

INFECTION PREVENTION

&

CONTROL

ANNUAL REPORT

2015-16

Northern Devon Healthcare NHS Trust incorporating
community services in Exeter, East and Mid Devon



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Director of Infection Prevention & Control

Summary

IPC continues to have a high profile both within the Trust and more widely in North Devon. The Trust continues to deliver a high quality Infection prevention & Control Service. Highlights from the year include:

- MRSA bacteraemia: There were no MRSA bacteraemias attributed to the Trust in 2015/16, in fact there were no MRSA bacteraemias from the whole of North Devon this year.
- *Clostridium difficile*: Although the number of cases of *Clostridium difficile* acquired in NDDH rose from 9 in 2014/15 to 11 in 2015/16, a lapse in care was identified in only one of these cases. Despite exceeding the limit of 7 cases for the year the Trust maintained a low rate for *Clostridium difficile* cases, in fact the rate was the third lowest in the South West. Details of all Trust acquired cases are reported to NEW Devon CCG who praised the Trust on its management *Clostridium difficile*.
- The Trust was also commended on our MRSA and *Clostridium difficile* results by the Trust Development Authority.
- The practice of effective and timely hand hygiene is still a high priority for the Trust. Hand hygiene audits were consistently reported as above 90% and 'Bare Below the Elbows' 95% or higher throughout the year.
- The CQC performed a focused follow-up inspection in August 2015. They checked if improvements had been made in specific areas where they had previously found breaches of regulations for the core services of urgent and emergency care during a comprehensive inspection in July 2014.

The CQC report highlighted that -

"A number of actions had been taken in the emergency department to improve infection prevention and control measures. These were supported by regular audits, which showed good compliance with trust policies."

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Healthcare Associated Infections

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.

Clostridium difficile is acquired through contact with a contaminated environment or person. Diarrhoea caused by *Clostridium difficile* is more common in those who have taken antibiotics, the elderly and people whose immune systems are compromised. It is associated with healthcare and can occur in hospital and in the community.

The Department of Health has mandated reporting of *Clostridium difficile* cases since 2004. The Trust tests for *Clostridium difficile*, and reports cases, according to the current guidelines that were published in 2012. In addition the Trust uses a third-stage test for *Clostridium difficile* toxin. Although positive results from this test are not required to be reported the Trust manages, treats and investigates these cases in the same way as reported cases.

The Trust undertakes a number of actions to ensure the number of *Clostridium difficile* cases is kept to a minimum. These actions are included in the national guidance and include:

- Guidance, education and monitoring to ensure use of antibiotics that are higher risk of precipitating *Clostridium difficile* is kept to a minimum.
- Prompt isolation and testing patients with diarrhoea that may have *Clostridium difficile*.
- Using laboratory testing methods that are compliant and give a result on the day the sample is sent.
- Using chlorine-based cleaning products for all patients with diarrhoea.
- Regular review of hospitalised patients with *Clostridium difficile* by the IPC team and consultant microbiologists, as well as a weekly review by a multidisciplinary team which also includes a gastroenterologist, pharmacist and a dietician.

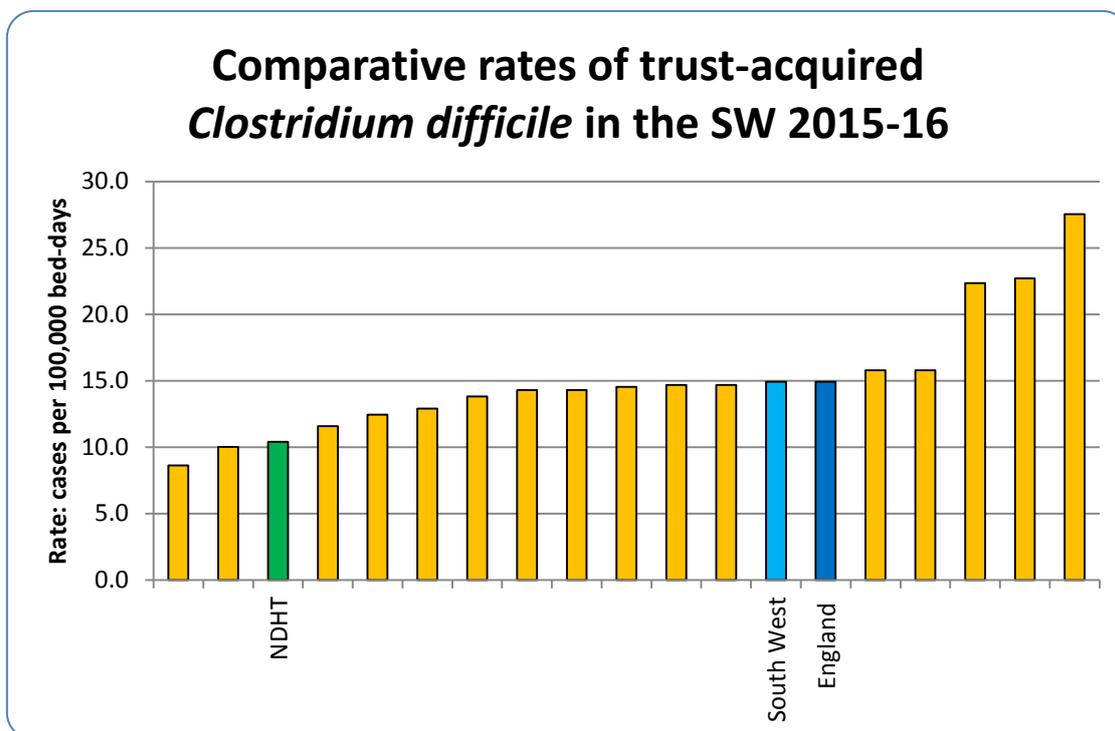
Every case of *Clostridium difficile* acquired in the Trust's care is investigated. Particular focus is paid to the prescription of antibiotics, identification of *Clostridium difficile* at the earliest

opportunity and optimum management of *Clostridium difficile* once it has been diagnosed. Any learning from these investigations is implemented across the Trust.

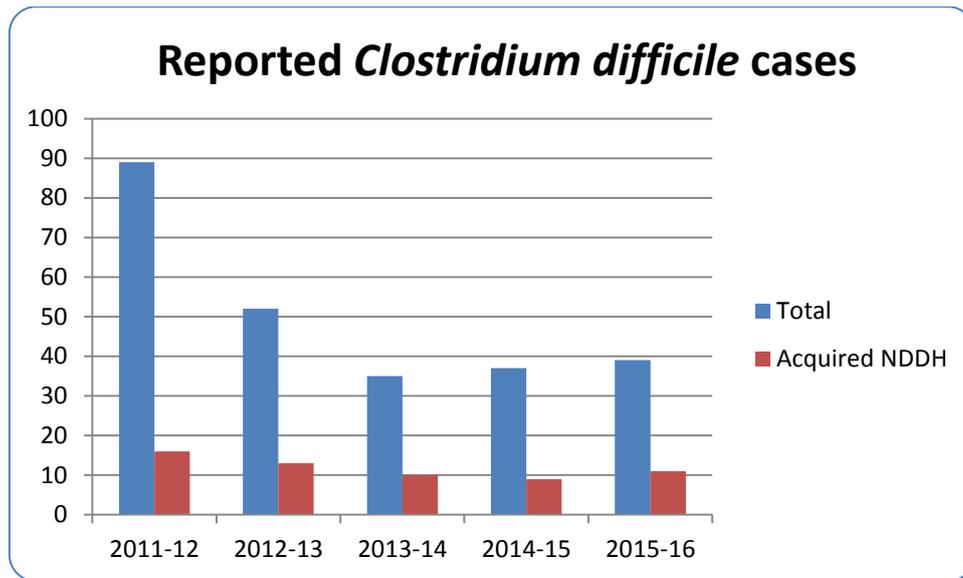
It is recognised that modern healthcare is not possible without the administration of antibiotics and therefore, although the risk of *Clostridium difficile* can be reduce, the risk cannot be eliminated.

The Department of Health sets the Trust an objective for the number of cases of *Clostridium difficile* acquired in NDDH. These are based on case numbers in the preceding year and include a year-on-year reduction. The objective set for NDHT was for no more than 7 cases at NDDH in 2015-16. NDHT has performed very well, when compared against national rates, in reducing and maintaining a low rate of *Clostridium difficile* cases. The objective of 7 cases reflects this and, when the objective is expressed as a rate per occupied bed day, is the lowest of any Acute Trust in the South West.

The total number of *Clostridium difficile* cases acquired in NDDH in 2015-16 was 11 compared to 9 in 2014-15. This is a small increase and reverses the falling trend in numbers for the previous years. If this number is expressed as a rate per 100,000 occupied bed days, the rate for NDHT of 10.4 is the third lowest in the South West and significantly below the South West and England average rate of 14.9.

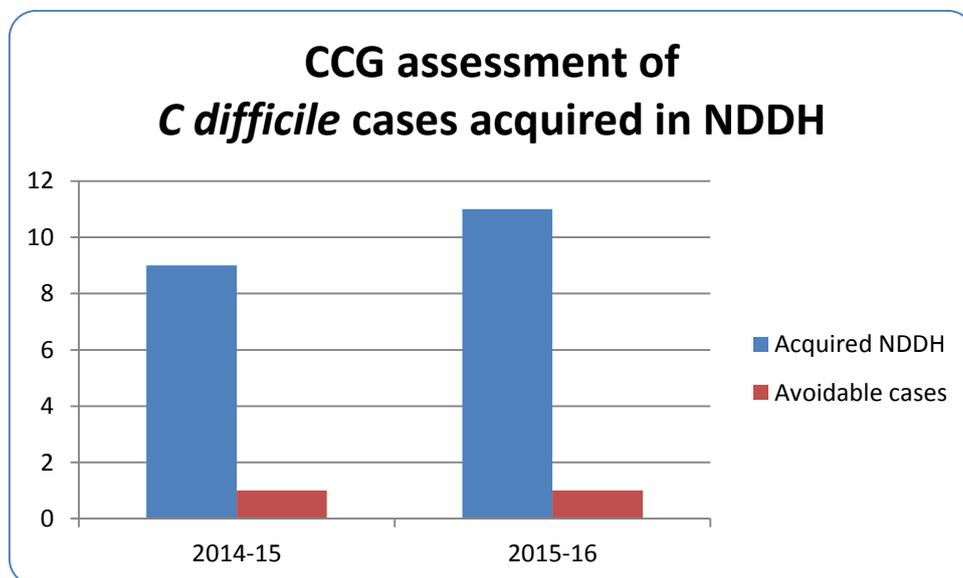


However the total number does not reflect the severity of the disease in the patients which, subjectively, has been decreasing over recent years. Indeed four of the 11 cases in 2015-16 were assessed as colonisation rather than disease and did not require treatment.



Each of these *Clostridium difficile* cases is assessed by the CCG against a number of agreed criteria to assess if any of the cases were potentially avoidable through improvement in care. The CCG could impose a penalty on the Trust if the number of avoidable cases exceeds the limit.

The assessment of cases by the CCG identified only one case in each of 2014-15 and 2015-16 where an improvement in care could, potentially, have prevented the development of *Clostridium difficile*.



Staphylococcus aureus: MSSA & MRSA

Staphylococcus aureus is a bacterium that commonly colonises human skin and mucosa without causing any problems. It can also cause disease, particularly if there is an opportunity for the bacteria to enter the body, for example through broken skin or a medical procedure.

If the bacteria enter the body, illnesses which range from mild to life-threatening may then develop. These include skin and wound infections, infected eczema, abscesses or joint infections, infections of the heart valves (endocarditis), pneumonia and bacteraemia (blood stream infection).

Most strains of *Staphylococcus aureus* are sensitive to the more commonly used antibiotics, and infections can be effectively treated. Some *Staphylococcus aureus* bacteria are more resistant. Those resistant to 'penicillin-type' antibiotics are termed methicillin-resistant *Staphylococcus aureus* (MRSA) and often require different types of antibiotic to treat them. Those that are sensitive to 'penicillin-type' antibiotics are termed methicillin-susceptible *Staphylococcus aureus* (MSSA). MRSA and MSSA only differ in their degree of antibiotic resistance: other than that there is no real difference between them.

Staphylococcus aureus is a common bacterium that is present in large number in about a third of people in the community. However most, but not all, MRSA acquisition is linked to healthcare. Because most of the spread of MRSA occurs in healthcare settings the Department of Health has introduced a number of measures over the years directed at controlling this particular organism.

MRSA including MRSA bacteraemia

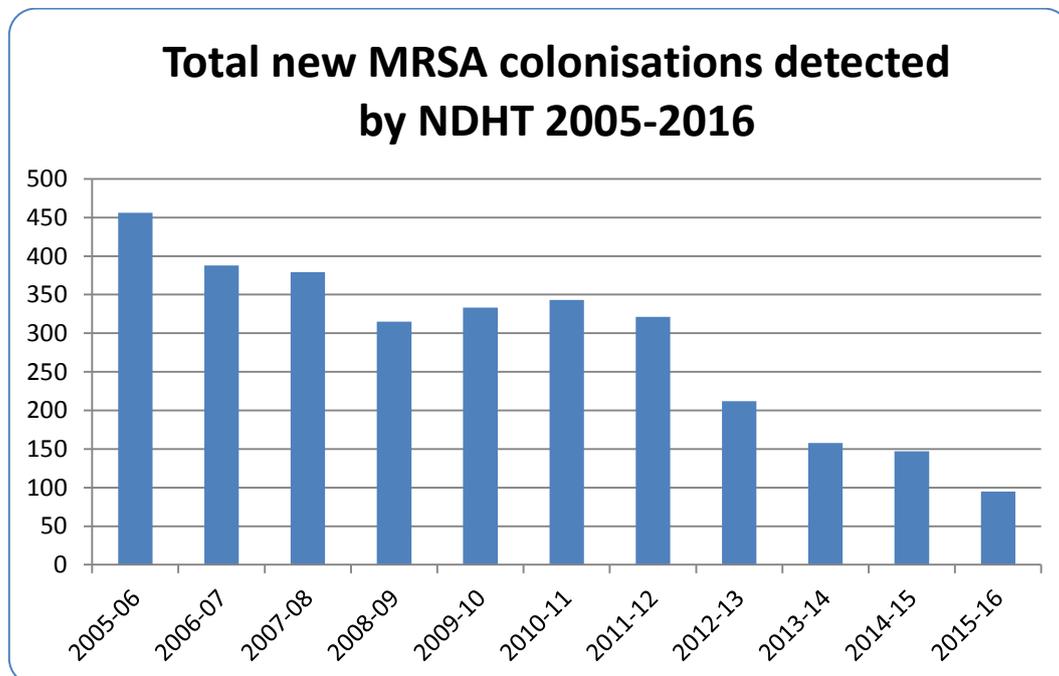
Trust policy requires MRSA screening for the majority patients who stay overnight in hospital. NHS guidance has been relaxed so that only high risk groups of patients are mandated to be screened. However because of the benefits in screening and the difficulties in screening only selected groups of patients it was agreed to continue with the previous strategy in the Trust. Compliance with screening is monitored at the IPCC and rates for both emergency and elective patients are consistently over 90%. This is considerably higher than national rates reported in the NOW study in 2014 (61% compliance for emergency admissions and 81% for elective admissions). Areas with low compliance are addressed by the divisional leads.

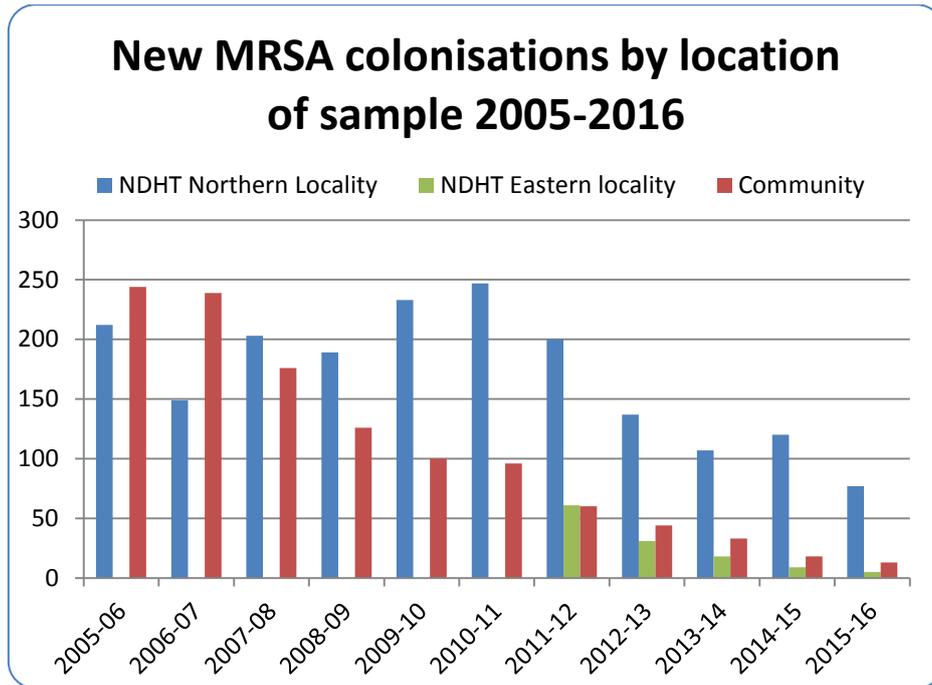
Patients for elective surgery requiring an overnight stay are screened before admission and MRSA suppression is started before admission if they are identified as colonised with MRSA.

Emergency surgical admissions are started on MRSA suppression on admission which is continued until MRSA screens are shown to be negative.

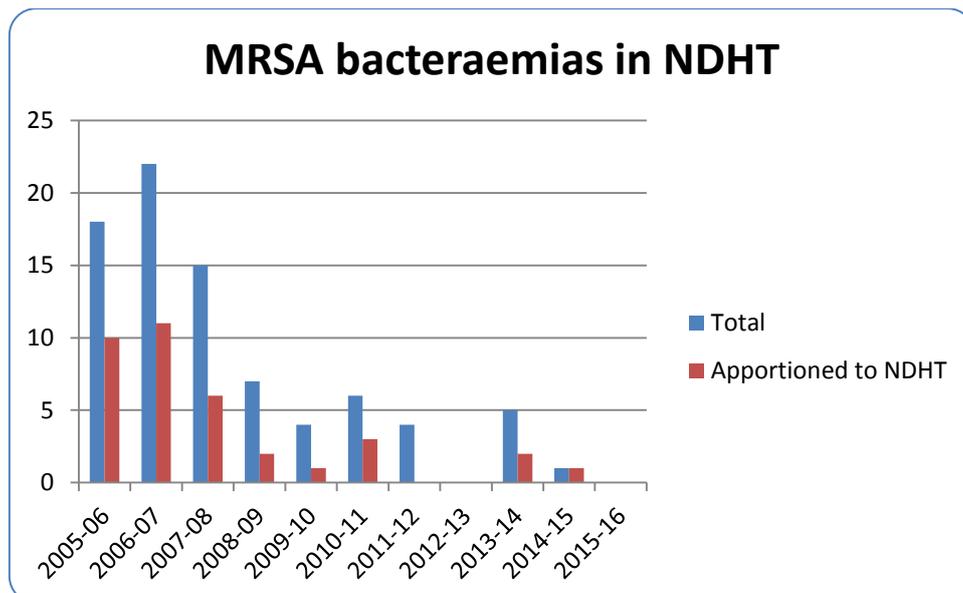
Emergency medical patients are screened on admission and any patients identified as carrying MRSA are given MRSA suppression.

The successful use of extensive MRSA screening and suppression has been reflected in the numbers of patients that have been detected as colonised with MRSA. The majority of patients found to carry MRSA are detected by the admission screening program, other patients are identified from clinical samples such as wound swabs or urine samples. There has been a steady decrease in the number of patients detected as carrying MRSA for the first time over recent years. The total number of patients identified as colonised with MRSA was in 2015-16 was 91, the lowest of recent years.



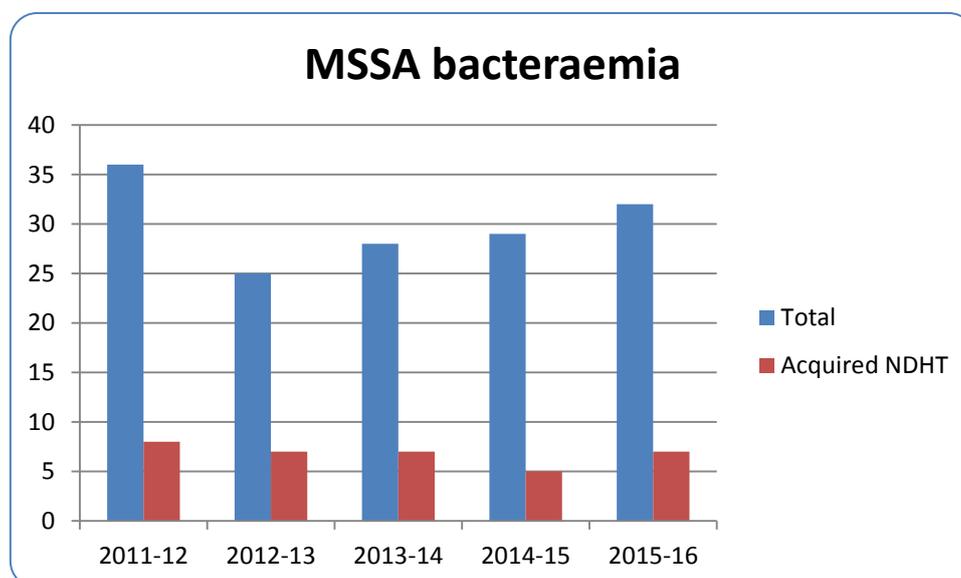


MRSA, like MSSA, can cause a variety of infections, from minor to life threatening. One of the most serious infections is when MRSA is found in the blood. This is known as a bacteraemia. Since 2005 the Department of Health has required all MRSA bacteraemias to be reported. All MRSA bacteraemias in the Trust are reported and investigated in line with NHS guidance. The majority of MRSA bacteraemias relate to infection acquired in the community. Those bacteraemias attributed to the Trust are investigated in line with national guidance. All learning identified from these investigations is implemented across the organisation. In the last 5 years there have only been 3 MRSA bacteraemias attributed to Trust care. In 2015-16 there were no MRSA bacteraemias at all in the Trust.



MSSA bacteraemia

MSSA, like MRSA, causes a variety of infections, of which bacteraemia is one of the most serious. However, unlike MRSA, the majority of these infections occur in the community and are unrelated to healthcare. Since 2011 MSSA bacteraemias have been required to be reported to the Department of Health. The number of MSSA bacteraemias acquired in NDHT has been static over the last 5 years, with an average of 6.8 cases per year. In 2015-16 there were 7 MSSA bacteraemias acquired in NDHT. Those bacteraemias acquired in the Trust are investigated and any learning identified from these investigations is implemented across the organisation.



When the trust acquired cases are expressed as a rate, the Trust performs very well compared to other trusts. The rate of trust acquired MSSA bacteraemias in 2015-16 for NDHT is 6.6 per 100,000 occupied bed days compared to the regional rate of 8.3 and the national rate of 8.4.

E coli bacteraemia

Escherichia coli (*E. coli*) are bacteria that are frequently found in the intestines of humans and animals. There are many different types of *E. coli*, and while some live in the intestine quite harmlessly, others may cause a variety of diseases.

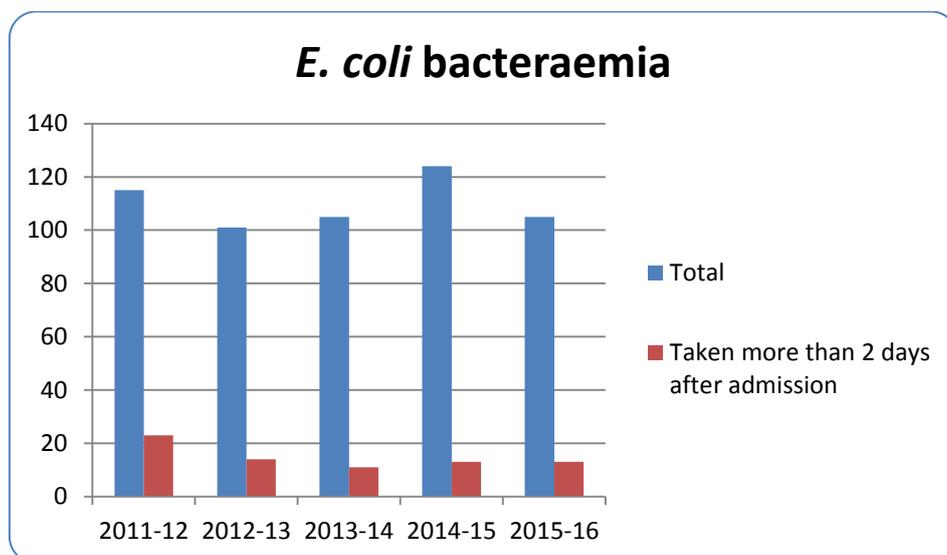
The bacterium is found in faeces and can survive in the environment. *E. coli* can cause a range of infections including urinary tract infections, including cystitis (infection of the bladder) & pyelonephritis (infection of the kidney) and cholecystitis (infection of the gall bladder). *E. coli* bacteraemia (blood stream infection) may be caused by these infections spreading to the blood.

Since 2011 there has been a requirement to report *E. coli* bacteraemias, though there is no national definition of a trust acquired bacteraemia. Nationally there has been an increase in *E. coli* bacteraemia numbers over recent years.

The majority of *E. coli* bacteraemias occur in the community and are identified when the patient is admitted to hospital.

The total number of *E. coli* bacteraemia identified in the Trust in 2015-16 was 105, a decrease from 124 identified in 2014-15. Numbers in the last 5 years have been broadly static.

The Trust investigates all cases of *E. coli* bacteraemia that may be linked to Trust care, for example those cases developing more than 2 days after admission or if the bacteraemia is linked to a urinary catheter where there has been trust staff involvement in the care of the catheter. Any learning identified from these investigations is implemented across the organisation.



The number of E coli bacteraemias taken more than 2 days after admission in 2015-16 was 13, the same as the previous year, reflecting a static trend in the last 4 years.

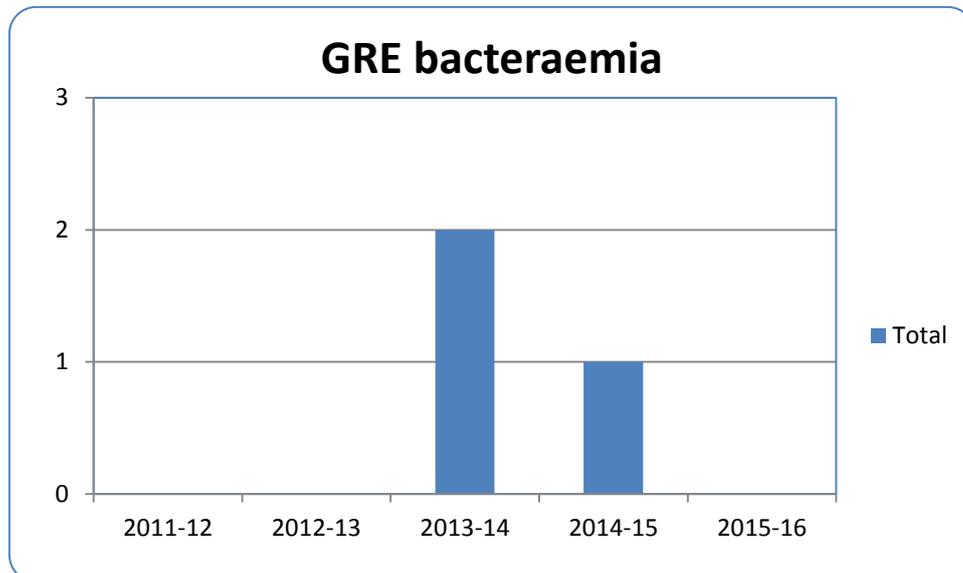
Glycopeptide resistant Enterococci (GRE)

Enterococci bacteria are frequently found in the bowel of normal healthy individuals. They can cause a range of illnesses including urinary tract infections, bacteraemia (blood stream infections) and wound infections. Glycopeptide-resistant Enterococci (GRE) are enterococci that are resistant to glycopeptide antibiotics (vancomycin and teicoplanin). GRE are sometimes also referred to as VRE (Vancomycin-Resistant Enterococci).

GRE do not usually cause serious infections unless the individual is immunocompromised. GRE bacteraemias are more commonly associated with renal and haematology units where there are immunocompromised patients and glycopeptide antibiotics are used frequently.

Trusts are required to report the number of GRE bacteraemia.

In 2015-16 there were no such bacteraemias in NDHT.



Carbapenem resistant Enterobacteriaceae (CRE)

Carbapenems are a powerful group of broad spectrum beta-lactam (penicillin-related) antibiotics. In many cases, these are our last effective defence against infections caused by multi-resistant bacteria. Enterobacteriaceae refer to a group of bacteria such as *E. coli* and *Klebsiella*, also known as coliforms, which are found in the intestines and can cause a range of infections such as urine, abdominal infections and bacteraemia.

Resistance to carbapenems has emerged and is beginning to spread. Resistance to carbapenems is often combined with resistance to many other antibiotics, making infections caused by these organisms almost impossible to treat. The NHS has produced guidance on how to detect carbapenem resistant Enterobacteriaceae (CRE) and limit their spread. In some parts of the country, but not yet in the South West, the spread of these organisms is causing considerable disruption.

The trust has a policy, in line with national guidance, on the screening for these organisms. To date no CRE organisms have been detected in NDHT.

Routine surveillance and Alert Organisms

There is a protocol in place for the laboratory to inform the Infection Prevention & Control Team if any alert organisms are detected. The list of alert organisms includes ones mentioned elsewhere in this report such as MRSA, *Clostridium difficile* and CRE as well as those which are rarely encountered in this country such as the bacteria that causes diphtheria. The IPC team can then ensure that the correct precautions are in place to minimise the spread to other patients, staff and visitors.



The IPC team regularly review the reported alert organisms to identify any areas with an abnormal number of reports. Should such a cluster be identified then the IPC team will investigate to see if there are any underlying reasons and if additional actions are required.

Hand Hygiene & 'Bare Below the Elbows'

Hand hygiene is the main measure by which healthcare workers prevent the spread of infectious organisms to patients and is a key part of aseptic technique. Hands can only be cleaned effectively if the hands and wrists are exposed. This is background to the 'Bare Below the Elbows' campaign which promoted the requirement for hands and wrists to be free of any items such as bracelets and wrist watches and for the individual to wear short sleeves.

Audits of hand hygiene compliance, including whether the healthcare workers are 'Bare Below the Elbows', are performed in all clinical areas each month. Cross checks, where audits are undertaken by staff from a different area, are performed on a regular basis over the year. The results are discussed at each IPCC where clinical leads report on any actions that have been taken to improve compliance. Hand hygiene compliance forms part of the Trust performance report which is reviewed by the Trust Board.

Hand hygiene audits consistently showed monthly compliance above 90% and 'Bare Below the Elbows' as 95% or higher throughout the year.



Surgical site infection surveillance

The Trust is mandated to perform surveillance of infections resulting from one type of orthopaedic surgery for at least one quarter (module or period) each year. In 2015-16 the procedure of hip replacement surgery was chosen. No infections were detected during the patients' initial admissions or any re-admission. 90 procedures were monitored producing an infection rate of 0% which is below the national rate of 0.6%.

Surveillance of patients following surgery is very labour intensive so with the current staffing IPCT was only able to perform one surveillance module. The small numbers of operations and infections mean that comparisons with the national rate will be unreliable.

The Trust undertakes voluntary post discharge surveillance in addition to the mandatory 'inpatient/readmission' surveillance. About half of trusts undertake post discharge surveillance. The nature of this surveillance varies which affects the number of additional infections detected will vary between trusts. The infection rate when post discharge surveillance is included will always be higher than when it is excluded. It is valid to compare

the 'inpatient/readmission' rates between trusts but comparison of rates which include post discharge surveillance is not valid because of the different surveillance methods used.

Infections are reported for the current period (July- September 2015) and the last 4 periods for which the Trust undertook surveillance of this type of surgery.

	Jul-Sep 2015		Last 4 quarters of surveillance		National
Total operations performed	104		309		
Inpatient/readmission infections	0	0%	1	0.3%	0.6%
Patient reported infections	3	2.9%	5	1.6%	0.4%
Total infections	3	2.9%	6	1.9%	1.1%

The rate for inpatient/readmission infections is 0% for the last period and 0.3% for the last 4 periods. This is below the national rate of 0.6%.

The data is fed back to the surgical teams involved.

It is anticipated that if the IPC team is able to be expanded that additional surveillance will be undertaken in the future to provide information about other types of surgery.

Incidents, Outbreaks and Serious Infections

In common with other acute trusts, NDHT 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. Many, but not all, of these outbreaks are caused by Norovirus. The introduction of Norovirus testing facilities at NDDH has enabled the results of these tests to be available on the same day. This has greatly improved the risk assessment and the management of episodes of diarrhoea and vomiting. This year there were 21 outbreaks of diarrhoea and/or vomiting. Norovirus was identified from 11 of these outbreaks. This is approximately half the number of outbreaks that occurred in 2014/15 and mirrors the experience of most trusts.

All bacteraemias due to MRSA, MSSA & *E. coli* and *Clostridium difficile* cases that are linked to Trust care are recorded as incidents and investigated. All incidents that occur that have an IPC element are reported to the IPC team. Summary reports of all these incidents are presented to IPCC for discussion.

Antimicrobial Stewardship

Trust arrangements for antimicrobial stewardship.

The lead for antimicrobial stewardship is one of the full time consultant microbiologists. There is also a band 7 antimicrobial pharmacist. The Antibiotic Working Group, which reports to the trust Drugs and Therapeutics Group, meets regularly throughout the year and communicates closely with clinicians to discuss findings of audits and when updating guidance.

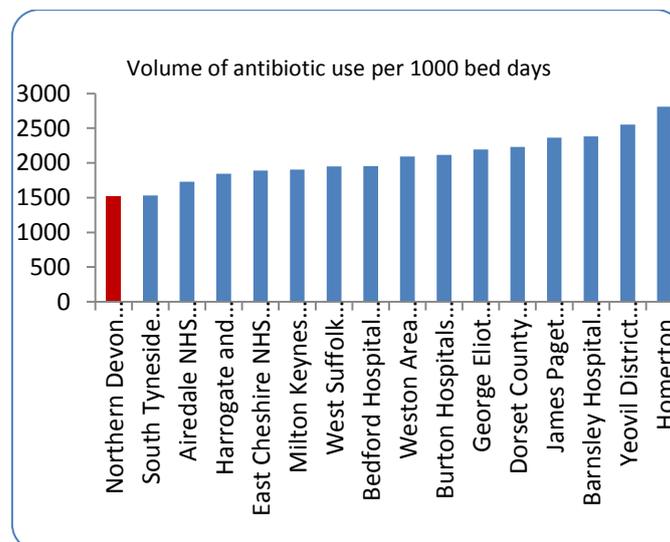


Prescribing guidelines.

All antimicrobial guidelines are now held electronically and are available on an app: “RxGuidelines”. This can still be accessed over the Trust intranet but can also be downloaded onto individual mobile phones and other mobile devices. As the majority of junior doctors have access to mobile phones in the course of their daily work it makes access to the antimicrobial guidelines much easier. The guidelines can easily be modified and updated.

Antimicrobial Use

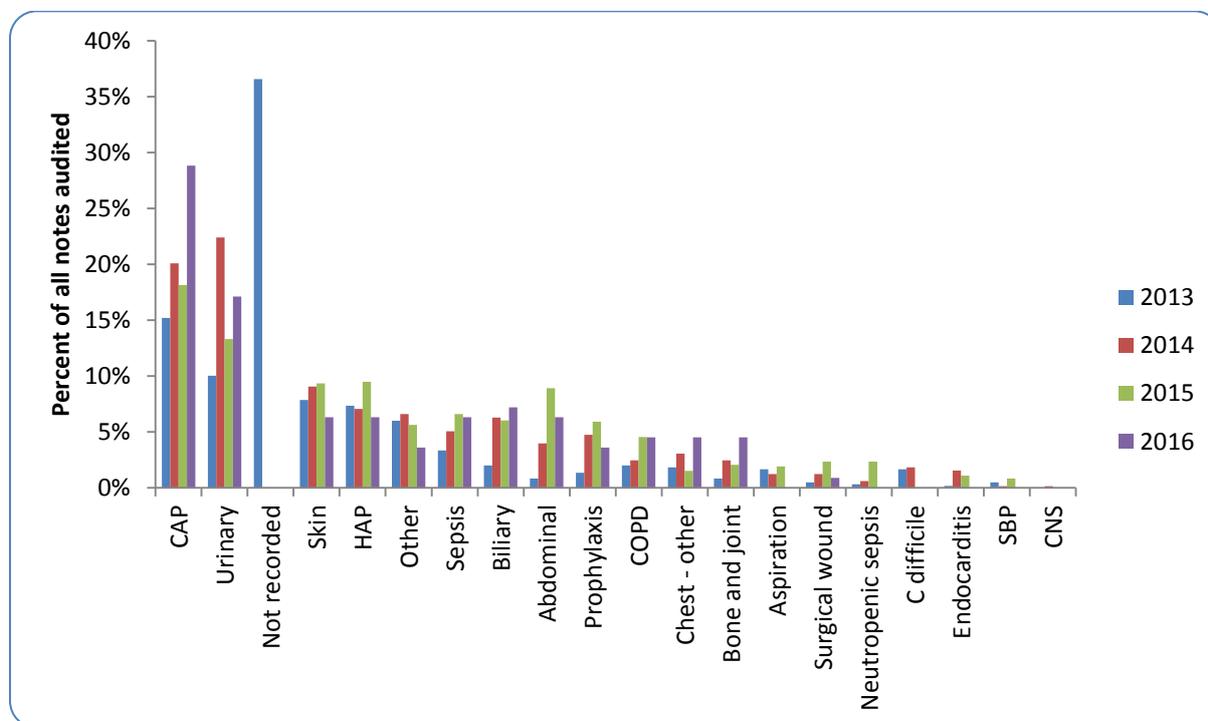
National Fingertips and Comparator hospital data shows that NDHT low user of antibiotics compared with similar hospitals.



The Trust uses a higher proportion of narrow spectrum, low risk, antibiotics, but carbapenem use is relatively high. This picture is repeated when regional comparative data is examined. The inclusion of meropenem as first line treatment for meningitis is contributing to the carbapenem use and has now been changed.

Audits of antimicrobial prescribing

Since the improved recording of indication began in 2013 there has been little change in the indication for prescribing.



Community acquired pneumonia and urinary infections are the commonest indications for antibiotics. Audits showed that prescribing is in line with guidelines for all common indications. Identified areas where high risk antibiotic use could be reduced are: community acquired pneumonia for co-amoxiclav use, sepsis for carbapenem use and hospital acquired pneumonia for piperacillin/tazobactam use.

The audit of prolonged intravenous antibiotic use in pneumonia reviewed the case notes of 15 patients who had received more than 48 hours of intravenous antibiotics for pneumonia. In 14 cases the duration of intravenous antibiotics were indicated due to severity, or inability of patient to manage oral antibiotics. In one case, an earlier switch could have been made, and the prescriber has been made aware of this finding.

The annual, regional point prevalence survey showed NDDH had fewer patients on antibiotics (26.5% vs 34.1%) and that a larger proportion of the antibiotics were from the narrow spectrum, lower risk, groups of antibiotics.

	North Devon	SW Region
% patients on antibiotics	26.54%	34.07%
Top 10 antibiotics	1 Amoxicillin 2 Trimethoprim 3 Flucloxacillin 4 Co-amoxiclav 5 Doxycycline 6 Clarithromycin 7 Gentamicin 8 Metronidazole 9 Piperacillin+tazobactam 10 Ciprofloxacin	1 Piperacillin+tazobactam 2 Co-amoxiclav 3 Amoxicillin 4 Doxycycline 5 Metronidazole 6 Flucloxacillin 7 Clarithromycin 8 Gentamicin 9 Trimethoprim 10 Co-trimoxazole

Low risk antibiotics High risk antibiotics highlighted

An audit of antimicrobial use in prophylaxis for in-patient surgery showed that there was good compliance with guidelines. However it identified that guidance could be improved in the areas of obstetrics & gynaecology, ENT, minor surgical procedures and repeat dosing for prolonged surgery.

An audit into possible impact of the change in gentamicin dosing protocol showed no change in the number of patients identified with renal impairment.

Antibiotic resistance trends

Antibiotic resistance trends are reviewed annually. 2016 data shows that resistance rates are generally stable and do not suggest any urgent need to change local antibiotic guidelines. There may be increasing macrolide resistance in two groups of organisms: group A streptococcus and Streptococcus pneumonia.

Infection outcome data

Infection outcome data is regularly reviewed. Data for patients with pneumonia, urinary tract infection and cellulitis are compared to all admitted patients for mean length of stay,

proportion of admissions and deaths. No obvious change in the outcome data in any of these categories is observed over the last five years.

The antimicrobial team was closely involved with a campaign to improve antibiotic use in the community. The joint campaign, 'Listen To Your Gut', between Devon County Council Public Health, and NHS Northern, Eastern and Western Devon Clinical Commissioning Group was piloted in North Devon last year and is now being rolled out across the county.

The Trust is compliant with national requirements and antimicrobial stewardship team uses these and other guidance to identify areas for improvement. Guidance and standards considered include: UK 5 year Antimicrobial Resistance Strategy 2013-18 (DH 2013), Clostridium difficile infection: How to deal with the problem (DH 2009), Hygiene Code (2015), Patient safety alert: addressing antimicrobial resistance through implementation of an antimicrobial stewardship programme (2015), NICE Quality Standard 121-antimicrobial stewardship (2016).

External inspections and assessments

The Health and Social Care Act 2008, is a Code of Practice usually referred to as the Hygiene Code. The 2008 Act requires acute Trusts to comply with the Code and outlines penalties for non-compliance. The Trust is registered with the CQC which has a number of standards of care, one of which, outcome 8, is based on the requirements of the Hygiene Code

CQC team inspected the trust as a focused follow-up inspection in August 2015.

They checked if improvements had been made in specific areas where they had previously found breaches of regulations for the core services of urgent and emergency care during a comprehensive inspection in July 2014.

One of the other areas the 2014 inspection had commented on was hand hygiene and staff being 'Bare Below the Elbows'. The Infection Prevention & Control team worked with the



clinical teams throughout the year to improve hand hygiene and 'Bare Below the Elbows' compliance. Hand hygiene audits consistently showed compliance as above 90% and 'Bare Below the Elbows' as 95% or higher throughout the year. This included cross audit checks by other clinical staff.

The CQC report highlighted that -

“ A number of actions had been taken in the emergency department to improve infection prevention and control measures. These were supported by regular audits, which showed good compliance with trust policies.”

The Trust has received four visits to NDDH and the Northern Community Hospitals from the Trust Development Authority’s Head of Infection Control (South) over the course of the 2015/16. This was prompted by a request from the Interim Director of Nursing for a review of Infection Prevention and Control structures and governance.

The subsequent report was received in November 2015. In this the Trust Development Authority highlighted a need to:

- *Strengthen Board assurance*
- *Review the IPC team structure*
- *Review the IPCT annual audit and work plan*
- *Strengthen reporting and assurance of estates services relating to decontamination, water safety, ventilation*

An interim action plan was put into immediate effect to address these issues, progress of which was reported to IPCC monthly until completed.

The Trust Development Authority commended the Trust on its performance with respect to having zero cases of MRSA bacteraemia and only 1 case of *Clostridium difficile* where a lapse in care was identified.

Decontamination

The Decontamination of re-usable medical equipment in the Trust is carried out by the Central Sterile Services Department. The main unit is based on level 3 of The North Devon District Hospital. The staff numbers are 1 manager, 3 senior technicians and 20 technicians. The department is open 7 day a week with night cover for Saturday and Sunday night via an on call system. Re-usable instrumentation, rigid telescopes and allied items are decontaminated using three washer disinfectors and four high-temperature steam sterilisers.

The Central Sterile Services Department holds production quality assurance certificate CE02164 and quality system registration certificate MD 78459 from British Standards Institute. The scope of registration covers the sterilisation of theatre trays, procedure packs and single instruments, supply of pre-sterilised devices to end users and high level disinfection of flexible endoscopes.

The Central Sterile Services Department also manage the Endoscopy Decontamination unit and all processes are within the quality system. The unit is open 5 days a week, night and weekend decontamination is covered by on call and night staff. The three double-door endoscope washer disinfectors provide the decontamination capability. The unit was audited under the Joint Advisory Group on GI Endoscopy (JAG) as part of the Trust Endoscopy JAG audit and was rated exceptional.

	Number of units processed 2015/16
Trays	34684
Procedure pack	9451
Supplementaries	47506
Podiatry	20606
Devon Dental Community	52555
Flexible endoscopes	8369
Total units processed	173171

Current figures for items processed through the department

Cleanliness and Food Hygiene

2015 PLACE Assessments

Patient-Led Assessments of the Care Environment (PLACE) are a self-assessment of a range of non-clinical services which contribute to the environment in which healthcare is delivered in both the NHS and independent/private healthcare sector in England. Every year the criteria become more detailed and there has been a greater focus on Dementia Standards this year.

As part of the process all Trusts are required to include patient assessors as a fundamental part of the assessments .The same PLACE inspectors were invited back in addition to recruiting some new assessors. The inspections were patient led, however Trust assessors included representatives from Senior Nurses, Facilities, Hotel Services and Infection Control.

Within Northern Devon Healthcare Trust 12 hospitals sites were inspected including all sites with 10 or more in-patient beds.

The aim of PLACE assessments is to provide a snapshot of how an organisation is performing against a range of non-clinical activities which impact on the patient experience of care and includes cleanliness and the quality and availability of food and drink.

The assessment of Cleanliness covers all items commonly found in healthcare premises including patient equipment, baths, toilets and showers, furniture, floors and other fixtures and fittings. This includes an assessment of the availability of hand hygiene facilities.

The assessment of “Food and Hydration” includes a range of questions relating to the organisational aspects of the catering service (e.g. choice, 24 hour availability, meal times, and access to menus) as well as an assessment of the food service and food hygiene practices at ward level and the taste and temperature of food. Patient hand hygiene at meal times is also observed in this section of the assessment.

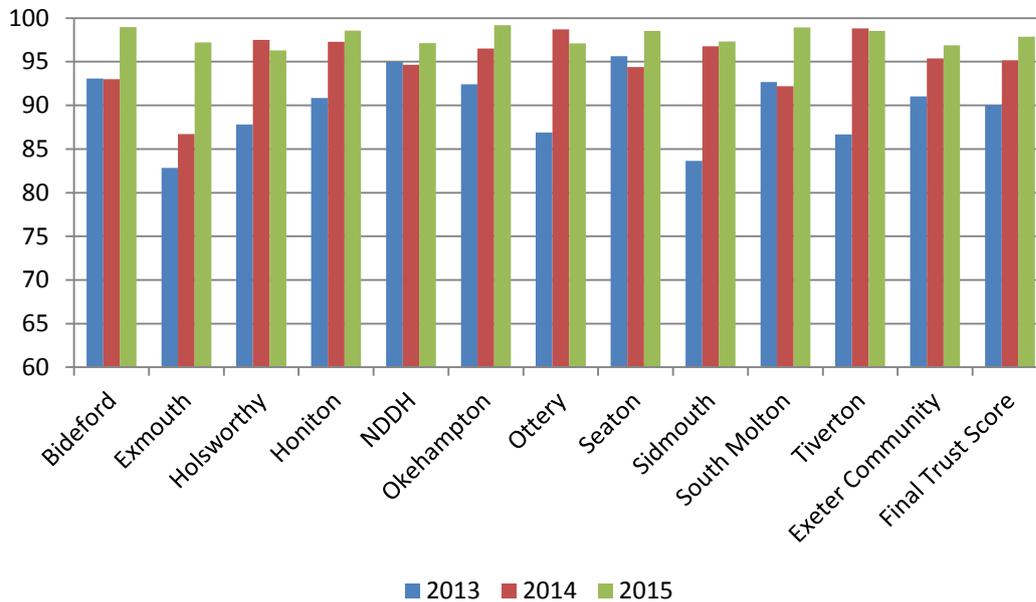
The patient representatives were extremely impressed with the new developments and at the start of the inspections at the NDDH, the capital team presented the refurbishment plans for this year such as King George V ward and the physiotherapy department. This was



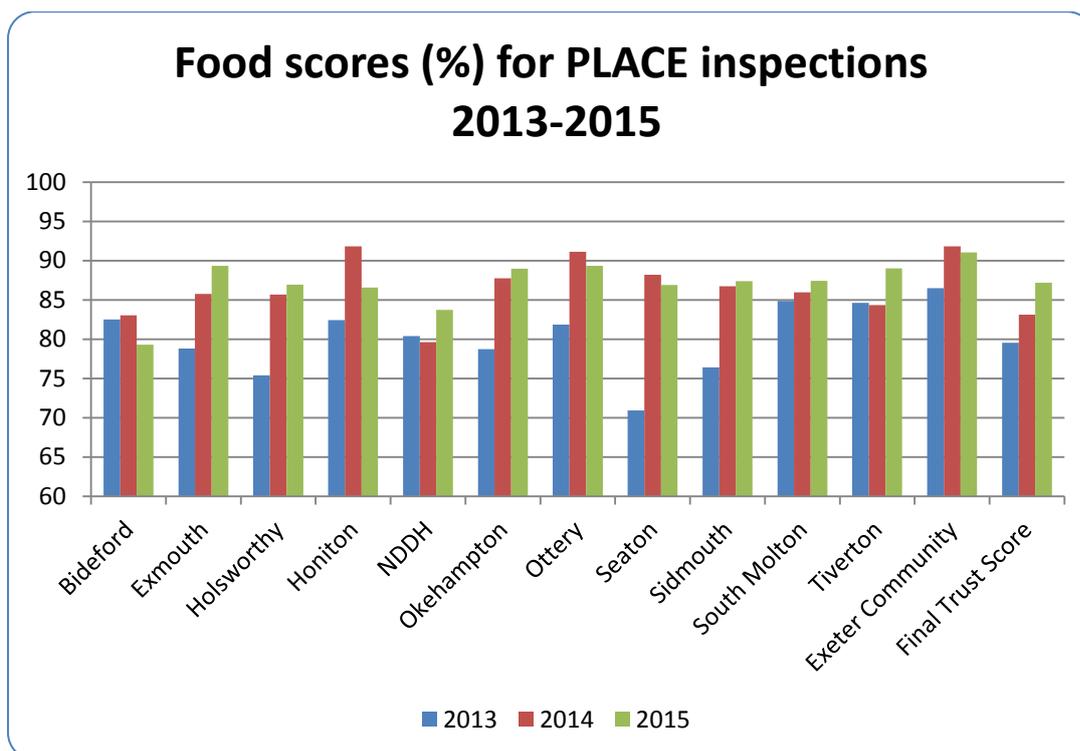
further evidence that the Trust is taking account of the PLACE inspections and this was informing their decision making as to areas that required investment, the physiotherapy area was highlighted in the 2013 PLACE report. Unfortunately as we develop new areas such as Seamoor Unit, Fortescue Ward, Ultrasound Department, and Sidmouth Hospital,

the older elements of buildings or other sites can appear tired and dated. This was particularly apparent in the Ladywell unit, although aware that plans are afoot to improve facilities, we still had to score the environment on the day of the inspections.

Cleanliness scores (%) for PLACE inspections 2013-2015



The Trust's scores for cleanliness and food have improved year on year over the 3 years that PLACE has been assessed. In 2015 the Trust score for cleanliness was 97.88% slightly above the national average of 97.57%. For food assessment the score was 87.17%, slightly below the national average of 88.49%. The percentage scores for all areas that were assessed can be seen in the charts below.



There is a Matron’s Charter Group which meets monthly and reports to the IPCC. The group is chaired by the Assistant Director of Nursing and includes representation from across the Trust including the IPCT, senior nurses, representatives from facilities and Sodexo. The agenda of the group is set by the Charter and therefore has a strong emphasis on cleanliness.

The infection prevention and control Team join with the facilities and hotel services team to undertake an annual inspection of the main kitchens at NDDH and the Northern Community hospitals. Food hygiene practices in relation to the delivery, storage, preparation and service of food are monitored (including kitchen cleanliness and hand hygiene).

Infection Control in the Built Environment

The Infection Prevention & Control team and the Facilities Department work closely together to ensure that the new and existing patient facilities are constructed in a way that enhances good infection control practice. By considering infection prevention & control requirements at the early stages, infection control can be 'designed in' to a new build or refurbishment. This includes features such as curved moulding at the bases of wall to enable easier cleaning, to the provision of suitably placed hand wash basins and suitable ventilation in operating theatres.

The collaboration of the Facilities and Infection Prevention & Control departments is set out in the Infection Control in the Built Environment policy which references the national guidance documents including the relevant Health Technical Memoranda.

Larger projects in the Trust this year include the refurbishment of the Physiotherapy Department and King George V ward and the lighting replacement program for the Trust.

The contractors have incorporated specific infection prevention and control designs and fittings into the refurbishments of Physiotherapy and KGV, following consultation with the IP&C team and drawing on previous experience from refurbishments of Caroline Thorpe and Fortescue wards.

Water controls including Legionella

Northern Devon Healthcare NHS Trust has in place through the Facilities Department a program of control measures to reduce the risk of *Legionella* and *Pseudomonas aeruginosa* within the Estate water services. The key document that collates all such processes in place is the "Written Scheme for the Management of Water Services".

The Engineering Controls Group functions as the Water Safety Group for the Trust. It is chaired by the Infection Control Doctor and reports to the IPCC. The Engineering Controls Group agrees the Written Scheme, reviews assurances that the correct controls are in place and addresses issues that arise.

The Trust lead for water service is the named 'Responsible Person' for Water services. The individual is responsible for the above document and all measures and processes within it. This ensures that all areas of potential risk have been identified with preventative measures in place in order to reduce the risk from *Legionella* and *Pseudomonas aeruginosa*. Within the Written Scheme, the policy document "The Water Services Management Policy",

defines roles and responsibilities for all individuals involved in the management process. In addition, to support this control process, the Facilities Department liaises closely with other professionals in various disciplines and ensure that the following areas are addressed:-

- That planned preventative maintenance is delivered, based on Statutory & Mandatory requirements.
- That all the recommended Health & Safety Commission good practice guidance is adopted and adhered to.
- That an active and comprehensive control program is in place using a temperature control process (thermal disinfection) to reduce the risk of *Legionella* and *Pseudomonas aeruginosa*. At Tiverton Community Hospital this is also augmented with the use of Chlorine Dioxide dosing.
- That there is a regular program of monitoring of the stored and delivered water temperatures across the Trust estate.
- That on, an annual basis, a full audit of all water services planned preventative maintenance is performed with a report to the Director of Facilities.

The purpose of the above audit and report is to provide the Director of Facilities with assurance and subsequently the Trust Board that:

- All control measures are in place, being carried out and recorded.
- All alterations, developments and changes in use affecting the water systems in the Trust are carried with full compliance to the Trust's *Legionella* and *Pseudomonas aeruginosa* control requirements.
- All relevant legislation is considered and applied where necessary.

Occupancy and change of use remain the biggest risk to any site as the Trust continually flexes to meet healthcare needs, such changes if poorly communicated can, through lack of water use and hygiene, facilitate *Legionella* growth.

The Facilities Department continually strives to improve and update its water management awareness and controls within the Trust and has ensured that all persons responsible for water management at all levels have been trained to a high standard.

Infection Prevention and Control Arrangements in the Trust

The Infection Prevention & Control Committee for the Trust meets monthly and is chaired by the DIPC. The IPCC is a standing committee accountable to the Quality Assurance Committee which is a sub-committee of the Trust Board. The minutes are available on the Trust intranet and the minutes are sent to the Quality Assurance Group. The committee has medical and nursing representation from the Divisions of the Trust as well as from Facilities, Occupational Health, Allied Health Professionals and Antimicrobial Stewardship. There are also members from the local Clinical Commissioning Group, Public Health England and the IPC at the Royal Devon & Exeter Foundation Trust.

There are several sub-committees which report to the IPCC: Engineering Controls Group (which has the functions of a Water Safety Group), Facilities Group and Matron's Charter Group. The Antibiotic Working Group reports to the Drugs and Therapeutics Group and sends reports to the IPCC. The Infection Prevention & Control annual report is sent to the Quality Assurance Committee and the Trust Board and is also available to the public on the Trust website.

The interim Director of Nursing is the DIPC. The DIPC is directly responsible to the Chief Executive for Infection Control issues within the Trust and reports directly to the Trust Board. In addition to the IPCC the DIPC is also a member of the Quality Assurance Committee and Safer Care Delivery Committee.

The Lead IPC nurses are members of the Health and Safety Committee and Patient Safety Operational Group.

The Infection Prevention & Control Team consists of four nurses (2 wte Band 8, 1 wte band 7, 0.6 wte band 6 on secondment to the team for a period of 4 months). Secretarial support is from 0.75 wte band 3 post. The consultant Medical Microbiologists are part of the IPC team and provide IPC advice out of hours. One of the consultant Medical Microbiologists is the Infection Control Doctor. Another of the consultant Medical Microbiologists is the Antibiotic Stewardship lead and chairs the Antimicrobial Working Group.

The Trust has a Service Level Agreement with the Royal Devon & Exeter Foundation Trust to provide infection prevention & control services to the eastern portion of the Trust. The Trust IPC team provides a service to Devon Partnership Trust to cover some community and inpatient mental health teams under a service level agreement.

Each ward or department has a Link Practitioner who is a health care professional. They have a particular interest in Infection Prevention & Control and act as an initial point of contact for Infection Prevention & Control enquiries in the work area.

Training and education

Part of the recognised role of the IPC team is training and education. This takes the form of face to face sessions on mandatory practical updates including venepuncture, cannulation and parental drug administration; link practitioner educational sessions and medical student training. Additional sessions were also made available to support the induction of overseas nurses. Practical training sessions aim to cater for the range of professional groups and specialties in a variety of clinical settings. The Northern based IPC team also provide training to the Devon Partnership trust.

The IPC team continues to support the Statutory and Mandatory training run by Workforce Development. These sessions include the Trust Induction day for new starters and the clinical and non-clinical mandatory theory training.

Staff may opt for either classroom-based face to face training or e-learning to fulfil the requirement for IPC training every two years.

The team also participates in the induction training for junior doctors with the Infection Control Doctor and Antimicrobial Lead providing Infection Prevention & Control and antibiotic prescribing training.

Challenges for 2016-17

Successful implementation of Infection Prevention & Control in an acute and community Trust continually produces challenges. Some can be predicted but many others arise to challenge the initiative and resources of the IPC team and the whole organisation. For instance, in the space of a few months the Ebola virus changed from being rarely mentioned to occupying the majority of the IPC team's time.

Some of the challenges for the coming year that have been identified include:

- The IPC team managing the loss of capacity as one of the lead nurses is transferred to RDE as part of the process of transferring the majority, but not all, of the Eastern services to Royal Devon & Exeter Foundation Trust.
- Establishing an effective Decontamination Committee
- Continuing to embed IPC responsibility within the divisions
- Sustaining the effective work in keeping rate of *Clostridium difficile* infections and MRSA bacteraemias below the National & regional averages
- To maintain the high compliance with hand hygiene and 'Bare Below the Elbows' as the refurbishment program across the Trust has resulted in the removal of some of the promotional material
- Undertake the European Point Prevalence survey of hospital acquired infections and antimicrobial usage
- Review and update the IPC information available on the Trust intranet and patient information leaflets
- Organise an event to celebrate the good practice that is occurring across the Trust
- Revise IPC policies and implement changes in practice to incorporate the national 'aseptic non-touch technique'
- Revising the IPC policies to ensure that they have incorporated any changes to national guidance and ensure users are aware of any changes

Abbreviations

CCG	Clinical Commissioning Group
CQC	Care Quality Commission
CRE	Carbapenem resistant Enterobacteriaceae
GRE	Glycopeptide resistant Enterococci
IPC	Infection Prevention & Control
IPCC	Infection Prevention & Control Committee
MSSA	Meticillin sensitive <i>Staphylococcus aureus</i>
MRSA	Meticillin resistant <i>Staphylococcus aureus</i>
NDDH	Northern Devon District Hospital
NDHT	Northern Devon Healthcare NHS Trust
PLACE	Patient-Led Assessments of the Care Environment
VRE	Vancomycin Resistant Enterococci
wte	whole time equivalent