**ITEM: 09/043**
**Doc: 07**

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| **Meeting:** | Trust Board |
| **Date:** | 18 March 2009 |

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| **Title:** | **Infection Prevention and Control update** |

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| **Executive Summary:** | Performance against the two national targets for reducing MRSA bacteraemia and *Clostridium difficile* infections is attached. We have now had 21 MRSA bacteraemia episodes in the Trust (against a target of 15) and 54 cases of *Clostridium difficile* diarrhoea (against a target of 109). We have seen increase in *C. difficile* cases in the last month on the medical and surgical wards, although the cases do not appear to be the result of cross transmission of infection.<br><br>The findings of the RCA meeting for the most recent MRSA bacteraemia episode on Critical care in a surgical patient are summarised. Actions for improvement include making sure MRSA surgical patients receive correct antimicrobial prophylaxis, improving documentation and handover of MRSA status and screening of admission to Critical care.<br><br>MRSA screening figures are presented; emergency patient, elective inpatient and elective attendances are 88%, 94% and 28% respectively.<br><br>A recent outbreak of diarrhoea on Eddington ward is discussed.<br><br>Bed shortages in the Trust mean that bays on Victoria and Coyle ward still have 6 beds rather than the agreed 4. Plans to urgently reduce bed base back to 4 need to be put in place. |

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| **Action:** | For information and support |

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| **Report from:** | Julie Andrews, Director of Infection Prevention and Control |

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| **Financial Validation**<br><br>Lead: Director of Finance | Not applicable |

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| **Compliance with statute, directions, policy, guidance**<br><br>Lead: All directors | **Reference:**<br>Saving Lives<br>National MRSA & *Clostridium difficile* target reduction<br>Health Act 2006 Hygiene Code |

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| **Compliance with Healthcare Commission Core/Developmental Standards**<br><br>Lead: Director of Nursing & Clinical Development | **Reference:**<br>C4a, C21 |

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| **Compliance with Auditors' Local Evaluation standards (ALE)**<br><br>Lead: Director of Finance | **Reference:** |

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| **Evidence for self-certification under the Monitor compliance regime**<br><br>Lead: All directors | **Compliance framework reference:**<br>Risk rating for quality |

## Infection Prevention and Control report March 2009

## 1. Infection control targets

Attached is the summary report data on MRSA bacteraemia and *Clostridium difficile* infections, as of 6th March 2009 (Appendix A, Infection control flash report).

We have had 1 further MRSA bacteraemia in February 2009. We are on **21** MRSA bacteraemia episodes in the Trust since April 2008 and therefore we have exceeded our target (of 15 bacteraemia episodes) for the year.

The 21st MRSA bacteraemia was diagnosed on 20th February 2009 in an 80 year old surgical patient on Critical care. This is a post 48-hour bacteraemia and the RCA meeting occurred on 23rd February with involvement from both surgical and Critical care teams. It was impossible to determine the definite source of the bacteraemia as the patient had undergone recent abdominal surgery, had a Hickman line in situ, a temporary central line, arterial line and an urinary catheter. The patient had also been diagnosed with pneumonia.

There were several clear actions for improvement identified as a result of various non-compliances. The sister in charge of the shift when the patient was admitted to Critical care did not take an admission MRSA screen as per Trust policy. The policy has been re-emphasised with all Critical care staff and Critical care compliance with MRSA admission screening has been included in monthly charts presented to all ward managers.

Antimicrobial prophylaxis directed against MRSA was not suggested by the surgical team or prescribed and administered by the Critical care team. This failure has been raised with Clinical Director for Surgery and Lead Consultant for Critical Care for them to discuss with their medical staff.

The documentation around the patient's MRSA status in the Critical care nursing notes was limited and was non-existent in the medical notes and on the printed handover sheets that the Critical care doctors use. Most clinicians involved in his care in the 72 hours prior to his bacteraemia development (including the infection control team, the Critical care Consultant and the middle grade doctor leading the Critical care ward round) were unaware of his MRSA status as the written handover sheets are used as prompts and the prompt "MRSA colonised" was not present on the handovers for the 7 days admission on Critical care prior to the patient developing MRSA bacteraemia. The lead Consultant for Infection Control in Critical care Dr Andrew Badacsonyi has urgently addressed this shortfall.

The documentation of invasive device insertion, including technique and rationale was also limited throughout his admission. The patient was MRSA screened on admission to hospital and MRSA suppression protocol was given to the patient in a timely manner.

To summarise the current position for the Board we have now had 12 post 48-hour cases and 9 pre 48 hours cases. 19 cases have been in medical patients and 2 cases in surgical patients.

The focus for preventing further avoidable MRSA bacteraemia cases is still focused on best practice around peripheral and central line management, urinary catheter care, MRSA screening and suppression. Ongoing work to decrease risks of transmission of MRSA between inpatients is occurring particularly on wards with high MRSA prevalence such as JKU. Poor documentation needs to be addressed by the Trust more widely than just in relation to MRSA and invasive device documentation but the ICT are developing additional tools in conjunction with members of the visible leadership team and the Department of Health HCAI improvement team.

15 FY1 doctors in collaboration with the Infection Control team are auditing ward compliance with MRSA screening and suppression policy and the results will be discussed at the next hospital management board. The compliance with MRSA suppression for emergency, critical care and elective surgical MRSA positive patients was 55%, 65% and 70% respectively in a recent pilot. These results and plans for improvement have been discussed with matrons and ward managers.

Trials of non-ported peripheral cannulae (known to be associated with reduced bloodstream infection rates) have recently finished in theatres, ED, paediatrics, chemotherapy and Montuschi Ward. Results are mixed and Clinical Policy and Documentation Committee will make the final decision on cannulae and attachment brands. A business case has been submitted for investment in improved peripheral line equipment.

As blood culture technique has been highlighted as an issue in the last 2 MRSA bacteraemia's, refresher and competency training has been arranged for all relevant medical and nursing staff based on local blood culture taking policy. This will be delivered in the next 2 months as soon as the mandatory hand hygiene refresher training has been completed.

***Clostridium difficile*** figures continue to be below trajectory but we have seen more cases in the last month than the previous 3 months, with 12 cases since the last board meeting, taking us to a total of 54 cases against the target of 109 cases to date.

There has been an increase in *C. difficile* cases on the medical and surgical wards with 3 wards (Cloudesley, Meyrick and Victoria) having more than one case in January. Mini RCA meetings have concluded that cross transmission was unlikely. We have seen a 47% 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. The excellent reduction in *C.difficile* figures this year means that we face a more challenging target in 2009/10 of 92 cases (8-9 cases per month). No graphs are currently available from the HPA to show our benchmarked performance against national and London data, because of the recent changes in way *C. difficile* performance is measured.

## 2. Hand hygiene and environmental cleaning.

There was no hand hygiene audit in February, as the planned day coincided with the heavy snowfall, and all matrons spent the day working on the wards. To recap, compliance measured by the last visible leadership team audits demonstrated a decrease from December to 90% in January (97% in September, 88% in October,

85% in November, 96% in December). All senior clinical staff have been asked for their support to challenge and report non-compliant staff to the medical director, visible leadership team or infection control team.

The visible leadership, infection control and practice development teams are delivering refresher hand hygiene and sharps handling sessions for all staff. As at 6.3.09, 885 (34%) staff have received training and the feedback has been very positive. The FSA's and portering staff have also received dedicated training on dress policy, sharps disposal, hand hygiene and use of Acticlor plus (cleaning agent).

The February environmental cleaning audit showed sustained performance on wards, with an average of 95% across all the areas audited. No areas were below 80%, with three scoring between 80% and 95% (Eddington, Reckitt and ED).

## 3. Outbreaks

There was an outbreak of diarrhoea involving 5 patients on Eddington ward in mid February. The outbreak was reported to infection control by a member of staff and, following rapid inspection of the ward by the DIPC, it was immediately closed to admissions. Once an outbreak was declared the response from the facilities team was immediate and thorough, in providing additional support to the ward, as was the response from the Matron for Medicine. The need to escalate the requirement for further support has been raised with the Eddington Ward manager. The outbreak was contained, with no further cases and the ward re-opened after 48 hours.

## 4. MRSA screening

MRSA screening of elective surgical inpatients for January 2009 was 94% (down from 96% in December). Elective attendance MRSA screening (including surgical DTC patients and haematology-oncology patients) commenced in January and compliance figures are only 28%. 65% of pre-assessed DTC patients were screened but less than 10% of non pre-assessed DTC patients were screened. Jon Green and Maggie Pratt are leading on improving this compliance.

Emergency admission MRSA screening compliance increased to 88% in January (up from 79% in December). Ward level MRSA screening compliance data is presented at ward managers meetings.

## 5. Bed occupancy

High bed occupancy figures throughout the Trust have seen continuation of bed base in bays from 4 back up to 6 on Coyle and Victoria wards. This situation needs urgent re-assessment once pressures on beds have lessened. The number of emergency admissions per day has not reduced so a review of more rapid discharges seems a more likely solution.

A paper was passed at Executive team in February to allow JKU wards to close bays at 4 beds when running a cohort bay for patients subject to transmission based precautions. We have had to revoke this because of the continued pressure on beds

throughout the Trust.  Our ability to isolate patients subject to transmission precautions in side rooms on JKU is estimated to be between 15-30% currently.