The Dudley Group
NHS Foundation Trust

INFECTION PREVENTION AND CONTROL ANNUAL REPORT

2017 / 18

CONTENTS

LIST OF ABBREVIATIONS

C.diff	Clostridium difficile
CQC	The Care Quality Commission – the integrated regulator of health and adult social care
DH	Department of Health
D and/or **V**	Diarrhoea and/or Vomiting
DIPC	Director of Infection Prevention and Control. An individual with overall responsibility for infection control and accountable to the registered provider
E-Coli	Escherichia coli
ESBL	Extended-Spectrum Beta-Lactamases (ESBLs) are enzymes that can be produced by bacteria making them resistant to cephalosporins e.g. cefuroxime, cefotaxime and ceftazidime - which are the most widely used antibiotics in many hospitals
GQC	Governance and Quality Committee
GRE	Glycopeptide-Resistant Enterococci
HCAI	Health Care Associated Infections
IPC	Infection Prevention and Control
IPCC	Infection Prevention and Control Committee
IPCLN	Infection Prevention and Control Lead Nurse
IPCT	Infection Prevention and Control Team
MRSA	Meticillin-resistant Staphylococcus aureus
MSSA	Meticillin-sensitive Staphylococcus aureus
OHD	Occupational Health Department
PLACE	Patient Led Assessment of the Care Environment
PPE	Personal Protective Equipment
SLA	Service Level Agreement
UTI	Urinary Tract Infection

1.0 EXECUTIVE SUMMARY

The Dudley Group NHS Foundation Trust is committed to ensuring that a robust infection prevention and control function operates within all clinical areas of the organisation which supports the delivery of high quality healthcare and protects the health of its service users and staff. Effective prevention and control of infection must be part of everyday practice and applied consistently by everyone.

The report provides assurance that systems are in place and working effectively to minimise and avoid hospital acquired infection and that the Trust is compliant with the Hygiene Code.

2.0 INTRODUCTION

The Dudley Group NHS Trust continuously strives to improve infection prevention and control practice and has engaged with other organisations and partners to ensure there are robust infection prevention plans, policies and capacity to reduce healthcare associated infections (HCAI) across the healthcare community. Infection prevention and control is the responsibility of everyone in the healthcare community and is only truly successful when everyone works together. The Infection Prevention Team (IPT) continues to develop innovative ways of delivering important messages across to our staff, patients and visitors. The work programme is aligned with the Hygiene Code.

The Health and Social Care Act 2008 (2015): *Code of practice for the prevention and control of healthcare associated infections (Hygiene Code)* details 10 compliance criteria to which the Trust must adhere to in relation to preventing and controlling the risk of avoidable healthcare associated infections (HCAIs).

The criteria are listed below against which is the Trust's assurance that it meets the requirements as stated in the Hygiene Code.

Compliance Criterion	What the registered provider will need to demonstrate	RAG rating
1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may post to them.	
Assurance: A risk log of all infection prevention risks identified across the Trust is maintained and updated regularly.		
2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.	Cleaning is actively audited and any deficiencies are rectified within 1 hr.
Assurance: A Cleaning Policy and associated environmental audits provide assurance that a clean and appropriate environment is maintained.		

3	Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse event and antimicrobial resistance.	Antimicrobial CQUIN – the elements regarding reduction high risk antimicrobial usage has been met.
Assurance: There is an Antimicrobial Policy in place with appropriate stewardship recommendations. Audits demonstrate compliance with policy.		
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.	
Assurance: Patient and visitor information is available for a variety of healthcare associated infection issues on the website. Patients identified with infections in hospital are visited and provided with information leaflets including contact information for further support.		
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.	MRSA elective screening 96.4% compliance and emergency screening 94.2% compliance for April
Assurance: Patient records are flagged with information about previous healthcare associated infections. Patient admission documentation includes screening questions to identify patients at risk.		
6	Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.	Mandatory IC training has moved to an annual programme for clinical staff. Work is being undertaken to achieve compliance by March 2019.
Assurance: Staff are provided with mandatory infection control training to ensure they are aware of their responsibilities for the prevention and control of infection.		
7	Provide or secure adequate isolation facilities.	A business case for the isolation pods for critical care areas has been created and funding the

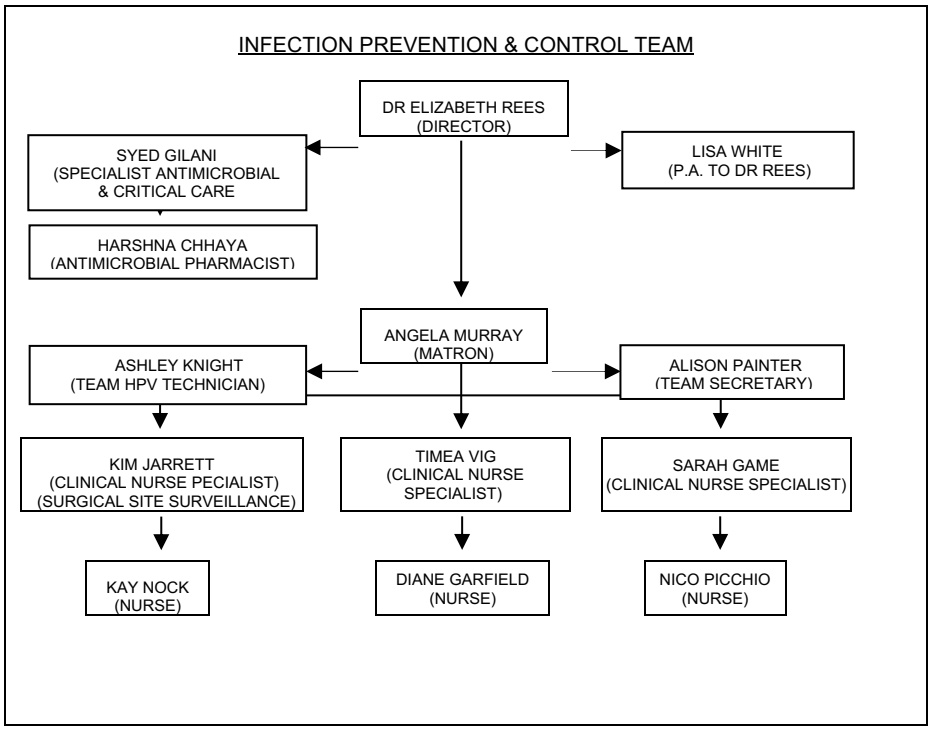
		for the ITU pod secured.
Assurance: There is a policy in place to ensure that patients are isolated appropriately. 25% of the inpatient beds take the form of single ensuite rooms.		
8	Secure adequate access to laboratory support as appropriate.	
Assurance: The Trust has access to a CPA/UKAS accredited Microbiology and Virology laboratory.		
9	Have adherence to policies, designed for the individuals' care and provider organisations that will help to prevent and control infections.	Trustwide scores all green to present.
Assurance: All policies, as recommended in the Hygiene Code, are in place. Audit data confirms compliance with policies and identifies areas for improvement.		
10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.	
Assurance: There is in house provision of Staff Health and Wellbeing. There are regular reports to the Infection Prevention and Control Forum detailing any issues raised within this system.		

3.0 INFECTION PREVENTION AND CONTROL ARRANGEMENTS

Within the Trust the DIPC role is within the portfolio of the Consultant Microbiologist / Infection Control Doctor. A key responsibility of the DIPC is to produce an annual report. Additional support is provided by the antimicrobial pharmacists and Matron for Infection Prevention and Control.

The role and function of the IPC Service is to provide specialist knowledge, advice and education for staff, service users and visitors. All work undertaken by the service supports the Trust with the full implementation of and on-going compliance to the Code.

INFECTION PREVENTION & CONTROL TEAM



4.0 THE INFECTION PREVENTION AND CONTROL FORUM

The Infection Prevention and Control Forum meets monthly and is chaired by the DIPC.

The purpose of the forum is to oversee compliance of the Health Act 2008 Code of Practice for the Prevention and Control of Healthcare Associated Infections. The Forum provides assurance that risks are appropriately managed and that appropriate arrangements are in place to achieve a safe clinical environment.

The membership of the forum is multidisciplinary and also includes representatives from The Office of Public Health at Dudley Metropolitan Borough Council and Public Health England. This forum provides assurance to The Board that the infrastructure for infection prevention and control is in place. In addition to this there is representation from the Trusts private finance initiative partners.

As of April 2018 the forum will be renamed as the Infection Prevention and Control Group.

5.0 SURVEILLANCE

The Department of Health requires mandatory surveillance of:

1. MRSA positive blood cultures (bacteraemia)
2. *Clostridium difficile* toxin positive results
3. MSSA positive blood cultures (bacteraemia)

4. E-coli positive blood cultures (bacteraemia)

The above are reported monthly via HCAI data capture system which is managed by Public Health England and signed off on behalf of the Chief Executive.

5.1 MRSA Bacteraemia

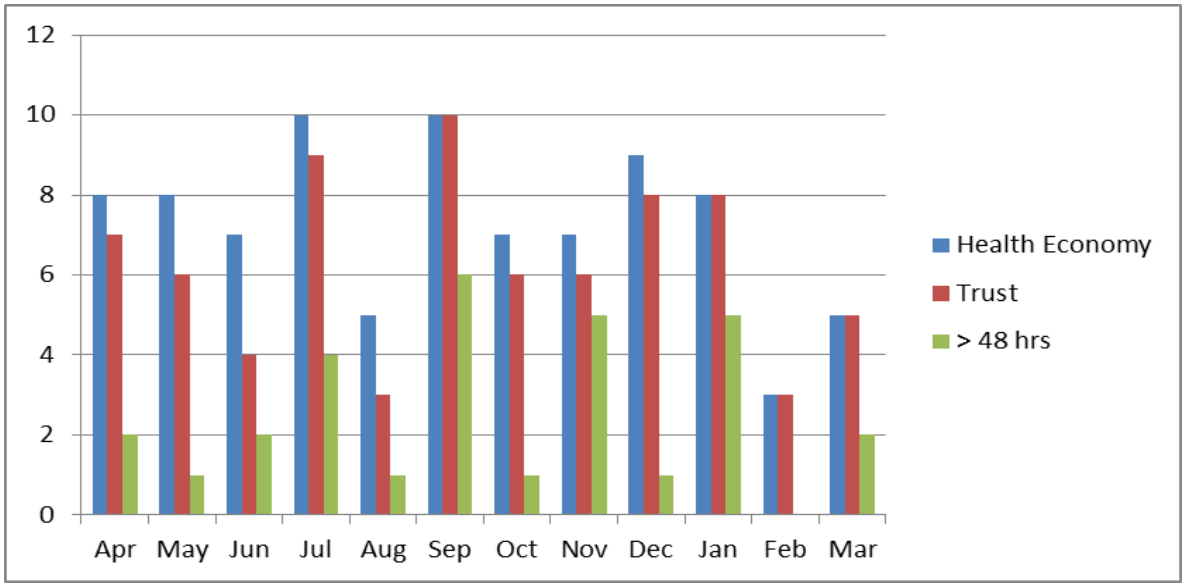
The NHS has set a zero tolerance approach to MRSA bloodstream infections. For the purposes of this report **zero** cases have been attributed to The Trust in the last year. Indeed, no MRSA bacteraemia cases have been assigned to the Trust since 27th September 2015. A pre 48 hour MRSA bacteraemia was identified in March 2018. This patient had recently received care in a neighbouring trust in the community. The case was assigned to the Sandwell and West Birmingham following a root cause analysis

5.2 Clostridium difficile

The Trust reports all cases of Clostridium difficile toxin positive disease identified in the hospital laboratory. For this financial year we have reported a total of 30 cases of Clostridium difficile of which 19 have been recognised as being due to a lapse of care and attributed to the Trust. Lapses in care were identified as being associated with failure to meet the mandatory training compliance, reduced environmental scores, antimicrobial stewardship and bowel habit not recorded on admission.

The Trust objective was to have no more than 29 cases where a lapse in care was identified. All cases were scrutinised using a robust root cause analysis process in conjunction with the Office of Public Health Dudley Metropolitan Borough Council and Dudley CCG. The learning from these cases was shared across the organisation in order to improve practice.

The table below demonstrates the number of Clostridium difficile positive cases identified at The Dudley Group NHS Foundation Trust for this reporting period.

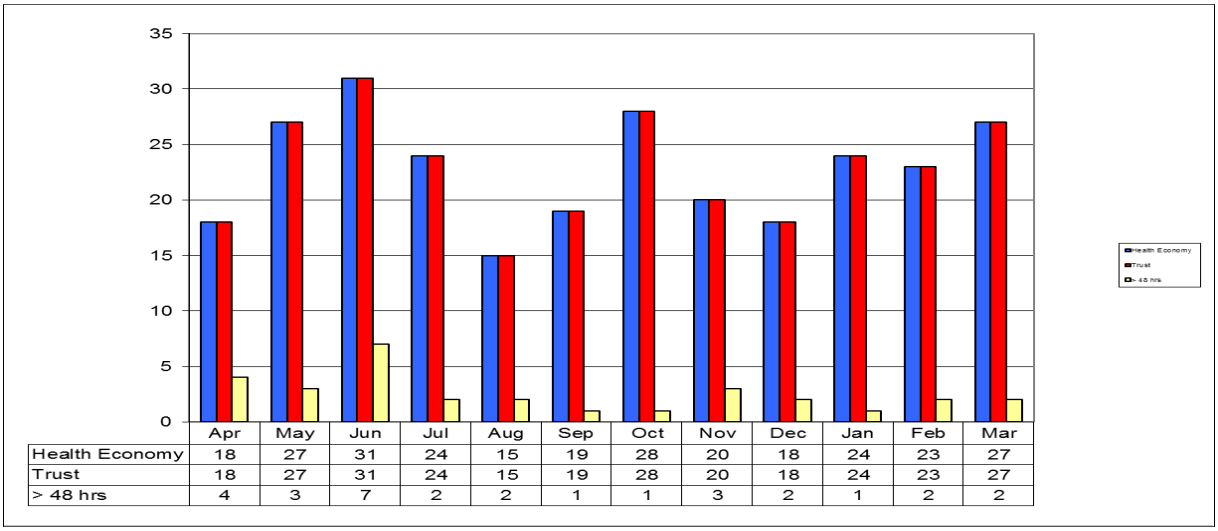


	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Health Economy	8	8	7	10	5	10	7	7	9	8	3	5
Trust	7	6	4	9	3	10	6	6	8	8	3	5
> 48 hrs	2	1	2	4	1	6	1	5	1	5	0	2

5.3 Escherichia Coli Bacteraemia.

Approximately three-quarters of E. coli bacteraemia occur before people are admitted to hospital. The Trust continues to fulfil its mandatory requirement and contributes to the enhanced national surveillance programme.

The table below demonstrates the number of E. coli positive cases identified at The Dudley Group NHS Foundation Trust for this reporting period. As of April 2017 the Trust undertook enhanced surveillance of E. coli bacteraemia as part of a whole health economy ambition to reduce Gram-negative bloodstream infections. Themes identified as sources of bacteraemia were urinary tract and hepatobiliary infection which is in line with national data. The Health Economy Partnership Group has developed a urinary catheter passport which is in the final stages of ratification. The Urinary Catheter Passport has been developed to ensure catheterised patients receive the optimum standard of care by improving communication between hospital, community and the service user. The Passport will be issued to service users after insertion of a urinary catheter. This work is to support the national agenda of preventing healthcare associated Gram-negative bloodstream infections with an initial focus on E. coli.

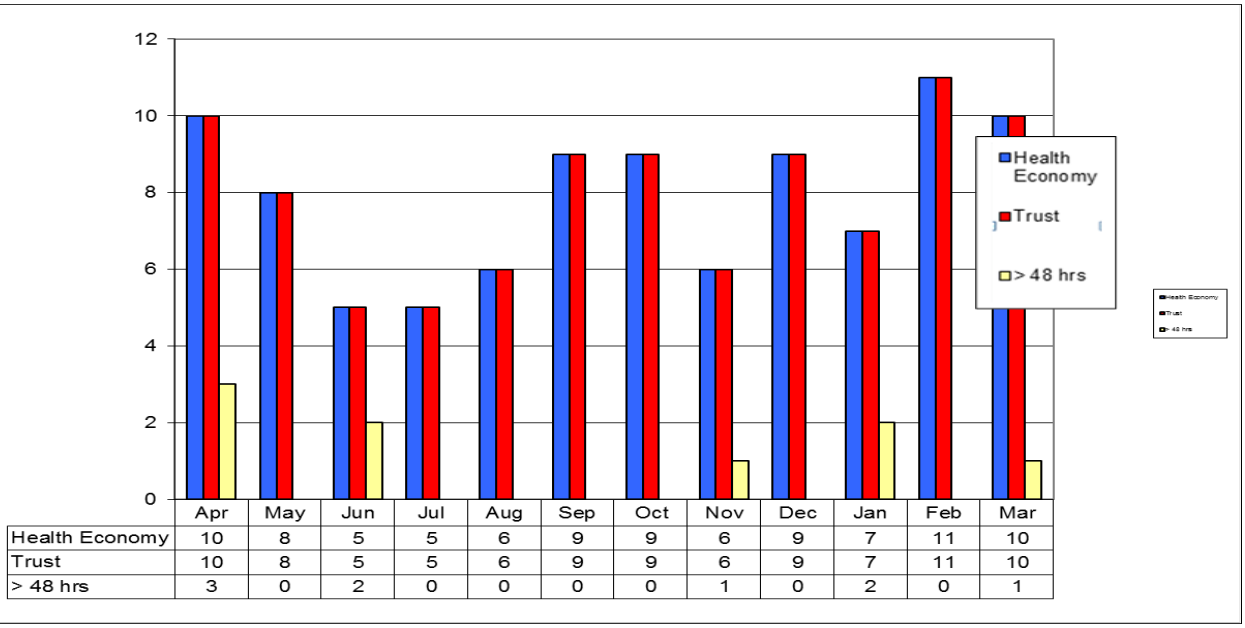


	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Health Economy	18	27	31	24	15	19	28	20	18	24	23	27
Trust	18	27	31	24	15	19	28	20	18	24	23	27
> 48 hrs	4	3	7	2	2	1	1	3	2	1	2	2

5.4 Meticillin Sensitive Staphylococcus aureus (MSSA) Bacteraemia.

MSSA is a type of bacteria which lives harmlessly on the skin and in the nose, in approximately one third of people. MSSA usually causes no problems, but can cause an infection when it gets the opportunity to enter the body. This is more likely to happen in people who are already unwell. MSSA can cause local infections such as abscesses or boils and it can infect any wound that has caused a break in the skin e.g. surgical wounds. The Trust continues to fulfil its mandatory requirement and contributes to this enhanced national surveillance scheme.

The table below demonstrates the number of MSSA bacteraemia cases identified at The Dudley Group NHS Foundation Trust for this reporting period. 9 of the cases had been inpatients for more than 24 hours. No reduction trajectory for MSSA has been set nationally. Issues were identified around the documentation of cannulae. To highlight the importance of cannula care the IPCT organised a day to promote cannula awareness and there was a display at the Health Hub supported by the supplier of the cannulae. Data on MSSA bacteraemias has been presented to the HCAI Health Economy Group to support work being undertaken in the community to address the underlying causes of those infections.



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Health Economy	10	8	5	5	6	9	9	6	9	7	11	10
Trust	10	8	5	5	6	9	9	6	9	7	11	10
> 48 hrs	3	0	2	0	0	0	0	1	0	2	0	1

6.0 SURGICAL SITE SURVEILLANCE

Surgical site infections (SSIs) are an important cause of Healthcare Associated Infections (HCAI), accounting for 20% of all HCAIs, and have serious consequences for both the patient and the Healthcare organisation.

Surveillance of surgical site infection following orthopaedic surgery has been included in the mandatory healthcare-associated infection surveillance system in England since April 2004. The National Surveillance Scheme enables hospitals in England to undertake surveillance of healthcare associated infection, compare their results and national aggregated data, and use the information to improve patient outcomes.

All NHS Trusts where orthopaedic surgical procedures are performed are expected to carry out a minimum of three months surveillance in at least one of four orthopaedic categories:

- Total hip replacements
- Knee replacements
- Repair of neck of femur
- Reduction of long bone fracture

<u>Summary of Orthopaedic SSI rates April to June 2017</u>

The data has been submitted to Public Health England and the official reports are now available to view on the PHE Surgical Site Surveillance database. The results of the surveillance are detailed in the table below. This includes the trust percentage for the period of surveillance undertaken by DGH and also the national average over the last 5 years.

Surgery	Total operations	Inpatient/ readmission SSIs	Trust Rate %	National Average %
Repair of neck of femur	67	1	1.5%	1.3%
Knee	144	0	0%	1.4%

The Surgical site infection that was identified is detailed below:

Surgical Site Infections

*Neck of femur repair (identified during admission)

- 1 Deep incisional
- Microorganisms detected – Proteus mirabilis Staph aureus (MSSA)

7.0 OUTBREAKS / PERIOD OF INCREASED INCIDENCE (PII)

Incidents and outbreaks occurring in 2017 /18 were reported to the hospital Infection Prevention and Control Group throughout the year.

Different outbreaks / incidents demand different responses but are managed with collaborative working between the multi-disciplinary teams across the Health Economy.

Norovirus

Norovirus is a self – limiting diarrhoea and vomiting bug that usually lasts 48-72 hours and is more prevalent during the winter months

In common with other acute trusts, DGFT experienced outbreaks of diarrhoea and /or vomiting which required restrictions to the movements of patients into and out of ward areas. The IPCT monitor these outbreaks at least once each day where they provide advice to ward staff and advise the Trust on the restrictions that should be introduced.

In October 2017 on our Trauma Orthopaedic ward Norovirus was confirmed in 1 patient, with 18 unconfirmed cases. The incident was identified on 15.10.17 and concluded on 02.11.17 In order to contain the spread, stations with patients with symptoms were closed and enhanced cleaning was undertaken. The infection was contained to the area with no spread to any other areas of the hospital.

In November 2017 on short stay ward a confirmed case of Norovirus was identified. The incident was identified on 06.11.17 and concluded on the 13.11.17 More than 20 patients were symptomatic. All the above was undertaken, restrictions put on staff movements around the hospital and cleaning of equipment with hydrogen peroxide vapour was undertaken. The closure of bays rather than whole wards in most incidents has less impact on the overall delivery of a high-quality clinical service by the Trust. The infection was contained to the area with no spread to any other areas of the hospital.

Clostridium Difficile

Clostridium difficile is a bacterium that is found in the intestines. It can be found in healthy people, where it causes no symptoms (up to 3% of adults and 66% of babies). *Clostridium difficile* causes disease when the normal bacteria in the gut are disadvantaged, usually when taking antibiotics. This allows *Clostridium difficile* to grow to unusually high levels. It also allows the toxin that some strains of *Clostridium difficile* produce, to reach levels where it attacks the intestines and causes mild to severe diarrhoea. *Clostridium difficile* can lead to more serious infections of the intestines with severe inflammation of the bowel such as pseudomembranous colitis.

Occasionally a period of increased incidence of *clostridium difficile* this is defined as 2 cases of toxin positive *clostridium difficile*, acquired post 48 hours, on the same ward, within a period of 28 days. In September 2017 this occurred on our Renal/ Endocrinology ward. A meeting was held, ward audits were conducted, and cleaning scores reviewed and typing of specimens was requested. Investigation concluded that there were no contributing factors and ribotype of each case was different, confirming that the cases were not linked. No further cases were identified.

8.0 INFECTION PREVENTION LINK WORKERS

Link workers in the Trust are recognised as important components of the organisational structure whereby skills, professional practice standards and knowledge are disseminated via motivated and active staff with an interest in IPC. There is a link worker in every department both inpatient and community areas. Link workers meet with the IPCT bi-monthly to discuss best practice and share their learning and experience.

9.0 AUDIT

Saving Lives Audit

The Saving Lives programme (DH, 2008) was introduced to support healthcare providers in reducing healthcare associated infections. It identified high-impact interventions (HIIs) relating to areas of clinical practice where patients are at increased risk of infection, with the aim of reducing variations in care. The Saving Lives Audit within the Trust is undertaken on a monthly basis.

This system can be accessed by Heads of Nursing, Matrons and Lead Nurses enabling users to review and monitor individual performance.

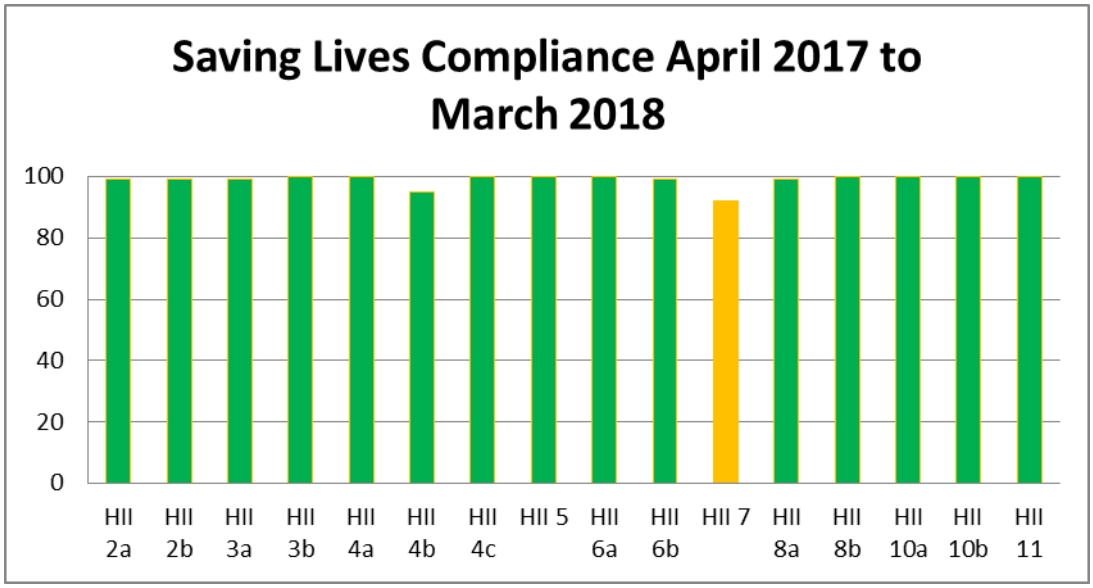
Areas that submit scores of less than 95% are required to complete an action plan to identify how they will rectify the overall score and how this will be cascaded across the areas.

The HIIs audits include:

- HII 1a CVC Insertion
- HII 1b CVC Ongoing Care
- HII 2a Peripheral Lines Insertion
- HII 2b Peripheral Lines Ongoing Care

- HII 3a Renal Dialysis Insertion
- HII 3b Renal Dialysis Ongoing Care
- HII 4a Surgical Site Pre Op
- HII 4b Surgical Site Intraoperative
- HII 4c Surgical Site Post Op
- HII 5 Reducing Ventilation associated pneumonia
- HII 6a Urinary Catheter Insertion
- HII 6b Urinary Catheter Ongoing Care
- HII 7 C.difficile
- HII 8a Clinical equipment Decontamination Infect
- HII 8b Clinical equipment Decontamination Non Infected
- HII 10a Chronic Wounds: Wound care
- HII 10b Chronic Wound Patient Management
- HII 11 Enteral Feeding

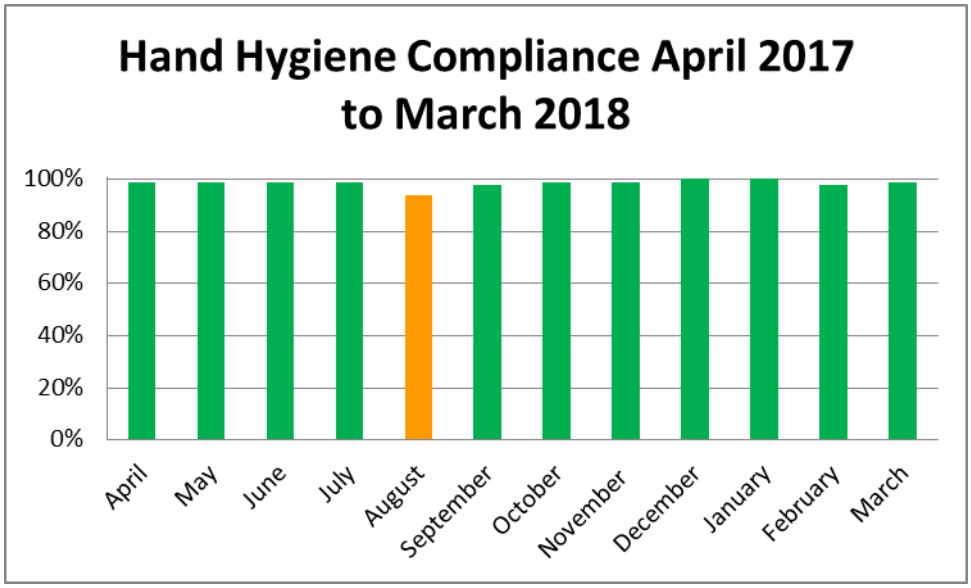
The graph below demonstrates overall Trust compliance with Saving Lives Audits for the year April 2017 to March 2018. The Trust overall compliance for HII7 Clostridium difficile risk reduction was 92%. Issues identified included patients not isolated within the 2 hour period following collection of a stool sample. This has now been included in infection control mandatory training and included in local action plans where issues were identified.



Hand Hygiene Audit

It is important that staff take precautions to prevent transmission of micro-organisms. All wards and departments have been required to undertake an audit each month, observing staff members in their clinical area. Hand hygiene continues to be a top priority in the Trust. Monthly audits of hand hygiene compliance are undertaken. The Trust target for hand hygiene compliance rates is 95%. For the month of August the compliance dropped to 94%. Compliance with bare below the elbow was identified as an issue. Hands can only be decontaminated effectively by ensuring that the correct technique is used which encompasses the wrists and therefore it is imperative that staff

comply with ‘Bare Below the Elbow’ in order to facilitate this. Reminders were given to staff to ensure compliance with the Trust policies.



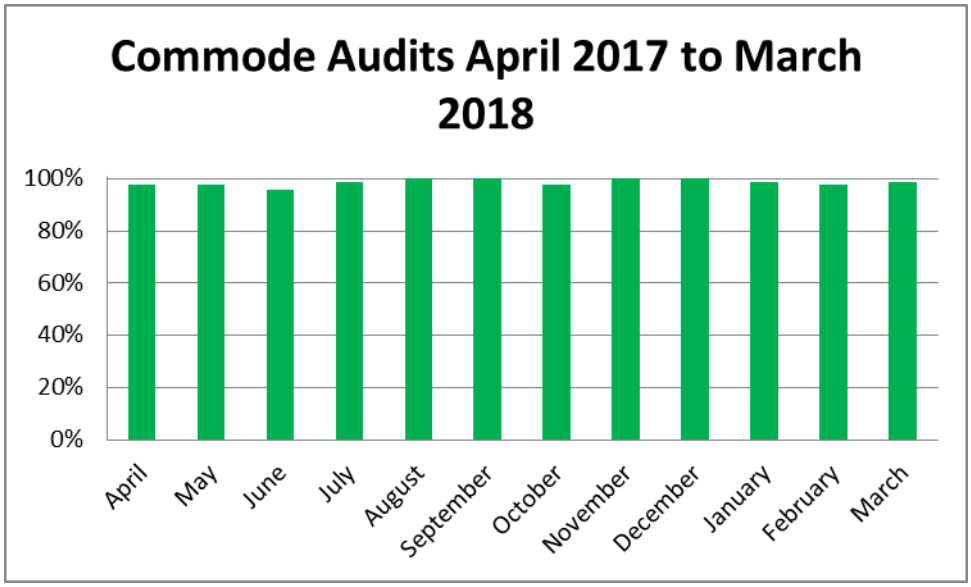
Hand Hygiene Promotional Work

Staff Health and Wellbeing reported an increase in staff raising concerns with their skin health during 2017. The Health and Safety Manager advised the IPC Forum that all trusts had to ensure hand hygiene was managed effectively and safely. A review of the hand hygiene products used within the organisation concluded that there was no single supplier of hand hygiene products and that skin moisturiser was not readily available therefore increasing the risk of dermatitis to staff. Following this report the Trust supported the move to a single supplier of hand hygiene products including availability of hand moisturiser for staff. Ongoing skin surveillance is being undertaken by Staff Health and Wellbeing.

Commode Audit

Commodes are in use constantly and their surfaces are constantly being handled, which provides an opportunity for many pathogens present to be transferred to not only other surfaces but also more importantly to our patients. It is important that all parts including underneath is visibly clean with no blood and body substances, dust, dirt, debris or spillage and that there is no damage to the commode. Damage prevents the equipment from being thoroughly cleaned and decontaminated. Monthly commode audits are undertaken to ensure the condition and the cleanliness of commodes are monitored. Broken commodes are removed and replaced as necessary.

The graph below demonstrates overall Trust compliance for commode audits for the year April 2017 to March 2018.

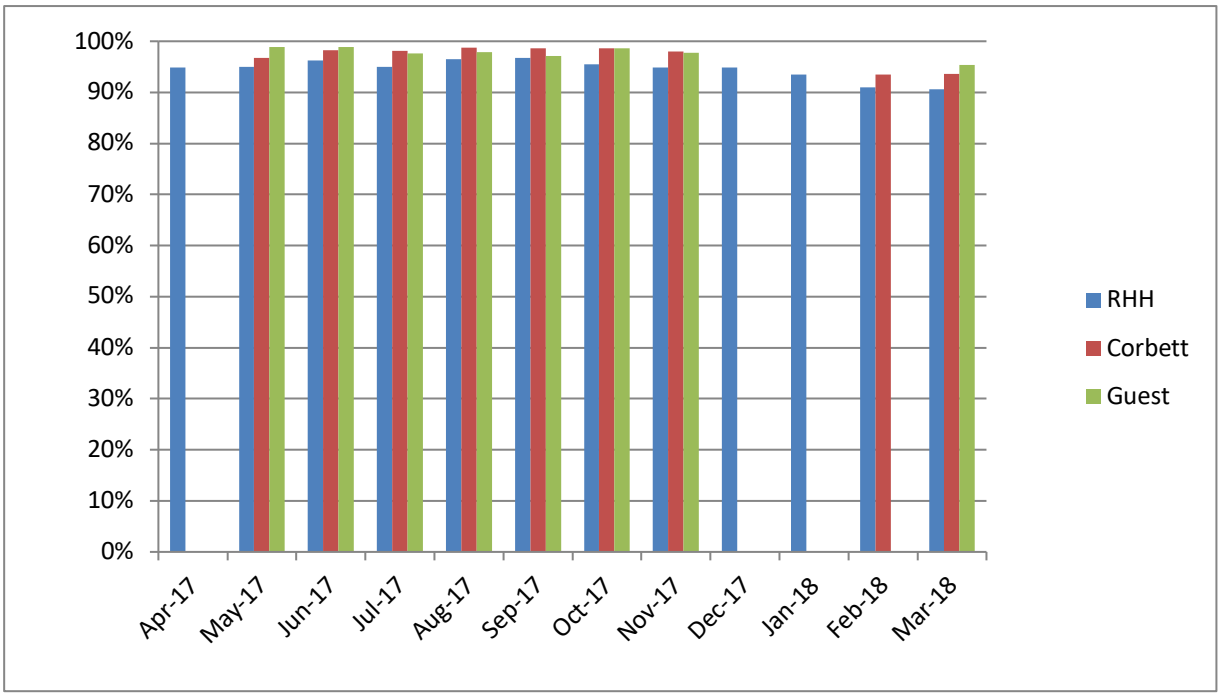


10.0 ESTATES & FACILITIES

10.1 Environmental Audits

The Trust recognises its duty to provide safe and clean environments where patients, staff and other visitors can expect to be protected from the risk of Infection. The environmental cleaning service is provided by Interserve (Facilities Management) Ltd (IFM) as part of the Trusts PFI contract with Summit Healthcare (Dudley) Ltd (Summit). The contract is managed by the Trust's Facilities and Property Development Department. Environmental audits are undertaken by the Trust Auditors in partnership with IFM and clinical staff.

The table below outlines the cleaning scores for The Trust for this reporting period.



Shortly after the full introduction of the combined cleaning/catering service, the Trust Facilities Management Audit Team identified deterioration in the cleaning scores across a number of areas. In response to this the Trust increased the cleaning audits in the affected areas and applied the performance management mechanisms within the PFI contract. This resulted in the cleaning scores improving however, it became apparent towards the end of 2017 that the cleaning scores were deteriorating again and the Trust again applied the performance management mechanisms within the PFI contract. In addition, the Trust's Facilities Contract Manager has worked closely with IFM and a cleaning action plan has been produced to include reviews of cleaning equipment, staffing, training etc. Although the picture up until the end of March 2018 has been a disappointing one, during April 2018 the Trust has seen a significant increase in the number of audits achieving above the 95% threshold.

On 1 March 2018 the Trust Monitoring Team implemented the updated version of the Servicetrac auditing system on the recommendation of Royal Liverpool & Broadgreen University Hospital NHS Trust who were asked to review our systems and advise. The Infection Control team have access to this system.

The Trust has also reviewed and updated its Cleaning and disinfection of the environment and non-invasive equipment policy, which has been subsequently agreed by all relevant parties including the Trust's Infection Prevention & Control Team, Summit and IFM. This policy assesses the risk associated with functional areas and clearly identifies responsibilities for cleaning, frequencies of cleaning as well as cleaning methods. It is anticipated this will deliver improvements in cleaning scores over the next year.

10.2 Place 2017

Patient-Led Assessments of the Care Environment (PLACE) is the national system of assessing the non-clinical aspects of patient care. All Trusts are required to undertake these inspections annually to a prescribed timescale.

As the name suggests the PLACE team is led by Patient Assessors, of which 12 participated in 2017, who made up at least 50 per cent of the assessment team, with the remainder being Trust and Summit Healthcare Staff. The inspection covers wards, outpatient areas, communal areas and external areas, as well as the Emergency Department and generates scores for the following:

- Cleanliness
- The quality and availability of food and drinks
- How well the environment protects people's privacy, dignity and wellbeing
- Condition, appearance and maintenance of the buildings (inside and out)
- How the premises are equipped to meet the needs of patients with disability and dementia

PLACE by its very nature is a snap shot of one day and can be influenced either way by what is seen on the day where ultimately the Patient Assessors can decide what areas are assessed. At the end of the assessment period, Patient Assessors are required to complete their own assessment form on how the overall assessment has been undertaken. This includes questions such as were their views taken on board and was sufficient time given to undertake the assessment etc.

The PLACE Scores for 2015 / 2016 / 2017 were as follows.

	2015 Score	**2016 Score**	**2017 Score**
Cleanliness	99.06%	99.14%	98.09%
Food (Combined)	86.08%	80.74%	88.76%
Food (Organisational)	75.19%	83.46%	87.04%
Food (Ward)	88.47%	80.01%	89.21%
Privacy, Dignity and Wellbeing	85.87%	84.01%	88.89%
Condition, Appearance and Maintenance	94.97%	96.59%	93.35%
Dementia	74.13%	80.95%	77.60%
Disability	-	-	83.99%

The Dudley Group NHS FT were shown to be better than the national average in the following areas; privacy, dignity & wellbeing, disability and dementia. As a Trust we were just below the national average for condition, appearance and maintenance, cleanliness and food. There was an improvement in the 2017 scores compared with those in 2016 for privacy, dignity and wellbeing as well as food.

In readiness for the 2018 national place assessment, the Trust has implemented a programme of mini-PLACE assessments. The programme commenced in February 2018 and in addition to Trust and IFM/Summit involvement, these assessments are supported by patient assessors including Trust Governors, local Healthwatch and also the Trust's volunteers. Actions arising from each of the assessments are recorded and monitored via the Patient Experience Improvement Group (PEIG).

10.3 Hydrogen Peroxide Vaporisation.

Hydrogen Peroxide Vaporisation (HPV) is a method of environmental bio-decontamination whereby a machine creates a fine vapour which is released into the atmosphere of a sealed space (i.e. room on a ward). The vapour will circulate and settle on surfaces, providing a highly effectively means of surface disinfection and decontamination.

HPV decontamination is advised whenever the spread of infection is considered a risk. It is highly recommended that HPV decontamination of single or multi-bedded rooms is undertaken where patients have been known to have had infections that are easily transmitted.

A business case was approved to fund an enhanced service as compared to the historical service for 6 months. The objective is to obtain robust information regarding the number HPV cleans required against those delivered in order to review the effectiveness of the service. The service will be offered between 9 am and 7 pm 7 days/week. The recruitment process is underway for the team with an implementation date of the revised service of end of June 2018.

11.0 ANTIBIOTIC STEWARDSHIP

Antimicrobial Stewardship Report 2017-18

This paper provides an update and an assurance of compliance with standards set out by Health and Social care IPC code of practice for Antimicrobial stewardship, Department of Health “Start Smart then Focus” and NICE NG15 (2015) Antimicrobial Stewardship: systems and processes for effective antimicrobial medicines use.

CQUIN: Reducing the impact of serious infections (Antimicrobial Resistance and Sepsis)

For 2017-18 Dudley participated in the national CQUIN: Reducing the impact of serious infections. The goal of this CQUIN was to reduce antibiotic consumption with a focus on antimicrobial stewardship and ensuring antibiotic review within 72 hours. Indiscriminate and inappropriate antibiotic prescribing has been identified as a key driver for antibiotic resistance therefore the CQUIN aimed to reduce total antibiotic usage and usage of key broad-spectrum antibiotics and ensure antibiotics are appropriately reviewed after initiation.

Part 2 c of CQUIN: **Antibiotic review between 24-72 hours of initiation in patients with sepsis who are still inpatients at 72 hours.**

Dudley achieved all four milestones for antibiotic review within 72 hours, with a final result of 91.3% (internal calculations) of antibiotic prescriptions receiving a review within 72 hours.

In order to further the excellent achievements to date, the Trust has recruited an additional sepsis nurse and antimicrobial pharmacist to support initiatives to improve sepsis and stewardship.

An online sepsis database/ sepsis report has been created for Pharmacists on the Hub for identifying patients who are due for antibiotics review.

Part 2d Antimicrobial Consumption

Part 2 d of CQUIN is further divided into 3 individual targets,

1. Reduce Total antibiotics consumption by 1%.
2. Reduce Carbepenem consumption by 2%.
3. Reduce Pip/Taz consumption by 2%.

When compared with National consumption data reported on Public Health England Fingertips, Dudley falls in the 2nd lowest percentile for total antibiotic usage (4363 Defined Daily Doses (DDDs)/1000 admissions vs. 4853 DDDs/1000 admissions for Dudley and national average, respectively).

The antibiotic consumption targets and local achievements are detailed in table below.

Indicator (per 1000 admissions)	Target reduction	Reduction achieved(internal)
Total Antibiotic consumption	1%	16.42%
Total carbapenem consumption	2%	-28.70%
Total piperacillin / tazobactam consumption	2%	-69.16%

Compared to similar Trusts Dudley performed at a high level in reducing Carbapenem and Pip/Taz use but because of the switch to triple therapy, as a result of an international shortage of the monotherapy drug previously used and changes in definitions of admission data during 2017/18, the total antibiotic consumption figure has increased. There will be a further policy review in 2018/19 to reflect current antimicrobial availability internationally.

Learning from 2017/2018 will be to review all our antibiotic guidelines individually and change to single agent or alternative agents if required, aim for higher target to compensate for any unforeseen changes in current year.

Following Figures (1 and 2) are from Define benchmarking software

Figure 1, Total Carbapenem Consumption (DDDs/1000 admission) compared to similar Trusts.

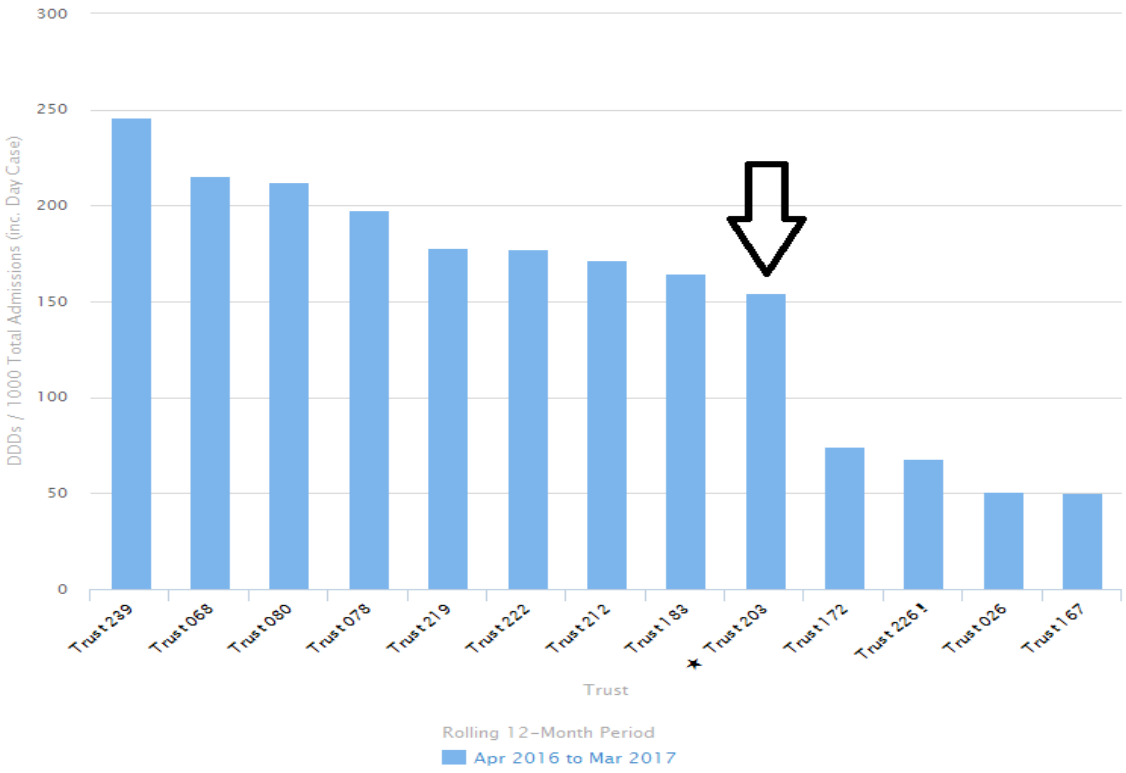
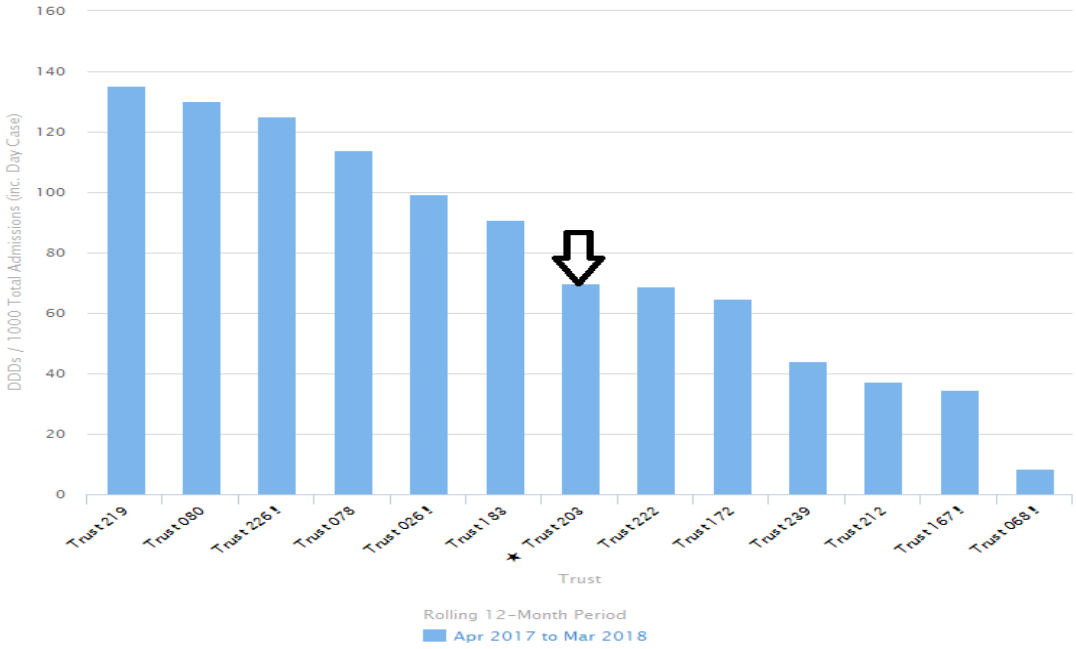


Figure 2, Total Pip/Taz consumption (DDDs/1000 admission) compared to similar Trusts



Antimicrobial Prescribing Audit

An antimicrobial snap shot audit was carried out in September 2017.

A new snap shot audit is currently under way (23-27th April 2018) to assess areas of improvement for 2018/2019.

Dudley Group NHS Foundation Trust - Snap shot audit			
		Percentage	Regional target
Number of occupied beds	517	-	
Allergy Status recorded on chart (NKDA, Yes, No)	509	98.5	> 98%
Number of patients with an allergy who have the nature of the allergy documented	69	42.1	> 98%
Number of patients on Antibiotics	227	43.9	
Number of Patients on intravenous antibiotics	102	19.7	
Number of patients on intravenous antibiotics over 48 hours (>72hrs Jan 2013)	40	39.2	
Number of patients where total course over 5 days (>7days Jan 2013)	14	6.2	
Number of patients where stop / review date documented on the prescription chart	80	35.2	> 70%
Has the indication been documented on the chart?	161	70.9	> 70%
Is patient on Meropenem/Ertapenem? (Of those patients on an IV abx)	13	12.7	< 10%

The audit tool has been modified to collect more useful information i.e. indication and compliance with Trust guidelines. The nature of allergy is further clarified during the medicines reconciliation process by the ward Pharmacy team.

The documentation of stop/review date is only counted for the purposes of this audit if present on the drug chart. However, this appears falsely low as this does not include the documentation in the medical notes.

Patients prescribed Meropenem (not recommended in Trust guidelines or approved by Microbiology) are referred to the Antimicrobial Pharmacist for further review.

The Pharmacy team monitor and raise awareness at ward level on how to document allergy status on the drug chart.

Interventions over past 12 months to improve Antimicrobial Stewardship at DGFT

The target was achieved with help of multiple initiatives i.e.

- A project group was formed including the medical director, chief pharmacist, AMS team, Sepsis leads and service improvement
- IV to oral switch stickers.
- Drs and Nurses awareness via teaching programs and internal communications.
- Collaboration with sepsis team.
- Collaboration and feedback to the Divisions.
- Executive level reporting to influence change.
- Review section on drug chart.
- Referrals to Antimicrobial Pharmacists.

- Review of OPAT use of IV antibiotics
- Complete review of antibiotic treatment guideline choices, reducing large proportion of pip/taz use.
- Course lengths in antibiotic guidelines reviewed
- Teaching with pharmacists to empower challenge of prescriptions
- AMS ward rounds

Updated/new Guidelines

Several new guidelines were changed in 2017-18. Many of the existing guidelines were reviewed and updated to address global antibiotic shortages. Guidance is produced between the microbiology and pharmacy departments with input from the relevant specialties. Clinician engagement in guideline compliance is clear from the excellent rate of compliance demonstrated in the audits.

Planned review/update of guidelines

The antimicrobial prescribing policy is constantly under review via the Antimicrobial Stewardship Group. Key guidelines will be reviewed this year in light of the 2018/19 antimicrobial CQUIN requirement and ongoing antimicrobial shortages.

Education and Training

Mandatory training for clinicians in antimicrobial prescribing and stewardship continues to take place. All doctors new to the Trust are provided with antimicrobial training at induction. Better Training Better Care for FY1 and FY2 doctors in Antimicrobial Prescribing received excellent feedback from the participants. Additional training sessions have also been carried out through the year when guideline changes have occurred.

Pharmacists receive regular feedback on antimicrobial prescribing in their clinical areas after the snapshot audits, Pharmacist prescribers complete online modules on antimicrobial prescribing.

Current Challenges

- Encouraging already stretched clinicians to represent their areas at ASG meetings.

- Capacity of AMS team is limited therefore ward presence is low. Currently 1 x Consultant Microbiologist vacancy with one substantive and one Locum in post.

- Antibiotic shortages are unpredictable and require frequent guidance changes leading to prescriber confusion.

- Lack of e-PMA to support real time tracking of antibiotic consumption, guidance compliance and improved data reporting / time management on reporting. Roll out of chosen e-PMA (Sunrise – Allscripts) is planned for July 2018.

- Re defined criteria of antibiotic review by NHSE (stricter than last year).

- Introduction of new target i.e. removal of pip/taz from 2018/19 CQUIN and introduction of AWARE antibiotics list (Access, Watch, Reserve).

Plans for 2018/2019

- Review guidelines as outlined previously.

- Close links with sepsis work streams: created “Sepsis team” (2x sepsis nurses + 2 x antimicrobial pharmacists)

- Focus on drive for IV2PO switch – septic patients flagged to sepsis nurses by ward clinical staff. Antibiotics flagged on electronic database which turns “red” on day 2 indicating the need to review and complete IV2PO decision tool. Reinforce the use of tool at Pharmacist Clinical huddles.

- Training session with all Pharmacists to highlight the changes in review criteria.

- Engage Clinicians from Medical and Surgical divisions to attend ASG meetings and feedback to respective directorates.

- Regular snap shot audits to assess antimicrobial prescribing.

- Start AMS rounds (starting with critical care and extending to acute wards when feasible).

- Regular communication in the form of patient safety alerts, screen savers, trust wide comms emails on changes in processes and guidance.

- Develop antimicrobial review page on upcoming electronic prescribing system (sunrise) to help achieve required standards of antimicrobial review.

- To establish a suitable platform for middle grade/senior Drs teaching on antimicrobial prescribing.

12.0 NHSi Infection Control Visit

In November 2017 the Trust invited Dr Debra Adams**,** Senior Infection Prevention and Control Advisor NHSi to visit and review infection control arrangements and practice within The Dudley Group NHS Foundation Trust. This visit was undertaken on 8th November 2017.

Prior to the visit the Trust provided evidence of current policies, procedures and structures in place to support infection prevention and control within The Dudley Group NHS Foundation Trust. These were reviewed and minor amendments required eg. the annual report was available publically on the Trust website but not easily located within the Infection Control section. These were all immediately addressed.

There followed a visit to the Russells Hall Hospital site. The visit identified failings in compliance with some basic practices within the 2 ward areas visited. One ward was a medical ward and the second was a surgical ward. It was noted upon observation that staff did not always appear to be aware of their roles and responsibilities towards infection prevention. Following this visit the Trust was RAG rated red.

The visiting team noted that there was a plan under development regarding the health economy approach. They also commented that the IPC team worked well with the Matrons' team.

Following this visit a Trust wide action plan was developed to address issues identified. The main action being to move mandatory infection control training for clinical staff from a three yearly to annual cycle to ensure all patient facing staff are aware of their responsibilities with this agenda. The action plan has been cascaded, discussed, actioned and monitored at the Infection Prevention and Control Group, CQSPE and at Trust Board.

A second visit was undertaken by Dr Adams on 20th March 2018. Dr Adams commented on the improvements she noted in the general ward areas following her first visit but identified concerns within the Neonatal Unit. These issues have been added to the existing action plan. A further visit is scheduled for 20th July 2018.

13.0 EDUCATION AND TRAINING

Mandatory Training is training that has been identified by the trust as those that cover the risk management subjects that are required by all employees.

Infection Prevention and Control is identified as a Priority 1 mandatory core subject that all employees are required to receive. As of March 2018 Infection Prevention and Control Training for Clinical Staff is required to be completed on an annual basis with a KPI of 90%. The training for non-clinical staff continues to be required 3 yearly. A report is published each month by Learning and Development identifying compliance across the 4 divisions.

In order to support staff with training the DGFT are committed to developing a 70/20/10 learning approach. The model provides a framework of learning opportunities; this is broken down as indicated below:

70% - Experience and experiential learning on the job through day to day tasks/activities
20% - Learning from peers and colleagues within a social exposure, this could be within a team environment or learning from those that are more experienced
10% - Learning from specific courses or education programs

The Infection Prevention and Control Team delivers training sessions during Trust induction and Mandatory refresher training each month to various staff groups across the Trust. Following the session there is a requirement for all staff to complete a competency test, and the pass rate for this is 80%.

Due to the new requirement to ensure all clinical staff receive Infection Prevention and Control Training annually additional training sessions have been organised by the Infection Prevention and Control Team in order to support wards and departments to achieve the KPI this year.

Staff also have access to an eLearning module for Infection Prevention and Control which can be located on the Learning and Development Page of the hub. It is also necessary for staff to complete a competency test if they choose to complete the session via this route and again the pass rate is 80%.

The table below indicates the mandatory training figures for Infection Prevention and Control the period 2017/2018, broken down by division.

	Infection Control – Clinical	**Infection Control – Non Clinical**
Division	>=90% >=80%	>=90% >=80%
Clinical Support	91%	90%
Corporate / Mgt	91%	92%
Medicine & Integrated Care	91%	97%
Surgery	93%	97%
Trust Compliance	**92%**	**94.8%**

14.0 INFLUENZA VACCINATION PROGRAMME

This year the Trust made excellent progress with regard to the 2017/18 flu vaccine campaign having achieved **74%** of front line staff vaccinated. The CQUIN target was therefore achieved. Peer vaccinators were identified in all ward areas and departments to increase the number of opportunities for staff to receive the vaccination along with additional sessions held at the Health Hub.

15.0 POLICIES

The IPCT recognises the importance of providing staff with easy access to a full range of IPC policies and guidelines. Throughout 2017-18 the IPCT continued to review and revise these documents to take account of the latest IPC best practices.
Polices for IPC are reviewed and monitored collaboratively with. Public Health England, the Office of Public Health in Dudley and Dudley CCG. Consideration of new national guidance such as National Institute for Clinical Excellence (NICE) Quality Standards, Department of Health directives and developments in practice for IPC are considered for inclusion.

There is an ongoing programme of policy review and for new policies to be added as required. All policies subject to consultation through the Infection Prevention and Control Group prior to submission to the Trust's Guidelines Group.

16.0 CONCLUSION

Avoidable healthcare associated infection is deemed as avoidable harm and as such all staff have a responsibility to comply with infection, prevention and control policies and procedures to protect patients.

Despite a challenging year the Trust were able to report below threshold figures for cases of Clostridium difficile infection.

The Infection Prevention and Control Team do not work in isolation and the commitment for infection prevention and control that is demonstrated at all levels within the organisation is crucial to maintain high standards in the future.