

# INFECTION PREVENTION & CONTROL

# ANNUAL REPORT 2012-2013

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**Executive Director:**

**Dr Jean O'Driscoll**

**Director of Infection Prevention & Control**

**Written and Compiled by:**

**Jackie Dalton**

**Acting Matron, Infection Prevention & Control**

**& The Infection Prevention & Control Team**

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## EXECUTIVE SUMMARY

This was another busy year for the Infection Prevention and Control Team.

We achieved excellent results for both MRSA Bacteraemia and C difficile numbers; we had no case of MRSA Bacteraemia and 31 cases of BHT-attributable C difficile infection (against our limit of 45 cases for the year). The objective in relation to MRSA Bacteraemias for 2013/14 is to have zero avoidable cases during the year. The limit we have been given for C difficile cases is 31.

We continued to report MSSA and E.coli Bacteraemias. Only 8 of the 57 MSSA Bacteraemia cases were considered to be “BHT-attributable”, ie detected more than 48 hours after the patient’s admission. No targets have yet been allocated for this measure.

Of 199 E.coli Bacteraemia cases identified during the year, only 37 were detected 3 or more days after admission. Again, no targets have been set for this indicator. The urinary tract was once more the main focus of these bloodstream infections, with a proportion of these being linked to the use of urinary catheters. We are doing enhanced surveillance of these cases and identifying any lessons to be learned, in liaison with our local Primary Care colleagues.

Norovirus circulated in the local community for much of the year and our hospitals experienced many outbreaks, resulting in ward closures and service disruptions, particularly at Stoke Mandeville Hospital. Several of the outbreaks were reported as a Serious Event. An Action Plan has been developed with the objective of minimising the impact of this infection in 2013/14.

For the third consecutive year our infection rate following elective knee replacement surgery was below the UK average (0.7% vs 1.5%). The infection rate following elective hip replacement surgery equalled the UK average (1.1%).

Influenza had a minimal effect on the Trust with most cases occurring in early 2013. The uptake of vaccine amongst staff improved due to concerted efforts by the Occupational Health Department.

Audits of Infection Prevention and Control practices continued in line with the Audit Programme. There were particularly impressive numbers of observations in the monthly Hand Hygiene audits totalling 210,321 for the year, with an overall compliance of 98%.

Infection Prevention and Control continues to be a key priority for BHT ensuring that patients do not have to worry unduly about acquiring an infection while under our care – one of the Trust’s Promises to Patients.

**Dr Jean O’Driscoll MB FRCPath**  
**Director of Infection Prevention and Control**  
**Buckinghamshire Healthcare NHS Trust**

## INTRODUCTION

The following report outlines the department's activities over the past 12 months. Commitment to preventing the spread of infection is essential from all staff in all departments and at all levels of management in order to maintain a high standard of infection prevention & control practice throughout the Trust.

## INFECTION PREVENTION & CONTROL ARRANGEMENTS

The Trust serves a population of approximately 725,000 people with inpatient beds at Stoke Mandeville, Wycombe, Amersham, Marlow, Thame and Buckingham Hospitals. Dr O'Driscoll has continued in her role as Director of Infection Prevention & Control and the infection prevention & control governance arrangements for the Trust are described in Appendix 2.

The IPCT currently consists of the following staff:

Dr Jean O'Driscoll – DIPC	Jackie Dalton – IPCN
Dr Kathy Cann – Consultant Microbiologist	Sharon Nyadzo – IPCN
Dr Ruby Devi – Consultant Microbiologist	Joanne Law-IPCN
Dr David Waghorn – Consultant Microbiologist	Martine Cabral-IPCN
Niamh Whittome- Lead Nurse IPC	Karen McIntosh – Secretary
Amanda Adkins - IPCN	Karleen Mulder – Secretary
Lisa Andrews – IPCN	Lorraine Shaw - Secretary

## THE INFECTION PREVENTION & CONTROL PROGRAMME

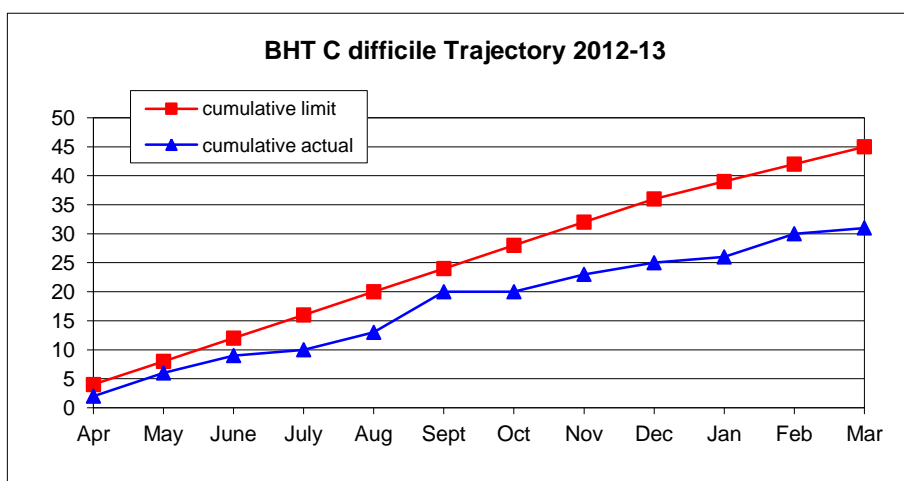
Appendix 3 shows the Infection Prevention & Control programme for the year 2012-2013. The Programme clearly defines the priorities for the Trust in relation to infection prevention & control activities as agreed by the Trust Infection Prevention & Control Committee which monitors the progress of this programme. Appendix 4 outlines the programme for 2013-2014.

## SURVEILLANCE (Mandatory & Voluntary)

Clear case definitions for in-house surveillance have been developed and applied to data reported in this report. These can be found in Appendix 5.

### *Clostridium difficile* (Mandatory Surveillance)

We continue to participate in the mandatory reporting of *Clostridium difficile* infection. Table below shows our *Clostridium difficile* figures for the year. Our limit for the year was 45. Our year end numbers were 31.



Tabled below are our reported cases from April 2012- March 2013 using the in-house definitions in appendix 5:

Acquisition	2-64 years			65 + years			Total cases
	W&A	SMH	CIC	W&A	SMH	CIC	
<b>BHT acquired</b>		3		16	15	1	35
<b>BHT associated</b>	5	9	1	5	9		29
<b>Community</b> *(a)	3	9		11	17		40
(b)				3			3
(c)							0
(d)	1			2	2		5
<b>N/A cases i.e relapses</b>				3	8		11

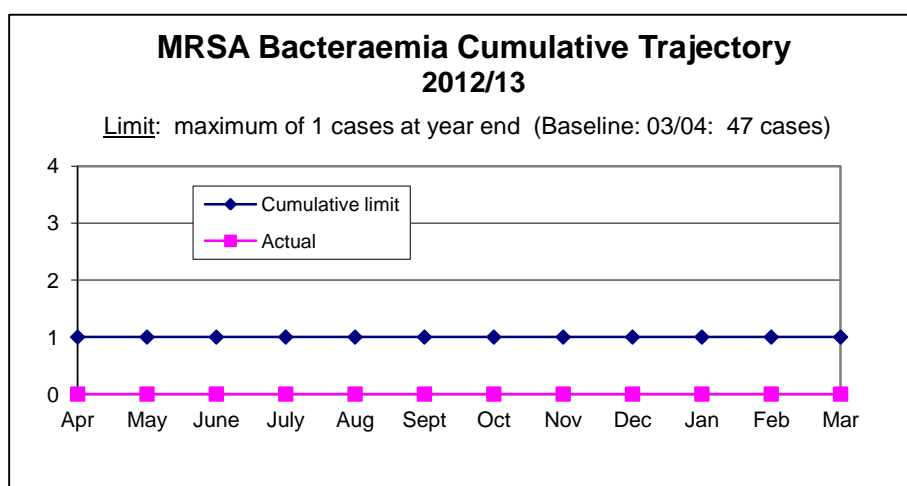
## Meticillin Resistant Staphylococcus Aureus (MRSA) Non-bacteraemias (Voluntary Surveillance)

The number of Buckinghamshire Healthcare NHS Trust (acquired and associated) **non bacteraemia** MRSA cases, detected by the laboratories from April 2012 to March 2013 are displayed in the table below:

	SMH	W&A	CIC	Total
BHT Acquired Cat 1	55	10	3	68
BHT Associated Cat 2	32	7	1	40
Total MRSA non-bacteraemia	87	17	4	108

## Meticillin Resistant Staphylococcus Aureus (MRSA) Bacteraemias (Mandatory Surveillance)

Mandatory reporting of MRSA bacteraemias continues. The limit was set at 1. No cases were detected.



## MSSA Bacteraemias (Mandatory Surveillance)

MSSA Bacteraemias detected April 2012 to March 2013

	SMH	W&A	Total
Total Numbers	41	16	57
BHT attributed	6	2	8

## Glycopeptide Resistant Enterococci Bacteraemia (Mandatory Surveillance)

The Trust laboratory detected 12 new cases of VRE Bacteraemias.

## Extended Spectrum Beta Lactamase Producing Organisms (ESBLs) (Voluntary Surveillance)

ESBL producing organisms (including strains of E. coli and Klebsiella sp.) confer resistance to a wide range of beta lactam antibiotics. They may also be resistant to other classes of antibiotics. Treatment options are therefore limited and prompt infection control precautions are required when ESBL isolates are detected

The Trust laboratory has identified 306 new isolates in urine specimens from April 2012 – March 2013. Of these 208 were specimens received from General Practitioners (226 in 2011/12, 195 in 2010/11 and 153 in 2009/10). 98 were from the acute Trust (118 in 2011/12, 78 in 2010/11 and 90 in 2009/10).

## E.coli Bacteraemias (Mandatory Surveillance started June 2011)

### E.coli Bacteraemias:

	SMH	WGH	TOTAL
Total numbers	128	71	199
Cases detected after 72 hrs of admission	21	16	37

Bacteraemias where the most likely focus is the urinary tract:

	SMH	WGH	TOTAL
<b>Total</b>	69	47	116
Patients without a urinary catheter	26	8	34
<b>Patients with a urinary catheter</b>	14	16	30
Catheter present on admission	2	3	5
Catheterised after admission	4	1	5

Focus of other bacteraemia cases:

	SMH	WGH	TOTAL
Hepatobiliary	25	6	31
Gastrointestinal	11	4	15
Other/unknown	23	14	37

## Multi Resistant Acinetobacter Baumannii (MRAB) (Voluntary Surveillance)

MRAB is a bacterium that is found commonly in the environment. Approximately 25% of people may carry Acinetobacter on their skin or in their bowels asymptotically. The Trust laboratory identified 15 new isolates of MRAB 2012/13 (6 in 2011/12).

## Orthopaedic Surgical Site Surveillance (Mandatory Surveillance)

Since its formation in 2003, BHT has taken part in the national Surgical Site Infection Surveillance (SSIS) organised by the Health Protection Agency (HPA). The programme was established to encourage hospitals to use surveillance to improve the quality of patient care by enabling them to collect and analyse data on surgical site infections (SSI) using standardised methods. With Trusts feeding their data into a central agency i.e. the HPA, it has allowed individual hospitals to compare their rates of SSI with collective data from all hospitals participating in the service. There are 12 defined categories of surgical procedures within the national SSIS programme, but orthopaedic SSIS has been mandatory for all Trusts to perform since 2004/05.

The figures are presented separately for Wycombe & Amersham (W&A) and SMH because they are analysed and reported separately by the Centre for Infection in Colindale. The figures below include all infections (in-patients, readmissions and post discharge)

Total number of procedures April 112 – March 13 (W&A sites):			
	Totals	Infections (W&A)	National Infection Rate
Hip replacements	372	4 (1.1%)	1.1%
Knee replacements	417	3 (0.7%)	1.5%
Total number of procedures July 12 – Sept 12			
	Totals	Infections (SMH)	National Infection Rate
Repair of neck of femur	82	3 (3.7%)	1.9%

## OUTBREAK REPORTS

A total of 30 outbreaks of confirmed norovirus occurred between April 2012 - March 2013. A further 33 were unconfirmed but resulted in ward or bay closures.

(For April 2010 – March 2011 the Trust had reported 14 confirmed outbreaks of norovirus and for April 11 – March 12 26 confirmed cases)

## SERIOUS INCIDENTS

4 Serious incidents were reported between April 2012-March 2013 (outbreaks).

All incidents were reviewed at Trust-wide monthly Serious Incident meeting chaired by the CEO and reported to NHS Buckinghamshire and the local Health Protection Unit.

Root cause analysis of each incident was undertaken and learning shared across the Divisions. Incident Reports were drawn up which included Action Plans. Ongoing checks that recommended actions have taken place are made at Divisional Governance meetings and at Infection Prevention & Control Committee meetings.



## HAND HYGIENE

The Trust's Hand Hygiene campaign continued throughout 2012-2013. The Trust has continued to work with the National Patient Safety Agency (NPSA) as part of the national hand hygiene campaign and has utilised all resources made available by the NPSA to assist the local hand hygiene strategy. The hand hygiene strategy has continued to evolve as a result of local need and identified risks following incidents/audits. The Trust also signed up for the World Health Organisation (WHO) Global hand hygiene challenge. The following has been achieved during 2012-2013

- Audit of hand hygiene continued as per the annual audit programme. Assessment of 'Bare Below the Elbows' compliance was included within the hand hygiene audit tool. The focus of the audit tool was around the WHO 5 moments as part of the national 'clean your hands Campaign'. A central hand hygiene drive continues to be the central drive for inputting the monthly hand hygiene observational audit results. Dissemination of the results to all staff groups and wards/departments was undertaken with Infection Prevention & Control Leads and Modern Matrons taking responsibility within their areas for local improvement. Areas with results below the compliance level of 90% must complete weekly audits until the compliance level is achieved (see appendix 9). Areas must produce an action plan to the address areas of low compliance or non participation. The results are also discussed at divisional board meetings. These audits will continue as per the new audit programme for 2012-2013.
- The academic component of mandatory hand hygiene is now provided by an e learning module. Hand hygiene practical sessions are organised monthly via the training department. The sessions are face to face and run by the IPCT and the hand hygiene practical and competency assessment is completed. These are now well established within the mandatory training programme, annually for patient facing staff and bi-annually for non patient facing staff. It is also included within the Trust Induction training for all new starters. Training for other groups e.g. University of Bedford students has also continued.
- Infection control Link Practitioners have been trained to carry out the practical element of the hand hygiene training to help capture more staff within their areas.
- The Trust was involved in the WHO Global Hand Hygiene Day 04/05/2012. The representative from DEB visited areas with information packs, quizzes and prizes.
- Infection Prevention & Control week (15/10/2012):. Information boards were placed at the larger hospital sites and packs set to the community areas. Staff were asked to sign stickers committing to reducing infections within BHT. These were then placed on the notice boards. Representatives from various companies visited areas. Prizes were given out for various reasons during this week
- Infection Prevention Control Project Nurse completed various audits regarding promoting patient hand hygiene. The aim of these were to engage staff to promote hand hygiene within the patient group but to also highlight that staff may need to help patients with their hand hygiene e.g. offering hand wipes, opening the packet etc.

Hand plating was completed by Infection Prevention Control Project Nurse in areas where hand hygiene had been highlighted as poor to highlight the importance of hand hygiene technique in removing their own flora from their hands.

## LINK PRACTITIONER PROGRAMME

The ICLP programme has good attendance records demonstrating a group growing in size and commitment. The group includes members from across the divisions and SDUs and is open to all members from across the multidisciplinary teams.

Four study days are offered throughout the year based in our two main sites, Wycombe Hospital and Stoke Mandeville Hospital. The programmes are varied and include presentations from key staff from within the Trust and local health economy. Please refer to appendix 6 for the individual programmes

The ICLPs have again been committed to completing audits throughout the year as per the Audit programme. They have undertaken ATP testing sessions within their own areas accompanied by other ICLPs who can observe the process, and extend the use of this activity throughout the Trust.

Topics covered in the ICLP year included water awareness training which was held as an open session for all Trust members. A competition to design a mug, sponsored by the glove manufacturers (Shermond), was held to coincide with Global Hand hygiene Day on May 5<sup>th</sup>. The entries were many and varied and the winner was coincidentally, the same ICLP who won the design for a Hand Hygiene poster campaign previously. Runners up also won some mugs for their wards

The ICLP programme is able to provide training opportunities for the ICLPs to become hand hygiene assessors and be able to complete the practical and competency for Hand hygiene within their own areas. This enables more frequent hand hygiene updates to be held within individual areas and helps to ensure the good standard of hand hygiene within BHT.

The ICLPs are a large group that can disseminate information from the many areas that include Infection Prevention and Control e.g. waste, safer sharps, mattresses, water awareness, FIT testing

IPC Notice Boards have been seen to become more visible across the Trust and many of the ICLPs have responsibility for their upkeep.

We would like to thank all the ward managers for supporting the ICLPs to attend the study days.

## **DECONTAMINATION**

The Trust continues to work towards the provision of a single site CSSD facility. It will be designed to service all of BHT's activity and current contract provisions and is expected that the new unit will come on line during the next financial year.

Members of the IPCT attend the Trust's Decontamination Committee meetings which are Chaired by the Director of Property Services.

## PATIENT ENVIRONMENT ACTION TEAMS (PEAT)

The IPCT were involved in the annual PEAT inspection January 2012. The following results were taken from the National Patient Safety Agency. From April 2013 the existing PEAT programme will be replaced by a new Patient-Led inspection regime (Patient led assessments of the care environments; PLACE inspections).

Year	Sites	Results		
		Environment	Food	Privacy & Dignity
2012	Amersham	Good	Excellent	Excellent
	Stoke Mandeville	Good	Excellent	Excellent
	Wycombe	Good	Excellent	Excellent
	Buckingham	Good	Excellent	Good
	Thame	Excellent	Good	Excellent
	Marlow	Good	Good	Good
2011	Amersham	Good	Excellent	Good
	Stoke Mandeville	Good	Excellent	Good
	Wycombe	Good	Excellent	Good
	Buckingham	Good	Excellent	Excellent
	Thame	Good	Excellent	Good
	Marlow	Good	Excellent	Good
2010	Amersham	Good	Excellent	Good
	Stoke Mandeville	Acceptable	Excellent	Excellent
	Wycombe	Good	Excellent	Excellent
	Waterside Unit	Good	Good	Good
2009	Amersham	Good	Excellent	Good
	Stoke Mandeville	Acceptable	Good	Good
	Wycombe	Acceptable	Excellent	Acceptable

## INFECTION CONTROL MANUAL

The infection control manual continues to be updated and new sections added as required and in accordance with the 5 year updating plan.

The following sections were updated in 2012-13.

Updated Infection Control Manual Sections
1.3 Chickenpox
1.6 Diarrhoea & or Vomiting
1.7 Extended Spectrum Beta Lactamase Producing Bacteria
1.8 Management of Patients with Glycopeptide Resistant Enterococci Including Vancomycin Resistant Enterococci
1.11 MRSA
1.17 Guidelines for Seasonal and Pandemic Influenza
1.22 Management of Norovirus
1.23 Group A Streptococcal (GAS) Infection
2.4 Hickman Lines
2.5 Management of Port-A-Cath or Intraport Devices and Peripherally Inserted Central Catheters (PICC)
2.8 Enteral Feeding
3.4 Needlestick & Other Inoculation Injuries
3.14 Universal Precautions

All sections of the manual were also uploaded onto the Trust intranet in addition to being distributed to be included in hard copies of the manual located in clinical areas.

## EDUCATIONAL ACTIVITIES

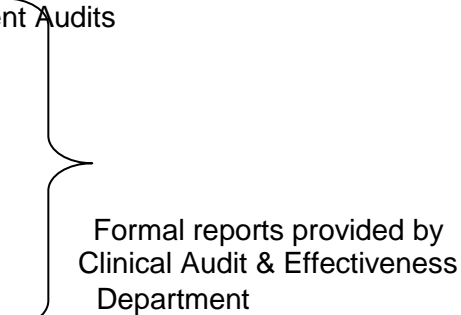
In April the IPCT and training department launched an IPC e-learning module for staff. Separate modules have been developed for non-clinical & clinical staff. Hand Hygiene practical face to face sessions are delivered monthly on set dates organised by the training department. These are one hour long sessions. Hand hygiene competency is then assessed.

We continue to deliver face to face Induction training for all new Trust staff. See appendix 7 for more detailed information regarding further education sessions

## AUDIT ACTIVITY

The audit programme for the year can be found in the Infection Prevention & Control Annual Programme see Appendix 4.

The following audits were undertaken:

- Environmental, Kitchen & Patient Equipment Audits
  - High Impact Intervention (HII) Urinary Catheter Care audit
  - HII Care Bundle for ventilated patients.
  - HII Peripheral Line audit
  - HII Surgical Site Infection audit
  - HII Central Line Venous Catheter Care Ongoing Management
  - Hand hygiene observational audits
  - Hand Hygiene Practice & Facilities audit
  - Sharps Management
  - Infection Control Knowledge Survey
  - Isolation Policy Audit
  - MRSA Policy Audit
  - *Clostridium difficile* policy audits
  - Outbreak Policy Audit
  - Personal Protective Equipment
  - Transfer Form audit
- 
- Formal reports provided by  
Clinical Audit & Effectiveness  
Department

All formal reports are disseminated to relevant wards, departments, committees to highlight key findings and recommendations for their action. See appendix 8.

## ANTIBIOTIC REVIEW GROUP

The group has continued to meet throughout the year. A report of activity can be found in Appendix 10.

## **RISK MANAGEMENT/CLINICAL GOVERNANCE**

Dr O'Driscoll has represented Infection Prevention & Control at the Risk Monitoring Group (formerly Clinical Risk Review Panel) and is responsible for producing the Infection Prevention & Control Clinical Governance reports. Dr O'Driscoll is also a member of the Healthcare Governance Committee and attends Trust Board meetings. She provides Infection Prevention & Control reports to each Board and has direct access to and monthly meetings with the Chief Executive.

## **BUILDING PROJECTS**

SMH A&E reconfiguration  
WH Minor Illness and Injuries Unit  
WH MUDAS  
WH Cardiology Services Reconfiguration

## **COMMITTEE/GROUP MEMBERSHIP**

Infection Prevention & Control Committee  
Trust wide Infection Prevention & Control Group  
Health and Safety at Work Committee  
Quality Standards Committee  
Risk Monitoring Group (formerly Clinical Risk Review Panel)  
Medical Devices Committee  
Medical Equipment Purchasing Committee  
Nursing Midwifery & Therapy Professional Board  
The Domestic Services Review Group (SMH & W&A)  
County Environmental Health Committee  
Regional Professional Development Group (microbiologists)  
Decontamination Committee  
Buckinghamshire PCT Infection Prevention & Control Committee.  
Healthcare Governance Committee  
Critical Care Delivery Group  
Orthopaedic Infection Group  
SDU governance Meetings  
Divisional Board Meetings  
Tissue Viability

## **OTHER ACTIVITIES**

### **Infection Control Times**

The Infection Control Times newsletter has continued to be distributed monthly.

### **Infection Prevention & Control Notice Boards**

Updated as necessary in response to global and national events e.g. WHO Global Hand Washing.