**AGENDA ITEM NO:**

# UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

## COUNCIL OF GOVERNORS

## THURSDAY 8 DECEMBER 2011

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| **Title:** | **REPORT ON INFECTION PREVENTION AND CONTROL FOR NOVEMBER 2011** |
| **Responsible Director:** | Kay Fawcett, Executive Chief Nurse and Executive Director for Infection Prevention and Control |
| **Contact:** | Dr Pauline Jumaa, Director of Infection Prevention and Control. Ext 8182 |

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| **Purpose:** | To provide the Council of Governors with information relating to infection prevention and control issues (including MRSA bacteraemias, MSSA bacteraemias and episodes of *Clostridium difficile* infection) up to the 25 November 2011. |
| **Confidentiality Level & Reason:** | **Confidential - Patient Information** |
| **Medium Term Plan Ref:** | Strategic Aim 4 : Quality of Services |
| **Key Issues Summary:** | This paper sets out the position for the 2011/2012 MRSA bacteraemia and *Clostridium difficile* infection trajectories and provides incidence of MSSA and *E. coli* bacteraemia within the Trust and supporting actions to ensure continued improved performance. |
| **Recommendations:** | The Council of Governors are asked to accept this report on infection prevention and control progress. |

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| **Signed:** | **Date:** 25 November 2011 |

# UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

# COUNCIL OF GOVERNORS
# THURSDAY 8 DECEMBER 2011
# REPORT ON INFECTION PREVENTION AND CONTROL UP TO 23 NOVEMBER 2011
# PRESENTED BY THE CHIEF NURSE

## 1. Introduction

This paper provides a report on performance against the 2011/2012 national trajectory for MRSA bacteraemia and the locally agreed trajectory for *Clostridium difficile* infection (CDI), up to 23 November 2011. It also provides an update on performance for meticillin-sensitive *Staphylococcus aureus* (MSSA) and outlines reporting requirements for *Escherichia coli* (*E. coli*) bacteraemia while identifying progress related to wider infection prevention and control actions.

## 2. Executive Summary

Trust performance for MRSA bacteraemia is currently 3 cases against an annual trajectory of 7 placing the Trust under year to date trajectory by 1 case. CDI performance for November to date is 4 cases placing the Trust 17 cases under year to date trajectory. Cases of MSSA and *E. coli* bacteraemia continue to be collected. The PCT Commissioners have confirmed that no improvement trajectories will be identified for MSSA and *E. coli* bacteraemia in this reporting year.

The Trust saw an increase in the number of cases of MDR-Acinetobacter in the critical care units between July and October. These were reviewed in conjunction with the Health Protection Agency and the PCT Commissioners and improvement measures implemented. There have been no further cases in critical care to date in November. All cases continue to be reviewed, along with MRSA bacteraemia and CDI via the Trust's root cause analysis (RCA) investigation process.

## 3. MRSA Bacteraemia Rates

### 3.1 MRSA bacteraemias 2010/11 and Context

The Trust performance for MRSA bacteraemia to date is 3 post 48 hour cases. The Trust is required to have no more than 7 post 48 hour MRSA bacteraemias this year. There have been no post 48 MRSA bacteraemias to date in November placing the Trust 1 case under year to date trajectory.

Figure 1 shows the trend of improvement in MRSA bacteraemia over the last two years. Monthly incidence of MRSA bacteraemia is shown in Table 1.

**Figure 1. Annual rolling total of MRSA bacteraemias against annual trajectory (2009 - 2012)**

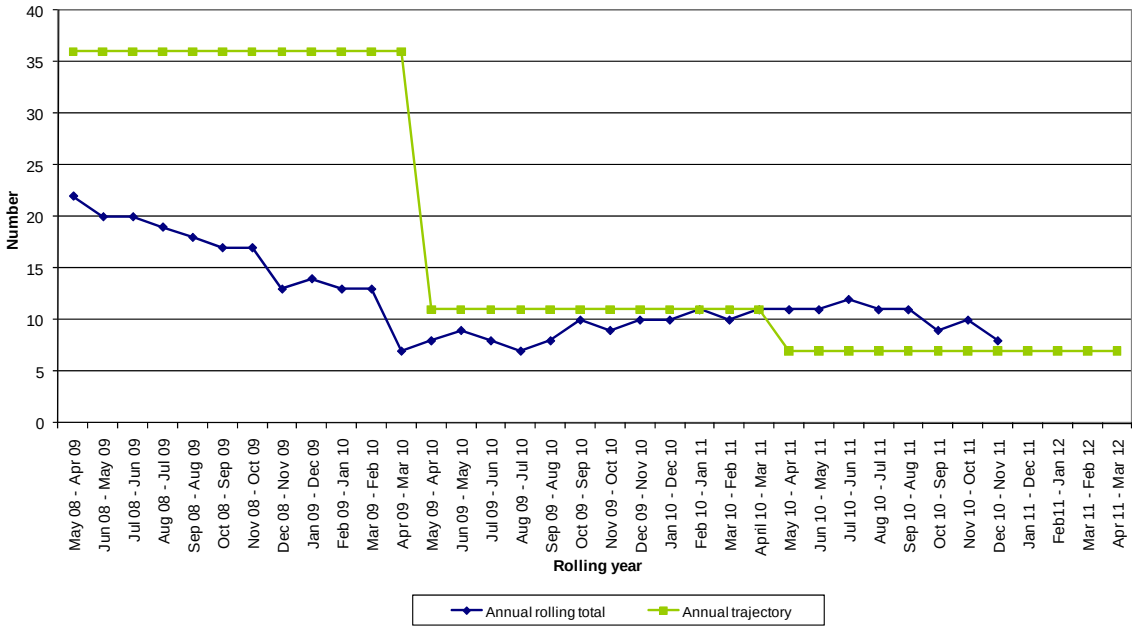


**Table 1. Monthly number of MRSA bacteraemia by month up to 23 November 2011**

| Month | Total bacteraemia | Trajectory (post 48 hour cases only) | Bacteraemia acquired more than 48 hrs after admission? (likely to be UHB acquired) | |
|---|---|---|---|---|
| | | | Yes | No |
| April 2011 | 2* | **0.5** | 1* | 1 |
| May 2011 | 2 | **0.5** | 1 | 1 |
| June 2011 | 2 | **0.5** | 1 | 1 |
| July 2011 | 0 | **0.5** | 0 | 0 |
| August 2011 | 1 | **0.5** | 1 | 0 |
| September 2011 | 1 | **0.5** | 0 | 1 |
| October 2011 | 0 | **0.5** | 0 | 0 |
| November 2011 | 0 | **0.5** | 0 | 0 |
| **Total** | **8*** | **4** | **3 (4)*** | **4** |

*This case will not be apportioned to the Trust but will remain on the national Health Care Associated Infections (HCAI) capture database

3.2 <u>Actions to continue the improved performance for MRSA bacteraemia</u>

Continued focus on practice is required to maintain the improvement to date. Actions agreed include:

- Compliance with MRSA screening for all relevant elective and emergency admissions. This continues to be monitored monthly and feedback is given to the clinical areas.
- The IV team continue to provide leadership and support to clinical staff to improve compliance with the Trust standard for the management of invasive devices.
- Roll out of competency based training for the collection of blood cultures to all relevant staff groups.
- A surgical site infection task and finish group is in place. Next meeting is on the 2 December 2011. Key actions currently being audited are skin preparation and administration of prophylactic antibiotics.
- An integrated approach supporting Divisions with adherence to mandatory training for infection prevention and control is in place.

## 4. Episodes of *Clostridium difficile* Infection

### 4.1 Current Figures and Historical Context

The agreed trajectory for 2011/12 is 114 post 48 hour CDI cases which equates to no more than 9.5 cases per month. November performance to date is 4 Trust appointed cases placing the Trust under year to date trajectory by 17 cases. Figure 2 shows the trend of improvement in CDI over the last two years. The monthly incidence of CDI is shown in Table 2.

**Figure 2. Annual rolling total of *C. difficile* infection cases at UHBFT against annual trajectory (2009 - 2012)**

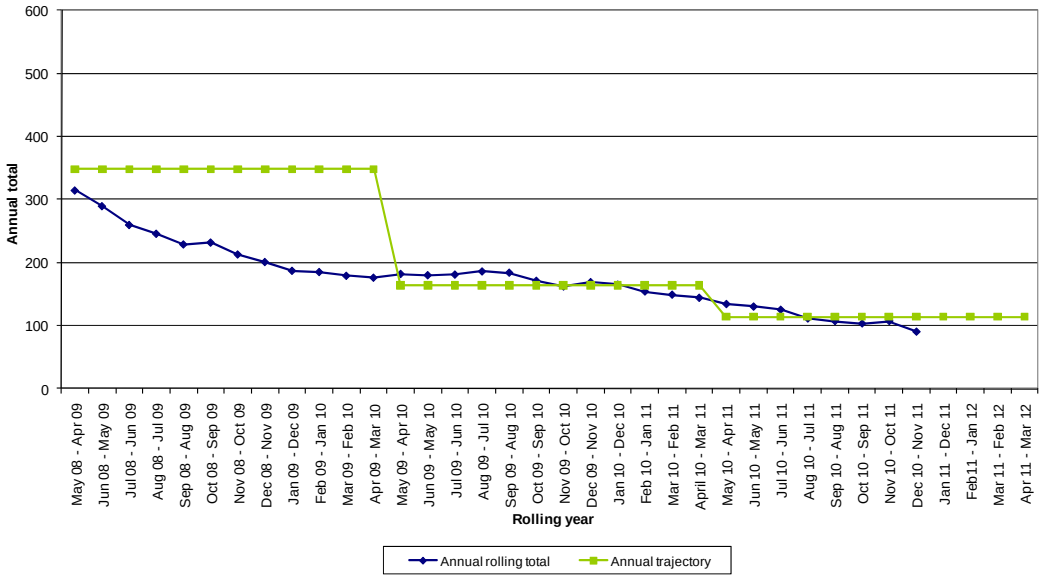

**Table 2. Monthly number of cases of CDI within the Trust up to 23 November 2011**

| Month | Total number of CDI | Trajectory (post 48 hour cases only) | CDI acquired more than 48 hours after admission? (likely to be UHB acquired) | |
|---|---|---|---|---|
| | | | YES | NO |
| April 2011 | 10 | **9.5** | **7** | 3 |
| May 2011 | 20 | **9.5** | **14** | 6 |
| June 2011 | 10 | **9.5** | **7** | 3 |
| July 2011 | 12 | **9.5** | **7** | 5 |
| August 2011 | 10 | **9.5** | **4** | 6 |
| September 2011 | 10 | **9.5** | **6** | 4 |
| October 2011 | 13 | **9.5** | **10** | 3 |
| November 2011 | 4 | **9.5** | **4** | 0 |
| **Total** | 89 | **76** | **59** | 30 |

4.2 Actions to improve performance for CDI

The Trust requires continued focus to maintain current performance for CDI and continue to reduce incidence to meet the 2011/2012 annual objective of 114 cases. The Infection Prevention & Control Team (IP&CT) are focused on supporting clinical staff to achieve best performance for CDI and ensure appropriate controls are in place to deliver improvement. Actions agreed include:

- Focused patient risk assessment to ensure that patients with suspected CDI are managed appropriately, isolated and stools sent for testing in a timely manner.
- Clinical staff apply agreed cleaning protocols when CDI patients are discharged/transferred.
- Hydrogen peroxide misting is completed following discharge or transfer when patients are known to have diarrhoea.
- Chlorine based cleaning products are implemented in areas where there has been more than one case of CDI.
- The IP&C team undertake a review of any area reporting two or more cases of CDI.
- Reducing the time to isolation for patients identified as having type 6/7 stool.
- Prescribing audits and clinical feedback cycles are being developed to support antimicrobial stewardship.
- Targeted education and training to promote appropriate hand hygiene practice with all staff, patients and visitors continues.

4.3 Facilities Update

- The Cleaning Standards Group are currently reviewing the revised standards in PAS 5748.2011 to ensure the Trust maintains full compliance and that ward cleaning schedules are responsive to the change.
- A pilot to link the monitoring and scheduling of ward and departmental work with the Ward Housekeeper and the Housekeeping supervisors is underway. This will add to the coordination of the teams to meet the quality agenda and maintain standards.
- Full deep cleans of all the Critical Care areas has now been achieved and the frequency of this programme is now being agreed with the Division.

## 5. Other Alert Organisms

5.1 Multi Drug Resistant (MDR) - *Acinetobacter*

There was 1 new case of MDR-*Acinetobacter* in July 2011 identified in a military patient in critical care. From August to October there were a further 12 new cases identified in civilian (9) and military (3) patients within critical care B and D. Isolates from all patients were sent to the reference laboratory for molecular typing. Results received to date show that 8 isolates are indistinguishable from the index case in July and represents horizontal transfer. One isolate was shown to be distinct and represents a sporadic strain. The have been no new cases identified in critical care since the 20th October.

5.1.1 Actions to improve performance for MDR-Acinetobacter

- Root cause analysis has been completed on all patients.
- Patient mapping is complete.
- Deep cleaning is complete in WCCA, WCCB, WCCC and WCCD.
- Four multidisciplinary (MDT) meetings have been held to review new cases and ensure agreed actions have been implemented.
- Executive review of cases up to the end of September is complete.
- An interim report has been sent to the commissioners.
- The Health Protection Unit has attended two of the MDT meetings and reviewed the units.
- All staff in critical care are aware of the need to maintain strict environmental and equipment decontamination and hand hygiene.
- Further typing results are anticipated shortly which will further

help understand the epidemiology and identify other possible targets for intervention.

5.2 Meticillin-sensitive *Staphylococcus aureus* (MSSA) bacteraemia

Reporting of MSSA bacteraemia is now mandatory since 1 January 2011. Performance for November to date is 3 non-Trust apportioned cases and 1 Trust apportioned case.

5.3 *Escherichia coli* (*E. coli*) bacteraemia

From 1 June 2011, reporting of *E. coli* bacteraemia is mandatory. *E. coli* is part of the normal bacterial flora carried by all individuals. It is the commonest cause of clinically significant bloodstream infection. *E. coli* bacteraemia represents a heterogeneous group of infections. Performance for November to date is 8 non-Trust apportioned cases and 2 Trust apportioned cases.

## 6. Outbreaks of Diarrhoea and Vomiting

In October the Trust has had one ward closed with Norovirus for 8 days. There were 19 patients and 6 staff affected and 69 lost bed-days. There have been no wards closed with diarrhoea and vomiting to date in November.

## 7. Root Cause Analysis

All episodes of MRSA bacteraemia and CDI are subject to an RCA investigation. From April 2011 all post 48hour MRSA bacteraemias and CDI deaths are being reviewed by the executive panel in conjunction with drug omissions and complex complaints. Pre 48h MRSA bacteraemias, CDI and GRE RCAs continue to be reviewed by Divisional panels.

## 8. Recommendations

The Council of Governors are asked to accept this report on infection prevention and control progress.

Mrs Kay Fawcett
Executive Chief Nurse and Executive Director for
Infection Prevention and Control

25 November 2011