis educational material	Microbiologist, Advanced Specialist Pharmacist Antimicrobials Orthopaedic Consultant Consultant in Infectious Disease Deputy DIPC Advance Specialist Pharmacist Antimicrobials Microbiologist ICD/Microbiology Manager Deputy DIPC/IP Team Deputy DIPC/IP Team	Quarter 1-4 Quarter 3 Quarters 1-4 Quarter 1-4 Quarter 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.	DIPC to liaise with Communications Team to deliver public messages in times of outbreaks 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 All Clostridium *difficile* given a "green alert card" to be presented when receiving future healthcare	DIPC IP/Service Development Team IPT IPT service Development Team/IPT	As required Quarter 1-4 Quarter 1 Quarter 1 As required
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

Objective	Actions	Person(s) Responsible	Time Scale & Priority
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.		Time scale in accordance with documented programmes
	IPT to attend • Teaching and Education	IPT	Quarters 1-4
	• Corporate induction	IPT	Quarters 1-4
	• Mandatory training days	IPT	Quarters 1-4
	• Scheduled programme of updates	IPT	Quarters 1-4
	• Infection Prevention Link Practitioners study days	Service Development Team	Quarters 1-4
	Planned programme for Student Nurses to shadow the IPT	IPT	Quarters 1-4
	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, on line learning Hand hygiene and mask fit training	IPT	Quarters 1-4

Objective	Actions	Person(s) Responsible	Time Scale & Priority
Criteria 7 Provide and secure adequate isolation facilities	To advise/make recommendations on isolation facilities during refurbishment programmes Inform DIPC where there is lack of isolation rooms of when requirements change e.g. threat of alert organism	IPT Deputy DIPC	As required As required
Criteria 8 Secure adequate access to laboratory support as appropriate	Ensure CPA accreditation of laboratories is current Daily laboratory bench round with "on call" microbiologist	ICD/Lab Manager IPT	Annually 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. 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	IPT Service Development Team	As required 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

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