

# INFECTION PREVENTION & CONTROL

## ANNUAL REPORT

2012-13

Northern Devon Healthcare NHS Trust

incorporating community services in Exeter, East and Mid  
Devon



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## Abbreviations:

- AWG Antibiotic Working Group
- CAUTI Catheter associated urinary tract infection
- CDI *Clostridium difficile* Infection
- DIPC Director of Infection Prevention & Control
- GRE Glycopeptide resistant enterococcus  
A form of the organism, enterococcus, which is resistant to the glycopeptide antibiotics, vancomycin & teicoplanin
- HCAI Healthcare associated infection
- HCW Healthcare worker
- IPCN Infection Prevention & Control Nurse
- IPCC Infection Prevention & Control Committee
- IPCT Infection Prevention & Control Team
- MRSA Meticillin resistant *Staphylococcus aureus*  
A form of the common organism *Staphylococcus aureus* which is resistant to penicillins and related antibiotics, but can usually be treated by a range of other antibiotics, both tablets and injection
- MSSA Meticillin sensitive *Staphylococcus aureus*  
The usual form of the common organism *Staphylococcus aureus* which is sensitive to penicillins and related antibiotics
- NDDH North Devon District Hospital, part of NDHT
- NDHT Northern Devon Healthcare NHS Trust,  
incorporating community services in Exeter, East and Mid Devon
- PEAT Patient Environment Action Team
- WTE Whole Time Equivalent

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## **1 Executive summary:**

Infection Prevention & Control has been a high priority throughout the year for NDHT. Key points for NDHT in 2012-13 were:

- A further reduction in the rates of *Clostridium difficile*.  
The number of *Clostridium difficile* cases attributed to NDHT decreased from 16 to 13 in 2012-13. The total number of *Clostridium difficile* cases detected in the Trust and North Devon has fallen from 89 in 2011-12 to 52 in 2012-13.
- There was a reduction in the number of MRSA bacteraemias.  
The total number of MRSA bacteraemias in the Trust and North Devon fell from 4 in 2011-12 to none in 2012-13.
- The Trust has remained within its limits set by the Department of Health and the Strategic Health Authority for numbers of *Clostridium difficile* cases and MRSA bacteraemias acquired in NDDH. There were 13 *Clostridium difficile* cases, under the limit of 17, in 2012-13. There were no MRSA bacteraemias for the same period compared to the Department of Health's limit of one for the year.
- Hand hygiene compliance across the Trust has remained consistently high. Audit shows that overall compliance has been over 95%. The Trust is continually working towards achieving 100% compliance.
- The Care Quality Commission found no problems during an unannounced inspection when NDDH's performance against the Code of Practice for the NHS on the Prevention and Control of Healthcare Associated Infections, known as the 'Hygiene Code' was assessed.

The inspection found:

*"North Devon District Hospital was very clean and well maintained. Equipment was of a high standard and promoted infection control. Staff used appropriate precautions to minimise infection risk and ensure that people understood these whether they were a patient or a visitor.*

*Overall, we found that North Devon District Hospital was meeting this essential standard."*

## **2 Introduction**

In 2011-12 the Infection Prevention & Control Team (IPCT) provided a service to Northern Devon Healthcare NHS Trust incorporating community services in Exeter, East and Mid Devon (NDHT). In addition a service was provided via a SLA to Devon Partnership Trust and South West Ambulance Trust. The IPCT worked closely with Devon PCT, the Health Protection Agency (HPA), and Stratton Hospital in Cornwall.

From April 2011 NDHT has responsibility for community hospitals in Eastern Devon. Part of the Infection Prevention & Control service to the Eastern locality was supplied by the team at the Royal Devon & Exeter Hospital via a service level agreement with NDHT.

## **3 Description of infection prevention & control arrangements**

### **Staffing**

All Consultant Medical Microbiologists contribute medical input to the IPCT. One is the Infection Control Doctor and Joint Director of Infection Prevention & Control (DIPC) for the Trust. Another of the Consultant Medical Microbiologists is the antibiotic stewardship lead for the Trust and chairs the Antimicrobial Working Group.

The Director of Nursing is also joint DIPC. The DIPCs are directly responsible to the Chief Executive for Infection Control issues within the Trust and report directly to the Trust Board

The Infection Control Team is available to provide advice 24 hours a day. The out of hours service is provided by the Consultant Medical Microbiologist on call.

## **4 Infection Prevention & Control Team**

The members of staff specifically employed to deliver infection prevention & control services include:

|         |          |  |
|---------|----------|--|
| Band 8b | 0.7 wte  | Clinical Manager Infection Prevention & Control & Tissue Viability |
| Band 8a | 1.0 wte  | Lead Infection Prevention & Control Nurse                          |
| Band 8a | 1.0 wte  | Lead Infection Prevention & Control Nurse                          |
| Band 7  | 1.0 wte  | Clinical Nurse Specialist Infection Prevention & Control           |
| Band 7  | 0.61 wte | Clinical Nurse Specialist Infection Prevention & Control           |
| Band 3  | 0.64 wte | Secretary  |
| Medical | 0.2 wte  | Infection Control Doctor/ Consultant Medical Microbiologist        |
|         |          | Joint Director of Infection Prevention and Control                 |
| Medical | 0.1 wte  | Consultant Medical Microbiologist                                  |

## **5 Infection Prevention & Control Committee (IPCC)**

There is an Infection Prevention & Control Committee for the Trust. There are several sub-committees which report to the IPCC: Engineering Controls Group, Facilities Group, Matron's Charter Group (North), Matron's Charter Group (East), Catheter Associated Urinary Tract Infection Prevention Group and Decontamination Group. The IPCC receives reports from the Antibiotic Working Group.

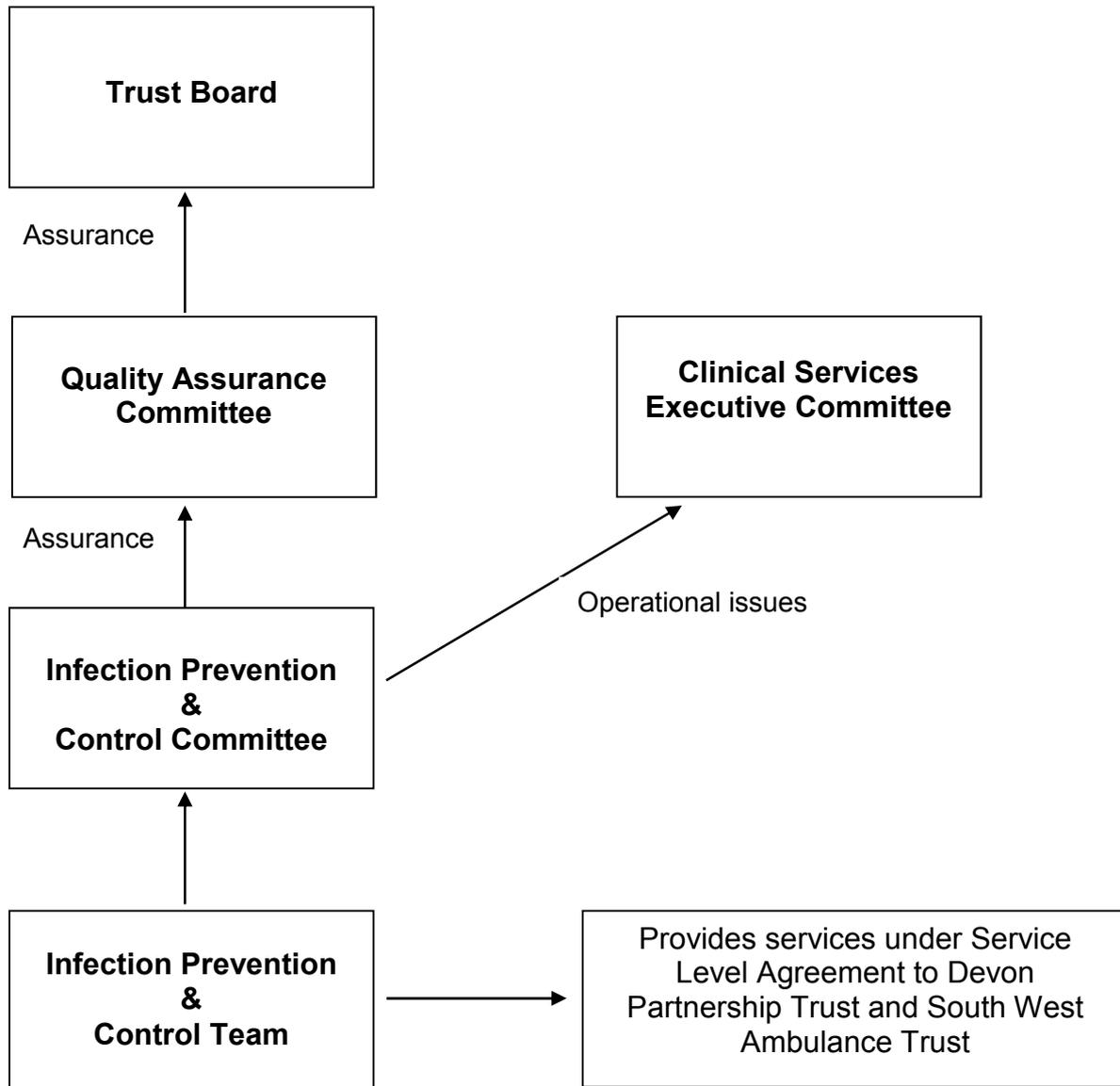
In April 2011 infection prevention & control issues for the Northern locality were dealt with by the Patient Safety and Infection Prevention & Control Committee. Patient safety issues then moved to a separate committee, leaving two infection prevention & control committees for the Northern and Eastern localities. These were merged in April 2012 to form a single IPCC for the Trust.

The IPCC has representation from across the Trust and is chaired by the Director of Nursing, who is also the joint 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 monthly to the Quality Assurance Group. 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.

### IPCC membership

- Director of Nursing/DIPC (Chair)
- Head of Professional Practice/ Assistant Director of Nursing
- Infection Control Doctor/Director of Infection Prevention and Control
- Clinical Manager Infection Control & Tissue Viability
- Lead Nurse Infection Prevention and Control (North)
- Lead Nurse Infection Prevention and Control (East)
- Infection Prevention & Control Nurse (covering eastern locality SLA)
- Consultant Microbiologist (to cover Antibiotic Stewardship in both Northern and Eastern localities)
- Deputy Director Facilities/CSSD manager
- Facilities Manager
- Lead Nurse, Occupational Health
- Allied Health Professional - Physiotherapy/Occupational Therapy Manager
- Consultant in Communicable Disease Control / Health Protection Nurse
- Patient Safety Officer
- Associate Medical Director
- Divisional Representatives for
  - Acute Service Delivery Unit (Medical)
  - Acute Service Delivery Unit (Surgical)
  - Community Service Delivery Unit (Health & Social Care)
  - Community Service Delivery Unit (Specialist Services)
  - Community Service Delivery Unit (Community Hospitals)
  - Clinical Services & Logistics Delivery Unit (Clinical Support Services)
  - Clinical Services & Logistics Delivery Unit (Emergency Services)

**NDHT ORGANISATIONAL CHART OF  
INFECTION PREVENTION & CONTROL ARRANGEMENTS**



**Director of Infection Prevention and Control:**

The post is held jointly by the Director of Nursing & Infection Control Doctor  
 Reports directly to Trust Board and Chief Executive  
 Member of Infection Prevention & Control Committee and Quality Assurance Committee  
 Leads Infection Prevention & Control Team

## **6 Reporting line to the Trust Board**

Both joint DIPC's report directly to the Trust Board, as detailed in their job descriptions. One joint DIPC is Director of Nursing and is a member of the Trust Board.

## **7 Links to other groups and committees**

### **Links to Prescribing and Formulary Committee**

The Consultant Microbiologist (antibiotic stewardship lead) is a member of the Drugs, Transfusions and Therapeutics Group and the IPCC. The Antibiotic Working Group is a subgroup of Drugs, Transfusions and Therapeutics Group with authority to make decisions regarding antibiotic use in the Trust. It is chaired by the Consultant Medical Microbiologist (antibiotic stewardship lead) and the membership includes Consultant Medical Microbiologists (who are part of the IPCT) and pharmacists (including the Director of Pharmacy and the Antibiotic Pharmacist). Further details are given in Antimicrobial Prescribing section.

### **Links to Clinical Governance/Risk Management/Patient Safety**

The IPCC is a sub-group of the Quality Assurance Committee and reports to it with respect to governance issues. The minutes, annual plan, annual report and terms of reference are all sent to the Quality Assurance Committee. The Director of Nursing/ joint DIPC and Clinical Manager Infection Prevention & Control & Tissue Viability are members of the Quality Assurance Committee. The lead IPCN is a member of the Trust's Health & Safety Committee and the Patient Safety Operational Group. The Director of Nursing/ joint DIPC is a member of the Safer Care Delivery Committee.

## **8 Link Practitioners**

Link Practitioners are health care professionals, one per ward or department, who have a particular interest in Infection Control. They act as an initial point of contact for Infection Prevention & Control enquiries in the work area.

## **9 DIPC reports to the Trust Board**

Infection Prevention & Control activity, including Trust apportioned cases of *Clostridium difficile* and MRSA bacteraemia, is included in the Performance Report which is a standing agenda item at Trust Board.

The Annual Report was presented to the Trust Board.

## **10 Budget allocation to infection control activities**

The Infection Prevention & Control budget covered pay for nurses and administrative staff but not medical staff, who are funded via Pathology. The budget funds staff to the level indicated in the staffing structure. The non-pay budget is £8,226.

## **11 HCAI statistics including results of mandatory reporting**

### **11a MRSA bacteraemia**

There were no MRSA bacteraemias identified by the Trust. This is a decrease from a total of 4 for last year. This is the second consecutive year that there were no bacteraemias acquired in the Trust according to Department of Health criteria.

The Trust therefore remained within the limit set by the Department of Health of one such case for the year.

|         | MRSA bacteraemias detected |                     | DH & SHA limit for MRSA bacteraemias |                     |
|---------|----------------------------|---------------------|--------------------------------------|---------------------|
|         | Total MRSA bacteraemias    | Apportioned to NDDH | Total number                         | Apportioned to NDDH |
| 2005-06 | 18                         | 10*                 | 19                                   |                     |
| 2006-07 | 22                         | 11*                 | 15                                   |                     |
| 2007-08 | 15                         | 6*                  | 12                                   |                     |
| 2008-09 | 7                          | 2*                  | 12                                   |                     |
| 2009-10 | 4                          | 1*                  | 8                                    |                     |
| 2010-11 | 6                          | 3*                  |                                      | 1                   |
| 2011-12 | 4                          | 0*                  |                                      | 1                   |
| 2012-13 | 0                          | 0*                  |                                      | 1                   |

\* NDHT criteria,  
+ Dept of Health criteria

MRSA bacteraemias detected in NDHT and external limits applied to these categories

### **11b MRSA colonisation**

The IPCT monitors the numbers and locations of patients newly diagnosed as colonised with MRSA. The figures are shown in the table. The national screening programme to screen all admissions to hospital has been implemented. Following discussions with Devon PCT, day-case admissions, with the exception of orthopaedic cases, have not been routinely screened from 2010.

The number of new MRSA colonisations detected in 2012-13 continues to fall despite a higher number of admissions being screened in the last few years as part of the national screening programme. The fall in the number of patients newly diagnosed with MRSA colonisation reflects the reduction in the spread of MRSA as a result of this programme to screen and suppress patients for MRSA.

|                   | 2005-06    | 2006-07    | 2007-08    | 2008-09    | 2009-10    | 2010-11    | 2011-12    | 2012-13    |
|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>NDHT</b>       |            |            |            |            |            |            |            |            |
| Northern Locality | 212        | 149        | 203        | 189        | 233        | 247        | 200        | 136        |
| <b>NDHT</b>       |            |            |            |            |            |            |            |            |
| Eastern locality  |            |            |            |            |            |            | 61         | 31         |
| <b>Community</b>  | 244        | 239        | 176        | 126        | 100        | 96         | 60         | 44         |
| <b>Total</b>      | <b>456</b> | <b>388</b> | <b>379</b> | <b>315</b> | <b>333</b> | <b>343</b> | <b>321</b> | <b>211</b> |

**New MRSA colonisations**

### **11c MSSA bacteraemia**

Since January 2011 trusts have been required to report all cases of MSSA bacteraemia, in a similar way to the way MRSA bacteraemias have been reported for some years. NDHT have been investigating these bacteraemias for some time, with a more detailed examination of cases linked to hospital care.

In 2012-13 there were 25 cases of MSSA bacteraemia. 7 of these samples were taken more than 2 days after admission to hospital and are therefore likely to be hospital acquired.

At present there are no limits set by external bodies for these bacteraemia

### **11d Glycopeptide resistant enterococcus (GRE) bacteraemia**

There were no reports of glycopeptide resistant enterococcus (GRE) bacteraemias for 2011-12.

GRE are organisms that are resistant to many commonly used antibiotics, but can be treated with newer antibiotics. They do not usually cause serious infections unless the individual is severely immunocompromised. GRE bacteraemia is associated with renal and haematology units where there are immunocompromised patients and glycopeptide antibiotics are used frequently.

|                         | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>GRE bacteraemias</b> | 1       | 2       | 4       | 0       | 0       | 0       | 0       | 0       |

GRE bacteraemias

### **11e Clostridium difficile**

The IPCT monitors all cases of *Clostridium difficile* infection (CDI). These are individuals who have diarrhoea and have *Clostridium difficile* toxin (CDT) found in their stools. Since January 2004 the Department of Health has required Trusts to report all cases from people over the age of 65 years, and from April 2007 all cases from those aged over 2 years of age.

Risk factors for acquiring CDI include increasing age (especially over 65 years), other medical problems, bowel surgery and antibiotic use.

The IPCT continues to investigate all cases *Clostridium difficile* infection especially prior antibiotic use and links to other cases. The results of this analysis are discussed at the IPCC and the antibiotic working group so that strategies to improve practice can be implemented.

Guidance from the Department of Health on the testing and reporting of *Clostridium difficile* was issued in early 2012 with the changes in reporting to be implemented by April 2012. Prior to April 2012 many trusts, including NDHT in October 2010, introduced more sensitive testing for *C difficile* toxin. However there was variation between Trusts in both the testing but also particularly in the reporting of *Clostridium difficile*. This made comparison between trusts impossible based on the reported numbers.

Stool samples from Eastern locality hospitals are sent to the Microbiology Department of the Royal Devon & Exeter Hospital for testing, whilst samples from the Northern locality are tested at NDDH. Reporting of positive cases is performed by the testing organisation.

From April 2012 samples from all NDHT patients, whether tested at NDDH or Royal Devon & Exeter Hospital will be tested and reported according to the new guidelines. The new guidance also refers to secondary tests for *Clostridium difficile*. Positive results from these secondary tests are not required to be reported nationally, however such cases are reviewed medically and monitored by the IPCT.

This variation in testing and reporting cases of *C difficile* has resulted in the reported number of cases being higher in 2010-11 and 2011-12. Comparisons using these years will not be accurate.

The Department of Health set NDHT a limit of no more than 17 acute hospital acquired cases in those over 2 years of age for 2012-13. There were a total of 13 such cases in 2010-11; this is a decrease from 16 in 2011-12.

| <b>Cases of <i>Clostridium difficile</i> acquired in NDDH</b> |               |                |                |                |                |                |
|---|---------------|----------------|----------------|----------------|----------------|----------------|
|   | <b>2007/8</b> | <b>2008/09</b> | <b>2009/10</b> | <b>2010/11</b> | <b>2011/12</b> | <b>2012/13</b> |
| <b>Total reported cases</b>                                   | 77            | 53             | 23             | 27             | 16             | 13             |

The total number of *Clostridium difficile* cases reported from the Northern locality decreased from 51 to 36 in 2012-13.

There were a total of 16 cases of *Clostridium difficile* reported from the Eastern locality. This produces a total of 52 cases of *Clostridium difficile* reported across the Trust.

| <b>Total cases of <i>Clostridium difficile</i> infection</b> |               |               |               |                |                |                |                |                |
|--|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|
|  | <b>2005/6</b> | <b>2006/7</b> | <b>2007/8</b> | <b>2008/09</b> | <b>2009/10</b> | <b>2010/11</b> | <b>2011/12</b> | <b>2012/13</b> |
| Northern Locality  | 226           | 126           | 111           | 83             | 60             | 41             | 51             | 36             |
| Eastern Locality   |               |               |               |                |                |                | 38             | 16             |

## **11f Surgical site infection surveillance**

The Trust is mandated to perform surveillance of surgical site infections for one type of orthopaedic surgery for at least one quarter (module) each year. This year the procedure of repair of neck of femur was chosen. No infections were detected during the patients' initial admissions or any re-admission. 51 procedures were monitored producing an infection rate of 0% which is below the national rate of 1.6%.

In 2012-13 surveillance was also carried out for infections following breast and large bowel surgery. The infection rate following large bowel surgery was 11.4% which is slightly above the national average. The infection rate following breast surgery was 2.2% which is above the national average. As relatively few procedures were monitored comparisons using this infection rate are unreliable.

Surveillance of patients following surgery is very labour intensive so each type of surgery was monitored for only 3 months. The small numbers of operations and infections in each category mean that comparisons with the national rate will be unreliable.

| Surgical procedure      | No. of operations monitored 2012-13 | No. of infections detected 2012-13 | NDDH infection rate for 2012-13 module (%) | NDDH infection rate for last 2 modules (%) | National infection rate (%) |
|-------------------------|-------------------------------------|------------------------------------|--|--|-----------------------------|
| Repair of neck of femur | 51                                  | 0                                  | 0  | 0.9  | 1.6                         |
| Large bowel surgery     | 44                                  | 5                                  | 11.4                                       | 10.8                                       | 10.3                        |
| Breast surgery          | 45                                  | 1                                  | 2.2  | First time this module undertaken at NDDH  | 1.0                         |

## **12 Untoward incidents including outbreaks**

### **Viral Gastro-enteritis outbreaks**

In common with other Trusts across the country NDHT in 2012-13 experienced outbreaks of viral diarrhoea and vomiting especially over the winter and spring. There were a total of 43 outbreaks where either a single bay or a whole ward was affected. In 10 of these outbreaks Norovirus was confirmed as the causative organism. The IPCT monitor affected wards at least once a day and provide advice and support to the ward staff.

When there are a significant number of ward closures, the Infection Prevention & Control Team participate in daily bed meetings at NDDH. The meetings with the Clinical Site Managers and relevant Duty and Directorate Managers ensured expert advice was available to guide operational decisions. There is a review following each significant episode of ward closures to improve management for future outbreaks. Transfer of patients between wards is recognised as having potential for spreading Norovirus. The Trust has taken actions to reduce patient transfers that occur for non-clinical reasons and has observed a reduction in these transfers over the year.

## **13 Antimicrobial resistance**

MRSA and GRE data are mentioned elsewhere.

There are many different resistance mechanisms that bacteria have to render antibiotics ineffective. Amongst the group of organisms known as coliforms two of the most significant resistances are to gentamicin and  $\beta$ lactam (penicillin class) antibiotics (extended spectrum  $\beta$ lactamase (ESBL) producing organisms). Not all coliform organisms are tested for these resistance mechanisms, so the number of coliforms found to be resistant depends, to a large degree, on the numbers that are tested. In 2011 and 2012 the testing for this resistance was significantly increased which will account for most, if not all, of the increase in the number of resistant organisms detected from 77 to 152 to 454 over the last three years.

The majority of these organisms were detected in urine specimens from patients in the community. These organisms may be resistant to oral antibiotics but remain susceptible to certain intravenous antibiotics. This can make treating simple urinary tract infections difficult as a patient may need admitting for injections to treat an infection that could otherwise have been treated with tablets at home. The spread of these organisms from person to person is prevented by the use of standard infection control precautions which are applied to every patient under the Trust's care.

| <b>Resistant coliform isolates identified in North Devon</b> |                |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>2006-07</b>   | <b>2007-08</b> | <b>2008-09</b> | <b>2009-10</b> | <b>2010-11</b> | <b>2011-12</b> | <b>2012-13</b> |
| 34   | 57             | 64             | 103            | 77             | 152            | 454            |

## **14 Hand hygiene and Aseptic protocols**

### **Hand Hygiene & Implementation of 'cleanyourhands' campaign**

Hand hygiene amongst healthcare worker remains at the core of prevention of infection and prevention of the spread of organism to patients.

Audits of hand hygiene compliance are undertaken every month by the infection control link practitioners in clinical areas. The results are fed back and displayed on notice boards at ward and department entrances. The results are discussed every month at IPCC where directorates take responsibility for improving compliance in their area. The results form part of the dashboard which is discussed at every meeting of the Clinical Services Executive Committee.

The audit results show that overall compliance has risen from last year and has averaged over 95% during the year. However analysis of staff groups shows that the compliance of some groups is greater than for others. The aim is to demonstrate 100% compliance and to have continually improving results as the Trust approaches this goal.

### **Application of aseptic no-touch clinical protocols, IV catheters & urinary catheters**

Policies are in place for these areas which take into account the EPIC guidance published in 2001 & 2007, they also comply with the requirements of the Health Act 2008 (The Code of Practice for the Prevention and Control of Health Care Associated Infections). The policies are regularly reviewed. The Patient Safety Team undertakes audits of these protocols and feeds results back to directorates and the Patient Safety Operational Group.

## **15 Decontamination**

There is a central sterile services department situated next to the main theatre complex which processes all Trust items for sterile reprocessing. There are 3 double endoscope washer-disinfectors in the refurbished endoscopy suite.

## **16 Cleaning services**

Services are contracted out to Sodexo and monitored through a partnering agreement. There are regular (thrice-yearly) meetings of the Partnering Board where the Trust and Sodexo formally discuss the cleaning arrangements. In addition there is a good collaborative working relationship between Trust staff including the IPCT and the staff of Sodexo. There are 'zone co-ordinators' that liaise with ward managers concerning any local cleaning issues. The IPCT liaise with the Sodexo team should any increased cleaning be required, such as during outbreaks.

A gap analysis by the IPCT with the Trust Facilities team against the national cleaning standards was undertaken to ensure that infection control was paramount when deciding on choices about cleaning frequencies.

The ICPT worked successfully with Sodexo and Trust Facilities managers on examining how to blend the '5 moments' of hand hygiene standards with housekeeping routines.

### **PEAT/Patient forum inspection results**

In assessments performed by the patient environment action teams (PEAT) in 2012 the wards in NDHT achieved scores of:

| <b>Site</b>                            | <b>Environment</b> | <b>Food</b> | <b>Privacy &amp; Dignity</b> |
|--|--------------------|-------------|------------------------------|
| NORTH DEVON DISTRICT HOSPITAL          | Good               | Excellent   | Excellent                    |
| BIDEFORD HOSPITAL                      | Excellent          | Excellent   | Excellent                    |
| BUDLEIGH SALTERTON HOSPITAL            | Excellent          | Excellent   | Excellent                    |
| CREDITON HOSPITAL                      | Excellent          | Good        | Excellent                    |
| EXMOUTH HOSPITAL                       | Good               | Good        | Excellent                    |
| HOLSWORTHY HOSPITAL                    | Excellent          | Excellent   | Excellent                    |
| HONITON HOSPITAL                       | Excellent          | Excellent   | Good                         |
| ILFRACOMBE & DISTRICT TYRRELL HOSPITAL | Excellent          | Excellent   | Excellent                    |
| MORETONHAMPSTEAD HOSPITAL              | Good               | Excellent   | Excellent                    |
| OKEHAMPTON HOSPITAL                    | Excellent          | Excellent   | Excellent                    |
| OTTERY ST MARY HOSPITAL                | Excellent          | Excellent   | Excellent                    |
| SEATON HOSPITAL                        | Excellent          | Excellent   | Excellent                    |
| SIDMOUTH HOSPITAL                      | Excellent          | Excellent   | Excellent                    |
| SOUTH MOLTON HOSPITAL                  | Excellent          | Excellent   | Excellent                    |
| TIVERTON AND DISTRICT HOSPITAL         | Excellent          | Excellent   | Excellent                    |
| TORRINGTON HOSPITAL                    | Excellent          | Excellent   | Excellent                    |
| WHIPTON COMMUNITY HOSPITAL             | Excellent          | Good        | Excellent                    |
| NORTH DEVON DISTRICT HOSPITAL          | Good               | Excellent   | Excellent                    |

## **17 Audit & Surveillance**

Infection control audits are co-ordinated through the Infection Prevention & Control Team and Matron's Charter Group on a rolling annual programme. The Patient Safety Team also performs regular audit. Audit results are discussed by IPCC and the Matron's Charter.

Audits undertaken include:

- Hand hygiene audit – see Hand Hygiene section.
- Patient Environment Action Team (PEAT) cleanliness inspections
- Insertion and care of peripheral intravenous lines
- Compliance with WHO surgical checklist
- Urinary catheters- prevalence and associated infections

The IPCT participated in the Fourth National Prevalence Survey on Healthcare Associated Infections & First National Prevalence Survey on Antimicrobial Use and Quality Indicators in England. Data was collected from all wards in NDDH in November 2011 concerning infections acquired in hospital, antibiotics used and devices such as urinary catheters that were in place.

The survey showed that NDDH had a prevalence of healthcare associated infection of 10%, compared to a national rate of 6.4%. The rate for NDDH is slightly lower than the rate of 10.7% in 2007 when the National Survey was last performed. The survey only looks at a 'snap shot' of the situation on one day, so comparisons with the national figure may not be valid. For instance, when the survey was performed there were an unusually high number of patients with *Clostridium difficile* infection. Other comparative data looking at the whole year shows NDHT to have a lower rate than most other trusts.

## **18 Matron's Charter**

There are Matron's Charter Groups for the Eastern and Northern Localities which meet during the year and report to the IPCC. The groups are chaired by the Assistant Directors of Nursing and includes the IPCT, senior nurses from the Locality, representatives from facilities and Sodexo. The agenda of the group is set by the Charter and therefore has a strong emphasis on cleanliness.

The groups produce a monthly bulletin which follows each meeting. The bulletin includes key points from the previous meeting as well as other relevant information on cleanliness and infection control topics that need to be relayed to staff.

## **19 Antibiotic prescribing**

### **Antibiotic Working Group Annual Report**

The Antibiotic Working Group (AWG) is a sub-group of the Drugs and Therapeutics Group with the power to make decisions regarding antibiotic use within the Trust. The primary purpose of the AWG is to ensure that antimicrobial prescribing practice throughout the Northern Devon Healthcare Trust is safe, effective, appropriate and economic. It also provides support for implementation of guidance and auditing compliance. The group will ensure appropriate prescribing policies are in place which are in line with best practice and take into account Department of Health guidance. The minutes and the terms of reference of the AWG can be accessed on the Trust intranet.

#### **Membership of Antibiotic Working Group**

Consultant Medical Microbiologist (Antimicrobial Stewardship lead)  
Antibiotic Pharmacist  
Consultant Medical Microbiologist  
Consultant Medical Microbiologist / DIPC  
Consultant Physician (Medicine)  
Consultant Surgeon  
Consultant Paediatrician  
Director of Pharmaceutical Services

Others co-opted as required

PCT pharmacists included in distribution of agenda and minutes and welcome to attend meetings

#### **Report on Antimicrobial Usage Based on 2011 National Point Prevalence Survey**

The National Point Prevalence Survey in 2011 allowed analysis of the prescribing within NDDH and permitted comparison with national prescribing patterns.

On the day of surveillance:

- Antibiotic usage was slightly below national levels, and within the expected range.
- Half of antibiotic use was for community acquired infections
- One third for hospital acquired infections
- One sixth for surgical prophylaxis
- High levels of co-amoxiclav usage both locally and nationally
- Low prescribing of other antibiotics associated with C difficile both locally and nationally
- Prescribing of antibiotics in NDDH, compared to national patterns, favours narrow spectrum antibiotics (trimethoprim, amoxicillin, doxycycline) over broad or extended spectrum antibiotics (Piperacillin/tazobactam, meropenem, vancomycin)

## Comparison of total NDDH antibiotic usage (by volume) with national data

Antibiotic usage ranked by volumes dispensed (NDDH) and compared with ranking by incidence (National PPS). The table shows antibiotics listed in order of national ranking, with the NDDH ranking in different years.

| Antibiotic              | National<br>2011 PPS | NDDH |      |      |
|-------------------------|----------------------|------|------|------|
|                         |                      | 2007 | 2010 | 2012 |
| Co-amoxiclav            | 1                    | 1    | 1    | 1    |
| Piperacillin/tazobactam | 2                    | 22   | 20   | 17   |
| Metronidazole           | 3                    | 5    | 6    | 8    |
| Flucloxacillin          | 4                    | 2    | 3    | 2    |
| Gentamicin              | 5                    | 9    | 7    | 7    |
| Clarithromycin          | 6                    | 3    | 5    | 5    |
| Glycopeptide            | 7                    | 22   | 22   | 12   |
| Amoxicillin             | 8                    | 4    | 2    | 4    |
| Trimethoprim            | 9                    | 8    | 4    | 3    |
| Meropenem               | 10                   | 12   | 12   | 18   |
| Cefuroxime              | 11                   | 10   | 19   | 16   |
| Benzylpenicillin        | 12                   | 6    | 10   | 10   |
| Ciprofloxacin           | 13                   | 7    | 9    | 11   |
| Doxycycline             | 14                   | 11   | 8    | 6    |

Ranking of antibiotic usage in National PPS and NDDH

### Similarities between national and local prescribing

Co-amoxiclav is the most commonly prescribed antibiotic nationally and locally

Flucloxacillin is commonly used (4<sup>th</sup> in national, 2<sup>nd</sup> in NDDH)

Quinolones are less frequently used (13<sup>th</sup> in national, 11<sup>th</sup> in NDDH)

Cephalosporins are less frequently used (11<sup>th</sup> in national, 16<sup>th</sup> in NDDH)

### Low volume prescribing in NDDH compared with national prescribing

Broad spectrum anti-pseudomonal antibiotics (2<sup>nd</sup> on national rank, 17<sup>th</sup> on local rank)

Glycopeptides (7<sup>th</sup> in national rank, 12<sup>th</sup> in NDDH rank)

Carbapenems (10<sup>th</sup> in national rank, 18<sup>th</sup> in NDDH rank)

### High volume prescribing in NDDH compared with national prescribing

Amoxicillin (8<sup>th</sup> in national rank, 4<sup>th</sup> in NDDH rank)

Trimethoprim (9<sup>th</sup> in national rank, 3<sup>rd</sup> in NDDH rank)

Doxycycline (14<sup>th</sup> in national rank, 6<sup>th</sup> in NDDH rank)

## 20 Performance limits/outcomes

### MRSA bacteraemia

There were no MRSA bacteraemias identified by the Trust in 2012-13. This is a decrease from a total of 4 for last year. The Trust was within the limit set by the Department of Health of one hospital acquired case for the year.

The IPCT would perform a Root Cause Analysis process for any bacteraemia in collaboration with the clinical team caring for the patient. This process identifies any improvements in practice that can be made to reduce the chance of a recurrence. The results of the Root Cause Analysis are reported the Infection Prevention & Control Committee.

Learning from these look-back exercises is disseminated to health care workers and applied to practice within the Trust.

### ***Clostridium difficile***

The Department of Health set NDHT a limit of no more than 17 cases of *C difficile* acquired in NDDH for 2012-13. There were a total of 13 such cases which is a fall from 16 cases in 2011-12.

The IPCT continues to investigate with the clinical teams all cases of *Clostridium difficile* infection. The results of this analysis are discussed at the IPCC and the antibiotic working group so that strategies to improve practice can be implemented.

### **The Health and Social Care Act 2008 (Code of Practice on the prevention and control of infections and related guidance)**

The Trust is registered with the Care Quality Commission as fully compliant with the Code.

## **21 Training activities**

Education of the Trust staff in the prevention and control of infection is a very important part of the Trust's strategy in containing the number of HCAs. The IPCT are pivotal in co-ordinating and providing the majority of this education.

### **Infection Prevention & Control training at induction for staff**

At induction every member of staff receives Infection Control training by a member of the IPCT. This ensures that every new member of the Trust is aware of the basic principles of Infection Prevention & Control. Bank and many agency nursing staff receive training before starting work. There is a basic electronic learning package with compulsory question and answer section at the end which is used for junior doctors prior to starting their posts.

### **Annual Infection Prevention & Control training for staff**

All staff are required to undertake an annual Infection Prevention & Control update. Training was delivered both by traditional 'face-to-face' methods and by e-learning. The Trust is using the eMOT, which is an on-line assessment of an individual's knowledge of theoretical elements required for their role in healthcare. IPC is one element of the eMOT. Theoretical sessions are also available for staff whose knowledge is not sufficient to complete the eMOT. There are additional practical skills sessions for clinical staff.

Doctors represent a particular group with respect to their educational requirements. Despite its importance Infection Prevention & Control is often poorly taught at medical school and doctors often not included in other teaching sessions because of their work commitments and the short-term contract of many junior doctors. All junior doctors receive Infection Prevention & Control training as part of their induction programme. IPC teaching occurs at regular departmental meetings and audit sessions. IPC is part of the mandatory training that all newly qualified doctors receive in their F1 & F2 years.

Staff also receive education about particular aspects of Infection Prevention & Control as, for example, part of training for venepuncture / cannulation or IV drug administration. If a new policy is introduced then specific training is delivered to support this.

### **Delivery of 'Practice & Principles of Infection Control' course**

The Infection Prevention & Control Team delivers Infection Prevention & Control modules at diploma and degree level in partnership with the University of Plymouth. The modules 'Practice & Principles of Infection Prevention & Control', and 'Management of Infection Prevention and Control', provide students with 20 credits at level 2 and 3. They are open to registered nurses in the public and private sectors but the majority of attendees are from the Trust, many of whom are, or become, Link Practitioners. All members of the IPCT contribute to teaching these modules.

### **Link Practitioners**

Link Practitioners are healthcare workers, usually one per ward or department, who have a particular interest in Infection Prevention & Control. They attend meetings, participate in audit and act as an initial point of contact for Infection Prevention & Control enquiries in the work area.

### **Education of the IPCT**

Members of the IPCT attend educational events throughout the year. These include the Infection Prevention Society annual conference and DH events including those arranged specifically for Directors of Infection Prevention & Control. The IPCNs are members of the regional Health Protection Nurse forum.

## **22 Care Quality Commission Inspection**

Over 3 days in March 2011 the Care Quality Commission performed a routine, unannounced inspection of NDDH. The Commission assessed the Trust for its compliance with the Essential Standards of Quality and Safety. Regulation 12, Outcome 8 relates to infection prevention & control and the Hospital's compliance with the Code of Practice on healthcare associated infections and related guidance.

The Commission's judgement concerning Outcome 8 (Cleanliness and infection control) is:

*"North Devon District Hospital was very clean and well maintained. Equipment was of a high standard and promoted infection control. Staff used appropriate precautions to minimise infection risk and ensure that people understood these whether they were a patient or a visitor.*

*Overall, we found that North Devon District Hospital was meeting this essential standard."*

The Care Quality Commission carried out an unannounced inspection in November 2011. During this inspection the Commission spent time observing practices with the surgical theatres and found that improvements were needed to ensure that all pre and post-operative checks were being fully completed. These checks relate to the WHO guidance for theatre which impact on patient safety including reducing the chances of developing an infection.

The Patient Safety Team coordinated a number of actions to ensure that these checks became embedded in theatre practice. In a further inspection in April 2012 the Commission recognised that the Trust had implemented several changes and was meeting this standard.

## **23 Water services Management including Legionella control**

The Northern Devon Healthcare NHS Trust has in place through the Facilities directorate a program of control measures to reduce the risk of Legionella 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 Trust lead is the named ‘Responsible Person’ for Water services (RPW). The RPW 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 of Legionella. Within the Written Scheme the draft document “The Water Services Management Policy” defined roles for all individuals involved in the management process. In addition to support this control process Facilities liaise closely with other professionals in various disciplines and ensure that the following areas are addressed:-

- That a Planned Preventative Maintenance (PPM) is delivered based on Statutory & Mandatory requirements.
- That all the recommended Health & Safety Commissions good practice guidance is adopted and adhered to.
- That an active and comprehensive Legionella control program is in place using a temperature control process (thermal disinfection) to reduce the risk of Legionella.
- 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 management PPM is actioned with a report to the Director of Facilities (DOF).

The purpose of this audit and report is to provide the DOF with assurance and subsequently the Trust Board that all control measures are in place, being carried out and recorded. That all alterations, developments and changes in use affecting the water systems in the Trust are all carried with full compliance to the Trust’s Legionella control requirements.

In April 2013 the Trust formally became the owner of the Eastern estate properties and increased its estate responsibility with the addition of eleven community hospital sites. All these sites have been assimilated into the Trusts PPM program and are now managed directly by the Facilities maintenance team. Although the service is solely provide by contract all companies involved follow Trust protocol and are closely managed accordingly.

The developing control requirements to meet the issue of *Pseudomonas aeruginosa* within augmented care facilities has resulted in the ICT team and Facilities embarking on PPM and test regimens that are additional to previous control measures. All such preventative measures are planned and carried out with close liaison of all good practice guidance available.

Facilities are confident that they have processes in place to ensure that all such measures to manage the safe delivery of water services are working correctly. The infection prevention & control team has decided that a level of risk has not prevailed (re-HTM 04 guidance) within the last year requiring the need for Legionella water sampling. There have not been any positive Legionella tests from patients or environmental samples associated with the Trust as a source this year.