

ITEM: 09/009
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Meeting: Trust Board
Date: 21 January 2009

Title: Infection Prevention and Control update

Executive Summary: A summary of performance against the two national targets for reducing MRSA bacteraemia and *Clostridium difficile* infections is attached. We have now had 19 MRSA bacteraemia episodes in the Trust since April 1st 2008 and therefore we have exceeded our target of 15 for the year.

The last four cases were in patients who were currently in, or had relatively recently been, patients in the same ward. An internal review of processes within that ward has begun, to look more widely at their infection control practice. The Department of Health MRSA improvement support team have also been asked to undertake a validation of the root cause analysis of these four cases, to help assure the investigation process.

The focus for preventing further MRSA bacteraemia cases is still focused on best practice around peripheral and central line management and MRSA suppression. Ongoing work is also focused on reducing the risk of MRSA transmission between inpatients.

Clostridium difficile figures are still low with 6 cases in December, taking us to total of 37 cases against the target to date of 91.

Hand hygiene compliance demonstrated excellent compliance overall of 96% and improvement compared to the last 2 months. An environmental audit took place over the Christmas period, and showed a good standard was being maintained. Both audits will be repeated in January.

Antimicrobial use was re-audited trust-wide in November and showed improved compliance compared to the last audit in 2007, with reduced overall use of antimicrobials.

Surgical site infection surveillance (SSIS) of hip and knee replacements and repair of fractured neck of femur in quarter 2 (July-Sept 2008) has shown overall improved infection rates, compared to the last 4 quarters. Colorectal and vascular SSIS is occurring and results are currently being entered and analysed.

MRSA screening of elective surgical patients compliance is running at 96% and emergency admission patient screening is 79.5% compliant and now occurring in ED, prior to admission. MRSA screening of higher risk obstetric patients and pre-assessed day treatment centre patients commences in January 2009.

Action: For information and support	
Report from: Julie Andrews, Director of Infection Prevention and Control Deborah Wheeler, Director of Nursing & Clinical Development	
Financial Validation Lead: Director of Finance	Not applicable
Compliance with statute, directions, policy, guidance Lead: All directors	Reference: Saving Lives National MRSA & <i>Clostridium difficile</i> target reduction Health Act 2006 Hygiene Code
Compliance with Healthcare Commission Core/Developmental Standards Lead: Director of Nursing & Clinical Development	Reference: C4a, C21
Compliance with Auditors' Local Evaluation standards (ALE) Lead: Director of Finance	Reference:
Evidence for self-certification under the Monitor compliance regime Lead: All directors	Compliance framework reference: Risk rating for quality

1. Infection control targets

Monthly performance against the MRSA bacteraemia and *Clostridium difficile* targets is outlined in the performance dashboard report.

We have had four further MRSA bacteraemia episodes since the December trust board report. We are now on 19 MRSA bacteraemia episodes in the Trust since April 1st 2008 and therefore we have exceeded our target (of 15 bacteraemia episodes) for the year, with over two months still to go. The 19 cases break down into 11 post 48 hour case and 8 pre 48 hour cases.

Of the four cases, two were diagnosed from blood cultures taken in the emergency department, and two were in patients who had been in hospital for some time. All four patients were either in, or had recently been a patient in, Meyrick Ward. It has therefore been decided to undertake an internal review of processes in Meyrick Ward, to look more widely at infection control practice.

The Department of Health MRSA improvement support team have also been asked to undertake a validation of the root cause analysis for these four cases, to help assure the quality and robustness of our investigation processes.

The focus for preventing further avoidable MRSA bacteraemia cases is still focused on best practice around peripheral and central line management and MRSA suppression. Ongoing work to decrease risks of transmission of MRSA between inpatients is planned, particularly on wards with high MRSA prevalence such as JKU.

The trust-wide central line audit has recently been completed. Early results are promising showing reduction in the total number of central lines inserted throughout the Trust and greater compliance with recommended aseptic techniques. A business case has been submitted for funding for specific central line insertion packs.

15 F1 doctors, in collaboration with the DIPC, have recently completed a trust-wide peripheral line audit, showing 100% compliance with lines staying in no longer than 72 hours. Results of compliance with insertion and maintenance policy are still awaited, but on first analysis look promising. The audit will be presented in full to the infection control and clinical governance committees.

Trials of non-ported peripheral cannulae (known to be associated with reduced bloodstream infection rates) are taking place in theatres, ED, paediatrics, chemotherapy and Montuschi Ward over the next two months. Further peripheral line refresher sessions for all relevant qualified nurses and midwives have occurred and now 75% of staff have attended these sessions.

MRSA suppression protocol is now recommended by clinician-to-clinician conversation for all inpatients who are found to be MRSA positive on screening, and a sticker has been designed to add to the medical notes.

Audit is currently taking place on compliance with interventions post screening for elective surgery and this will be presented to January infection control committee.

Clostridium difficile figures are still low, with 6 further cases in December taking us to total of 37 cases against the target of 91 cases to date. We have seen a 48% reduction in *C. difficile* cases compared to last year. Focus is still on effective environmental decontamination, hand hygiene with soap and water, isolation and prudent antimicrobial prescribing.

2. Infection control action plan

The 2008/9 infection control action plan is attached for information (appendix A). Progress is reviewed at every infection control committee. The actions that have been completed are shaded in grey, but have been left on the panel to provide a consistent record, and to ensure that they are sustained.

3. Hand hygiene

Hand hygiene compliance measured by the visible leadership team audits demonstrated an improvement in December to 96% (88% in October, 85% in November). These results have been feedback directly to the wards concerned.

The visible leadership team, supported by the infection control team and the practice development nurses will redeliver hand hygiene refresher sessions for all staff over the next two months, based on the success of last year's programme.

4. Antimicrobial use

Compliance against trust-wide antimicrobial policies was re-audited in November 2008 and results will be presented to January infection control and clinical governance committees. In summary, compliance with the three main policies had improved since the 2007 audit and percentage of patients on antimicrobials had decreased.

Further targeted antimicrobial audits with feedback are occurring in urology, respiratory medicine, orthopaedics, and trust-wide focusing on the use of piperillin-tazobactam, a specialist antibiotic.

5. Surgical site infection surveillance (SSIS)

SSIS of hip, knee and repair of fractured neck of femur (NOF) patients in Q2 (July-September 2008) has shown overall improved infection rates compared to the previous 4 quarters. SSIS is being carried out by the orthopaedic department for the NOF patients in quarter 3 and results are about to be entered.

A recent report from HPA summarising all national orthopaedic SSIS data (2004-2008) showed the Whittington to have the highest incidence of hemiarthroplasty surgical site infections amongst NHS Trusts in the country, as previously reported to Board. Steps have been taken place by the orthopaedic department to rectify this, including improved antimicrobial prophylaxis practice, improved hand hygiene and pre-operative chlorhexidene washing for all NOF patients.

Surgical site infection surveillance of colorectal and vascular cases by the surgical department commenced on 1st October and the results are currently being entered onto the HPA database.

On discussion with the obstetric department, NHS Islington and HPA, the Trust are delaying Caesarean section surveillance until April 1st 2009, when new national scheme will be available.

Instead in Q4 2008 orthopaedic surgical site surveillance of patients undergoing NOF surgery and hips and knee implants will be repeated, prospectively performed by the infection control nurses, with support from the orthopaedic department. Interviews for the new post of surveillance co-ordinator for infection control are in early January and this person will enter and analyse all future SSI data.

6. MRSA screening

Comprehensive MRSA screening of all emergency (but not obstetric) adult patients commenced on 1 December 2008. The November infection control committee set initial targets for screening of 90% for medicine and 80% for surgery. Run charts of the compliance data are attached (Appendix B). Overall compliance was 79.5% (68% in November). This breaks down into 85.5% for emergency medicine (previously 81%) and 50.5% for emergency surgery (previously 25.6%)

All emergency admissions are now screened in the emergency department before going to a ward. The ward managers have taken on responsibility for ensuring that all patients admitted via other routes, e.g. direct from home, or via outpatients, are screened on admission. Wards will also be checking that a screening swab was taken in ED, and sending one if it was not done.

Nationally, all trusts are required to screen 100% of elective admission by March 2009. 96.2% of elective admissions were screened in December 2008, compared with 90% the previous month.

Screening of patients attending pre-assessment for day surgery started on 1 January 2009. Approximately 60% of day cases attend for pre-assessment; the remaining 40% are undergoing minor procedures that do not require screening, e.g. endoscopy.