2017/18

Infection Prevention, Flu and Sepsis Team Annual Report

HELEN BUCIOR

University Hospitals of North Midlands

June 2018

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

Infection Prevention and Control Annual Report 2017-18

This Annual report covers the period 1st April 2017 to 31st March 2018 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 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.

2017/18 proved to be another busy and challenging year for the Infection Prevention Team. The UK saw a significant number of influenza cases during this winter, and UHNM was no exception with an unprecedented number of cases presenting to the emergency portals, which was additional to the other pressures on the Trust from acutely unwell patients.

MRSA bacteraemia, Clostridium *difficile* and antimicrobial audits remains a high priority for the Trust, alongside the gathering of information from; Root Cause Analysis, Post Infection Reviews and listening to front line staff which has helped in developing action plans and programmes of work to target areas in order to make a difference by improving patient safety/outcomes.

The Infection Prevention Team (IPT) 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 infections 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. UHNM is working closely with the Health Economy colleagues to achieve this and a Senior Sister within the IP Team is dedicated to drive the UHNM action plan to reduce *E. coli* blood stream infections. This is reviewed bi-monthly by myself at the Infection Prevention and Control Committee.

The IPT 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 2018-2019.

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

Key Achievements of 2017-18

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

- The Sepsis Team was nominated for an achievement award during the Trust's Night Full of Stars held in November 2017 under the category of Engagement of the Year! "Stop Sepsis Campaign @ UHNM".

- The Sepsis Nurse Specialist received a national award in February 2018 during the Sepsis Unplugged 2018 "Strategic Sepsis Team" presentation, National Sepsis conference held in Birmingham (run by UK Sepsis Trust).

- 7,223 influenza vaccines have been given which is the highest ever number of staff vaccinated at UHNM. This made it amongst the top five Trusts in England, and in April 2017 the Influenza Vaccinators achieved CEO award.

- No Trust apportioned MRSA blood stream infections.

- The target set by NHS England for Trust acquired Clostridium *difficile* cases at UHNM 2017-18 was 82. UHNM reported a total of 71 cases which is a 23% reduction on the previous year (2016/17) and well within the target of 82 set for the period covered by this report.

- Building upgrade projects to provide 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) took place, Standardising aseptic technique reduces variability in practice and better protects patients from preventable healthcare associated infection.

- ANTT theory package was developed to provide a varied approach to ANTT education.

- A Surgical Site Infection Module was installed on ICNet. This will enable further integration of IP systems and provide the team with robust and timely information and further enhance the IPT presence within the clinical setting.

- *E coli* blood stream infection themed actions plan devised and regularly reviewed.

- IPT were shortlisted as finalists at the Nursing Times Award for the work undertaken around Clostridium *difficile.*

- Infection Prevention Clinical Surveillance Team proactively focused on blood stream infections and line infections, Surgical Site Surveillance and ANTT education.

- There is a Health Economy approach to Infection Prevention which included sharing best practice and discussing trends in antimicrobial prescribing and any related actions.

- A collaborative work ethos with commissioners in relation to MRSA bacteraemia and Clostridium *difficile* infection root causes took place.

Abbreviations

AMR	Anti-Microbial Resistance
ASG	Antimicrobial Stewardship Group
CCG	Clinical commissioning groups
C *difficile*	Clostridium *difficile*
CCG	Clinical Commissioning Group
CDI	Clostridium *difficile* infection
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation Payment Framework
DH	Department of Health
DIPC	Director of Infection Prevention & Control
E coli	Escherichia coli
ESBL	Extended Spectrum Beta Lactamase
GDH Ag	Glutamate dehydrogenase antigen of *C. difficile*
GRE	Glycopeptide Resistant Enterococcus
HCAI	Health Care Associated Infection
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*
PCR	Polymerase Chain Reaction
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
SSI	Surgical Site Infection
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 (IPT) and other staff at University Hospitals of North Midlands (UHNM) in relation to the prevention and control of healthcare associated infections (HCAIs).

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

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

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

- to deliver continuous improvements of care
- 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 into 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 Team
At UHNM the DIPC is the Chief Nurse and has overall responsibility for the IPT. The Associate Chief Nurse (Infection Prevention) at UHNM also has the role of Deputy DIPC.

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

Quality Nurses remain an integral part of service delivery at UHNM. Nurses have a significant role in patient safety explicit within their responsibilities. This provides a key lynch-pin, and an ideal opportunity for the IPT 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.

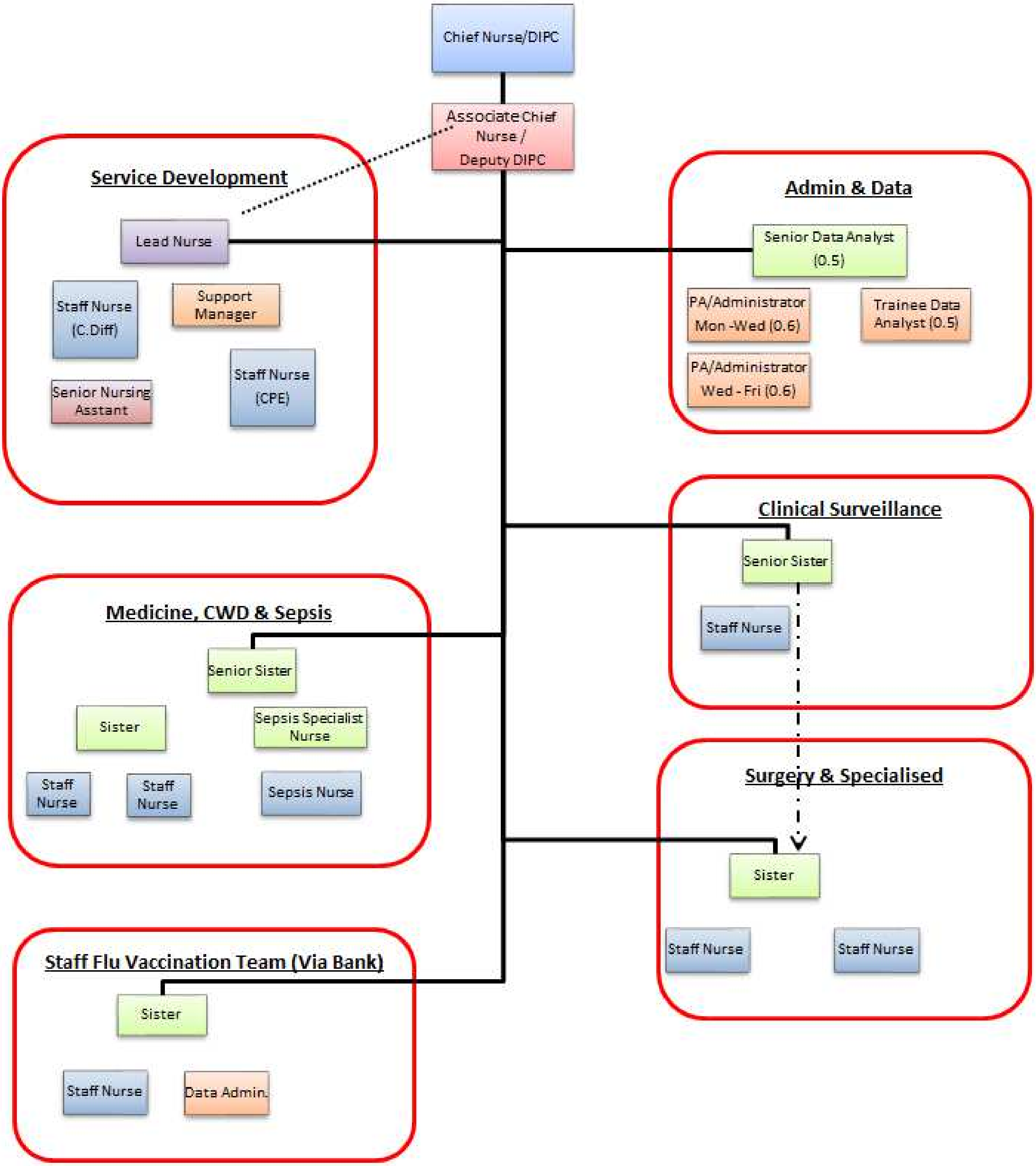
Infection Prevention & Sepsis Structure – 2018

University Hospitals of North Midlands NHS Trust

Key

Deputy Role ....

Supervisory Role – · – · – · – ·



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 meets 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 IPT provide a monthly report on surveillance and outbreaks.

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. Groups provide assurance to the Trust IPCC 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 bi-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 takes 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, IPT 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 meets monthly and the Chair for the group is the Deputy Medical Director (Patient Safety). This group reports directly to the 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.

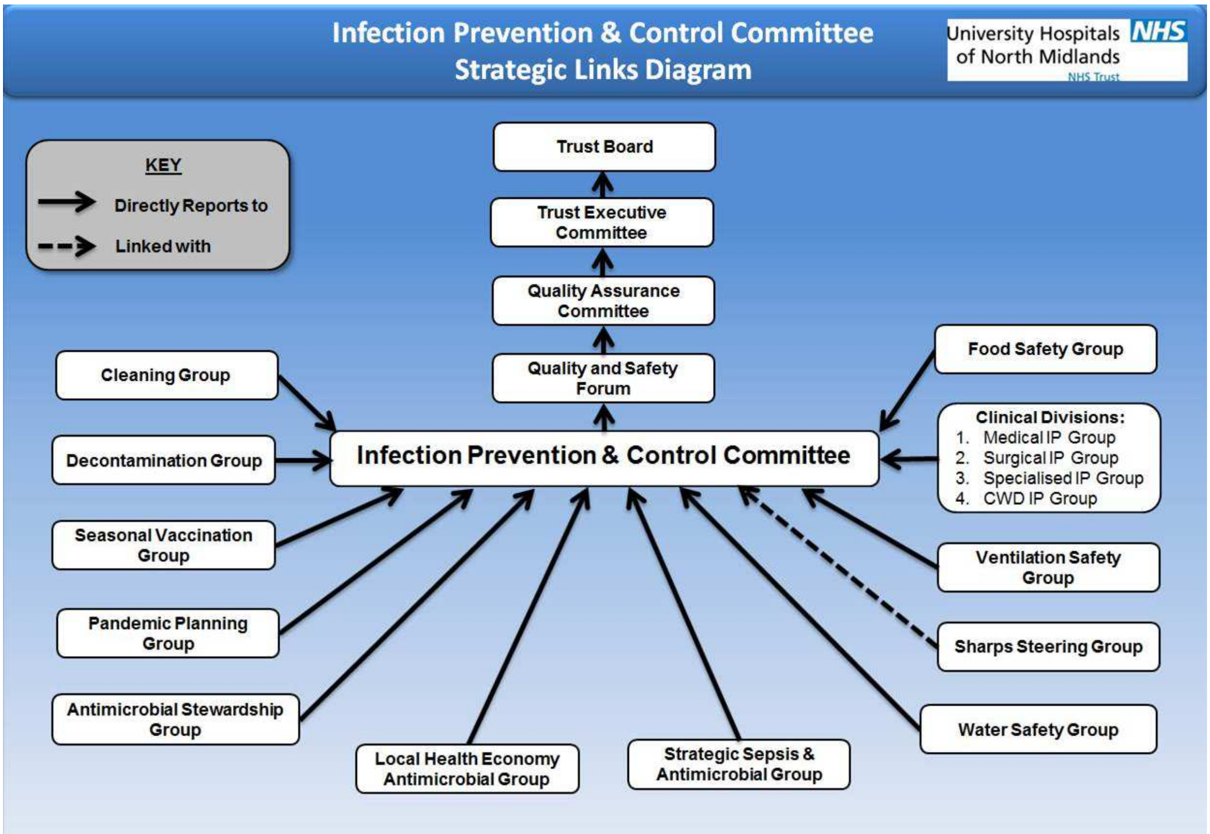
The corporate structure for reporting and monitoring on mortality issues is outlined below:

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 formed as a sub group to UHNM Standards Committee. The group was established to work with the learning following an outbreak of Salmonella at a Hospital in the UK, in which a gap analysis was undertaken by the IPT. 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.

Infection Prevention and Control Committee (IPCC) Strategic Links



Reports/Papers Received by IPCC

Policy/Procedure Updates and Standard Operating Procedures (SOP) updates	Rotational Report: Water Safety
UHNM HCAI Surveillance & Performance Reports	Rotational Report: Occupational Health
Outbreaks & Incidents	Rotational Report: Decontamination
Divisional Reports	Review & Update Committee Terms of Reference
Environment Report	Pandemic Flu Update
UHNM Antimicrobial Group Update	Annual Report
Antimicrobial CQUIN update	Sepsis report
Local Health Economy Antimicrobial Group Update	Annual Manual Decontamination Audit
Documents Received from other Committees, Regional & National	Annual Mattress Audit Report
HCAI Monthly Bulletin	Annual IP Link Practitioner Report
SSI Report	Food Safety Group update
Blood Culture Contamination Rates Report	Antimicrobial Stewardship Group Minutes
BSI Report /Gram negative report	Decontamination Group Minutes

ANTT Update	Water Safety Group Minutes
CDI plan update	Sharps Report
PHE Update	Health Economy Committee

Groups/Meetings Infection Prevention Team Attend

Antimicrobial Group	Health Economy Antimicrobial Group
Clinical, Equipment, Standardisation and Produce Implementation Groups	Patient Safety Specialised Group
Compliance Steering Group	Infection Prevention Divisional Group
Clostridium *difficile* Multi- Disciplinary Meetings	Infection Prevention Group Meeting , Estates, Facilities and PFI Division
Clostridium period of increased incidence meetings (PII)	Pneumatic Tube Meetings
Bed and Mattress	Quality and Safety Forum
Decontamination Group	Sharps Steering Groups
Estates refurbishments and new development projects	Seasonal vaccination Group
Food and Safety Task and Finish Group	Strategic Sepsis and antimicrobial Group
Health and Safety	Tissue Viability
Health and Safety Imaging	Teaching and Educational Meetings
	Water Safety Group

Care Quality Commission (CQC) Learning

CQC inspection was conducted from 3 October 2017 to 16 November 2017. The report provides an opportunity for learning and improvement at UHNM. Although the overall rating for the Trust was "requires improvement" elements of service were rated as good or outstanding.

CQC reported that infection risk was well controlled, staff keep themselves, equipment and the premises clean, they used control measures to prevent the spread of infection.

Overall rating for this trust	Requires improvement
Are services safe?	Requires improvement
Are services effective?	Good
Are services caring?	Outstanding
Are services responsive?	Requires improvement
Are services well-led?	Good

The IPT completed a gap analysis of evidence required to comply with the Health and Social Care Act 2008, Code of Practice on the prevention and control of infection and related guidance (updated 2015). This was reported to IPCC.

***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

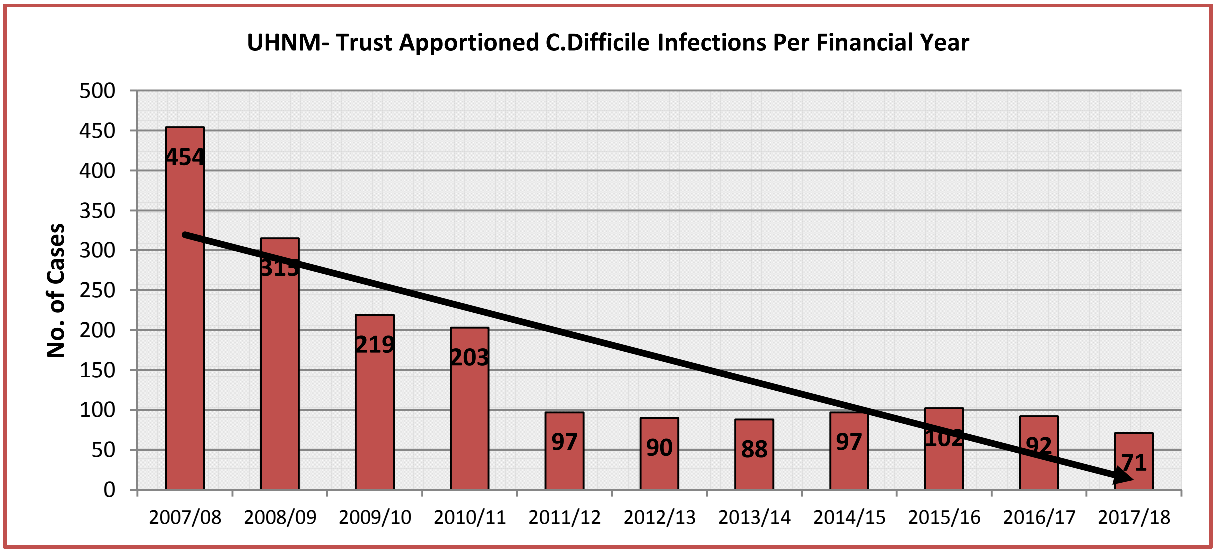
Identification of potential Clostridium *difficile* excretors may aid infection control measures.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215135/dh_133016.pdf

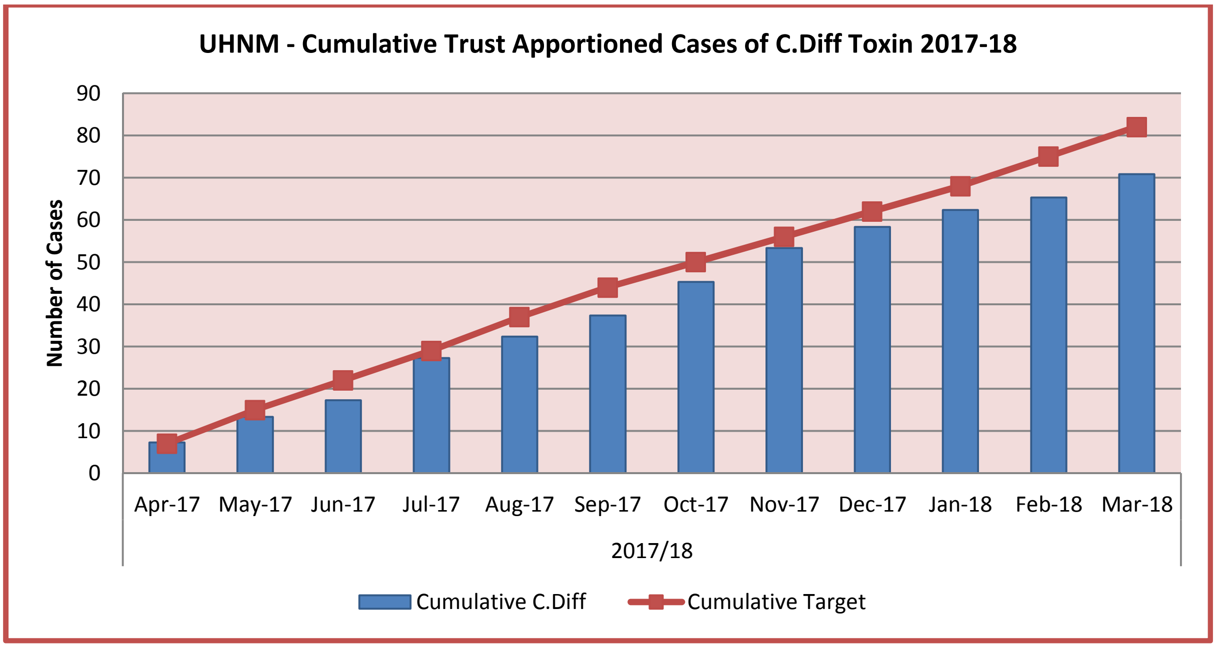
UHNM is compliant with DH testing guidance for CDI.

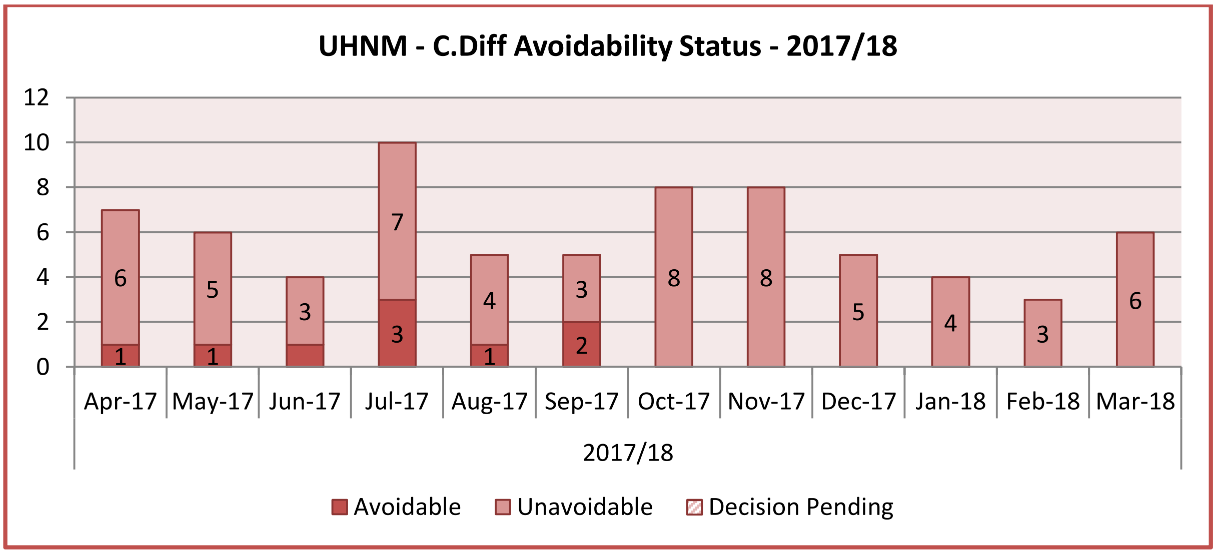
All patients with a toxin A/B positive or a toxin B gene PCR test positive report are isolated until at least 72hrs free of symptoms and a formed stool has been achieved.

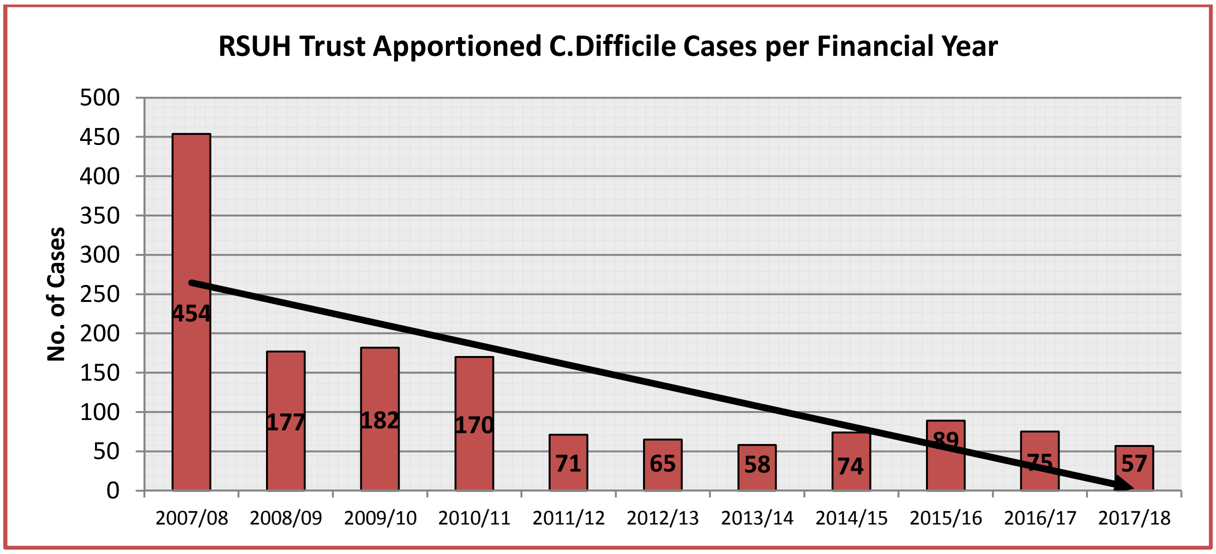
Cases of CDI that are considered to have been acquired in the Trust are defined as sample taken "on or after the 4th day of admission".

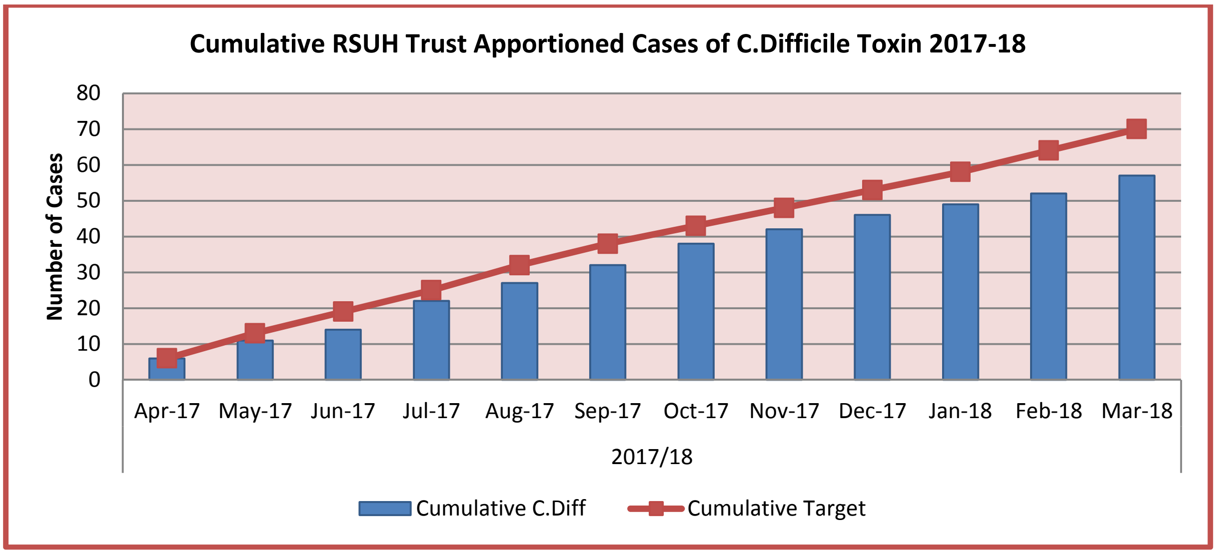
The target set by NHS England for Trust acquired cases at UHNM 2017-18 was 82. UHNM reported a total of 71 cases which is a 23% reduction on previous year 2016/17 (when 92 Trust apportioned cases were reported), and well within the target. 9 cases were deemed as avoidable (lapse in care).

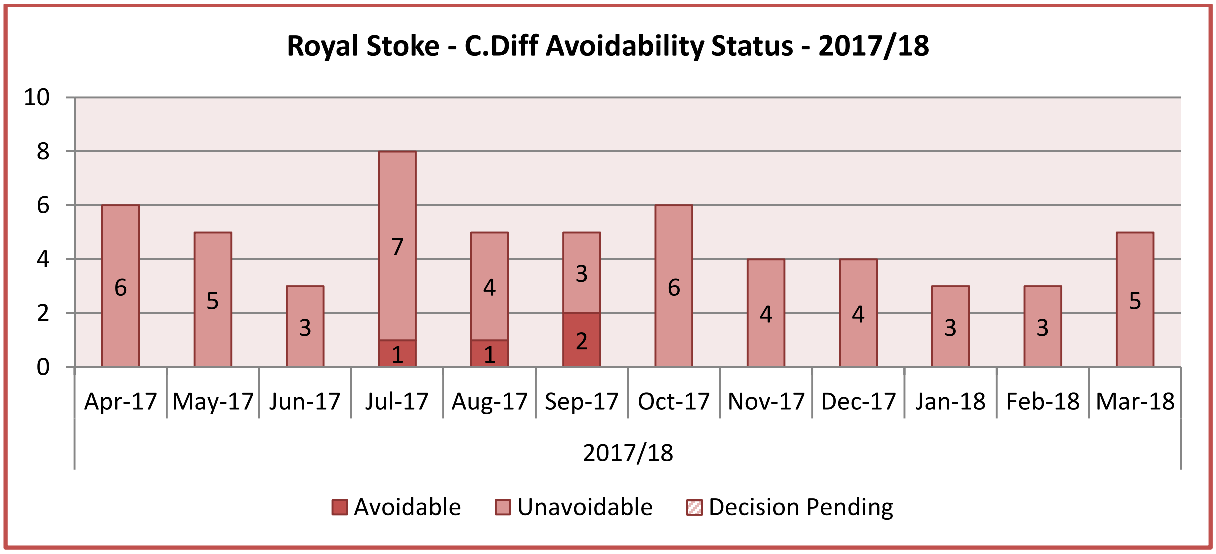

UHNM- Trust Apportioned C.Difficile Infections Per Financial Year
No. of Cases
500
450
400
350
300
250
200
150
100
50
0
454
315
219
203
97
90
88
97
102
92
71
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18

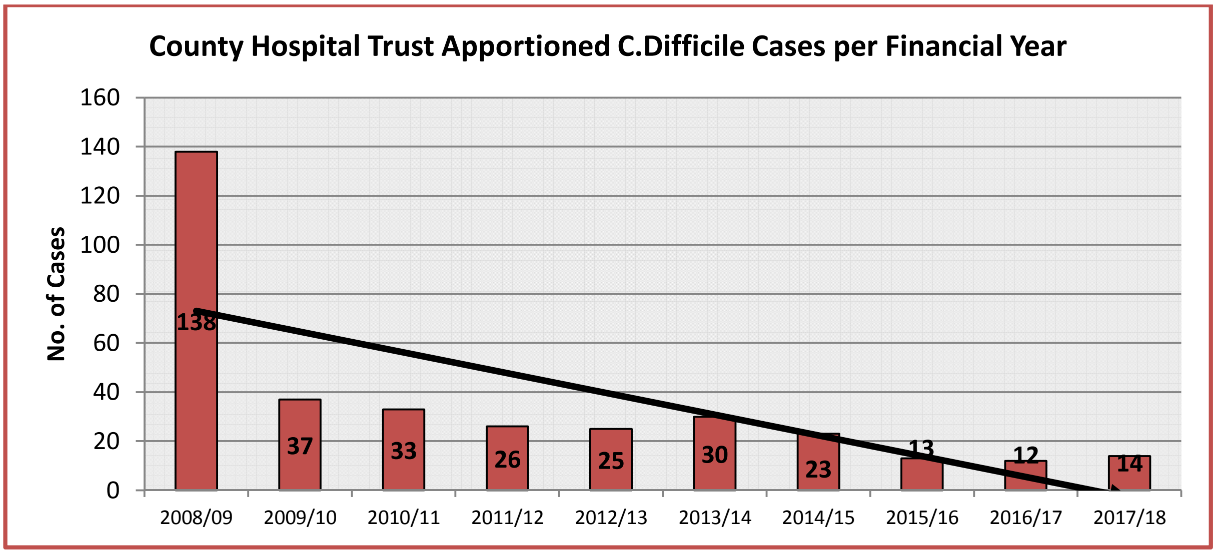

UHNM - Cumulative Trust Apportioned Cases of C.Diff Toxin 2017-18
Number of Cases
90
80
70
60
50
40
30
20
10
0
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
Cumulative C.Diff
Cumulative Target


UHNM - C.Diff Avoidability Status - 2017/18
12
10
8
6
4
2
0
6
1
5
1
3
7
3
4
1
3
2
8
8
5
4
3
6
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
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
57
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18


Cumulative RSUH Trust Apportioned Cases of C.Difficile Toxin 2017-18
Number of Cases
80
70
60
50
40
30
20
10
0
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
Cumulative C.Diff
Cumulative Target


Royal Stoke - C.Diff Avoidability Status - 2017/18
10
8
6
4
2
0
6
5
3
7
1
4
1
3
2
6
4
4
3
3
5
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
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
14
2008/09
2009/10
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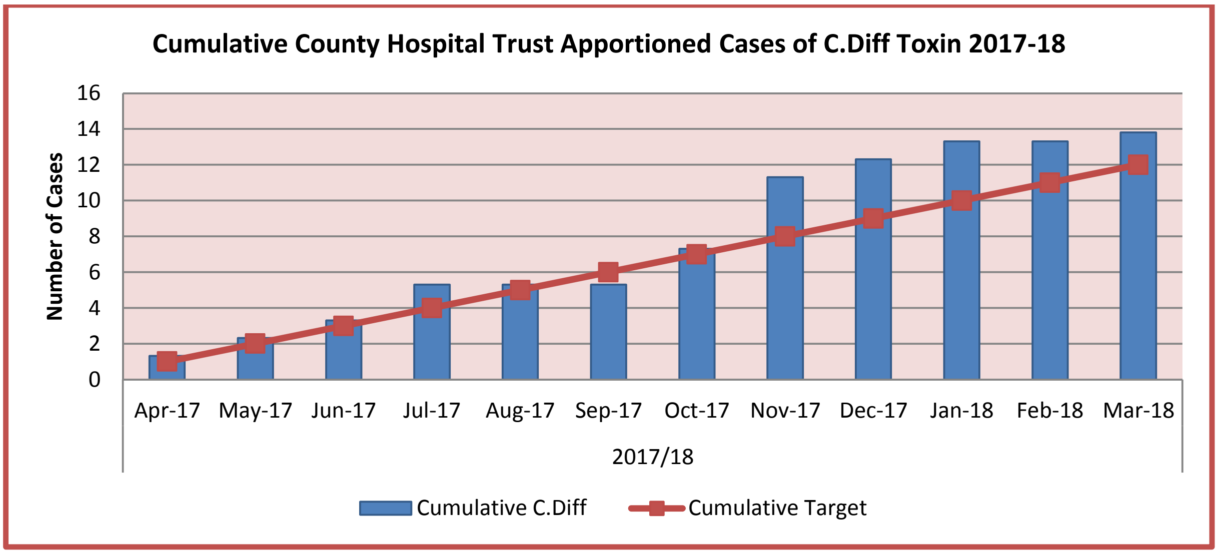
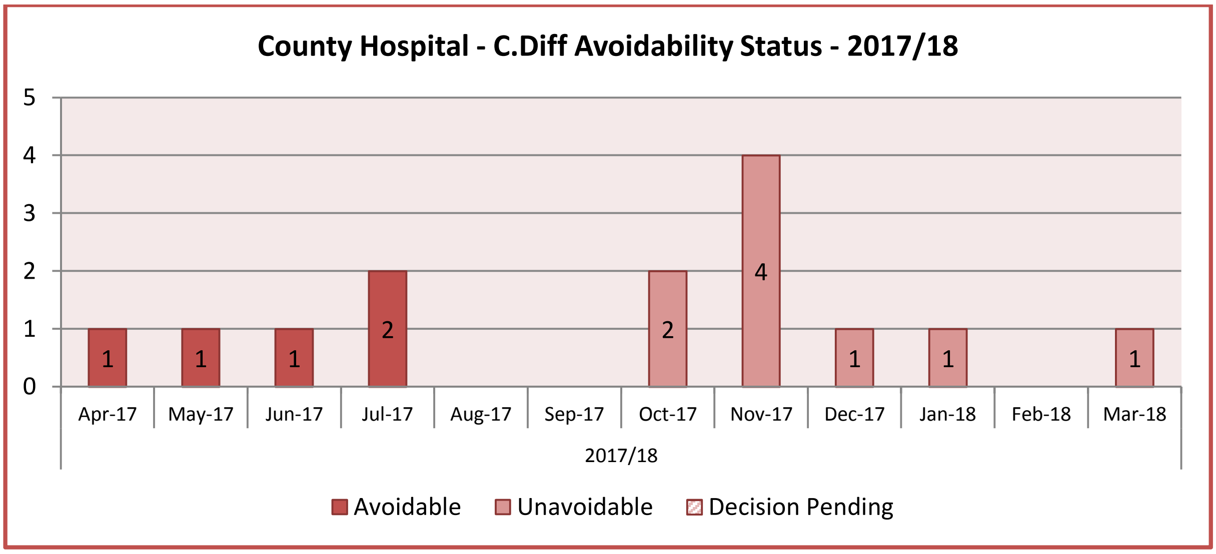
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18



Cumulative County Hospital Trust Apportioned Cases of C.Diff Toxin 2017-18
Number of Cases
16
14
12
10
8
6
4
2
0
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
Cumulative C.Diff
Cumulative Target



County Hospital - C.Diff Avoidability Status - 2017/18
5
4
3
2
1
0
1
1
1
2
2
4
1
1
1
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
2017/18
Avoidable
Unavoidable
Decision Pending

Clostridium *difficile* Action Plan

Preventing and controlling the spread of Clostridium *difficile* is a vital part of the Trust's 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 by way of VNTR. This helps to identify wards or areas where patient to patient transmission has 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 Clostridium *difficile* Nurse at least three times a week, and forms part of a weekly multi-disciplinary review where the patients' case is discussed including antibiotics and where necessary feedback to Ward Doctors is given.

All HCAI CDI cases are subjected to a Root Cause Analysis and each case discussed with Head of IP and Clinical Commissioning Groups to decide their avoidability (lapses in care) with feedback to the IPCC and Divisions, with the Divisions to 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 two or more patients identified with evidence of toxigenic Clostridium *difficile* within a period of 28 days and associated with a stay in the same ward or area.

Wards with HCAI CDI are placed on barrier cleans for a total of 28 days provided no further HCAI cases are reported from the area, in addition wards with a PII undergo a full terminal clean.

Sporicidal disinfectant is used routinely across UHNM for cleaning of the general environment and non-invasive equipment used in wards/departments e.g. commodes. Emergency portals are on a routine six monthly deep clean programme in addition to all other cleans.

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

Fidaxomicin used as first line treatment for patients with a high risk of recurrence of C.*difficile*

Criteria for use

- Recurrent CDI cases
- Concomitant systemic antibiotics treatment for an indications other than CDI
- Patient severely immuno–compromised

In addition a switch to fidaxomycin is undertaken in any patient, if treatment with several days of oral vancomycin has failed clinically, and the likely continuing signs/symptoms are caused by CDI.

An audit to establish its use/effectiveness for patients at UHNM and Haywood Hospital is currently in progress and results will be available later in 2018.

Faecal microbiota transplant (FMT) involves the infusion of healthy human donor flora bacteria into the bowel of the affected patient. The indications for the treatment were either recurrent diarrhoea or no response to aggressive CDI management. This service was initially stopped due to shortage and UHNM are now liaising with Heartlands Hospital, Birmingham regarding recommencing of the services and also liaising with the Contracts Manager at Healthcare Contracts and Commissioning regarding this.

During 2017 The IPT were short listed for the Nursing Times award, for the work around Clostridium *difficile* "are you C.*diff* Savvy". The Team also submitted an abstract for this work to the Infection Prevention Society, which was accepted as a poster at their Annual Conference in Manchester.

Education is a key aspect of helping to promote the prevention of Clostridium *difficile* within the Trust. Assisting with staff knowledge of stool sampling practices and Clostridium *difficile* risks factors.

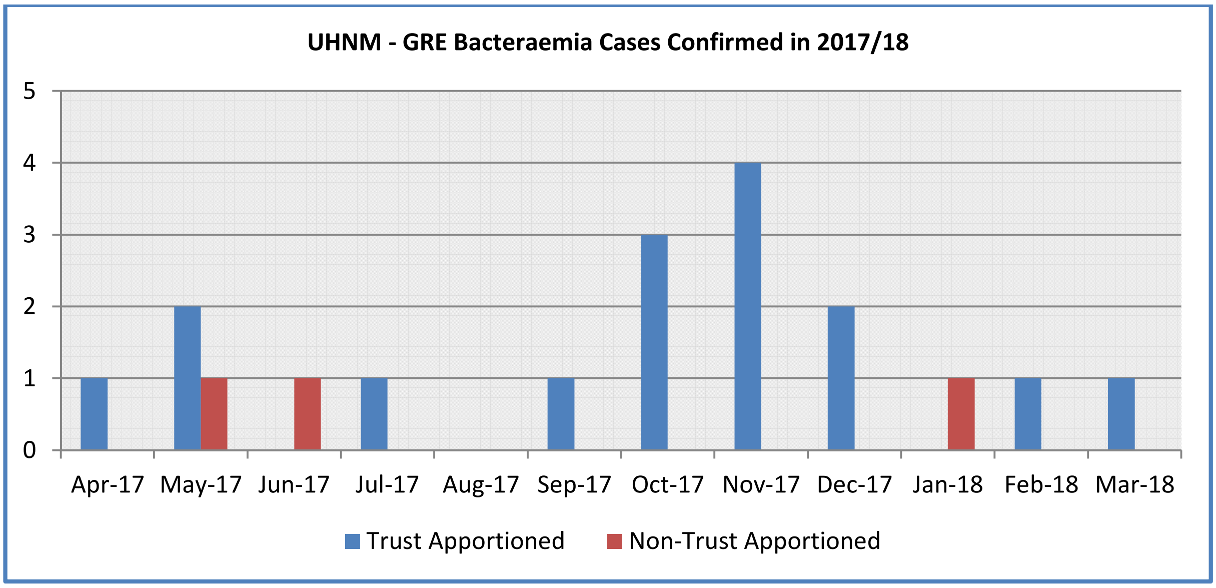
A programme of Clostridium *difficile* educational is in place, with sessions extended to include non-clinical staff such as Domestic Staff, plus the introduction of online Clostridium *difficile* education.

A top tips card for staff was also introduced and issued to staff during the education sessions, again promoting sampling practices and the 'Pooh' help line.

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 2017-18 The Trust reported 19 of this type of blood stream infection (see chart below), with 16 cases recorded at UHNM in 2017-18.



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 the 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.

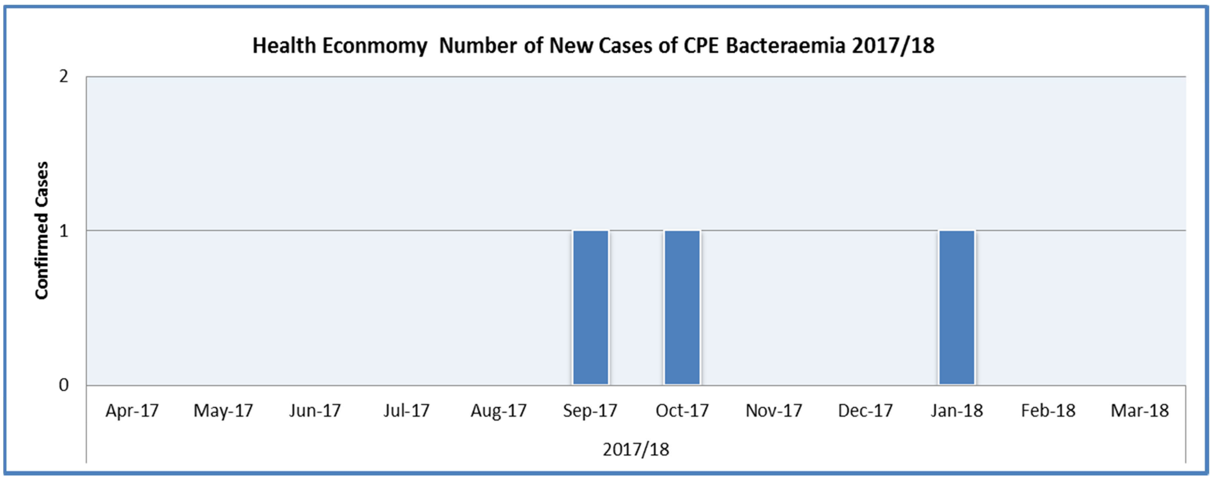
In addition to national guidance UHNM perform routine admission and weekly screening on the following wards: Adult Intensive Care Unit, Renal Ward, Infectious Diseases Ward, and all Elderly Care Wards.

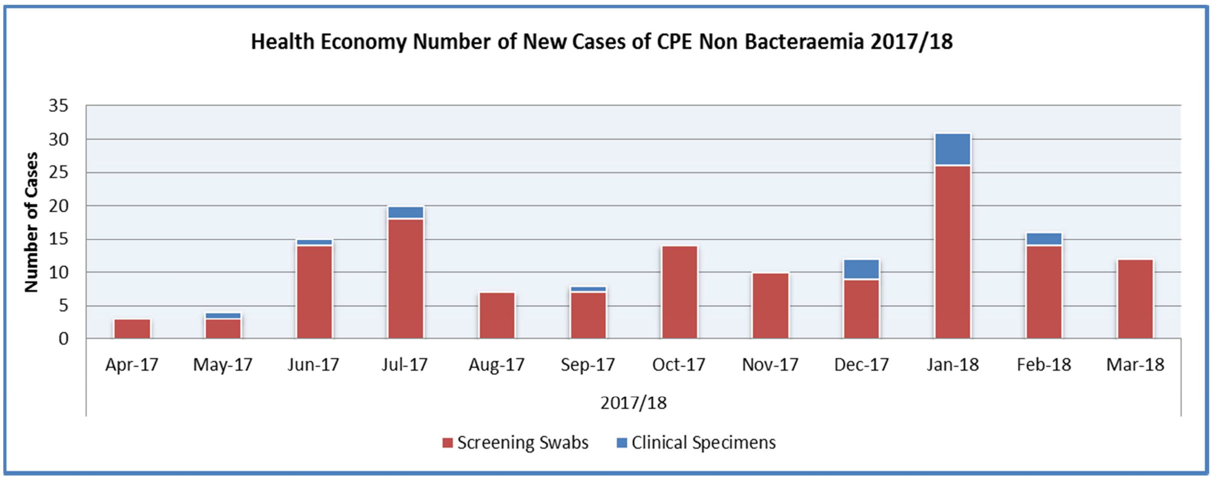
A screening close contact flow chart has been devised to assist staff in the clinical areas where contact screening of patients is required.

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

CPE in the Outpatient Setting

The IPT have developed a tool to assist staff in the out-patient setting/day case setting when caring for patients with known CPE or a close contact of CPE. This tool sets out personal protective equipment, cleaning and isolation requirements depending on the clinical setting and any individual transmission factors.





Gram Negative Blood Stream Infections

The Secretary of State for Health launched an important ambition to reduce healthcare associated Gram-negative bloodstream infections by 50% by 2021 and reduce inappropriate antimicrobial prescribing by 50% by 2021. Gram-negative bloodstream infections are believed to have contributed to approximately 5,500 NHS patient deaths in 2015. We know GNBSI cases can occur in hospitals however, half of all community onset cases have had some healthcare interventions either from Acute, Primary or Community Care. Therefore, we can only achieve the reductions by working together across the whole Health and Social Care sectors.

In 2017/18 the initial focus was on using a Health Economy approach to reduce *Escherichia coli* bloodstream infections as they represented 55% of all Gram-negative bloodstream infections nationally. Performance Improvement Network events for Health Economies to share and learn from each other were attended by the IPT.

A retrospective analysis of Trust Hospital Acquired *E.coli* bloodstream infections identified from June – November 2017 was completed with a total of 61 cases reviewed to identify common themes to influence the Trust's action plan. Delivery of this action plan is monitored weekly by the Infection Prevention Senior Sister for the Clinical Surveillance Team and reviewed formally with the Deputy DIPC monthly. Progress is shared with Trust IPCC and monitored in Divisional Infection Prevention meetings and presented at CQRM quarterly as per HCAI contractual requirements if required, and also shared with the CCGs Head of Infection Prevention & Control.

The action plan themes are currently identified as:

1. Trust Surveillance data submitted to Public Health England (PHE), data collected will be used to update the Trust action plan
2. Hand hygiene
3. Reduce prevalence of catheters and strengthen catheter care to reduce risk of catheter associated urinary tract infections
4. Urinary tract infection
5. Hydration
6. Oral hygiene/denture in the elderly
7. Prevention on deconditioning “pyjama paralysis”
8. Vascular access device care
9. Surgical Site Infections

Candida auris

In August 2017 Public Health England produced a document - Guidance for the laboratory investigation, management and infection prevention and control for cases of *Candida auris,* which is a yeast species *(C. auris).*

C. auris is a recently identified *Candida* species that has been associated with infection and outbreaks in healthcare settings on five continents including the UK. It has been isolated from a range of body sites, including skin (very common), urogenital tract (common), and respiratory tract (occasional), and resulted in invasive infections, such as Candidaemia, pericarditis, urinary tract infections and pneumonia.

C. auris affects both paediatric and adult populations, and has predominantly been identified in critically unwell patients in high dependency settings.

As with other organisms associated with nosocomial outbreaks, it appears to be highly transmissible between patients and from contaminated environments, highlighting the importance of instituting effective infection prevention practices.

A screening policy, guidance on treatment and infection prevention precautions was development and will be added as a section to the Infection Prevention Questions and Answers Manual during 2018.

Audit Programme to Ensure Key Policies are Implemented
UHNM have a programme of audits in place, undertaken by both clinical areas and the IPT to provide assurance around practice and ensure that areas are 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 audit tools for general ward areas have been revised during 2017-18 to enable a hub and spoke approach is undertaken and ensure audits is relevant to that Clinical Area. There is a plan to extend this revision to Adult Critical Care Unit and Theatres during 2018-19.

The IPT 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.

Check and Prompt Audits
The check and prompt audits were introduced as part of the Trust's Clostridium *difficile* plan. These audits are undertaken by the IPT to review patients with a hospital stay of 3 months, 6 months and 9 months. 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.

Audits of Hand Hygiene Practice
Hand hygiene remains central to the audit programme. There is a Senior Nursing Assistant within the IP Team 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 the point of care, prominently positioned near 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 two 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.

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

Staff Information
- Alert organism surveillance is reported to the organisation by the Infection Prevention Nurses daily
- Monthly ward based/Divisional surveillance data is produced, including surveillance, information on MRSA, Clostridium *difficile*, ESBL , MGNB and antimicrobial. 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 IPT contact details. This information is regularly updated.
- IPT continue to lead the Infection Prevention Link Practitioner scheme
- Norovirus and other toolkits are available for all ward areas. The toolkits include everything that staff require to help manage infections, including posters and information for relatives/visitors.
- 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. These have included programme of mandatory sessions and induction days, in addition; Sepsis, MRSA, CPE, screening and decolonisation, influenza, flu vaccination, norovirus, Clostridium *difficile,* winter planning, water safety/flushing and tuberculosis.

A number of Infection Prevention educational sessions are also available via the Trusts online system.

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.

IP Link Practitioner Scheme

The IPT 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 an IP Link Practitioner within the Trust. The IPT provided updates to IP Link Practitioners Bi Monthly.

Shadowing

During 2017-18 Student Nurses continued to be allocated to the IPT. This is a valuable experience to provide an opportunity for students to gain an insight into IP within a hospital setting and to improve practice whilst working in the clinical areas.

Aseptic Non Touch Technique (ANTT)

Healthcare associated infections (HAI) can be significantly reduced when effective aseptic technique is practised, UHNM adopted ANTT in 2015 as the standard for all clinical procedures. Throughout 2017/18 work has continued to strengthen the theory and practice of ANTT throughout the Trust with the Infection Prevention Clinical Surveillance Team (CST) working with clinicians to ensure that ANTT is embedded into all policies, protocols, guidelines and training. Cascade trainers have been supported by CST with cascade trainer training sessions, meetings, educational newsletters and nationally updated ANTT resources made available on the Trust Intranet. A new Trust "Roles and Responsibilities" for ANTT

Cascade Trainers has been developed to provide clarity of the role and the Trust expectations, also to assist managers when allocating the role to an appropriate member of the team

The VCTMS theory package has been accessed and completed by many clinical staff across the Trust, with the introduction of the facility to record practical assessments on erostering as a clinical skill allowing department managers to have an overview of how many of their staff have completed practical assessments and are competent.

Through attendance at the Trust Clinical Equipment Standardisation and Product implementation Group (CESPIG) standardisation and suitability of equipment and medical consumables continues to be promoted across the Trust.

Adult Critical Care held an ANTT Awareness Week during 2017 facilitated by the Practice Development Team supported by CST in November 2107 to promote the importance of ANTT across all of the Pods. They had a promotional stand with a competition supported by representatives from 3M and Vygon, alongside information and resources for staff. The week was a huge success and raised the profile and importance of ANTT standardised practise.

Critical Care ANTT Awareness Stand

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

Royal Stoke

The cleaning provided at the Royal Stoke Hospital site for all clinical and non-clinical areas are split between an in-house cleaning team as well as an external cleaning contractor (Sodexo).

Monitoring Processes for In-house Retained Estate Cleaning/Domestic Services

The Retained Estate Team is responsible for cleaning approximately 20% of areas at The Royal Stoke, and provides a comprehensive 24/7 scheduled and ad-hoc cleaning service.

The Retained Team complete environmental audits which occur in all patient areas once every three months, this is carried out with representatives from the Retained Cleaning, Clinical and Estates Teams.

Self-monitoring is completed by the Retained Supervisory Team on a weekly basis, to ensure standards are maintained throughout all of the retained areas. If there are areas of concern, the monitoring is increased until the Team are satisfied that the standards are being met. Spot checks and unannounced ad-hoc audit inspections are also carried out by the Management Team, the frequency of these is determined on a week to week basis.

The Retained Team are committed to providing an outstanding service which is reflected in the Environmental Audit scores and our Patient-Led assessments of the care environment (PLACE) results.

Representatives from the Retained Management Team also participate in any outbreak or periods of increased incidents (PII) meetings, when issues are identified on site.

Scheduled and ad-hoc meetings with Infection Prevention, Matron's and Clinical colleagues to regularly monitor, review progress and address/resolve any issues are held to ensure that standards and performance target and compliance is met.

Monitoring Processes for Sodexo Cleaning Services

Sodexo is responsible for cleaning approx. 80% of areas at The Royal Stoke and provides a comprehensive 24/7 ad hoc and scheduled cleaning service via a helpdesk on site. The contract in place ensures that all areas are cleaned to the 2002 NHS Cleaning Standards and are self-monitored at least once every 10 weeks. The Trust has a Contract Performance Management (CPM) Team in place to ensure that standards on site are maintained for Sodexo areas. The CPM Team work closely with Sodexo to drive and sustain improvements, concerns regarding cleanliness can be raised by all staff via the helpdesk route, and an escalation process exists should users feel that their concerns have not been addressed satisfactorily.

The CPM Team completes environmental audits which occur in all patient areas once every three months with representatives from the Clinical, Estates and Cleaning Teams present. In addition to this the CPM Team also provides representation for the Water Safety Group, Clinical Excellence Framework Group, as well as participate in any outbreak or periods of increased incidents (PII) meetings when issues are identified on site.

The CPM continue to work closely with Sodexo on-site, their National Senior Management Team, Matron's and Clinical colleagues to regularly monitor, review progress and address/resolve any issues or concerns promptly:

- Regular meetings between Sodexo management representatives and Trust clinical teams 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 continue at an increased level.
- FM Team continue to work closely with the IPT.

Infection Prevention Meetings

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

County Hospital

Monitoring Processes for Cleaning/Housekeeping Services

The County Team is responsible for cleaning all areas on this site, and provides a comprehensive scheduled and ad-hoc cleaning service from 6am – 10pm, seven days a week.

The County Team complete environmental audits which occur in all patient areas once every three months, this is carried out with representatives from the Housekeeping Cleaning services, Clinical and Estates Teams.

Self-monitoring is completed by the Housekeeping Supervisory Team on a weekly basis, to ensure standards are maintained throughout all of the retained areas. If there are areas of concern, the monitoring is increased until the Team are satisfied that the standards are being met. Spot checks and unannounced ad-hoc audit inspections are also carried out by the Management Team, the frequency of these is determined on a week to week basis.

The County Team are committed to providing an outstanding service which is reflected in the Environmental Audit scores and our Patient-Led assessments of the care environment (PLACE) results.

Representatives from the County Management Team also participate in any outbreak or periods of increased incidents (PII) meetings, when issues are identified on site.

Scheduled and ad-hoc Meetings with Infection Prevention, Matron's and Clinical colleagues to regularly monitor, review progress and address/resolve any issues are held to ensure that standards and performance target and compliance is met.

PLACE Inspection
The annual PLACE inspections were undertaken during March 2018 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 basis in addition to other cleans.

All terminal clean requests at the Royal Stoke site required within working hours are requested via the IPT. Requests for terminal cleans outside of these hours are requested via the Site Team, and are completed by the respective teams to ensure that patient flow is not slowed down.

Radiator Cleaning
UHNM has a planned programme of radiator cover removal to allow for cleaning.

Food Safety
The Food Safety Task and Finish Group developed a number of documents and a training module to support the Trust on the food safety agenda. The focus of this work has been around staff food safety training and food brought in for patient consumption. It is expected that the Infection Prevention Control Committee will approve the documentation and training module in May 2018.

The training module has been designed for staff who handle food and drink on behalf of patients to be will be completed via e-learning on a biennial basis. The module will be available through the Electronic Staff Record.

Information leaflets have been developed to help explain to the patient, relatives and friends the reasons why certain foods should not to be brought into hospital for consumption by the patient. These are known as HIGH RISK FOODS which can cause food poisoning if kept in the wrong conditions. In the event that foods are brought into hospital the information will be documented on the supporting form and the form will be retained at ward level for the duration of the patients stay.

Food Hygiene Inspection Royal Stoke University Hospital and Bradwell Hospital
The food hygiene inspection at RSUH was carried out by Stoke on Trent City Council Environmental Health Officer, Public Protection Division in January 2017 for the PFI building and Maternity and Oncology building which resulted in both buildings being awarded five stars under the national food hygiene rating scheme. An inspection of Lyme and Trent buildings took place in January 2018 which resulted in both buildings being awarded five stars under the national food hygiene rating scheme.

Bradwell Hospital was inspected on opening in December 2017 and also received five stars under the national food hygiene rating scheme. In summary the five areas that Sodexo operate catering in all received five stars under the national food hygiene rating scheme.

Food Hygiene Inspection County Hospital

The food hygiene inspection at County Hospital by Stafford Borough Council's Environmental Health Inspectors on 9 March 2018 has resulted in the hospital being awarded five stars under the national food hygiene rating scheme.

For the third year running, the catering department at County hospital has maintained a five star food hygiene rating for compliance in all aspects of food safety.

Food businesses are required by law to comply with food hygiene regulations as laid down by the Food Standards Agency and the public can find how compliant a food business is with legislation by logging on to www.ratemyplace.org.uk On the website, food businesses are rated on a star award system with five stars being the maximum achievement. Upon inspection, the Food Safety Officer, checks how well the establishment are meeting the law on food hygiene in the three areas below:-

Criteria Assessed
Compliance with food hygiene & safety procedures
Compliance with structural requirements
Confidence in management/ control procedures

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 monthly, reporting directly to IPCC.

Waste Projects

There are schemes being developed now that revolutionise the way we handle and manage our waste. The close involvement of Infection Prevention has been crucial to the continued success of waste management projects.

Through the Switch Waste campaign UHNM have been working since 2015/16, to declassify and divert some waste safely into non-hazardous waste streams, resulting in savings of £35k per annum. Staff are crucial to this and through training and education has diverted 75% of our waste. There are SWITCH Waste' e-Learning modules available to all staff that empower staff to divert waste correctly.

Because the risk of our waste has now changed behind the scenes we are able to transport and dispose of waste in a different way; no longer requiring the use of a specialist clinical (hazardous) waste disposal contractor and disposal facility. We can now dispose of non-hazardous (Offensive and Domestic) waste as a 'mixed' waste stream at the municipal Stoke Waste to Energy facility. This is the first time that this type of facility has ever accepted healthcare waste.

Infection Prevention and the Sustainability Team are also working in partnership with Sodexo, and Clinical Divisions to ensure that when the new 'mixed' waste stream is tipped into the compacting machine, the Waste Operative is protected from any potential fluid leaks or splashes and so ensuring the compliance, quality and safety of this process change.

Staff help to prevent fluid leaks by:

1. **Correct Fluid Disposal**: Preventing fluid disposal into the offensive waste stream through ensuring that all areas of the Trust dispose of fluids in a correctly defined, standardised and consistent way.
2. **Effective Bag Tying:** learning the correct waste bag tying technique and using the SOP in order to eliminate any problems of fluid leaks at the moving and handling stage.
3. **Bin Washing:** Hopefully by preventing fluid leaks with proper disposal and bag tying leaks and splashes won't occur, however, there is an offensive waste bin washing process so that only clean bins are put back into the system.

A new waste management policy had been devised that details the specifics around handling infectious wastes (use of PPE, securing bags, labelling, storage and the correct waste streams, colour codes and waste categories and points of contact.

The IPT continue to work closely with UHNM switch projects, isolation sign are in use which prompts staff to switch to the waste stream required depending on infectious status of the patient.

Ultra Violet Light Whole Room Decontamination Trial

It is generally accepted that contamination of environment surfaces plays an important role in the transmission of healthcare associated pathogens.

Non-touch methods including ultra violet light are available to improve terminal cleans and thereby reduce healthcare associated infections.

An ultra violet light room decontamination study was undertaken to explore this process. It is anticipated that this will form an abstract in the Journal of Infection Prevention.

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 to the IPCC. All required control measures were instigated following the initial MDA alert in 2015, and continue to be in place together with Surveillance for any potential infections.

Refurbishment Projects

The IPT provided advice on a number of refurbishment projects throughout the Trust.

Royal Stoke Hospital

A number of clinical areas at the Royal Stoke Hospital have undergone planned refurbishment works during this financial year.

- Sodexo annual maintenance programme
- Fire precautions works
- A number of new water supplies to ward 124
- Pharmacy/Dispensary work

Additional Beds

- Day rooms converted to bed rooms in the PFI building
- Assisted bathrooms converted to bed space in the PFI building

Pods which have previously been installed into four bed spaces on ward 76b in West Building remain in place. These are tailor made single occupancy rooms which are designed specifically for a designated bed-space.The Pod incorporates specialist lighting and HEPA filtered air to further reduce the chances of healthcare associated infections.

County Hospital
An extensive ward refurbishment programme at the County Hospital has now been competed, with the refurbishment providing more single rooms with ensuite facilities and ensuite four bedded bays.

The wards have been planned as generic as possible to enable staff to work across units if required. All refurbished wards have a minimum of two dirty utility rooms, each to serve half of the ward to facilitate cohorting in case of a norovirus outbreak.

A number of the upgrade projects include:

- Air handling units, Sterile services
- Fire alarm upgrade
- Out- patient lighting upgrade
- Landscape of a courtyard

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 defined as a life threatening organ dysfunction caused by a dysregulated host response to infection. It is a syndrome of physiological, pathological and biological abnormalities induced by infection. It is now a major public health concern (NICE UK Sepsis guidelines 2017).

There are 44,000 people a year that die from sepsis. That's more than breast cancer, bowel and prostate cancer combined. Patients with the most severe form of sepsis are up to five times more likely to die than patients who suffer a heart attack.

The Sepsis Team was established and has been in place from October 2016, comprising of a Sepsis Clinical Lead, Sepsis Fellow, Senior Sister, Nurse Specialist and a Sepsis Nurse. The main aim of the team is to achieve the sepsis CQUIN compliance target, by ensuring that our patients are safe at all times, as well as reducing the mortality rate and morbidity.

The Sepsis Team, including colleagues in the Clinical Audit Department, are working optimally and collaboratively with our AMR colleagues and front-line clinical colleagues to continue to raise awareness and propagate education and training in sepsis, which has clearly had a demonstrable effect. Sepsis training is now an integral part of the newly qualified nurses', Band 4 and Medical Staff. Working with our AMR colleagues ensures that there is an equal emphasis on sepsis screening, treatment and antibiotic stewardship

National Sepsis CQUIN: There are three things needed to be achieved.

- All patients with a National Early Warning Score (NEWS) of five or greater (or three in a single parameter) need to be screened for sepsis.

- All patients that have red flag sepsis need to receive IVAB within one hour.
- All IVAB for sepsis patients have to be reviewed within 24 to 72 hours.

Risk Factors Identified on Achieving UHNM Sepsis CQUIN Compliance Target from 2017-18

The change of Modified Early Warning Score (MEWS) moving to the use of NEWS resulted in a corresponding reduction in compliance. This was due to the increased sensitivity of triggering using the NEWS criteria.

In line with all other Trusts in the country, UHNM has seen a significant demand on its emergency services and inpatient beds, including patients waiting in queues, in response to these challenges the Sepsis Team have:

- Arranged one to one meetings with clinical teams addressing and highlighting their concerns.
- Sepsis training continued and conducted on ward rounds to improve awareness and answer questions.
- Support given to respiratory wards by creating own local guidelines/additional screening tool with a good rate of success (trial still on-going on these wards).
- Attended the Emergency Portals daily to provide support and assistance to sustain awareness of sepsis.
- The Sepsis Fellow continues to work closely with colleagues in the Emergency Department around sepsis.
- For those patients queuing, a clinical room has been identified within the Emergency Department at The Royal Hospital in which patients identified with sepsis can receive parenteral antibiotics without unnecessary delay.

Initiatives Undertaken

- The Sepsis Team has launched Sepsis Awareness during the World Sepsis Day in September 2017 with a great success, involving the whole Trust front-line/clinical staff, MDT and Senior Team in all four divisions.
- UHNM own sepsis information flyers and compliance sepsis cards created and distributed Trust wide for continuous awareness.
- Increase in identifying Sepsis Champions (staff nurses/in house doctors/ANP) in each clinical area/divisions.
- Introduction of the Sepsis kiosk, provided to all staff including doctors. The aim to get as many departments throughout the year, to help and support staff to keep up to date with current guidelines and answer any questions and provide further clarification about sepsis.

- Departmental sepsis slides presentation organised to capture all level of clinicians within the Trust's four Divisions.
- The Sepsis Team regularly attended/provided sepsis updates to all Trust Divisional IP meetings, supporting all areas and helping to drive for compliance.
- Regular Strategic Sepsis & Antimicrobial Group meetings and Sepsis Team Senior Team meetings put in place, to work optimally and collaboratively.
- Sepsis and Microbiology ward rounds to assess the care and treatment of patients, has occurred and will remain an on-going action.
- Online training resource developed via ESR for staff nurses/doctors and other clinical staff, to be launched on August 2018.
- Introduction of Sepsis reinforcement, holding a meet & greet in the clinical area, updating senior staff, clinical staff and consultants regarding sepsis compliance.

Sepsis Team Achievement

The Sepsis Team was nominated for an achievement award during the Trust's Night Full of Stars held in November 2017 under the category of Engagement of the Year! "Stop Sepsis Campaign @ UHNM". The Sepsis Team also received recognition for on-going efforts towards detecting and preventing Sepsis in patients @ UHNM in November 2017, the study was featured in a national newspaper by a Professor.

The Sepsis Nurse Specialist received a national award in February 2018 during the Sepsis Unplugged 2018 "Strategic Sepsis Team" presentation, National Sepsis conference held in Birmingham (run by UK Sepsis Trust).

Sepsis Team on journey to be the best **07/11/2017**

Sepsis work showcased at a national conference **07/02/2018**

The Sepsis Team has put robust actions in place and are working closely with frontline staff, multi-disciplinary & senior teams, and medical staff to have a maximum effect on the achievement of the Trust's CQUIN to date. The aim is to protect patients from deadly conditions and ensuring that they are safe at all times.

Antimicrobial Stewardship (AMS)

The Trust has an Antimicrobial Team (AMT) that supports the work of the Trust Antimicrobial Stewardship Group (ASG). The AMT consists of a Consultant Microbiologist, one WTE Advanced Pharmacist Practitioner (APP), one WTE Antimicrobial Nurse (AMN), the Infectious Diseases Specialist Pharmacist based at the Royal Stoke and the Antimicrobial/Surgery Pharmacist based at the County. The latter two pharmacists provide sessional support to the ASG and CQUIN work streams in addition to their substantive core clinical roles. The APP and AMN were appointed in 2016-2017 following a Business Case and 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. 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 E, and the compilation of pharmacy led antimicrobial audit data on a quarterly basis.

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 AMT has developed initiatives to drive forward good antimicrobial stewardship and promote awareness of the global rise in antibiotic resistance.

The UHNM has continued to build on the foundations put in place over the last few years, 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. The Terms of Reference have recently been reviewed and new members recruited to reflect diversity e.g. non-medical prescribers and junior medical representation.
- A regular update of the Trust Antimicrobial Stewardship Policy. Quarterly audits measure compliance with this policy, with an escalation process in place 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 17/18 AMR CQUIN antibiotic consumption targets.
- The Trust's Antimicrobial Treatment and Prophylaxis Guidelines were reviewed and temporary alternative guidance issued when certain key antibiotics were unavailable due to global and national shortages.

- 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. New sessions have been delivered this year on the increase in Gram negative infections and carbapenemase resistance, as well as key messages and supporting materials to support the CQUIN. Workshops on the prescribing, dosing and monitoring of two high risk drugs, gentamicin and vancomycin, are delivered as part of the antimicrobial stewardship induction programme to familiarise newly appointed pharmacists with the vancomycin and gentamicin dosing calculators and associated guidelines in place at UHNM, so that consistent advice and information is provided to prescribers and nursing staff.
    - In addition to pharmacist awareness sessions, the AMT provides training to each intake of overseas nurses recruited to UHNM as well as 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.

    New initiatives this year have included:
    - A rolling programme of antimicrobial sessions for Nursing staff.
    - Targeted ad hoc sessions for Specialities/Wards.
    - The development of gentamicin/vancomycin workshops for nurses on doses, monitoring and side effects of these high risk antibiotics.
    - Antimicrobial stewardship and antimicrobial resistance awareness sessions for Laboratory and Infection Prevention staff.

There are six 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. Antimicrobial stewardship ward rounds were undertaken regularly on the Acute Medical Unit, Respiratory wards, Elderly care wards, Diabetes ward and some Surgical wards providing opportunities for the AMT to raise awareness and make timely AM interventions with patients and the MDT at the bedside.

Antimicrobial consumption by Specialities and Wards was analysed on a monthly basis throughout the year to allow flexible targeted stewardship/antimicrobial review ward rounds for those areas requiring additional support in order to reduce antibiotic consumption and facilitate delivery of the 17/18 Sepsis/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 ongoing shortages of a number of key antimicrobials due to manufacturer's supply problems in 2017-2018. Aztreonam injection was once again intermittently available throughout the year.

Worldwide manufacturing and capacity issues resulted in shortages with piperacillin / tazobactam, levofloxacin, vancomycin, gentamicin, mupirocin, 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 with which an alternative was not an option, for example due to patterns of resistance, co-morbidities, or side effects.
- Acquisition costs of antimicrobials are monitored by the Antimicrobial Pharmacists and opportunities for cost saving initiatives are identified to support the Trust CIP programme. NHS E has taken a strategic role in managing antimicrobial drug capacity issues and their guidance requires ongoing review and implementation at UHNM led by the AMS team.

The AMS team also provides input into the OPAT, and the C Difficile MDTs.

New Initiatives:

- The AMT submitted an application to the Academic Health Science Network for the Medicines Optimisation Award entitled "The Work of the Multidisciplinary Team in Antimicrobial Stewardship: a Novel Approach". The team were shortlisted to attend the Celebration of Innovation Awards event and were Highly Commended in this category.
- Support for the investigation of increased incidences of multi-drug resistant infections/colonisations has been strengthened with AMT input and sharing of outcomes with pharmacy teams.
- A desktop icon has been incorporated onto all Trust PCs and mobile computers to facilitate easy access to the UHNM antimicrobial guidelines.
- A video on antimicrobial resistance on the Trust Intranet has been shared on social media.
- A requirement to provide PHE with antibiotic consumption data has been met with the input from data analyst colleagues. In 2017-2018 this reporting has been expanded to allow the AMS team to provide specific feedback at individual ward level in addition to speciality and divisional level.
- This consumption data has been made available to allow the production of reports to IPCC and TEC.
- The APP was invited to present at a national Sepsis/AMR CQUIN event and the work undertaken at UHNM was recognised by representatives from NHS I.

- An antimicrobial resources folder has been set upon the Trust Intranet to facilitate access for members of staff.

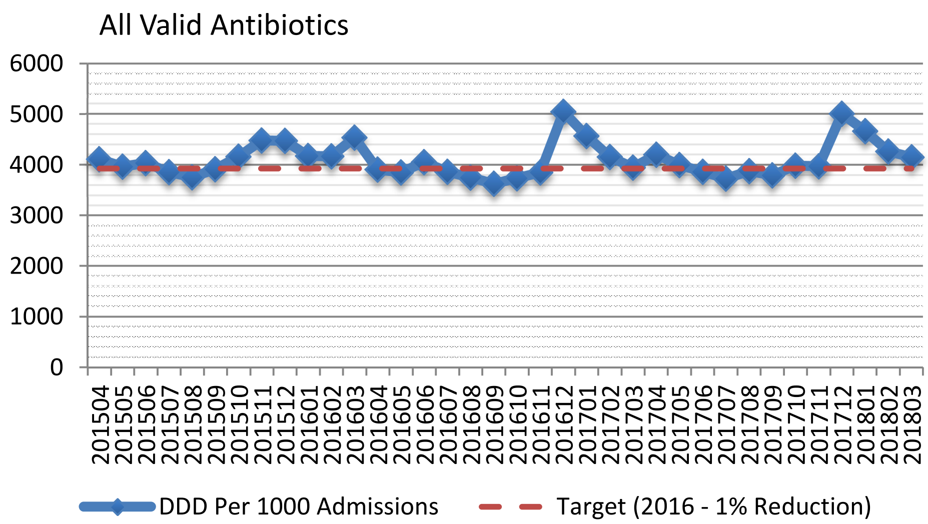
Sepsis/AM CQUIN Summary (part 2c review of antibiotics and 2d antibiotic consumption) 2017-2018

Sepsis and AMR CQUIN Part 2c:

- In order to facilitate timely administration and review of prescribed antibiotics (as mandated by the 17/18 Sepsis/AMR CQUIN) collaborative work was undertaken with the Sepsis Team and Clinical Auditor to develop consistent messages and engage support from pharmacists and nursing staff, resulting in the achievement of the 72 hour review indicator target, 100% empiric review of antibiotic prescriptions in Q4 (target 90%).
- A 72 hour review sticker for use by pharmacists has been developed and piloted. Pharmacists will identify when reviews are due and place a sticker in the medical notes to prompt timely review of antibiotics by clinical teams, this will be rolled out in 2018-19.

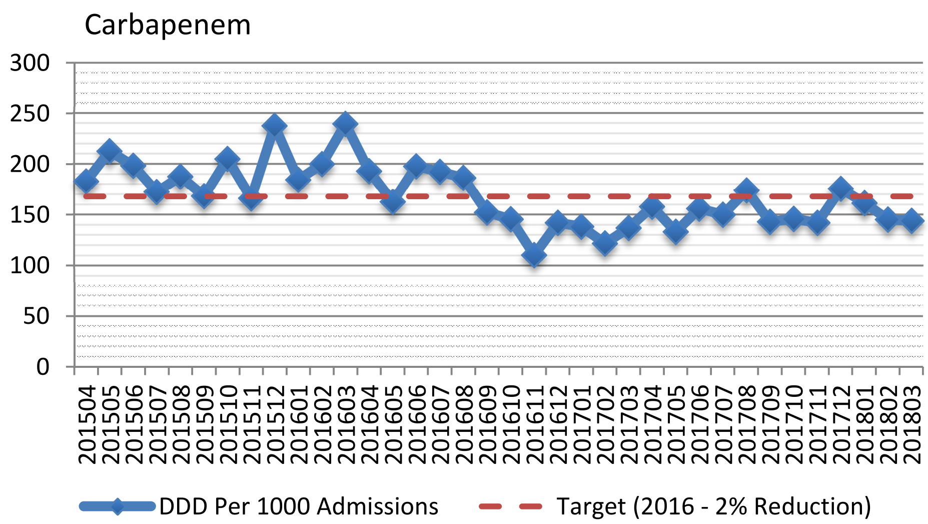
Sepsis and AMR CQUIN Part 2d:

- Antibiotic consumption is measured as Defined Daily Dose (DDD) per 1000 admissions.
- Despite targeted ward reviews, consistent prescribing messages and introduction of an 'IV to PO' review sticker, the unavoidable external pressures the Trust faced over the winter period impacted on the Trust's **total** antibacterial consumption (see graph below) and the Trust was unable to achieve the set target:
    - o reduction of all antibiotic consumption by 1% compared to median of 2016 hence target to be achieved by end of the year 2017-18 was **< 3927** DDD/ 1000 admissions. Actual consumption achieved was **4117** DDD/ 1000 admissions

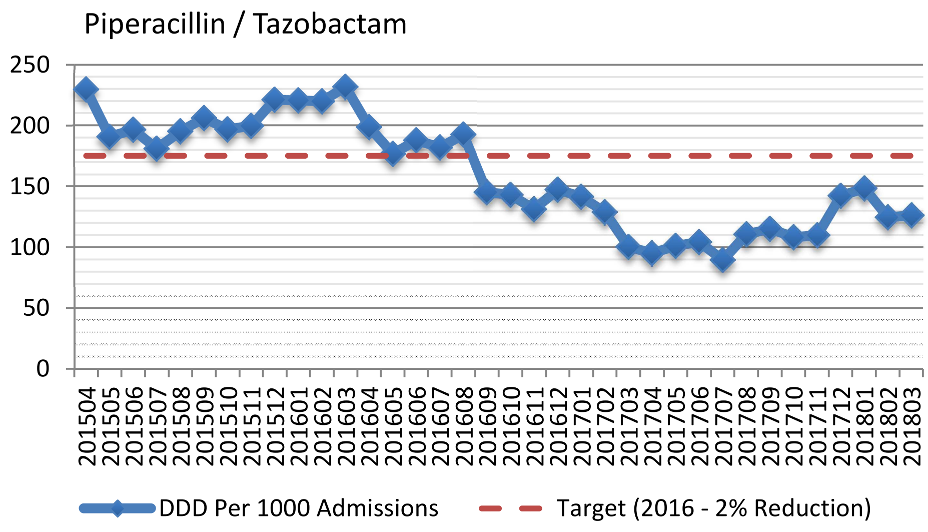


- Throughout the winter the ED at UHNM experienced very high levels of attendance from members of the public. Unlike previous winters, the 2017/18 patients were generally older and more acutely unwell with pneumonias and/or complicated UTI's. Their co-morbid status coupled with extended lengths of stay (due to delayed discharges across the Trust into social care settings) meant that many of these patients required antibiotics for hospital acquired infections before being discharged. Significant numbers of patients admitted with 'flu also developed secondary bacterial infections (e.g. pneumonias, urosepsis) requiring treatment with antibiotics. In excess of 1380 patients were admitted with influenza to the Trust over the winter. In line with national decisions, elective surgical procedures at UHNM were cancelled and the beds used by complex medical patients who required more antibiotics and had a longer length of stay (LOS). Baseline data in previous years would not have reflected this inflated ratio of complex medical: elective surgical patient requiring prolonged antibiotic therapy.

- Despite the above mentioned pressures, the Trust achieved the target set for reduction in consumption of carbapenems and piperacillin/tazobactam (see graphs below)
    - o Reduction of **carbapenem** consumption by 2% compared to median of 2016 hence target by the end of the year was **≤ 168** DDD/ 1000 admissions. Actual consumption achieved was **152** DDD/1000 admissions.
    - o Reduction of piperacillin-tazobactam consumption by 2% compared to median of 2016 hence target to be achieved by end of the year was **≤ 175** DDD/ 1000 admissions. Actual consumption was **115** DDD/1000 admissions.

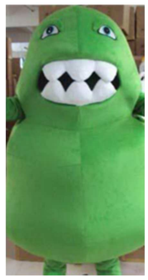


PROUD TO CARE



A number of other initiatives have taken place in 2017-2018:

- World Antibiotic Awareness Week took place to coincide with European Antibiotic Awareness Day (EAAD), an annual event held across Europe on 18 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 Schools of Pharmacy and Medicine: undergraduates 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 once again on Social Media.
    - A competition was held to name the AMS mascot "Bugsy McBugface" who was in attendance at the stand engaging with members of the public and staff.



- The Trust participated in the Public Health England 'point prevalence survey' in September and October 2016 and the final results were made available to the Trust in 2017-2018. This programme was designed to gather data on antibiotic consumption in Acute Trusts across England, for the development of a database by PHE, to set a baseline for benchmarking and comparison purposes, and assist Trusts with identifying areas for improvement regarding the implementation of Start Smart then Focus (Department of Health 2011). The Royal Stoke University Hospital site was audited:
    - 425 (39.4%) of the hospitalized patients were on one or more antibiotics (compared to 2011:36%), totalling 559 antibiotic prescriptions.
    - A higher percentage of patients were receiving antimicrobials (AM) at RSUH (39.4%) compared to nationally (37%).
    - 89% of the AM were indicated for treatment, 5.7% for surgical prophylaxis and 4.6% for medical prophylaxis.

- Documentation of indication was much better at RSUH compared to nationally (RSUH unknown indication 0.4% vs. nationally 4.1%) and has improved since the last survey in 2011 (7.8%). 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.
- Regarding surgical prophylaxis, relatively fewer single doses were prescribed and a higher percentage of AM were given for more than one day compared to nationally and this will be an area of focus in 2018-2019
- RSUH had a higher percentage of parenteral AM vs. oral AM prescribed in comparison to nationally (RSUH = 68.65 IV/ 31% oral; nationally 60.1% IV/ 39.6% oral) although this could be a reflection of the patient population at RSUH.
- Regarding clinical review of antimicrobials, areas where RSUH performed less favourably included lower IV to oral switch (IVOS), changing to another antimicrobial (this suggests lack of review of empirical treatment in line with sensitivities) and for 25.3% (vs 13.3% nationally) of AM the review outcome was unknown. Clinical review of AM is an area of focus in part 2d of the Sepsis/AM CQUIN for 2018-2019 and initiatives will be implemented to support achievement of the targets.
- 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.

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.

Feed-back received from users on these initiatives has been positive.

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 the Communications Team are involved in the following:

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

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 IPT 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.

The Trust has a policy on the 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.

Infection Prevention Nurses 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 the iPortal system includes 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/departments to timely isolate and follow-up patients appropriately and to prescribe appropriate empiric antibiotics if antibiotic treatment is indicated.

Surgical Site Infection Surveillance (SSIS)

UHNM have continued to participate in the Public Health England (PHE) National Surveillance Program. The aim of SSIS 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 national benchmark rate, this information is used to review and guide clinical practice.

The implementation of the ICNET SSIS module has helped to automate the data collection process and improve accuracy and efficiency.

During 2017-18 UHNM participated in the following PHE Surgical Site Surveillance:

SSI SURVEILLANCE 2017-18		
QUARTER	PERIOD	SURVEILLANCE Royal/County
1	Apr – Jun	Reduction of long bone fracture (Orthopaedic mandatory)
2	Jul – Sep	Spinal surgery
3	Oct – Dec	Cranial surgery
4	Jan – Mar	Breast surgery

Methodology for Surveillance

The surveillance was undertaken by the Clinical Surveillance Team (CST). All eligible patients were reviewed 2-3 times per week and monitored for signs of infection, whilst an inpatient electronic tags were added to eligible patient records to provide alerts if the patient was readmitted or had a wound swab sent for the duration of the surveillance period, 30 days or 365 days if an implant is inserted at the time of surgery.

CST has worked with clinical teams to advise on the surveillance process and worked collaboratively to confirm any cases of SSI.

RSUH 2017-18				
Quarter	**Category**	**No. of ops**	**No. of SSI's**	**%**
1	Reduction of long bone fracture (Orthopaedic mandatory)	248	1	0.4%
2	Spinal surgery	161	3	1.9%
3	Cranial surgery	101	3	3.0%
4	Breast surgery	TBC	TBC	TBC

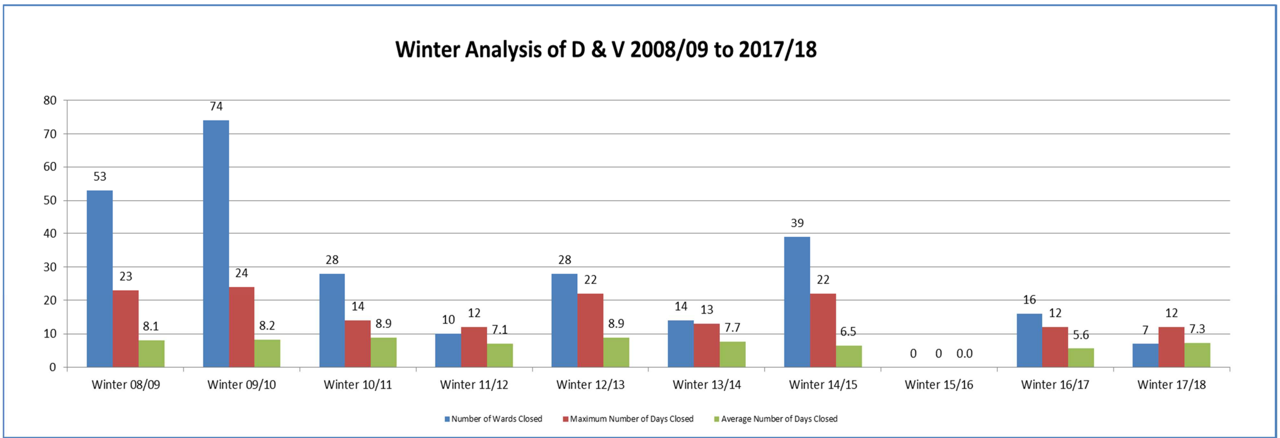
All Hospitals 2012-2017				
Quarter	**Category**	**No. of ops**	**No. of SSI's inpatient and & readmission**	**%**
1	Reduction of long bone fracture (Orthopaedic mandatory)	12,298	128	1.0%
2	Spinal surgery	36,814	524	1.4%
3	Cranial surgery	8,441	136	1.6%
4	Breast surgery	18,096	155	0.9%

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

Managing Outbreaks of Infection - Responses to Incidents and Outbreaks
The IPT are involved in the management of outbreaks, periods of increased incidence and incidents.

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

There was a decrease in whole ward closures due to D&V/Norovirus at both the Royal Stoke and the County Hospitals.



Seasonal Influenza

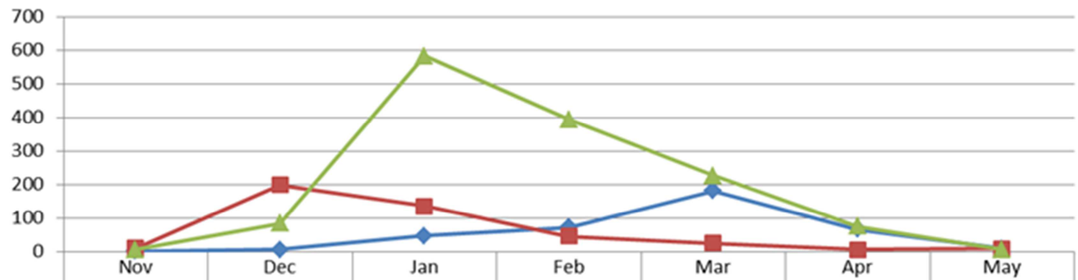
The UK saw a significant number of influenza cases during this winter, and UHNM was no exception with an unprecedented number of cases presenting to the emergency portals, which was on top of other pressures the Trust saw from acutely unwell patients.

UHNM had several wards affected, which was in line with other Acute Hospitals in the region. However, with good control measures these were mainly restricted to bay closures rather than whole ward closures.

For each case immediate control measures were instituted, following the latest PHE guidance, including the use of antivirals. Affected areas were visited and assessed by an Infection Prevention Nurse at least twice daily, and at weekends additional IP staff were brought in to assist, due to the burden from other infections that continued.

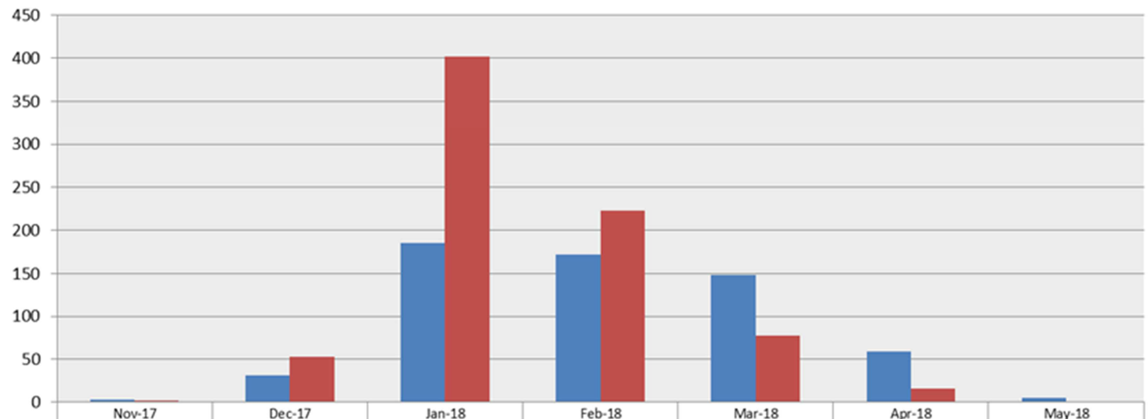
Overcrowding and pressures in the emergency unit exacerbated the situation and prevented early isolation in a number of cases. Nevertheless, the staff did a magnificent job in preventing further spread as best as they could, given the pressures, implementing antiviral medication as per PHE guidance to those exposed patients. Swabbing of patients for respiratory viruses was followed as per the guidance issued. Independent audits confirmed that indiscriminate swabbing was not a significant issue. The Department of Clinical Infections supported the clinical teams.

Monthly Flu Cases Winter 2015/16 to Winter 2017/18

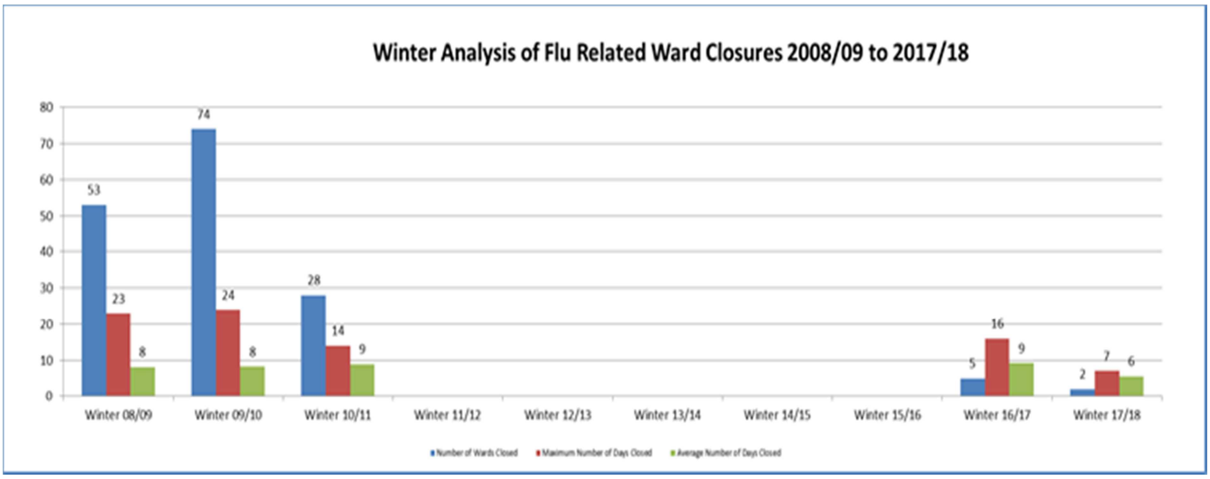


	Nov	Dec	Jan	Feb	Mar	Apr	May
2015/16	1	6	47	72	181	66	9
2016/17	10	198	135	46	25	6	8
2017/18	5	84	583	395	226	75	6

Royal Stoke - Positive Flu A Cases by Specimen Month - Winter 2017/18



	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
Flu A Cases	3	31	185	172	148	59	5
Flu B Cases	2	53	402	223	78	16	1



Peritoneal Dialysis Catheter Exit Site Infections

In August 2017 two cases of peritoneal dialysis catheter exit site infections were identified by the Renal Team, with a further three cases identified in November 2017. Subsequent typing showed that three were *Myobacterium chelonae*, whilst the other two were different strains of *Myobacterium*, immediate control measures were instigated.

External cluster meetings were held in December 2017 and February 2018. No further cases have been identified thus far; all patients attended the Renal Department only and were not inpatients. Surveillance for any further cases continues, together with an ongoing action plan. No further cases were identified in April 2018.

Carbapenemase Producing Enterobacteriaceae (CPE)

There was one Respiratory ward that identified a number of patients colonized with CPE in their gastrointestinal tract through routine screening. External cluster meetings were held in December 2017, February 2018, March 2018 and April 2018.

Initially twelve cases were identified between September to December 2017. During that time the ward was undergoing refurbishment work and re-located temporarily onto two different locations. No cases were identified during this time, and control measures were implemented once the ward returned to its original location. Typing on eight of these cases were identified as ST11, which is an international strain known to be resistant.

During January 2018. 15 cases of OXA-48 in Klebsiella pneumonia were identified, with typing results awaited. These have been colonization of the gastrointestinal tract. A further two cases were identified through routine screening on the Critical Care Unit and both patients had been on the Respiratory ward – both patients had positive clinical samples. Control measures have continued, including a terminal clean with Virusolve and enhanced CPE screening for admissions, weekly and discharge. The situation is being closely monitored for any new cases since the enhanced cleaning processes and refresher training, together with an action plan has been put in place.

Surveillance continues and control measures appear to have significantly reduced any possible transmission.

Compliance Criteria 6:

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

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

Occupational Health services are provided by Team Prevent.

Seasonal Staff Influenza Vaccination Campaign
The annual seasonal influenza vaccination campaign for staff commenced on 2nd October 2017 and finished at the end of February 2018. A 24 hour flu jab-a-thon was held on the first day of the campaign.

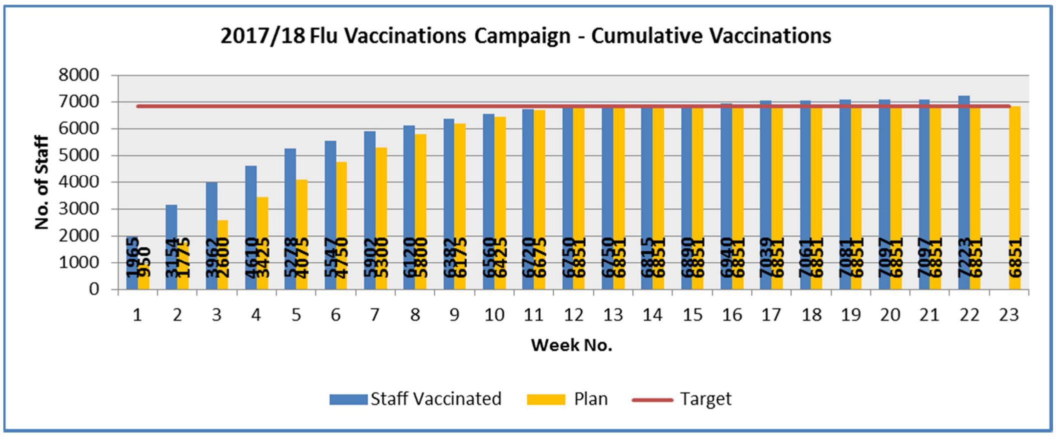
The Seasonal Influenza Vaccination Group continues to meet regularly throughout the year, with minutes presented at the IPCC. This Group reflects and debriefs on the previous campaign to ensure lessons are learnt as well as new initiatives introduced (from national forums and information sharing). The group includes representation from the IPT, Pharmacy, Nurse Education, Communications and Occupational Health as well as working collaboratively with colleagues from the Public Health Team in the local Council to cover all UHNM locations.

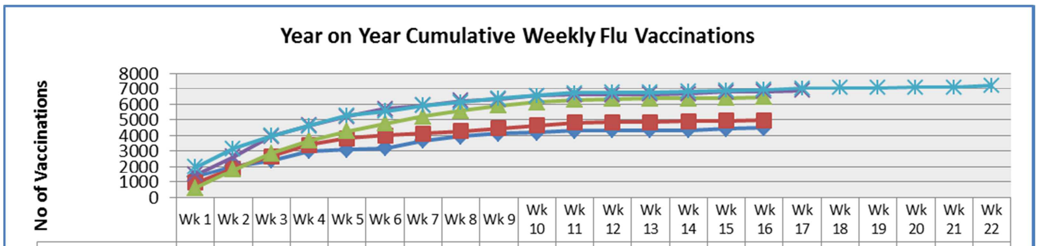
There are currently 78 vaccinators supported by 74 champions in all clinical areas (covering all four hospitals). Vaccination training was organised for three separate dates in September 2017. This training is well supported by the Infectious Diseases, Resuscitation, Nursing Directorate and Pharmacy teams. This year on-line (via VCTMS) training has been introduced for established vaccinators to gain refresher training. Both vaccinators and champions are well supported by the Lead Vaccinator from the IPT. PGDs for the flu vaccine and adrenaline have been completed and circulated.

The Occupational Health Department (Team Prevent) work very closely with the vaccinators so that there is a seamless inter-woven campaign.

The Communications Team are integral to the whole planning process and have a well-rehearsed plan to communicate important messages to staff, including myth busting. This year, six short videos have been produced, which staff can access. The videos include myth busting messages as well as staff and patients who have experienced the effects of influenza. In addition to the vaccinators and champions within every clinical area, vaccination clinics and a roving service will operate. In addition, this year a new 'choose and book' service will augment the provision, allowing staff to book a timeslot. Discrete groups of staff have vaccination clinics organised within their area, for example Estates, HSDU and Pathology.
UHNM Pot Luck has this year donated several large tubs of sweets as an initiative to entice staff to be vaccinated, and Sodexo have kindly donated £5 vouchers for staff to have a weekly draw covering the first 10 weeks of the campaign. Additionally a £10 voucher will be drawn at the end of October, November and December.

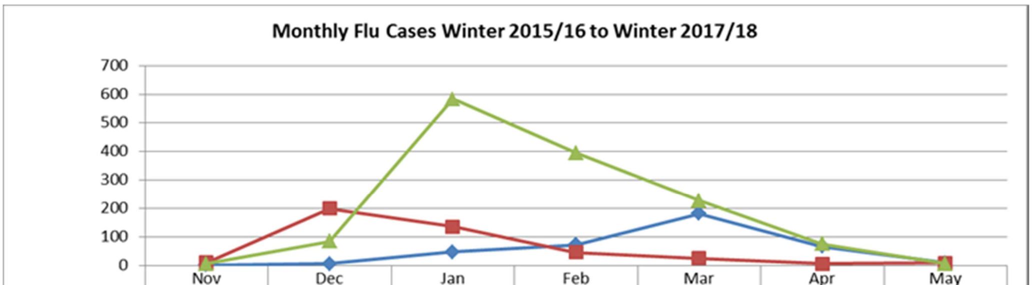
The Vaccination Team were awarded the Chief Executives Award in April 2017 for their hard work, as last year in excess of 82% of front line staff had been vaccinated to date, and UHNM was amongst the top five Trusts in England.





	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	Wk 19	Wk 20	Wk 21	Wk 22
2013/14 Cum	1344	2030	2379	2998	3093	3177	3676	3934	4129	4197	4316	4325	4325	4325	4428	4501						
2014/15 Cum	934	1876	2656	3382	3807	4014	4114	4263	4472	4646	4831	4856	4856	4906	4945	4958						
2015/16 Cum	594	1779	2853	3667	4284	4768	5215	5580	5901	6127	6275	6345	6373	6373	6406	6457						
2016/17 Cum	1469	2634	3948	4647	5224	5695	5918	6205	6306	6542	6600	6600	6642	6662	6788	6833	6899					
2017/18 Cum	1965	3154	3962	4610	5278	5547	5902	6120	6382	6560	6720	6750	6750	6815	6890	6940	7039	7061	7081	7097	7097	7223

7,223 vaccines was given which is the highest ever number of staff vaccinated in previous years.



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2015/16	1	6	47	72	181	66	9
2016/17	10	198	135	46	25	6	8
2017/18	5	84	583	395	226	75	6

As seen in the graph above UHNM have seen the highest number of patients with confirmed influenza, predominantly Influenza B initially but then overtaken by Influenza A at the latter part of the period. Vaccinations were available until end of February 2018, with additional clinics set up.

During 2017/18 campaign it was only the trivalent vaccine that was available; however for 2018/19 campaign the quadrivalent vaccine has been ordered, which will contain two 'A 'strains' and two 'B' strains of Influenza.

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	16	16

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
Ward 112	12	12
Ward 113	10	10

Maternity Centre

	No. of Single Rooms	No. of En Suites
Delivery Suite	16	16
Neonatal Unit	6	6
Ward 205	12	12
Ward 206	12	12
Midwifery Birthing Centre	12	12

Cancer Centre

	No. of Single Rooms	No. of En Suites
Oncology Day Unit	5	5
Haematology & Oncology Inpatients	20	20

West Building

	No. of Single Rooms	No. of En Suites
FEAU	4	4
Ward 78/79	8	2
Ward 80/81	4	0
Ward 76a	3	1
Ward 76b	3	1

Ward 76b have 4 pods around bed spaces

Main Building

	No. of Single Rooms	No. of En Suites
CDU	4	3
215	0	0
216A	4	4
216	9	9
217	9	9
217B	5	5
218	15	15
CCU	3	0
220	13	13
221	10	10
222	10	10
223	16	16
225	16	16
226	10	10
227	10	10
228	16	16
230	16	16
231	10	10
232	10	10
233	16	16

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

<u>County Hospital</u>

Single Bed Rooms & En Suites

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.

The High Dependency 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	2	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	3	0
AAU	3	0	0
AMU	3	3	0
Critical Care Unit	0	0	0
A&E	6	0	0
A&E Ambulance corridor	4	0	0
A&E Ambulatory	3	0	0
Chemotherapy Unit	6	3	0
Ward 1	4	3	0
Medical Receiving Unit	3	0	0
Ward 8 Choices	1	1	1

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)

The Infection Prevention Nurses work closely with the Biomedical Scientist.

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. Both 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 IPT participate in mandatory updates for all staff groups (clinical and non-clinical). The IPT 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/Team Development
Three Infection Prevention Nurses attended the Infection Prevention Society (IPS) conference held in 2017, where an abstract around the work relating to Clostridium *difficile* was accepted and displayed.

IPT have also attended several study days on different aspects of Infection Prevention throughout the year, including Sepsis and tackling Gram negative blood stream infections, regional IV summit, UK annual National ANTT conference, Surgical Site Surveillance.

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

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

A number of the IPT attended UHNM in house training days e.g. Leadership, Appraisal training

Three Infection Prevention Nurses attended a short decontamination course held at UHNM by Wayne Spencer, Authorising Engineer Decontamination.

Monthly education sessions between IPT and Microbiologist were held.

Two IP Nurses attend the Marion Reed Course.

Lead Nurse IP co-author for article in peer reviewed journal showcasing the work that has undertaken. Journal of Infection Prevention, March 2018. Quality Improvement collaborative.

Occupational Health and Tuberculosis (TB) Meetings
Since 1 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 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 Clostridium *difficile,* MRSA and CPE. This requires the involvement of all grades of staff, on an on-going basis, and the IPT are central to this.

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

- Reduction of Gram negative blood stream infections by 50% by 2021.
- Continuing threat from CPE.
- 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 and working closely with the Emergency Planning Team.

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 1 April 2018 – 31 March 2019. 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 RON – Resistant Micro-organism Nurse

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 DIPC.	DIPC	Quarters 1-4
	The DIPC will ensure the Trust Board agree and approve the:		
	Annual Programme of Works	DIPC	Quarter 1
	Annual report	DIPC	Quarter 1
	Policy, procedure and guidance documents	DIPC	Quarters 1-4
	Cleanliness and Patient Led Assessment of the Care Environment (PLACE) scores	Support Services	Annually
	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	DIPC	Quarter 1-4
	Unforeseen issues impacting upon progress of the annual programme	Deputy DIPC	Bi monthly
	Ensure the progress of the annual programme is monitored by the IPT 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

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	Ensure that the Infection Prevention Control Committee meet bi-monthly and is chaired by the DIPC.	Deputy DIPC	Bi -monthly
	IPT 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	Governance	As required
	Report on progress against the HCAI assurance framework. strategy including emergency and elective screening compliance	Deputy DIPC	Monthly
	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
	Update any Infection Prevention risks on risk register	Deputy DIPC	As required and quarterly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	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.	IPT	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
	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

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	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, Multi drug resistant organisms admitted or transferred to UHNM in accordance with National guidance and evidence based practice	IPT/Senior Data Analysis	Quarter 1-4
	Participate in multi- disciplinary review of Clostridium difficile toxin positive patients	Infection Prevention Nurse/ Microbiologist/Dietician/ Pharmacist/Gastroenterologist/ ICD Surgeon	Weekly Quarterly
	Maintain and review Clostridium difficile action plan	Deputy DIPC	Monthly
	Monthly Clostridium difficile 30 day all-cause mortality report	Deputy DIPC	
	Surgical Site Surveillance Infection Surveillance programme in place. Feedback to Directorate Meetings	Clinical Surveillance Team IP	Quarters 1-4
	Review and up- date Gram negative action plan	Clinical Surveillance Team IP	Quarters 1-4
	IPT to attend and provide specialist advice:		
	• Infection Prevention Divisional meetings	IPN	Monthly
	• Seasonal influenza vaccination planning group	Deputy DIPC	
	• Sepsis planning meetings	Deputy DIPC	

PROUD TO CARE

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	• 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
	• Ventilation group	Deputy DIPC	Bi annual
	• Water Safety Group	Deputy DIPC	Quarterly
	• 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	IPT	Monthly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
Criteria 2 Provide and maintain a clean and appropriate environment in managed premises that facilities the prevention and control of infections	IPT to attend and provide specialist advice:		
	• Multi- Disciplinary Environmental Strategy Group	IPT	Monthly
	• Water Safety Group	Deputy DIPC	Quarterly
	• Environmental Health Food Hygiene Inspections	IPT	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
	Roll out of Order to clean clinical hand wash sink	Retained and Sodexo Services	Quarters 2-3
	Sink cleaning campaign	Decontamination IP	Quarters 2-3

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	• Trial of UV /HPV light whole room technology on selected wards	IPT/Service Development Team	Quarter ,2 & 3
	• Use of microbiology swabbing 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.	IPN	As required
	IPN to conduct Clostridium *difficile* audit following each hospital acquired case	IPN	As required
	IPN's will undertake a programme of unannounced audits in clinical areas, including hand hygiene audits	IPN/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 4
	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 IPCC to receive summary progress and action plans for Divisions Critical Care and Theatres to trial new IP quarterly audits **Building works and refurbishments** IPT to advise on building and refurbishments. IP Team to advise on new cleaning products and deep clean programmes	IP Team Associate Chief Nurses/Matron Lead Nurse IP IPT/Service Development Team Deputy DIPC/IPT	Weekly Bi Monthly Quarter 2&3 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 Representation at Local Health Economy Antimicrobial Group Meeting Antimicrobial pharmacist to report antibiotic audits to IPCC	Advance Specialist Pharmacist Antimicrobials/Microbiologist/ ICD DIPC Deputy DIPC/Microbiologist Advance Specialist Pharmacist Antimicrobials	Quarters 1-4 Quarterly Bi monthly

Objective	Actions	Person(s) Responsible	Time Scale & Priority
	Trust signed up for National Antimicrobial and Sepsis CQUIN	Microbiologist	Quarter 1-4
	The Sepsis Team and Antimicrobial Team work closely together. The CQUIN for 2018-19 will be joint sepsis and Antimicrobial	Advanced Specialist Pharmacist Antimicrobials Orthopaedic Consultant Consultant in Infectious Disease Deputy DIPC/Sepsis Tam IP	Quarter 1-4
	Antimicrobial stewardship initiatives • Updating of antimicrobial guidelines • Reduction in antibiotic consumption per ,1000 admissions • Antibiotic review	Advance Specialist Pharmacist Antimicrobials	
	Access to Microbiologist to advise on appropriate choice of antimicrobial therapy	Microbiologist	Quarters 1-4
	Access to microbiology diagnosis, susceptibility testing and reporting of results	ICD/Microbiology Manager	
	Strengthening of Sepsis champions and sepsis screening	Deputy DIPC/ Sepsis IP Team	Quarter 1-4
	Sepsis educational material	Deputy DIPC/Sepsis IP Team	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 Revise resistant antimicrobial micro- organism leaflet to patient	DIPC IPT/Service Development Team IPT Service Development Team/IPT RON	As required Quarter 1-4 Quarter 1 Quarter 1 As required Quarter 2
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/winter signage displayed throughout the Trust Introduction of Resistant Micro-organism Role with in the IPT Relaunch of wee tips	IPT IPT/ICD IPT Deputy DIPC/ Lead Nurse Clinical Surveillance Team IP	As required As required Quarter 3-4 Quarter 1-4 Quarter 2-3

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	IPT	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	IPT	Quarters 1-4
	Hand Hygiene and Mask Fit Training	IPT	Quarters 1-4

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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

<u>References</u>

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