

Trust Board Meeting: Thursday 6 September 2012
 TB2012.77

Title	Infection Control Annual Report 2011/2012 and Annual Programme for 2012/2013
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Status	Contents of report to be noted.
History	This is an annual report to the Board

Board Lead(s)	Prof Edward Baker, Director of Infection Prevention and Control/Medical Director			
Key purpose	Strategy	Assurance	Policy	Performance

Summary

1	The infection control annual report follows the Department of Health template for Director of Infection Prevention and Control (DIPC) annual report. It is divided into infection prevention and infection control. The infection prevention section covers the structure of the infection control team, the committees it reports to, antimicrobial management, decontamination, departmental reports relating to infection and audit.
2	The Hospital Infection Control Committee (HICC) reports to the Clinical Governance Committee which reports to the Trust Management Executive and also provides monthly reports to the Trust Board and quarterly ones to the Quality Committee. The Decontamination Committee reports to HICC which meets every two months.
3	The antimicrobial management team upgrade antimicrobial guidelines, audit antimicrobial prescribing and monitors antimicrobial usage. The departmental reports cover sterile services, endoscopy and estates in relation to cleaning audits and the annual validation of air handling units. The annual audit programme includes antimicrobial prescribing, audit of appropriate urinary catheter usage and the management of sharps.
4	The infection control aspect describes infection related incidents and outbreaks. The main incidents involved exposure of inpatients to TB, investigation of a patient who was thought to have acquired hepatitis B within the Trust and two cases of legionnaire's disease. It was concluded that the patient who developed hepatitis B and the two patients' with Legionnaires' disease were not acquired from the Trust.
5	The infection related outbreaks were MRSA colonisation in which no patients developed an infection from and the seasonal Norovirus outbreaks.
6	<p>Recommendation:</p> <p>This report will be considered in detail at the Quality Committee on Tuesday 25 September 2012. The Board is asked to note the contents of the report.</p>

Director of Infection Prevention and Control (DIPC) Annual Report, 2011/2012

Introduction

1. The DIPC annual report reports on the infection control activities from 1st April 2011 to 31st March 2012.

Overview

2. The Oxford Radcliffe Hospitals (ORH) NHS Trust and Nuffield Orthopaedic Centre NHS Trust (NOC) merged in November 2011 but were monitored separately for HCAI until 31st March 2012. The infectious diseases/microbiology team and pharmacy were already merged but the infection control nursing teams merged in November 2011.
3. Both the ORH and NOC met the objective for Meticillin Resistant *Staphylococcus Aureus* (MRSA) blood stream infections. The ORH Trust met the objective for *Clostridium difficile* (C. diff) and the NOC had five cases of *Clostridium Difficile* against an annual objective of four.

Description of infection control activities - Infection Prevention

Infection Control team

4. The team is multidisciplinary and consists of a Director of Infection Prevention and Control (DIPC), infection control doctor, infection control manager, infection control nursing team, antimicrobial pharmacists, antimicrobial audit assistant, infection control administrator, consultant infectious disease/general physician lead for antimicrobial management/training and audit, scientists, statistician and PhD students. As necessary, members of the wider microbiology/infectious diseases team are co-opted on to the team.
5. Professor Ted Baker (Medical Director) is the Director of Infection Prevention and Control (DIPC) and reports directly to the Chief Executive and Trust Board. The infection control doctor and infection control manager report weekly to the DIPC and hold a weekly meeting with the infection control team. The Decontamination Lead which previously sat with the DIPC was devolved from September 2011 to the infection control manager.

Infection Control Service

6. The infection control nursing team, microbiology/infectious diseases medical staff and staff from pharmacy all contribute to delivering the infection control service at the ORH Trust. In order to deliver a safe service, there is a close working relationship with the microbiology laboratory, estates and facilities, clinical and managerial staff within the trust.

Staff within the infection control team

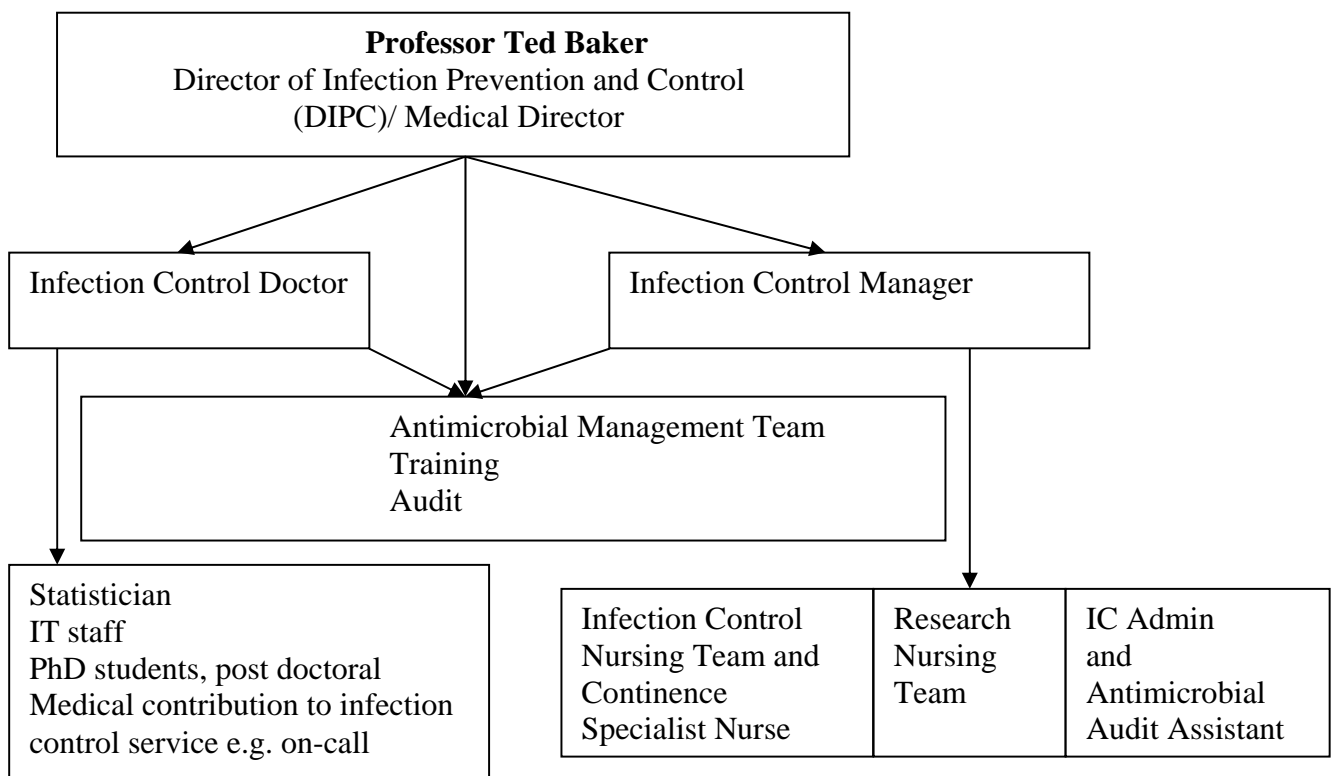
7. The current staff within the Infection Control team are as follows:
 - Infection Control Doctor
 - Infection Control Manager/Senior nurse 1.0 WTE,

- Infection Control Nursing staff 6.95 WTE
- Infection Control Administrator 1.0 WTE
- Antimicrobial Audit Assistant 1.0 WTE
- General Physician/Microbiology service for the Horton 1.0 WTE (11 PA's)
- Antimicrobial Pharmacist 2.0 WTE

8. The infection control service is partly funded by bio-medical research, which supports research projects into major causes of Healthcare Associated Infection. The staff funded by biomedical research are as follows:

- Infection Control Manager (50%)
- Research Nursing staff 2.0 WTE
- Statistician
- IT/Database Manager
- PhD students
- Post Doctoral scientists

Figure 1. The flow diagram below illustrates the line management for the Infection Control team.



Budget allocation to Infection Control activities

9. Table 1.0 below outlines the budget allocation by staff group from 2006/2007 to 2011/2012.

Table 1.0

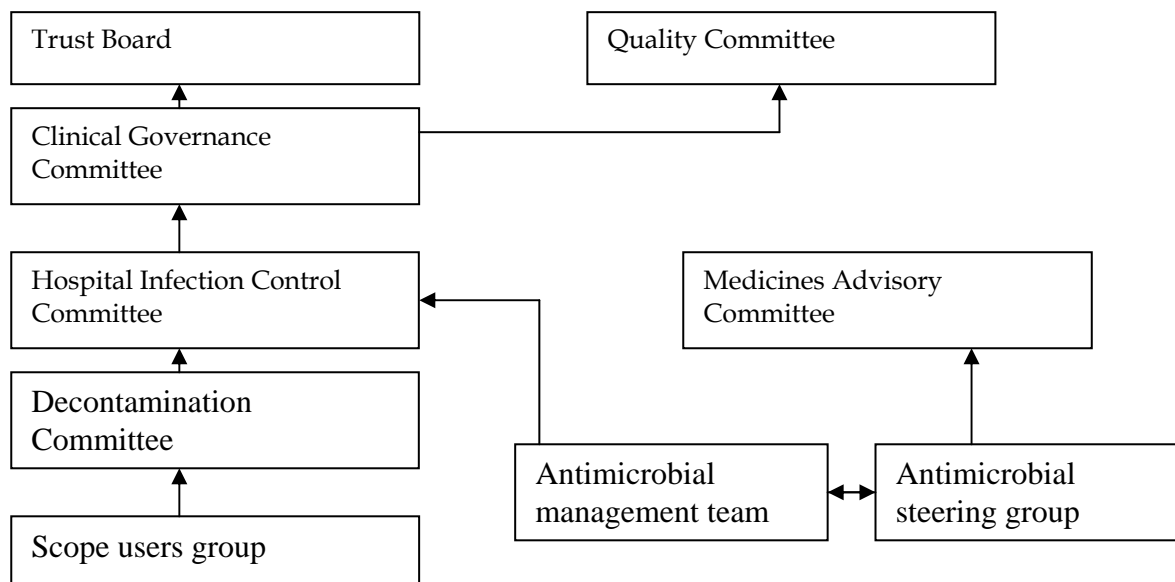
	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012 Post merger
Nursing	£179,924	£223,245	£261,420	£246,381	£292,908	£345,615
Pharmacist	£23,059	£47,105	£51,429	£58,013	£55,781	£57,098
Admin/audit (2 WTE)	£21,811	£31,658	£25,104	£53,939	£48,009	£57,204
Medical staff costs (1.5 WTE) Horton Hospital	£60,537	£64,849	Part year cost of £47,000	£139,495	£159,781	£170,258
Total pay budget	£285,331	£366,857	£385,319	£497,828	£508,471	£630,175

Director of Infection Prevention and Control (DIPC) reports

10. The DIPC reports to the Quality Committee which meets quarterly and has a section in the monthly quality report to Trust Board. This paper has details of MRSA bacteraemia, cases of *Clostridium Difficile* and summaries of infection related incidents requiring investigation from the proceeding quarter. The Clinical Governance Committee receives a monthly Infection Control report which covers the same content as described above but reports on HCAI data and incidents from the proceeding month.

Hospital Infection Control Committee (HICC)

11. The Hospital Infection Control Committee (HICC) is held every two months and consists of representation from Estates and Facilities, Cleaning contractors, Health Protection Unit, Oxfordshire PCT, Safety Quality and Risk, Decontamination, Public representation, Tissue Viability, Divisional representation, Occupational Health, Microbiology, Pharmacy and Infection Control. The terms of reference for HICC are in Appendix 1.
12. The agenda items include the following: reports from Infection Control related incidents from clinical areas, Infection Control policies/guidelines, Antimicrobial management, Decontamination Committee feedback, reports from Estates and Facilities and IC outbreak reports. The links to other committees are outlined below in Figure 2.

Figure 2. Committee Structure for Infection Control

Decontamination

13. The Decontamination Committee meets every two months and covers decontamination in Sterile Services and Endoscopy Services. The agenda for this committee includes the assessment of compliance against national standards and its associated action plans. The findings from incidents are also presented and discussed. This committee reports to the Hospital Infection Control Committee.

Changes to the Decontamination Committee

14. The Decontamination Committee was established in 2008 to address issues in Sterile Services and Endoscopy.
15. From October 2011, it changed to focus on all aspects of decontamination. This included decontamination of reusable medical devices and endoscopes, environmental cleaning, sterile services, incidents relating to decontamination and mapping decontamination and establishing the level of risk. The Chair of the committee changed from the decontamination manager to the decontamination lead.

Antimicrobial Management Team (AMT)

16. The Antimicrobial Management Team (AMT) is responsible for the operational side of antimicrobial management, e.g. ensuring the introduction of procedures to promote prudent antimicrobial usage, the monitoring of antimicrobial usage, the dissemination of information and the updating of health care professionals. The AMT meets weekly and reports to the HICC. See appendix 2 for further detail.
17. The AMT members are also members of the Antimicrobial Steering Group (ASG). ASG is a subgroup of the Medicines Advisory Committee (MAC) that meets every two months. ASG advises MAC regarding antimicrobial formulary applications and checks antimicrobial guidelines. The Consultant Lead (Antimicrobials) also sits on MAC.
18. The AMT consists of the following:
 - Consultant Lead (Antimicrobials);
 - Lead Antimicrobials Pharmacist;
 - Deputy Antimicrobials Pharmacist;
 - Infection Control Doctor;
 - Infection Control Manager
 - Antimicrobial Audit Assistant

Departmental Reports relating to infection control

Sterile Services Departments (SSD)

19. The sterile services departments (SSD) are located at the John Radcliffe (JR), Churchill Hospital, NOC and Horton General Hospital sites and they supply the West Wing, John Radcliffe, Churchill, and Horton Theatres.
20. Churchill theatres experienced problems with holes in the sterile drapes, provided by Sunlight, which cover the instrument trays. The sterile service department met with Sunlight to resolve the issue. Churchill theatres carried out weekly audits until the issue was resolved with Sunlight. No issues were found with holes in sterile drapes in JR, West Wing or Horton theatres.
21. The external compliance audits for sterile service were passed for all units.

Endoscopy

22. The largest Endoscopy Department is located on Level 2 of the JR Hospital. It provides an inpatient and outpatient service to approximately 12,000 patients per year undergoing Gastrointestinal Endoscopy. There are 4 Automatic Endoscope Reprocessors (AER's) situated within the unit and it manages a further 2 AER's on level 3 of the West Wing.
23. Flexible nasal endoscopes are decontaminated using the two AER machines in the ENT OPD, West Wing. A separate system for decontamination of nasal endoscopes was developed to ensure that the clinics run effectively as the current one was experiencing problems meeting the turnaround time required to decontaminate nasal endoscopes between each patient.
24. The Churchill Hospital has the facility to perform endoscopies within the theatre area of the Cancer Centre and has 2 AER's to decontaminate the required endoscopes.
25. The Horton General Hospital has 2 AER's located within Day Surgery and an ENT outpatient service with one AER. Currently the service delivery is inconsistent due to repeated failures of the AERs. The Endoscopy staff minimise the impact on patients by starting earlier or working later than rostered to ensure that all the scopes are decontaminated and patient cancellations are avoided. A feasibility study is due to be carried out in September 2012 to establish the options for refurbishment which will include the replacement of the AER's.
26. The Horton and the JR Endoscopy Department have a Joint Advisory Group on Gastrointestinal Endoscopy (JAG) accreditation, last carried out in 2012. Endoscopy

issues are reported through the scope users group chaired by the decontamination manager. This group reports to the Decontamination committee which in turn reports to the Hospital Infection Control Committee.

Estates

Cleaning scores

27. The Trust's Estates & Facilities Directorate has been monitoring cleaning standards across the three Trust sites, using the 2008 National Cleanliness Standard Audit Tool. This tool follows the guidance issued by the National Patient Safety Agency (NPSA) in April 2007.
28. The Decontamination Committee reviews the cleaning scores for each clinical area. The score is broken down between Nursing, Estates and Domestic Cleaning. This is a monthly audit that is carried out across the Trust on a routine, planned basis.

Cleaning audit process

29. Each audit involves a visual assessment of the cleanliness of 49 elements, which includes a range of items typically found in respective areas such as commodes, equipment, walls, doors and wash hand basins etc.

Cleaning Re-audit Process

30. Inpatient areas that do not meet the Trust's Cleanliness target by more than 5% are re-audited within 48 hours. This is to ensure that issues are addressed and appropriately rectified.
31. In July 2011, the audit process was reviewed and updated. The changes outlined below were implemented in September 2011.
 - 31.1 The first cleaning score is the one published not the score at re-audit. The initial 'overall' cleaning score, is the score the ward or department retains, despite elements being rectified following re-audit.
 - 31.2 The re-audit can take place anywhere within that clinical area and not the rooms that were audited the first time.
 - 31.3 The re-audit process which requires the team to re-audit within 48 hours remains unchanged.
 - 31.4 The trends for the ward or department are reviewed and addressed as part of the re-audit procedure, i.e., elements that have failed on previous occasions are 'all' visually assessed and the element is confirmed as being 'clean'.
 - 31.5 The Matron is responsible for the cleanliness of the ward or clinical department and is thereby responsible for any action plans that are required to ensure that the standard is maintained to meet the ORH cleaning target.

Trends from Cleaning Audits

32. There are a few key reasons why clinical areas fail their cleaning audits. These are mainly concerned with splash marks on patient equipment, dusty notes trolleys and

attention to detail on patient monitoring equipment. The environmental issues relate to residue build up on sinks, tape left on bed frames, dusty door frames and discolouration on floors which can be removed with cleaning equipment.

Annual Patient Environmental Action Teams (PEAT)

33. PEAT is an annual self assessment, which each NHS Trust with 10 beds or more is required to complete, using a common format to assess and score the non-clinical services of the patient environment. The results are shared with and managed by The Information Centre for Health and Social Care.

Background

34. Currently in its 13th year, the assessment document has grown to include questions on cleanliness, quality of the environment, infection control, food, privacy & dignity and requires participation from nursing teams, estates and facilities managers, infection control nurses and lastly but most importantly patients. Within the OUH Trust the latter comprises of members of the Patient and Public Panel.
35. This year, the PEAT assessment required the team to assess at least 25% of the hospital sites which includes reception areas, wards, emergency departments, ITU's, outpatients, public thoroughfares and grounds and gardens between 3rd January – 2nd March 2012.

PEAT Assessment

36. PEAT assessments were organised for the three Trust sites as follows:-

Table 2.0

Site	Date	No of Teams
John Radcliffe	21/02/2012	2 teams
Churchill Hospital	15/02/ 2012	1 team
Horton General	16/02/2012	1 team
Nuffield Hospital	02/02/2012	1 team

37. Team membership consisted of Divisional Nurses, Patient & Public Panel Members, Control of Infection (COI) Nurses, Private Finance Initiatives (PFI) Providers and Estates and Facilities (E&F) Managers.
38. The PEAT assessors observed the following: cleanliness of a number of elements i.e., equipment, floors, curtains; condition of decor, floors, equipment; quality of linen; whether drugs cabinets/rooms were secure; availability of patient information; gel at point of care; observing patients are being cared for in single sex accommodation; confidentiality of patient information and lastly the food service.
39. Following the mealtime experience, the team reassembled for the scoring process.

40. The scoring of most elements within the assessment is on a scale of one – five. 1 unacceptable; 2 poor; 3 acceptable; 4 good; 5 excellent.

Outcome of Assessments

41. Following the self assessment scoring process the scores have indicated a PEAT outcome of:

Table 3.0 PEAT Scores 2011

Site Name	Environment Score	Food Score	Privacy & Dignity
The Churchill Hospital	Good	Good	Good
The Horton Hospital	Good	Good	Good
The John Radcliffe Hospital	Good	Good	Good
The Nuffield Orthopaedic Hospital	Good	Excellent	Good

Ongoing Monitoring of Standards

42. The Estates Directorate monitor the standard of cleaning being attained on all wards and very high risk areas (theatres, ITU's, Emergency Departments) on a monthly basis against an agreed target using the National Patient Safety Agency (NPSA) audit tool and specification. The agreed targets are; Very High Risk 95%, High Risk 92%, Significant Risk (outpatients/laboratories) 85% and Low Risk (offices/stores) 75%.
43. The results are shared with the Ward/Department Managers, Directorate Teams and Estates and Facilities Managers and PFI Service Providers.
44. In order to aid the PEAT process and ensure continuity of outcomes, the Estates Directorate undertakes regular environmental assessments similar to that described for the PEAT inspections.

Ongoing Challenges

45. Across the John Radcliffe, Churchill and Horton sites, improvements were noted, however there remain ongoing challenges which need to be addressed in order to achieve year on year improvements.
46. The quality of the environment within the retained estate was substantially poorer compared to the Cancer Centre at the Churchill Hospital and West Wing and Childrens Hospitals on the John Radcliffe site.
47. The quality of the environment in the Cardiac/Audiology Unit at the Horton was also considered poor.
48. Smoking debris and general rubbish continue to be a challenge particularly in the vicinity of the main entrances to buildings.
49. Drug storage areas and drug fridges were found to be unsecured on a number of wards.
50. The location and accessibility of patient notes inappropriate staff/members of the public, within wards and outpatients have improved but remain a challenge.

Successes relating to HCAI

51. Disposable curtains have been adopted on many wards. These are quick and easy to replace, provide a coordinated feel, require less space than cloth curtains and provide an auditable trail.
52. Across a number of wards, there was clear evidence of nursing involvement with the patient meal service where nursing staff are actively involved in preparing patients to receive their meals and assisting patients where required.
53. Patient equipment was found to be generally clean and fit for use.
54. Overall the cleanliness from a patient's perspective was found to be good.
55. Ward environments were generally tidy, with little evidence of clutter.

Air Handling Units theatres - Annual validation

56. Annual validation tests carried out in December 2011 identified some issues with the air handling units which provide ventilation to the operating theatres on the retained estate. To mitigate this risk, the proposal is to carry out an upgrade to the existing ventilation plant and controls in two theatres to ascertain the level of improvement possible. This work is planned to take place in September 2012.
57. The work includes the removal of old duct sections that are corroding, redundant humidifier equipment, improved filter sections to reduce pressure loss, and the installation of a modern control system to improve reliability and remove the current risk of single point of failure by installing independent controls for heating, cooling and ventilation to each theatre plant.
58. The work carried out on the air handling unit in Horton General Hospital maternity theatres has improved the number of air changes per hour to the national standard.

Audit reports relating to prevention of HCAI**Sharps Annual Audit**

59. An annual sharps audit is carried out by Daniels, the OUH Trust supplier of containers for the disposal of sharps. The aim of the audit was to assess practice and to assess compliance with current legislation.
60. The sharps audit for this financial year was carried out in January 2012. The main findings and recommendations are as follows and are part of the Infection Control mandatory updates and induction.
 - 60.1 A small amount (5.9%) of sharps bins were used for the disposal of general waste items. Some (5.3%) were assembled incorrectly and others (6.5%) were inappropriately sited i.e. windowsill or floor.
 - 60.2 Continue education with particular emphasis on the assembly and labelling of sharps bin containers together with promotion of the use of temporary closures. This will reinforce safe practice.

- 60.3 Continue the promotion of the sharps bin injection trays, together with information on the correct sharps bin containers to be used and the procedure for cleaning. This will facilitate a higher degree of safe 'point of use' disposal.

Audit or urinary catheterisation

Background

61. Studies demonstrate that up to around 15%-25% of hospital inpatients will have a urinary catheter at some time during their stay in hospital.
62. The routine surveillance of Catheter Acquired Urinary Tract Infection (CAUTI) is not recommended (High Impact Action 2010). It recommends that the usage of indwelling catheters is measured.
63. The NHS Quality, Innovation, Productivity and Prevention (QIPP) 'safety express' in the UK suggest that we need to reduce the incidence of catheterisation by 50%.

Audit

64. The OUH Trust carried out a urinary catheter audit in March and November 2011. This had two objectives, firstly to assess the percentage of patients catheterised during admission and if there was appropriate rational for this. The second was to attempt to establish the prevalence of catheters and if this was reduced from the figures found in an audit conducted in March 2011.

Findings

65. Out of 731 patients, 14% (102) had a urinary catheter. In the March audit 19% (142) of 743 patients had catheters. This shows a reduction from previous audits (See table 4.0). There was an increase of patients catheterised on one of the rehabilitation wards. However, all these were long term catheters and appropriate for the patients' long term conditions e.g. Multiple Sclerosis or head injuries.
66. The rational for the catheter should be recorded in the medical and/or nursing notes. Urinary catheters should only be inserted if the patient is unable to pass urine (retention), needs accurate fluid balance measurement either because of the seriousness of their condition or because of surgery, and if all other management has been explored and with the patient full consent (see table 5.0).

Table 4.0 Number of patients with a urinary catheter

Catheterised patients	ORH March 2011	NOC March 2011	JR, CH, HGH Nov 2011	MSK* Rehab Nov 2011	OUH Nov 2011
Patients that were catheterised during this admission	122 patients 79%	20 patients 62%	55 patients 72%	9 patients 35%	64 patients 63%
Patient admitted with a long term catheter	31 patients 26%	7 patients 38%	21 patients 28%	17 patients 65% (Increase for OCE)	38 patients 37%

* MSK, Rehab - Muscular Skeletal and Rehabilitation

Table 5.0 Documentation of rational for urinary catheterisation

Reasons for catheterisation	ORH March 2011	NOC March 2011	JR, CH, HGH Nov 2011	MSK Rehab Nov 2011	OUH Nov 2011
No rational for the catheter	27%	38%	12%	44%	17%
Catheter for incontinence	13%	14%	5%	0%	4%
Pre or post operative	13%	38%	23%	22%	23%
Accurate fluid balance	25%	5%	21%	0%	18%
Retention	21%	5%	28%	22%	28%

Commentary

67. The prevalence of urinary catheters within the Trust was within the national average figures, which is 15% - 25%. The QUIPP 'safety express' recommends that each Trust should aim to reduce the number of urinary catheters inserted by 50%, to reduce the risk of catheter associated infection. The audit shows a positive downward trend of patients being catheterised during admission.

Audits of antimicrobial management

Background

68. The remit of an antibiotic stewardship/management programme is to ensure that antibiotics are prescribed when there is a clinical need to do so with a specified duration. The programme is aimed to reduce resistance, reduce infections such as *Clostridium difficile* and reduce cost whilst improving patient outcome (CDC, 2011).
69. Antibiotic overuse increases drug resistance (CDC, 2011) and antimicrobial resistance is a global Public Health issue which continues to rise in England, Europe and America (WHO, 2012).
70. The HPA recommend that hospitals have guidelines for broad spectrum antibiotics, stewardship programmes with prescribing competencies, and hospitals to report their consumption data along with other quality metrics to measure antibiotic usage (HPA, 2012).
71. Patients prescribed antibiotics for Respiratory or Urinary Tract infections develop resistance which may last for up to twelve months following the initial treatment (Costelle *et al*, 2010).

Audits

72. The Trust quarterly point prevalence surveys identified that since 2007, the percentage of inpatients prescribed antibiotics remains at 35% and that the average number of antibiotics per patient remains unchanged over time. Overall compliance with antimicrobial guidelines has improved from 90% to 96%. The percentage of antimicrobials prescribed for more than 48 hours has increased from 49% to 60%. One of the objectives in 2012/2013 is to understand this increase and if clinically appropriate to reduce it.
73. The Trust also carries out monthly audits to assess the standard of documentation for each antibiotic prescription i.e. each antibiotic prescription has a clear clinical indication and duration/review or stop date. The results of the quarterly point prevalence and monthly indication and duration audit are e-mailed to every consultant, inpatient clinical area, all ward sisters and managers though out the Trust. The results are also reported in the quality metrics for each ward/division.
74. What the survey/audits do not inform us is the number of antimicrobial prescriptions that have a clear indication documented but is not supported by the clinical presentation of the patient e.g. a patient does not have evidence of a Urinary Tract infection (UTI) but the antimicrobial prescription and documented indication is that for a UTI.
75. The key issues from the last quarterly point prevalence audits are as follows.;

- 75.1 Co-amoxiclav which is a broad spectrum antibiotic, is the most commonly used agent in the Trust. This is concerning as we need to reduce the use of broad spectrum agents to more narrow spectrum agents.
- 75.2 The co-prescription of proton pump inhibitors with antimicrobials has increased. This increases the risk of *Clostridium difficile* (C. diff) infection. Ciprofloxacin usage has also increased and this is also highly provocative for C. diff infection.
- 75.3 As a Trust we are prescribing longer courses of antibiotics. There is no evidence to support prolonged antimicrobial treatment for uncomplicated infection and improved outcome.
- 75.4 All antimicrobial prescribers are required to document the indication for the antibiotic on the drug chart, duration or review date and the rationale for non adherence with guidelines in the medical notes.

76. Table 6.0 shows the results from the previous point prevalence audits and figure 3 and 4 illustrates the change in broad spectrum antibiotic usage some of which can be explained from guideline change in surgical prophylaxis.

Table 6.0 Comparison of quarterly point prevalence with previous audits.

Comparison with previous surveys (Trust-wide data)	April 12	Jan 12	Oct 11	July 11	May 11	April 10
% antimicrobials compliant with guidelines / micro/ID advice	95%	96%	96%	97%	90%	88%
% patients prescribed antimicrobials	32%	35%	32%	32%	32%	36%
% co-prescription of antimicrobials + ulcer-healing drugs (Proton pump inhibitors (PPIs) or H ₂ -antagonists)	47%	38%	33%	34%	28%	18%
% parenteral antimicrobials given for longer than 48 hours	58%	60%	53%	55%	49%	no data
% enteral antimicrobials given for longer than 5 days	50%	44%	46%	41%	no data	no data
% antimicrobials not compliant with guidelines / unclear indication	4% / <1%	4% / <1%	4% / 0%	2% / 1%	6% / 4%	7% / 3%

77. Figure 3 and 4 illustrate antimicrobial usage but this is not related to bed days/capacity. It is the total usage purchased by the trust and it is not direct consumption data. The increase in ceftriaxone usage is linked in a change in practice with antibiotic prophylaxis and increased usage for treatment on the John Radcliffe site.

Figure 3. Usage data for the most commonly used broad spectrum antibiotics

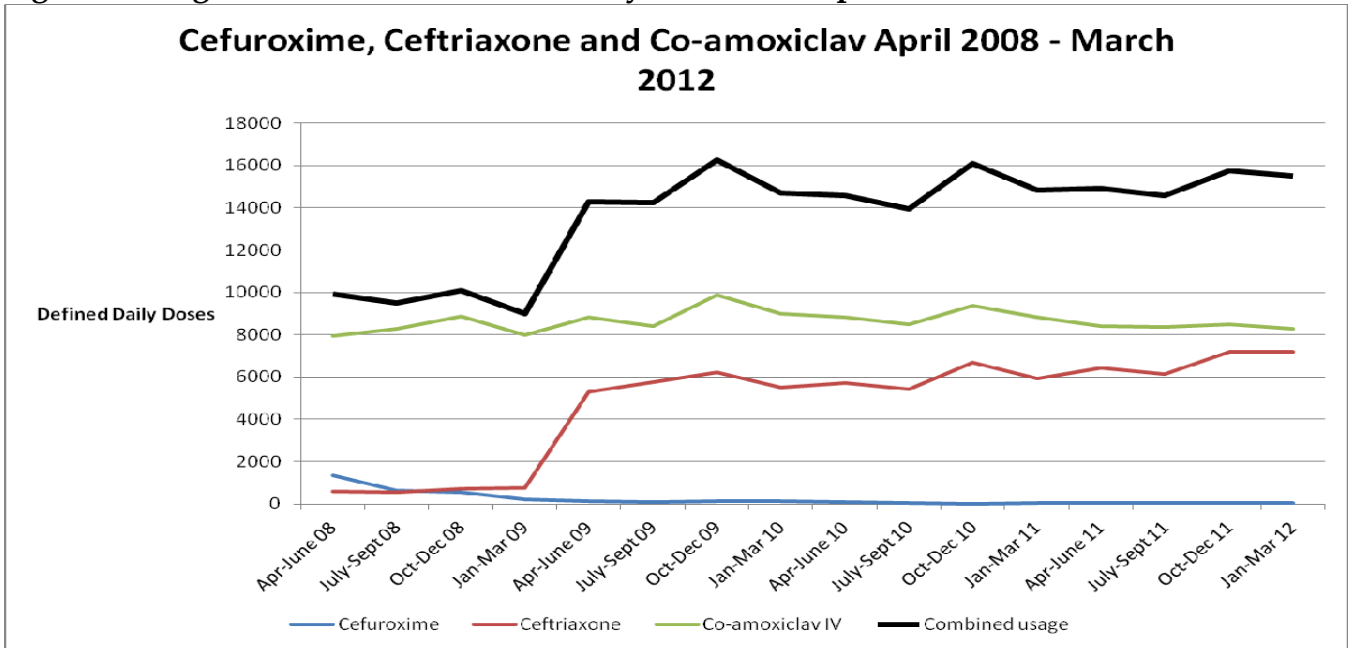
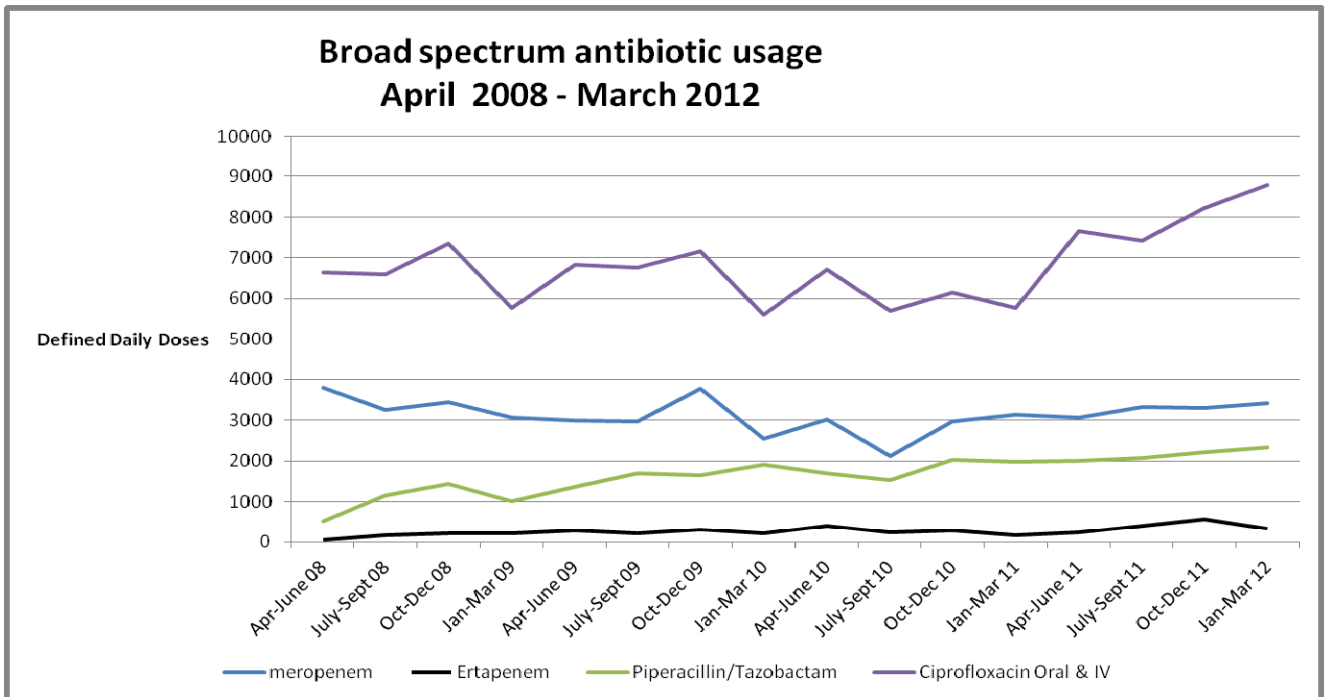


Figure 4. Further usages of broad spectrum antibiotics



78. The AMT in the forthcoming year is focussing on reducing HCAI related to the over prescribing of antibiotics. This can be achieved by improving the diagnosis of an infected patient and prescribing a shorter treatment course. In addition, there will be a similar focus to ensure that patients' who present with severe sepsis are rapidly identified and have antibiotics administered in a timely manner.

Mandatory Surgical Site Surveillance

79. Mandatory Surgical Site Surveillance for fractured neck of femur and hip replacement is carried out across three sites, NOC, F ward Horton general Hospital and Trauma unit John Radcliffe hospital. The data was collected during January 2012 to March 2012.

Health care associated infection (HCAI) related incidents

Overview

80. The OUH Trust is one of the largest teaching trusts in England with a mixture of district general hospital and tertiary referral activity. In that context the number of infection control incidents investigated in relation to the activity and complexity of the Trust is quiet small. Over the past year, there have been nine HCAI related incidents requiring investigation by the infection control team.

Reduction of risk of Transmission of Creutzfeldt-Jacob Disease (CJD)

Background

81. The National Institute for Health and Clinical Excellence in 2006 published guidance regarding patient safety and the reduction of risk of transmission of Creutzfeldt-Jacob Disease (CJD) via interventional procedures. One of the recommendations refers to children born after 1st January 1997, and who have not previously undergone high-risk procedures.
82. To comply with NICE 2006, the ORH trust purchased a separate pool of reusable surgical instruments for high-risk procedures that will be used on children born since 1st January 1997. To further assist with instrument tracking and tracing, high risk instrument trays, supplementary packs and instruments used in ophthalmic & neurosurgical procedures all the new instruments were marked and tracked to individual sets.

Incident

83. This new system was introduced in November 2010, but in January a non compliance issues was identified by the Sterile Services department and reported to infection control. There was no clinical risk to patients but it highlighted a gap in the present system that may have resulted in future potential harm if it was not rectified.
84. As a result a new process and further training was put in place.

Surgical Site Surveillance

Background

85. Surgical Site Infections are classified as superficial, deep and organ/space infections. Superficial involves the skin and subcutaneous tissue. Deep includes deep soft tissue-muscle and fascia.

86. Organ/space surgical site infection (SSI) must meet the following criteria;
- 86.1 Infection occurs within 30 days after the operative procedure if no implant is left in place or within 1 year if the implant is in place and the infection appears to be related to the operative procedure.
 - 86.2 Infection involves any part of the body, excluding the skin incision, fascia, or muscle layers which are opened or manipulated during the operative procedure.

Investigation of deep/organ space infections

87. Review of preoperative and intra-operative management found that procedures were being followed. This included management of the ward prior to surgery (pre-operative), management during surgery (intra-operative) and care following surgery (post operative).

Pre-operative management on the ward

88. All of the patients were screened for MRSA and received a pre surgical wash with Chlorhexidine 4% within 24 hours of surgery.
89. There were no issues with preoperative ward management.

Intra operative management

90. Any removal of hair is carried out using surgical clippers with a disposable head.
91. The skin preparation used for these cases is 70% ethanol and some specialities add a dye to ensure they have prepared the area. Videne antiseptic solution is used for patients with open wounds.
92. Antibiotic prophylaxis was administered within 30 minutes of skin incision.
93. Concern was raised over visitors into the theatres, theatre doors left open and maintaining a sterile field during surgery. This was addressed with the specialities involved.

Post operative care

94. Some of the wounds were dressed with bio-occlusive dressings and pin sites were dressed with Chlorhexidine soaked dressing covered with a mepore dressing. Since then there is now a consensus of opinion regarding the management of pin sites within the Trust.

Conclusion

95. Different surgical procedures carry different infection risks due to the nature of the surgery and the clinical circumstances of the patient. It is difficult to determine for
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some operative procedures where the infection was introduced. Surgical services continue to maintain standards at all stages in the process.

Legionaries' disease

Background

96. *Legionella* is an environmental pathogen that lives in water can cause legionnaires disease. It is only advisable to test and remove any potential source if there is a risk of multiple infections. Sporadic cases do not routinely lead to identification of source. Focus of investigations therefore should be locations where there is public health risk.

Incident

97. The OUH Trust had two cases of Legionnaire's disease in different clinical areas and at different points in time, that required investigation with external agencies to determine if the source of the disease was hospital or community acquired.
98. The team involved the following agencies; Thames Valley HPU, Oxford City Council, HPA food, Water and Environmental Microbiologist, Public Health, Oxfordshire PCT and Infection Control OUH Trust.

Conclusion

99. Despite extensive water testing, there was no identifiable source identified within the trust. It was concluded that both were community acquired. The patients were advised about care of water in domestic environment.

Hepatitis B vaccination and screening

Background

100. Hepatitis B is a blood-borne virus, acquired through contact with blood or bodily fluids. The WHO estimates the prevalence of Hepatitis B in the UK at 0.03% but it is much more prevalent in other areas of the world, for example South East Asia where prevalence approaches 10%.
101. A proportion of those infected will not clear the virus and will be chronic carriers, remaining infectious to others and being themselves at risk of liver damage and liver cancer in the long term.
102. Patients who receive dialysis are at increased risk of acquiring Hepatitis B via dialysis equipment and there are therefore national guidelines in place (Renal Association, www.renal.org/Libraries/Guidelines/BBV) to reduce the risk of transmission of Hepatitis B on dialysis units. They state that all patients likely to need dialysis should be vaccinated against Hepatitis B. Those who respond to the vaccine should have annual tests of immunity (anti- HBs titre) and receive a booster vaccine where indicated. Carriers of Hepatitis B should dialyse in a separate area on

a dedicated machine. Health Care Staff working on dialysis units should be vaccinated against Hepatitis B (or have proof of non-infectivity).

Incident

103. A local review of staff and patient vaccination for hepatitis B identified gaps in the system for staff and patient vaccination. As a result all staff and patients records within dialysis were inspected.
104. There were no non immune staff members but a small number of non immune patients were identified.

Investigation of vaccination history of dialysis patients

105. Hepatitis B vaccinations for dialysis patients prior to this incident were carried out by their GP's in Primary Care and there is a less than 10% completion rate to the attached forms. As a result dialysis patients will be offered Hepatitis B vaccination on the unit instead of asking them to go to their GP's.

Antibody response of existing patients

106. There is no current recommendation to offer boosters for non-responders, so antibody response to a course of vaccine is not recorded. However, all patients were tested in December 2011 to check their antibody response. The results demonstrated that 41 out of 399 dialysis patients require a booster and all have been offered this.

Actions following investigation

107. Revision of local guideline for vaccination, screening and care of patients with BBV (including return from dialysis away from base) was updated after the incident.
108. All staff that provides dialysis has been audited to see if they have met the required pre-employment checks and are Hepatitis B immune.
109. All Renal unit clinical staff including doctors, nurses, care support workers, technicians will be screened for surface antigen and Hepatitis B antibody levels. This programme is ongoing.

Air Handling Unit - Neonatal unit

110. In late December 2011, an incident occurred in the Neonatal Unit as a result of faulty fire dampeners. An incident was called as there was a potential for dust getting into the air handling unit.
111. Immediate action was taken to shut down the air handling unit supplying the NNU, and to fix the dampeners open. The temperature in the intensive care was maintained with a wall mounted air conditioning unit.
112. The dampeners remained fixed open and there were no further problems on the unit. The air handling unit will be replaced as part of the NNU expansion.

Exposure to open Pulmonary TB

113. A patient with unsuspected TB was admitted to a four bedded bay on a ward. It was later confirmed that it was open pulmonary TB, the patient received treatment and recovered with no complications.
114. All patients who shared a bay with this patient were identified and informed either in person or via their next of kin and if they were discharge by letter, that they had a shared a bay with a patient who has since being diagnosed with TB. It was also explained that the risk of them acquiring it was very low.
115. All of the GP's were informed and are aware of the symptoms to look for and to direct any concerns about TB to the Infectious Diseases team on John Warin ward. The patients were followed up by the Oxfordshire TB nurses who tested all the patients after three months from the original exposure. No positive cases were found.

Outbreaks

MRSA colonisation outbreak - Neo Natal Unit (NNU)

116. In August 2011, a cluster of four MRSA colonised babies were identified following a report from the reference laboratory (MRSA screens taken in July).
117. There was an initial unavoidable delay in identifying the outbreak, as the initial MRSA screens were difficult to identify and were sent to the reference laboratory for further identification. The babies that were identified with it were colonised only and not infected. No baby on the unit developed an infection as a result of the outbreak.
118. Based on the results from the reference laboratory, all the remaining babies in the NNU were screened from multiple sites, full *staphylococcus aureus* plates were used to see if MSSA or MRSA grew. All the screens were negative for MRSA.
119. The MRSA isolated was unusual as it was *mecA* positive on PCR but oxacillin sensitive by conventional disc and E-strip testing. The isolates were identified due to the lab noticing that they grew on MRSA select agar but appeared sensitive by disc testing and as described above were sent to the reference laboratory for *mecA* PCR.
120. Routine weekly MRSA screening (multi-site screening on MRSA select) during October did not identify any new positives. It is not clear how or exactly when it was introduced into the unit or its source.
121. No babies became infected or unwell as a result of the colonisation. No babies were identified before or after this incident and there was no further transmission on the unit.

Norovirus outbreak April 2011 to April 2012

Background

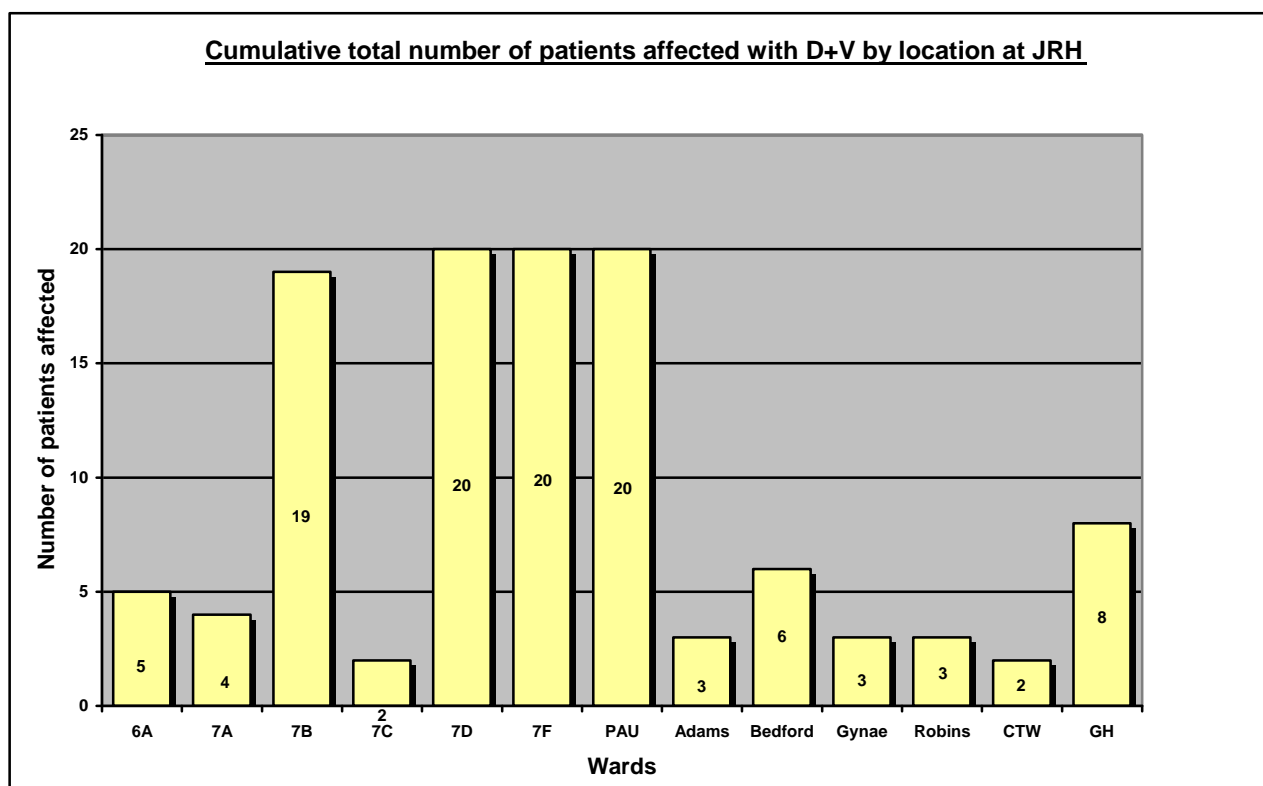
122. Noroviruses are a group of viruses that are the most common cause of Gastroenteritis in England and Wales. It is also known as 'winter vomiting viruses', 'small round structured viruses' or 'Norwalk-like viruses'. Outbreaks usually affect both patients and staff of all ages. Outbreaks of Norovirus Gastroenteritis are common in semi-closed environments such as hospitals, nursing homes, schools and cruise ships. Noroviruses may be spread from person to person by the faecal-oral route, aerosol from vomiting, and environmental contamination.

123. The time from exposure to symptoms can vary between 12 to 48 hours, whilst symptoms can last between 24 to 60 hours. Illness is usually self-limiting, and characterised by nausea, vomiting, loose stools, and abdominal pain. General lethargy, weakness, muscle aches, headache, and low-grade fever may occur.
124. According to the Health Protection Agency (HPA), the economic impact of operational difficulties resulting from Norovirus outbreaks is estimated to be more than £115 million each year to NHS inpatient services.

Norovirus outbreak

125. First few cases were detected on PAU. Within the next three days there were patients with symptoms on the level 7 wards and other medical wards. Staff members from each ward were also affected. As per guidelines, a selection of faecal samples were tested by the routine microbiology laboratory and found to be positive for Norovirus on the immunoassay test.
126. During February, a total of 115 patients were afflicted with symptoms of loose motions only, vomiting only, or both vomiting and loose motions.
127. No wards were closed. However, restrictions were imposed on affected wards regarding admission of new patients into affected bays. Of 115 patients, 28 were males and 87 were females. A total of 54 samples were received from this outbreak (47%), 31 were found to be PCR positive and 23 were found to be PCR negative.

Figure 7.0



Rates of Infection

Staphylococcus aureus blood stream infections

128. A third of the population has *staphylococcus aureus* colonised on their skin without causing infection. The majority of *staphylococcus aureus* are sensitive to the more commonly used antibiotics and this is known as MSSA. However, some *staphylococcus aureus* are more resistant, those resistant to the antibiotic Meticillin are known as MRSA.
129. MRSA and MSSA differ in their degree of antibiotic resistance. Otherwise there is little difference in the clinical outcome of a patient who has an infection with either one.
130. Figure 8 and 9 illustrate the total number of MRSA and MSSA positive blood cultures processed in the OUH Trust Microbiology laboratory. In 2010/2011, the ORH Trust had four MRSA bacteraemia apportioned to the Trust with an annual objective of six. The NOC had one with an annual objective of one.

Figure 8.

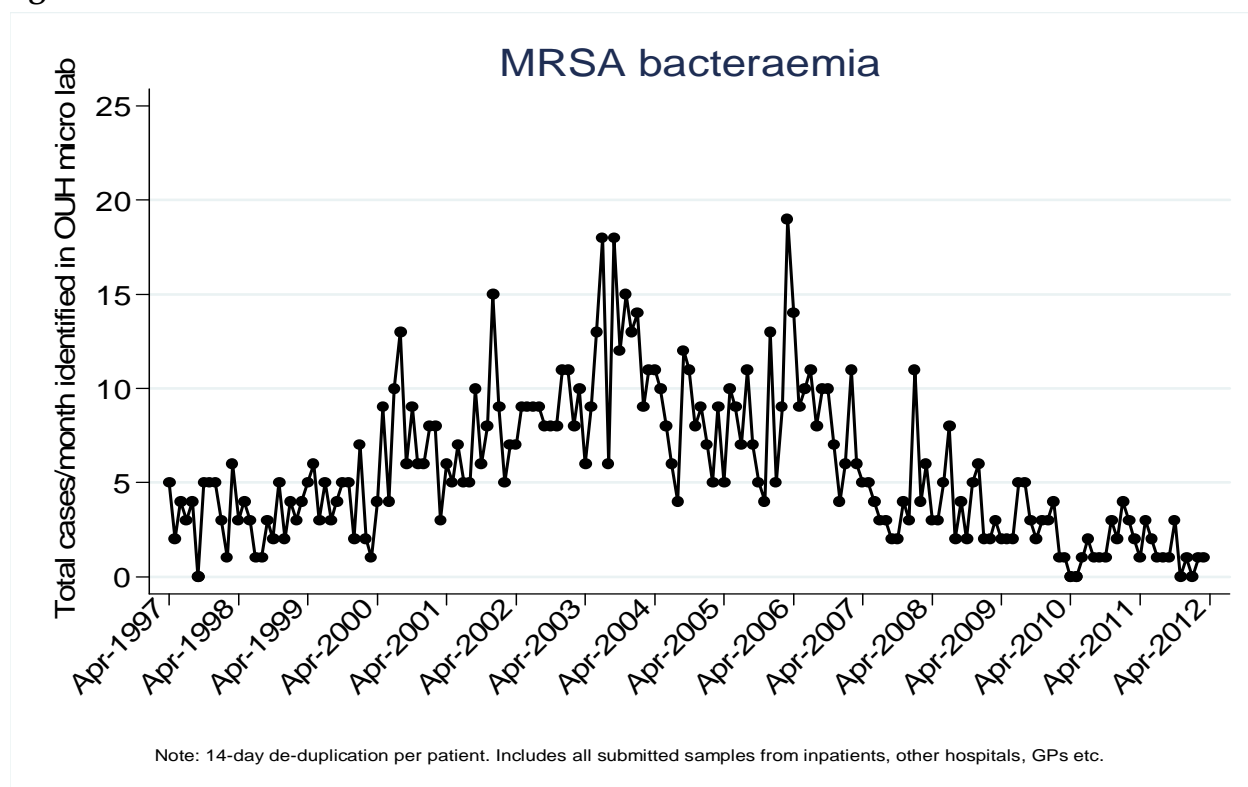
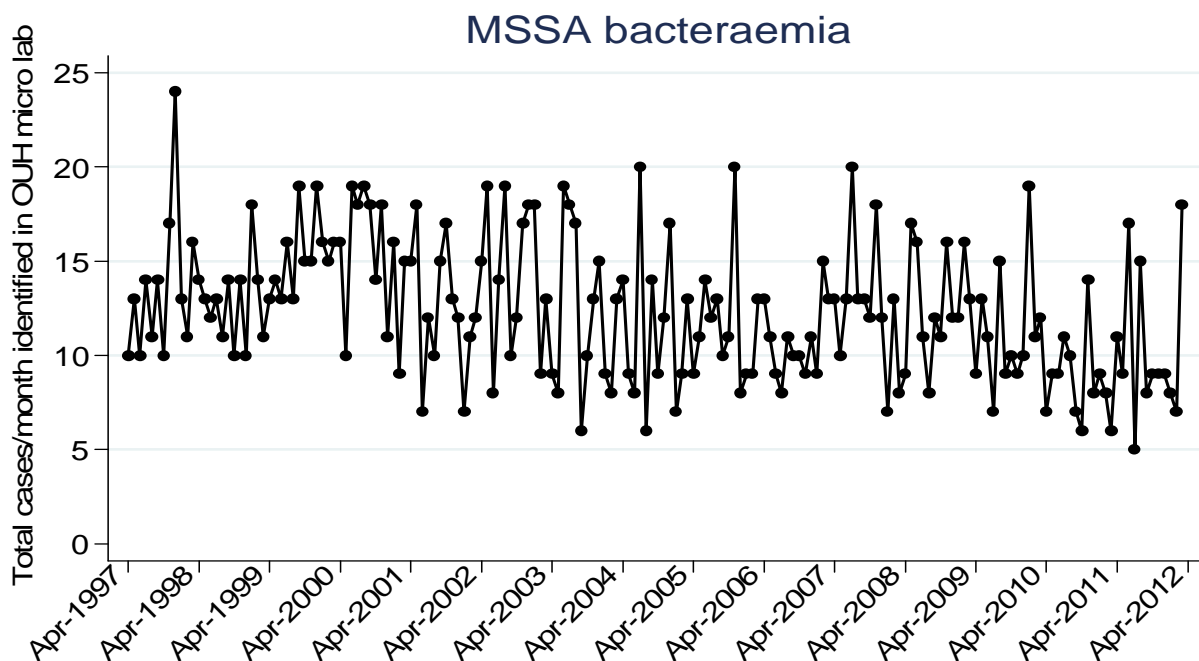


Figure 9.



Clostridium difficile

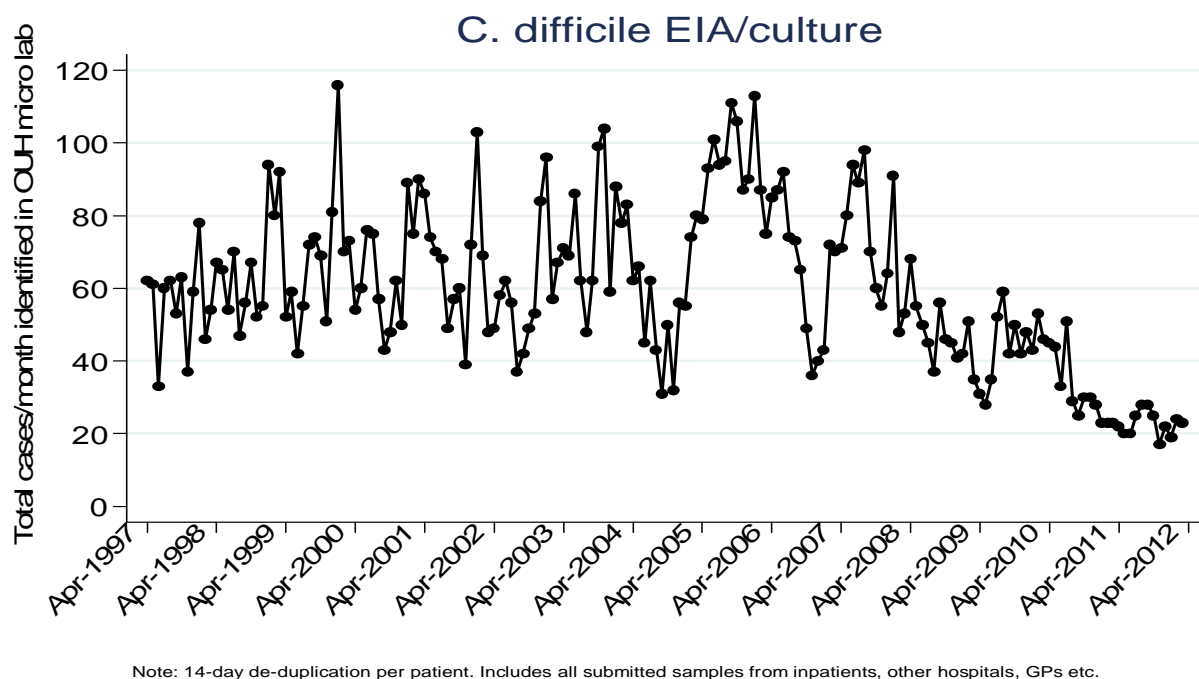
130. The manner in which *C. diff* is monitored has altered significantly from 2007 to present day. Each case is apportioned depending on when the stool sample was taken. Stool samples taken after 72hrs of admission are apportioned to the Acute Trust. The table below shows the changes in monitoring over time.

Table 7.0

Year	C. diff objective	C. diff actual	Change in monitoring
2007/2008	432	440	All positives cases of <i>C. diff</i> from the ORH Trust laboratory.
2008/2009	459	305	All positives cases excluding those from children under the age of 2yrs.
2009/2010	324	239	The objective for the ORH trust in 2009/2010 included all positive cases from samples taken after 72hrs of admission.
2010/2011	205	146	Same as for 2009/2010
2011/2012	137	103	Same as for 2009/2010

131. Figure 10, on the following page illustrates the total number of cases of *C. diff* identified in the lab.

Figure 10.



Conclusion

132. The ORH and NOC met its MRSA bacteraemia objective for 2010/2011. Clinical areas, divisional teams and infection control work together to manage patients with infection, infection related issues, antimicrobial management and infection control training.
133. Where incidents have occurred, action has been taken to rectify the situation and analysis of lessons learnt is conducted.

References:

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Costelloe, C., Metcalfe, C., Lovering, A., Mant, D., Hay, A.D. (2010) Effect of antibiotic prescribing in primary care on antimicrobial resistance in individual patients: systematic review and meta-analysis. *British Medical Journal* 10(340):2096

Health Protection Agency (2011) English National Point Prevalence Survey on Healthcare-Associated infections and Antimicrobial use.

World Health Organisation (2012) Antibiotic Resistance. Available from: <http://www.who.int/mediacentre/factsheets/fs194/en/>

Infection Prevention and Control Annual Programme April 2012 – March 2013

April 2012

1. Executive Summary

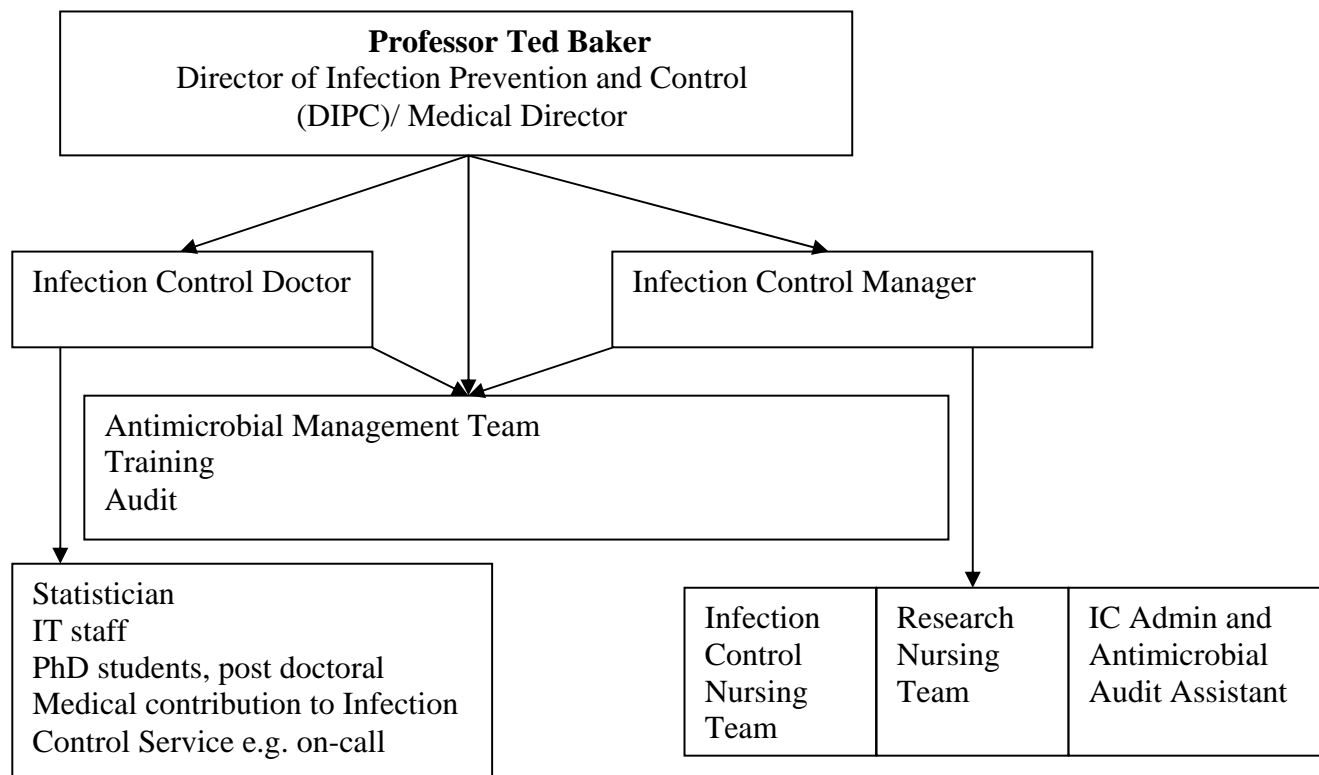
- 1.1 The annual programme of the Infection Control (IC) service for April 2012-March 2013 outlines the core elements of works to be undertaken by staff at the OUH Trust. It continues to focus on two main areas: prevention of infection e.g. indwelling devices and surgical procedures and secondly the appropriate management of patients admitted with infection or identified during their admission. It also supports the OUH Trusts continuing registration with the Care Quality Commission.
- 1.2 The programme directly related to the Health and Social Care Act 2008, Care Quality Commissions Essential Standards, the National Cleaning Standards, National Institute for Health and Clinical Excellence Quality Improvement Guide and evidenced based practice.

2. General Objectives

- 2.1 To sustain and further develop a programme to focus on promoting the ownership of infection prevention and control including antimicrobials by all Trust employees.
- 2.2 In the coming year the Infection Control service will continue to deliver, review, update and report on Infection Control and Antimicrobial Guidelines and Procedures. Continue to carry out daily surveillance and review of incidents relating to infection and make available both informal and formal education. Deliver an annual audit plan for infection prevention and control and antimicrobial management programme.
- 2.3 Contribute to and attend the following groups: Decontamination Committee, Scope Users Group, Estates Project Group, Health and Safety Committee, Tissue Viability group, Antimicrobial Steering Group and attend TEAR, PEAT visits and cleaning audits.

3.0 Infection Control Service

The flow diagram below illustrates the infection control service.



4. Trust board demonstrates leadership in infection prevention and control to ensure a culture of continuous quality improvement and to minimise risk to patients.

Board level leadership to prevent HCAIs	Action	Lead	Outcome	Evidence	Date to be achieved
<p>4.1 People visiting, or receiving treatment in, hospitals can expect all Trust staff - from board to ward level - to take responsibility, and be accountable for, continuous quality improvement in relation to infection prevention and control.</p> <p>Trust boards are proactive in ensuring continuous quality improvement by leading on, and regularly monitoring compliance with, all relevant infection prevention and control objectives, policies and procedures.</p>	4.1.1 Monthly Infection Control reports to Trust board so that the board has up to date working knowledge and understanding of infection prevention and control.	DIPC	Trust board is kept informed with up to date information	Minutes of Trust Board	monthly
	4.1.2 Reports to included compliance with Antimicrobial Guidelines, numbers of <i>Clostridium difficile</i> , MRSA bacteraemia and other infection related events or incidents.	Infection Control Manager	Executive and non-executive awareness of Hospital acquired infection data and performance		monthly
	4.1.3 Trusts aims and objectives are included on the Trusts balanced score card.	Infection Control Manager	Trust staff are aware of trust objectives	Balanced score card	June 2012
	4.1.4 Trust board has approved the annual infection control accountability framework	Infection Control Manager	Trust board members are aware	Trust approved infection control policy	completed
	4.1.5 Trust board has approved the annual Infection Control programme	DIPC/Infection	Trust board members are aware	Trust board	June 2012

		Control Manager	of annual programme	minutes	
	4.1.6 Each clinical area is accountable for compliance with relevant aspects of the code of practice	Divisional Directors	Divisional Clinical Governance reports	Divisional Clinical Governance papers	monthly

5. Information is used from a variety of sources to inform and drive continuous quality improvement to minimise risk from infection

Be a learning organisation	Action	Lead	Outcome	Evidence	Date to be achieved
5.1 People visiting, or receiving treatment in, hospitals can expect the Trust to learn from its own and other healthcare providers' experience, and to use this learning to improve the quality of care and practice in infection prevention and control. Boards ensure mechanisms are in place for the Trust to use a range of information, in addition to surveillance data, to minimise risk of infection to patients, staff and visitors. This includes information about good and poor practice	5.1.1 There is a process to learn from experiences outside and within the organisation in relation to infection prevention and control	DIPC/ Infection Control Manager	Presentation to Hospital Infection Control Committee and Clinical Governance Committee	Papers and minutes of meetings. Staff awareness Review and changes in practice Gap analysis and action plans on official reports Audit results reported to clinical areas	Ongoing but review every quarter

6. Trusts have a surveillance system in place to routinely gather data and to carry out mandatory monitoring of HCAs and other infections of local relevance to inform the local response to HCAs.

HCAI Surveillance	Action	Lead	Outcome	Evidence	Date to be achieved
<p>6.1 People visiting, or receiving treatment in, hospitals can expect the Trust to monitor infection levels across all service areas and use this information to adjust practice, where necessary. For example, they can expect the trust to close beds, or a ward to visitors, in response to an outbreak.</p> <p>Boards ensure there is a fully resourced and flexible surveillance system to monitor infection levels in the trust. Outputs are shared across the organisation and used to drive continuous quality improvement.</p>	6.1.1 continue to use and develop a surveillance system to detect and report organisms and identify trends	Infection Control Doctor/ Infection Control Manager	Fit for purpose IT system that allows data from multiple sources	<p>Validated processes that ensure data is accurate and analysed in a meaningful way</p> <p>Surveillance systems that capture surgical site infection</p> <p>Evidence that the trust reports all outbreaks, serious incidents and other significant HCAI-related risk and incident to the local HPU.</p>	<p>Completed</p> <p>Waiting EPR trust roll out</p> <p>monthly</p>

7. Trusts prioritise the need for a skilled, knowledgeable and healthy workforce that delivers continuous quality improvement to minimise the risk from infections. This includes support staff, volunteers, agency/locum staff and those employed by contractors.

Workforce capacity and capability	Action	Lead	Outcome	Evidence	Date to be achieved
<p>7.1 Patients can expect staff to have the necessary skills and knowledge to undertake infection prevention and control procedures in their area of work.</p> <p>Boards ensure staff have the skills and training required for infection prevention and control</p>	7.1.1 Local arrangements to ensure all staff working in clinical areas have an appraisal and development plan that includes discussion of infection prevention and control.	Divisional Directors	Staff are aware of their responsibilities relating to infection prevention and control	Point prevalence of staffs appraisals Staff are compliant with infection control guidelines Compliance with pre-employment checks with occupational health	
	7.1.2 audits results are fed back to staff	Ward Managers	Staff are aware of areas of compliance and non compliance	Results of audits are fed back to individual members of staff	
	7.1.3 staff complete infection control training within one week of work	Local Managers	Aware of standards for infection prevention and control	Trust induction training records	
	7.1.4 Infection Control training and competencies are regularly checked and updated accordingly	Infection Control Team	Training package is up to date	Versions control illustrating changes to training package with dates	
	7.1.5 All staff have access to occupational health	Occupational Health Manager/Lead	Staff can access OH when required		

8. Trust ensures standards of environmental cleanliness are maintained and improved beyond current national guidelines

Environmental cleanliness	Action	Lead	Outcome	Evidence	Date to be achieved
<p>8.1 People visiting, or receiving treatment in, hospitals can expect secondary care settings to meet high standards of cleanliness, with each trust monitoring the condition of its premises to ensure levels exceed the minimum required standard.</p> <p>Boards ensure policies, procedures and resources are in place to maintain and continuously raise the level of cleanliness across the trust.</p>	8.1.1 Staff have access to guidance relating to cleaning and environmental decontamination	Infection Control Manager	Staff know where to access guidance	Clinical area cleaning manual	
	8.1.2 Staff responsible for cleaning are trained	Ward Manager Facilities Manager for each site	Staff are competent to carry out the appropriate disinfection, decontamination and cleaning	Results of cleaning audits	

9. Trusts work proactively in multi-agency collaborations with other local health and social care providers to reduce risk from infection

Multi agency working to reduce HCAIs	Action	Lead	Outcome	Evidence	Date to be achieved
<p>9.1 People visiting, or receiving treatment in, hospitals can expect the Trust to be working collaboratively with other local health and social care providers to prevent and reduce harm from infection.</p> <p>Boards are actively involved in local</p>	9.1.1 Trust participates in joint working initiatives beyond mandatory or contractual requirements to reduce HCAIs	DIPC/ Infection Control Manager	Learn from other organisation	Meeting minutes written correspondence Data sharing between organisations SLA with Oxford Health	ongoing

networks. They share governance structures, objectives and learning with other local health and social care providers to promote good practice among them.					
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10. Trusts ensure there is clear communication with all staff, patients and carers throughout the care pathway about HCAs, infection risks and how to prevent HCAs, to reduce harm from infection.

Communication	Action	Lead	Outcome	Evidence	Date to be achieved
<p>10.1 People visiting, or receiving treatment in, hospitals can expect to be provided with information on how to reduce the risks of an HCAI and to be given the opportunity to discuss HCAs with staff. Patients who have an HCAI can expect to be:</p> <ul style="list-style-type: none"> • Notified of their infection • Told about the impact it will have on their care • Given relevant information about minimising the risk to others. <p>Boards ensure processes are in place to communicate relevant information about minimising the risk of (and from) HCAs to patients, carers, visitors and staff. They also ensure staff have access to relevant patient information resources and up-to-date local surveillance information so they can communicate about HCAs effectively.</p>	<p>10.1.1 Patients/ designated family member and staff are notified of infection when identified.</p>		<p>Patients and staff are aware of the infection and have the knowledge to manage it.</p>	<p>Access to Infection Control guidelines and information leaflets.</p> <p>Documentation in the patients notes state when the patient was informed.</p>	ongoing

11. Trusts have a multi-agency patient admission, discharge and transfer policy which gives clear, relevant guidance to local health and social care providers on the critical steps to take to minimise harm from infection.

Admission discharge and transfer	Action	Lead	Outcome	Evidence	Date to be achieved
<p>11.1 Patients with an infection can expect relevant information about it to be shared between providers when they are admitted, transferred to, or discharged from a hospital to ensure seamless care.</p> <p>Boards lead on the development of an agreed multi-agency admission, discharge and transfer policy. They ensure mechanisms are in place to support and monitor adherence to the policy.</p>	11.1.1 Admission, discharge and transfer policy for patients with an infection agreed by all agencies in the patients' care pathway.	Infection Control Manager	A risk assessment is carried out on admission, and for all transfers to determine the presence or risk of transmitting infection.	Documentation of infection and shared information regarding infection Advice given to patients Reduction in the number of adverse events relating to infection	

12. Trusts use input from local patient and public experience for continuous quality improvement to minimise harm from HCAs

Patient and public involvement	Action	Lead	Outcome	Evidence	Date to be achieved
<p>12.1 Patients and the public can expect the Trust to provide opportunities for them to be involved with planning and decision making on quality improvement activities to prevent and control infections.</p> <p>Boards ensure the Trust has mechanisms in place to seek patient and public views and involve them in decisions related to quality improvement for infection prevention and control.</p>	Nominate non-Executive Director to lead on patient and public involvement in infection prevention and control.	DIPC	Non-executive director acts as an advocate for patients and those involved reflect local demographics	HICC minutes Audits with comments from patients and public representatives Meetings with patient and public representatives	ongoing

13. Trusts consider infection prevention and control when procuring, commissioning, planning, designing and completing new and refurbished hospital services and facilities.

Trust estate management	Action	Lead	Outcome	Evidence	Date to be achieved
<p>13.1 People visiting, or receiving treatment in, hospitals can expect hospitals, and other parts of the Trust estate, to be built and maintained in such a way as to minimise the risk of infection.</p> <p>Boards ensure the whole estate is managed and maintained to minimise risk from infection.</p>	13.1.1 Infection Control service hold regular meetings with estates projects	Infection Control Manager	Estates are supported and have access to Infection Control advice when required	Minutes of meetings and e-mail correspondence	
	13.1.2 Infection Control work with estates in the	Infection Control Manager	Infection prevention and control aspect of	Infection Control involvement in estates policies for	ongoing

	development of relevant policies e.g. water management		the relevant policies are addressed.	routine and preventative maintenance Cleaning strategy Compliance with trust policy Infection control involvement in the procurement of products	
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14. Trusts regularly review evidence-based assessments of new technology and other innovations to minimise harm from HCAs and antimicrobial resistance (AMR)

New technology and innovation	Action	Lead	Outcome	Evidence	Date to be achieved
<p>14.1 People visiting, or receiving treatment in, hospitals can expect the Trust to assess relevant new technologies and innovation to help improve the quality of care and practice to prevent, and reduce the harm from, infection.</p> <p>Boards routinely identify technology needs relevant to HCAI prevention and control and assess the potential of new technologies and innovation to meet those needs. Where new technologies and methods are identified, they are evaluated and implemented, as appropriate.</p>	14.1.1 Infection Control are informed and consulted on new relevant technologies	DIPC	Prevent harm of infection to patients	Advice from Infection Control	ongoing
	14.1.2 Infection Control to support people in research for quality improvement methodology, behavioural sciences or other areas to improve HCAs are prevented or controlled.	Infection Control Doctor and Manager	Help prevent future HCAs	Infection Control advice and involvement Biomedical research infection theme activity	ongoing

Appendix 1

HOSPITAL INFECTION CONTROL COMMITTEE

1. Strategic Purpose

- 1.1 The objective of the Hospital Infection Control Committee is to ensure that safe and appropriate arrangements and processes are in place to enable the delivery of high quality Infection Control services to the Trust.
- 1.2 The committee will ensure that effective monitoring arrangements are in place to support compliance with *Clean Your Hands Campaign (2009)*, *Saving Lives-High Impact interventions (2007)*, *The Health and Social Care Act 2008: Code of practice for the NHS on the prevention and control of healthcare associated infections and related guidance* and *Care Quality Commission: Essential standards of quality and safety*.
- 1.3 The committee will be responsible for ensuring the liaison and collaborative working between all Corporate and Divisional staff, particularly ensuring working with Estates and Facilities and Operational (bed) Management.

2. Terms of Reference

- 2.1 To develop a framework for Hospital Infection Control, which ensures the integration of good practice through the Corporate & Divisional structures.
- 2.2 To support the Director of Infection & Prevention Control with the introduction of national initiatives such as Saving Lives and CleanYourHands Campaign.
- 2.3 To work collaboratively with staff from the PCT, SHA and the National Patient Safety Agency in all areas impacting on the management of healthcare acquired infections.
- 2.4 To ensure that serious problems or hazards relating to Infection Control are brought to the attention of the Chief Executive through the Director of Infection Prevention and Control/Medical Director and the Director of Nursing.
- 2.5 To Support and advise the work of the Infection Control Team.
- 2.6 To consider and endorse reports on specific incidents, complaints and claims relating to infection and Infection Control problems.

- 2.7 To review all appropriate Infection Control associated incidents/complaints/claims and monitor trends.
- 2.8 To ensure plans are in place to manage the outbreaks of infection and to monitor its implementation and impact.
- 2.9 To review and endorse a plan for the hospital response to major outbreaks in the community and major incident (outbreak plan) and monitor its implementation.
- 2.10 To review and endorse an annual Infection Control plan and review progress and to advise on the most effective use of resources for implementation and contingency requirements.
- 2.11 To advise and approve Infection Control policies, ensuring that these have been discussed within the organisation and that any factors impacting on, for example, facilities and cleaning services and decontamination services.
- 2.12 To promote and support the education of all grades of staff in Infection Control procedures.
- 2.13 To be responsible for ensuring that the Infection Control plans supports the implementation of Clean Your Hands, Saving Lives and the Health Act Code of Practice Prevention and Control of Healthcare Associated Infection.
- 2.14 To support the continued development and implementation of Hand Hygiene and ensure monitoring arrangements are in place for supply, use and costs of the necessary materials.
- 2.15 To ensure arrangements are in place to comply with the Care Quality Commissions, Essential standards of quality and safety
- 2.16 To ensure education and training arrangements are established for all staff and where possible patients and visitors.
- 2.17 To promote effective communication and information for patients and staff.

3.0 *Membership*

3.1 The membership of the committee will be composed of:

- Director of Infection Prevention & Control – Chairperson
- Director of Nursing and Midwifery
- Medical Director

- Assistant Director of Quality & Risk or Health and Safety representative
- Occupational Health Consultant
- PCT/DIPC
- Consultant in Communicable Diseases Control, Oxon
- Infectious Diseases Consultant-antimicrobial lead
- Infection Control Doctor
- Infection Control Nursing staff
- Head Nurse (per division) or representative
- Estates and Facilities representative
- Decontamination lead
- Vascular Access Nurse
- Tissue Viability Nurse Consultant
- Patient Panel & Forum member
- Antimicrobial Pharmacist

Members will be co-opted to lead on the high impact changes within Saving Lives

- Reducing the risk of microbial contamination in every day practice
- Reducing the incidence of catheter related bloodstream infections
- Reducing the incidence of surgical site infection
- Reducing the incidence of ventilator associated pneumonia
- Reducing the incidence of urinary tract infections related to indwelling urethral catheters

4.0 Attendance and quorum

4.1 A quorum for any meeting of the committee shall be attendance by the Director of Infection Prevention and Control/Infection Control Manager/Infection Control Doctor, Divisional representation, Estates/Contract team and Infection Control Nursing staff.

5.0 Relationship to other committees

5.1 The committee is a sub committee of the Clinical Governance Committee and will report directly to it.

5.2 Reports will be sent to the Clinical Governance Committee.

6.0 Reports received from

6.1 Receive reports from Decontamination Committee

7.0 Meeting Frequency

7.1 Meeting will be held every two months

8.0 Administrative Support

8.1 This will be provided by the Infection Control Team A&C post

Appendix 2

Antimicrobial Management Team

1. Strategic Purpose

- 1.1. To ensure that antimicrobials are used prudently within the Trust.
- 1.2. The group will ensure that effective monitoring arrangements are in place to support compliance with the antimicrobial prescribing sections of:
 - *Saving Lives-High Impact Interventions, 2007 (Antimicrobial prescribing: A summary of best practice);*
 - *The Health and Social Care Act 2008: Code of practice for the NHS on the prevention and control of healthcare associated infections and related guidance (criteria 9 subsection 1) and Care Quality Commission: Essential standards of quality and safety (March 2010).*

2. Terms of Reference

- 2.1. To support the Director of Infection, Prevention & Control with the introduction of national initiatives relating to prudent antimicrobial prescribing.
- 2.2. To ensure that the Antimicrobial Management Programme supports the implementation of the antimicrobial aspects of *Saving Lives-high impact interventions* and the *Health Act code of practice on the prevention and control of healthcare associated infections* and that the Trusts meets their responsibilities as outlined in these documents.
- 2.3. To develop a framework for antimicrobial management through the divisional and corporate Trusts' structures, that ensures the prudent use of antimicrobials in the Trust.
- 2.4. To prepare an annual Antimicrobial Management Programme and report progress against this.
- 2.5. To be aware of national guidelines and ensure that standards are met locally where appropriate.
- 2.6. To co-ordinate the preparation and update of antimicrobial management and antimicrobial prescribing policies and guidelines in conjunction with clinical infection services and representatives from relevant specialities.

- 2.7. To ensure that adherence to the Trusts' antimicrobial guidelines is audited, that results are fed back to key groups of staff, and action plans for resolving problems are implemented.
- 2.8. To monitor antimicrobial usage and antimicrobial resistance patterns across the Trust, and to ensure that key data is regularly disseminated to doctors, nursing staff, pharmacists and managers across the Trust.
- 2.9. In collaboration with the Antimicrobial Steering Group, to review the Trusts' investment and expenditure on antimicrobials.
- 2.10. To promote and support the education of prescribers, nursing staff and pharmacists in the appropriate use of antimicrobials.
- 2.11. To work collaboratively with staff from Oxfordshire Primary Care Trust and Community Health Oxfordshire in all areas impacting on antimicrobial management.
- 2.12. To share information and work collaboratively with the Thames Valley Multidisciplinary Antimicrobials Group and members of other antimicrobial management teams across the UK.

3. Membership

- 3.1. The membership of the group will be composed of:
 - Consultant (Antimicrobials Lead)
 - Antimicrobials Pharmacists
 - Antimicrobials Audit Assistant
 - Infection Control Manager
 - Representatives from other specialities on an ad hoc basis.

4. Attendance and quorum

- 4.1. The quorum for this meeting is two or more of the group members.

5. Relationship to other committees

- 5.1. The group is a sub-group of the Hospital Infection Control Committee and is accountable to it.
- 5.2. Reports will be sent to the Hospital Infection Control Committee.
- 5.3. Members of this group are also members of the Antimicrobial Steering Group (ASG). They provide verbal updates at ASG meetings.

6. Meeting Frequency

- 6.1. Meetings will be held weekly.