West Hertfordshire Hospitals NHS
NHS Trust

Infection Control Team Annual Report

April 2011 – March 2012

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1. Introduction

The term 'Healthcare Associated Infections' (HCAI's) includes any infection acquired as a consequence of a person's treatment in the healthcare setting. The prevention and control of HCAI's is a high priority across the NHS and continues to be one of the major clinical priorities for this Trust. Infection control leaders are facing challenging times ahead. Not only must we operate within a climate of financial constraint and competing priorities, but also face increasing pressure to tackle *all* HCAI's, expansion of current infection surveillance, and the ever present threat of antibiotic resistance. Effective prevention and control of HCAI's needs to be embedded into every day practices and applied consistently by everyone. In essence we all need to be:

'Working together to reduce Healthcare Associated Infection'

The engagement of staff has been key to our continued improvement and it has been encouraging to see the high level of input from clinical teams. This commitment has been evident in the work and detail that has gone into local audits and will undoubtedly continue as the Trust progresses into the coming year.

2. The Trust's Infection Control Team (ICT)

The Trust's Infection Control Team comprises the Medical Director/Director of Infection Prevention and Control (DIPC) (who chairs the Trust's bi-weekly team meetings and the monthly Infection Control Committees), Assistant DIPC, Microbiologists, Infection Control Nurses (ICNs), Infection Control Support Worker, PA and Data Administrator. The Infection Control Team (ICT) is also supported by the Director of Nursing and liaises closely with ICT members from the Health Protection Agency, Hertfordshire Community NHS Trust and Hertfordshire Partnership Foundation NHS Trust. Throughout the past financial year (2011/2012), the ICT has continued its endeavours in supporting reducing healthcare associated infections and encouraging good infection control practice. These activities have centred particularly on hand hygiene, decontamination, reducing Methicillin resistant *Staphylococcus aureus* (MRSA) bacteraemias and *Clostridium difficile* (*C.diff*).

3. MRSA Bacteraemias

The Trust has stringent measures in place to reduce MRSA bacteraemia. It continues to participate in the mandatory MRSA bacteraemia surveillance. The data is differentiated between community acquired (taken within 48hrs of admission) and hospital acquired (taken post 48hrs following admission). A root cause analysis (RCA) is undertaken for all MRSA bacteraemia, following which an action plan is developed with the clinical area and monitored by the appropriate clinical staff. For April 2011 to March 2012, the Trust was set a trajectory by the Strategic Health Authority (SHA) of no more than four. The Trust reported only one in the reporting year and following an RCA, the cause of this was determined to be linked to a peripheral intravenous access device. This achievement compares favourably with the preceding year April 2010 to March 2011, in which the Trust reported 5 bacteraemia against a trajectory of five. The Trust believes its robust implementation of reduction measures has been successful in reducing MRSA bacteraemia.

In line with Department of Health (DoH) guidelines, all patients (with the exception of a few low risk patients) admitted to the hospital are screened for MRSA. This enables early identification and isolation of patient identified as being colonised with MRSA, hence reducing the risk of infection for all patients. Patients identified as MRSA positive in the pre-operative assessment clinic are treated prior to surgery where possible.

4. Continuous Monitoring of 'Alert' Organisms - MRSA & *Clostridium difficile* (*C.diff*)

The dramatic reduction in *C.diff* and MRSA there is no longer a dedicated isolation ward however a side room is ring-fenced to ensure patients with *C.diff* diarrhoea can be transferred and isolated

appropriately. However this year has seen significant pressures and beds and side rooms and this can result in some delays in transferring patients requiring isolation.

Surveillance data of MRSA and *C.diff* isolates are disseminated to departmental heads on a monthly basis and then cascaded to each ward/department. ***Figure 1*** below shows the number of WHHT MRSA isolates in April '11 - March '12.

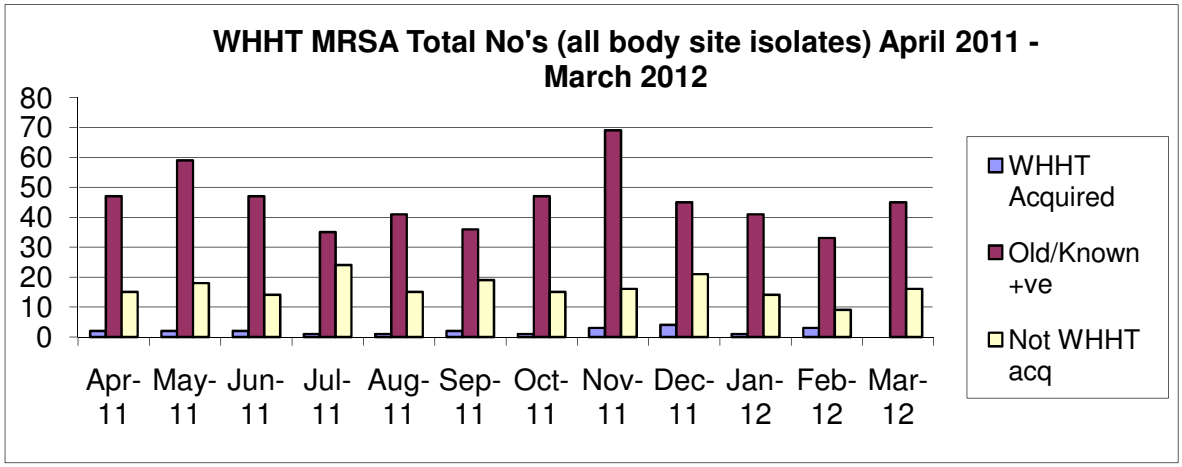

Figure 1. WHHT Acquired MRSA Isolates reported

The *C.diff* trajectory for WHHT during the year 2011-2012 was 33. There were 17 West Herts acquired *C.diff* isolates during the year (in comparison with 54 in the previous year) therefore well within our trajectory indicating that *C.diff* infections have stabilised.

Antimicrobials and proton pump inhibitors (PPI) are known risk factors for developing *C.diff* diarrhoea, hence weekly multi-disciplinary antimicrobial ward rounds are undertaken. This encourages medical staff to review duration, route and need for these high risk drugs. The antimicrobial pharmacist monitors the use of antimicrobials throughout the Trust and presents findings to the monthly Infection Control Committee (ICC).

Figure 2 below identifies the total number of *C.diff* isolates – inpatients by division, hospital & community acquired for the year 2011-2012.

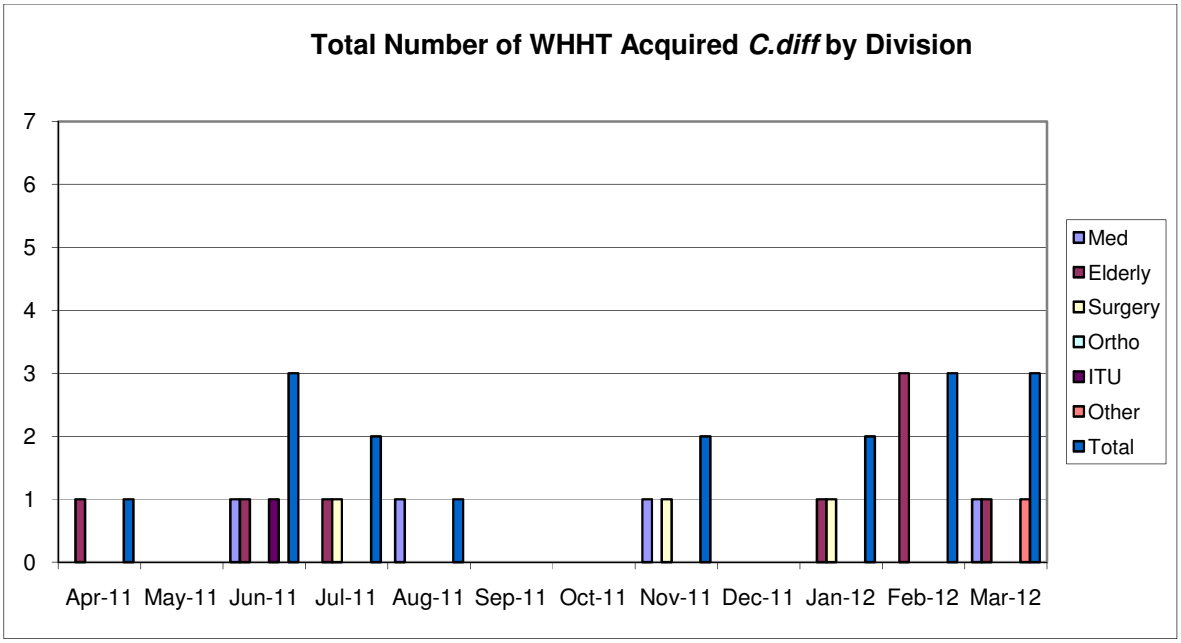

Figure 2 . WHHT *Clostridium difficile* Isolates

As indicated, mandatory MRSA screening continues for both elective and emergency admissions with the exception of some low risk areas. 100% compliance is a requirement of the SHA.

Table 1. % Compliance for elective admission screening

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
% Compliance	98.4	98.3	98.9	98.3	99.0	98.8	98.3	99.3	98.7	98.7	98.8	99.0

Table 2. % Compliance for emergency admission screening

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
% Compliance	93.6	94.2	94.7	93.6	93.2	92.3	91.6	91.2	92.0	93.8	91.8	92.7

5. MSSA and *E.coli* Bacteraemias

Monitoring of methicillin sensitive *Staphylococcus aureus* (MSSA) and Escherichia coli (*E.coli*) continues and RCAs undertaken for all cases. No themes have been identified and no trajectories have been set to-date.

6. Hand Hygiene

Hand hygiene continues to be monitored on a weekly basis and results are displayed on departmental notice boards. Areas of concern are visited by a member of the infection control team. Repeated non-compliance is fed back to the relevant senior staff.

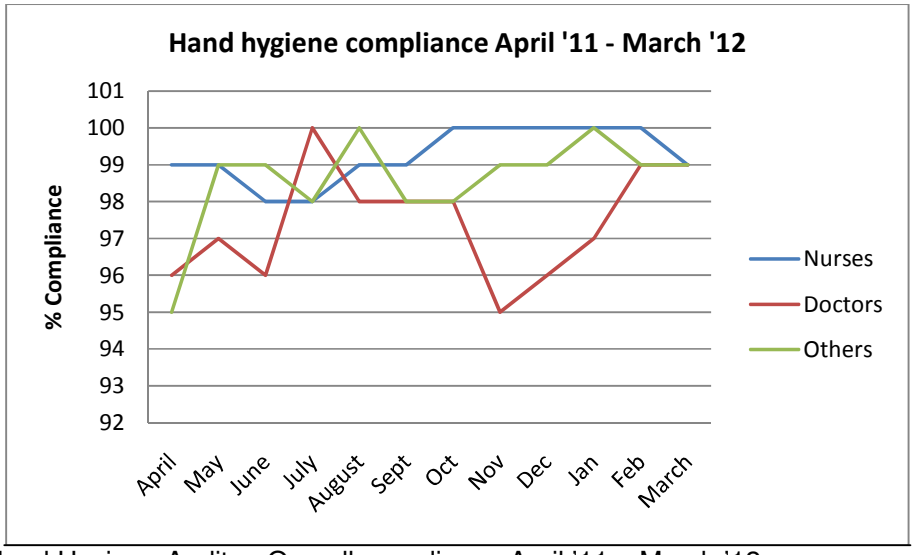

Figure 3. Hand Hygiene Audits - Overall compliance April '11 – March '12

7. Outbreaks

Over the year the ICNs have received various reports of diarrhoea and/or vomiting and each case has been reviewed by the team.

Diarrhoea and vomiting was reported in the medical division at Watford General Hospital on 13th January 2012. The elderly care unit was closed in a timely fashion and Norovirus was identified. 53 patients and five members of staff were affected. The ward was deep cleaned and re-opened in stages and was fully operational by 18th February 2012. This was reported as a serious incident.

On 3rd February, diarrhoea and vomiting was reported at Hemel Hempstead General Hospital. Once again this was identified as Norovirus. The two elderly care wards were affected with 17 patients and three staff members. The wards were closed to admissions and re-opened fully after a deep clean on 8th February. This was also reported as a serious incident.

8. Policies and Procedures

Policies and procedures are up-dated as required and are available on the Trust Intranet site. Compliance with these policies is monitored through audits, root cause analysis and surveillance. This enables timely provision of infection control data and feedback to individual divisions.

9. Environment

The 12-week rolling programme for environmental deep cleaning of in-patient areas continues. Progress is presented at each ICC.

10. Audit

A number of audits have been undertaken during the year, which include:

Table 3. Audits undertaken April '11 - March '12

Audit	Date	Frequency	Carried out by:
Sharps audit	May '10	Annually	Daniels
Sluice / commode audit	January '11	Annually	Vernacare
Environmental audits	On-going	Annuallly	ICT
Hand Hygiene audits	On-going	Weekly	Wards/Departments/ICT

Hand Hygiene audits	On-going	Ad-hoc	Gojo

Audit results are disseminated to departmental heads and matrons for cascading within their clinical area. Where appropriate, results are also forwarded to infection control link persons. Audit results support the assurance updated on the Board Assurance Framework.

11. Training

Staff training has continued throughout the year, both formally and informally. Much of the education is ad-hoc on a daily basis when ICNs visit wards/departments. This training is not included in the figures below.

A total of 2891 members of staff received training by the infection control nurses throughout the course of the year. This includes induction, annual mandatory training, study days, courses and infection control training sessions.

Infection control awareness days were undertaken in conjunction with 'Think clean' week in November 2011. This is directed at raising awareness of infection control and is directed towards staff and visiting public. Competitions and other events were included in the days to encourage participation with an element of fun.

Table 4. Staff training data

Staff Training figures Annual Report 2011-2012									
Nurses and Midwifes	**HCA's**	**Doctors/Medical Students**				**Others**			**Total**
1063	**383**	**197**				**1248**			**2891**
Band based Staff Training data from April 2011 to March 2012									
Bands/Month	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Unknown**	**Total**
	445	**154**	**171**	**601**	**405**	**200**	**83**	**832**	**2891**
Division based figures of Infection Control Training									
Medicine/CoE	**Surgery**	**Women/Children**				**Clinical Support**		**Other**	**Total**
700	**415**	**314**				**704**		**758**	**2891**

12. Future Priorities & Direction - 2012/13

- Provide infection control training for both induction and mandatory for all disciplines of staff. This will be available formally and via e-learning.
- Continue to raise awareness amongst staff regarding the importance of hand decontamination in the prevention and control of infection in all educational sessions and on routine visits to clinical areas
- Continue to deliver the infection control single study days, six day infection control awareness course and *C.diff* study programme.
- Maintain a programme of audits to determine Trust compliance with key infection control policies and procedure
- Maintain current surveillance systems and review as appropriate.
- Continue to advise, contribute and/or lead on organisational action plans as required.

13. Conclusion

During the past year there has been a sustained high profile of infection control within the Trust. By continuing the current practice of audit, surveillance and continually finding ways to enhance best practice, this will help reduce HCAI's even further.

Infection control is the responsibility of every member of staff and must remain a high priority for all to ensure the best outcome for our patients.

Dr Colin Johnston
Medical Director, Director of Patient Safety
June 2012

West Hertfordshire Hospitals NHS
NHS Trust

Appendix One

INFECTION CONTROL PLANNED ANNUAL WORK PROGRAMME 2012 - 2013

This document outlines the programme of works to be undertaken by the Infection Control Team (ICT) during 2012/2013. It will support, and be supported by, each of the Division's own infection control plans/programme for the same period. Thus, the combined infection control activities of the Divisions and the ICT will help in the prevention and management of Healthcare Associated Infections (HCAI's).

These measures should also influence the organisations ability to achieve specific targets, set by the Department of Health to specifically reduce MRSA and *Clostridium difficile*.

The ICT members contributing to this work programme consists of: A DIPC, an Assistant DIPC, three Consultant Microbiologists, three Infection Control Nurses, an Infection Control Support Worker, a PA and a part time Data Administrator.

Infection prevention and control is an integral part of quality health care. Not all hospital acquired infections are preventable therefore swift reaction to problems such as cross-infection and infection outbreaks will always be a necessary element of the work of the ICT. However, a proactive approach is vital to help reduce the risk of HCAI.

Within West Hertfordshire Hospitals NHS Trust (WHHT) provision of a comprehensive education programme, the development, implementation and review of policies and guidelines in conjunction with infection surveillance are all components of the ICT's proactive approach to infection prevention and control and form the basis of this programme.

In the coming year the ICT will continue to:

- Undertake daily 'alert' organism and condition surveillance in order to identify and control outbreaks of infection, making informed changes desirable to clinical practice and assist in the targeting of preventative efforts and measures
- Produce information on a monthly basis on trends in sporadic infections
- Produce, review and update Infection Control policies and guidelines
- Provide both formal and informal education to all grades and disciplines of staff
- Act as a resource for, and provide specialist advice to, clinical and non-clinical health care staff, managers, clinicians, contract workers, patients and their carers/visitors
- Monitor and audit the practices of Trust and contracted staff to determine whether education, advice, written policies and guidelines are being implemented
- Liaise with health care professionals internal and external to the Trust: in particular, Divisional Lead Nurses, Divisional Directors, Divisional Managers, Occupational Health Physician/Advisors, HCT/HPT/SHA/HPA
- Keep personal specialist and professional knowledge updated

Surveillance

The ICT will:

- Liaise with the laboratory and wards/departments on a daily basis to inform staff of newly identified alert organisms and advise accordingly
- Perform mandatory surveillance of MRSA bacteraemias and *Clostridium difficile.*
- Populate the ICN database and monthly surveillance data will continue to be distributed to the divisions and relevant others
- Undertake Root Cause Analysis (RCA) investigation for each MRSA, *E.coli* and MSSA Bacteraemia. RCAs will also be undertaken on *Clostridium difficile* infections for all hospital acquired cases and patients who have had an admission to WHHT within the last three months prior to the infection. Themes & practice issues will be reported and discussed at the weekly healthcare associated infection (HCAI) and monthly infection control committee meetings
- Report serious untoward incidents associated with infection via the normal reporting systems
- Continue surveillance of 'alert' organisms
- Provide weekly MRSA & *C. difficile* surveillance data to the Trust Chief Executive, DIPC and others internal and external to the Trust
- Notify the "Proper Officer" for the Local Authorities where patients reside when a notifiable disease is made microbiologically
- Report microbiological diagnoses to Communicable Disease Surveillance Centre (CDSC).

Policies and Guidelines

The following Infection Control Policies and Guidelines are to be reviewed/updated by ICT:

- Infection Control Clinical Waste Policy
- Isolation Policy
- Tuberculosis Management in a Hospital Setting
- Outbreak Policy
- Guidelines for the Management of CJD and Related Disorders in Hospital

- Vancomycin / Glycopeptide Resistant *Enterococci* Guidelines (VRE / GRE)
- Guidelines for the Prevention and Management of Severe Acute Respiratory Syndrome (SARS)
- Management of Infection Prevention and Control Policy
- MRSA Emergency Screening Policy
- Patient's Soiled Clothing Guidelines
- Viral Haemorrhagic Fever Policy

The ICT will continue to provide expert advice, contributing in the production/review of other Trust infection control related policies/guidelines e.g.

- Management of Needle stick Injuries and Incidents Involving Exposure to Blood and Body Fluids
- Guidelines for the Insertion, Care and Management of Short-term Percutaneous Non-Tunnelled Central Venous Catheters (CVCs)
- Safe Practice of Intravenous Drug Administration
- Policy for the Safe Practice of Adult Peripheral Intravenous Cannulation & Assessment Documentation
- Wound Care Management Guidelines and other related Policies/Guidelines
- Parenteral & Enteral Feeding Policy/Guidelines

Education & Training for Trust Staff

The ICT will:

- Deliver the 6-day Infection Control awareness course for qualified staff.
- Deliver single study days for all disciplines of staff
- Deliver single study days for health-care support workers
- Organise and deliver multi-disciplinary *C.diff* study sessions
- Provide formal training for the Trust's induction and mandatory programmes
- Continue to raise awareness of the infection control e-learning training
- Provide infection control training on Medical Staff Induction Programmes
- Provide education/training in anti-microbial prescribing as arranged/requested
- Maintain bi-monthly link staff meetings
- Continue to raise awareness amongst staff regarding the importance of hand hygiene in the prevention and control of infection in all educational sessions undertaken by the ICT and on routine visits to the clinical wards/departments
- Allocate set days to undertake high profile Infection Control awareness days within the Trust to further increase awareness amongst all disciplines of staff, visitors & relatives
- Continue to provide infection control education when requested by other departments

Audits/Monitoring of Hospital Hygiene & Infection Control Polices:

The ICT will:

- Undertake environmental audits for clinical areas
- Undertake audits to monitor compliance with Trust policies and procedures
- In conjunction with pharmacy, undertake audits on antibiotic and proton pump inhibitor use

Meetings & Other Forums

The ICT will continue to attend and provide expert advice when required at the following forums:

- Bi-weekly HCAI meetings
- Monthly ICC meetings

- Nursing & Midwifery Strategy group meetings
- Joint Partnership Board meetings
- Health & Safety meetings
- Tissue viability committee meetings
- Drugs and Therapeutics Committee meetings
- Multi-disciplinary team meetings
- Clinical ward rounds
- Antibiotic committee
- Water management group