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| The North West London Hospitals  | Agenda Item | 11 |
| TRUST BOARD | Paper | TB/08/14 |
| Meeting on: 29 th October 2008 | Attachment | |
| Subject: Director of Infection Prevention and Control Quarterly Report 2008/09 | | |
| Director Responsible: Elizabeth Robb, Director of Nursing/ Infection Prevention and Control | Author: Elizabeth Robb and Fiona Coogan, Deputy Director of Infection Prevention and Control | |
| Summary: This is the quarterly report for period July 2008 – September 2008. In particular it looks at: <ul style="list-style-type: none"> • The incidence and trends of MRSA Bacteraemia and Clostridium difficile over the past year and the key actions in place • Provides an update on the progress made in Infection Control • Key work streams are identified for the year 08/09 | | |
| Financial Implications: | | |
| Risk Issues (including legal implications, reference to Assurance Framework and Risk Register): Infection Control is one of the key national targets and failure would impact upon the Healthcare Commission's Annual Health Check Assessment | | |
| Communication & Consultation Issues (including PPI): Media | | |
| Workforce Issues (including training and education implications): Hand Hygiene is part of Mandatory Training | | |
| How this Policy/Proposal Recognises Equality Legislation: This report supports and recognises equality legislation | | |
| What is required of the Board? The Board is asked to note this report and the measures taken to address infection prevention and control within the Trust | | |
| Has an Equality Risk Assessment been carried out on this issue or proposal? N/A | | |

Director of Infection Prevention and Control Quarterly Report July – September 2008

1. Summary

1.1 This paper outlines the incidence and trends for MRSA bacteraemia and *Clostridium difficile*, together with activity within Infection Control to reduce Healthcare Associated Infections. The Trust continues to take a proactive approach to the challenge of reducing infection and in particular ensuring full medical involvement and engagement in order to meet our trajectory targets for both MRSA bacteraemia and *Clostridium difficile*.

At the end of September 2008, the Trust had reported a total of 18 MRSA bacteraemia cases. Whilst the 18 cases are slightly above our trajectory target of 16 at the end of September this is still progress in comparison to previous years.

1.2 The infection control nurses continue to work closely with the Infection Control Link Practitioners and the Divisional Clinical Champions.

1.3 Weekly mandatory training is delivered by the Infection Control Nurses

1.4 The Trust Infection Control Annual plan for 2008/9 continues to consolidate work from the DOH Improvement Action Plan and the actions identified from the Stoke Mandeville and Maidstone and Tunbridge Wells benchmarking exercise. Key priorities for the Trust are:

- Screening of all Elective and Emergency patients and to decolonise high risk or MRSA positive patients
- Hand Hygiene
- Antibiotic stewardship
- High Impact Interventions – Saving Lives Programme
- A sustainability programme for Infection Control Policy compliance

2. 0 MRSA Bacteraemia

2.1 Mandatory surveillance of MRSA bacteraemia

MRSA bacteraemia data 2006 - 2009

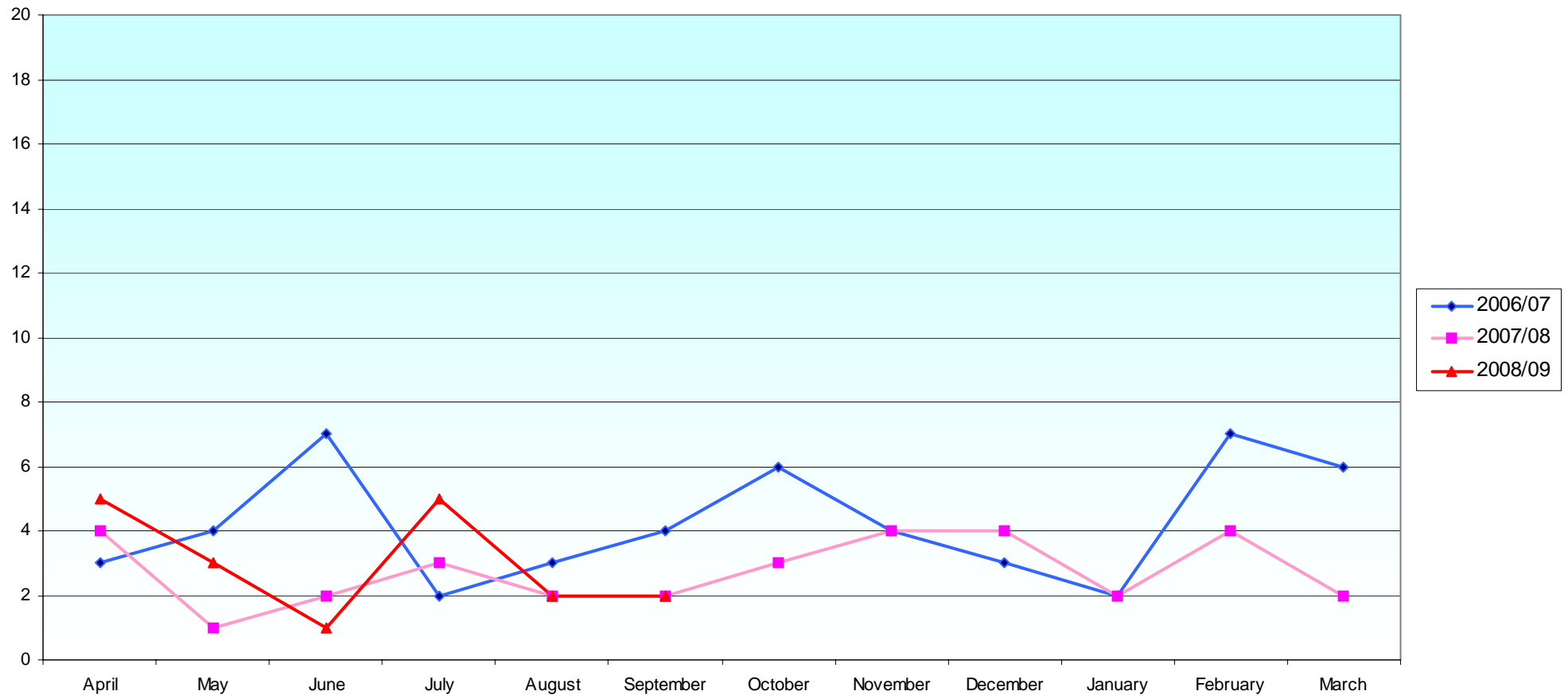


Table 1

| | April | May | June | July | August | September | October | November | December | January | February | March | Total |
|--------------------------------|-------|------|------|------|--------|-----------|---------|----------|----------|---------|----------|-------|-------|
| Number of infections in period | 5+1* | 3+1* | 1 | 5 | 2 | 2 | | | | | | | 18 |

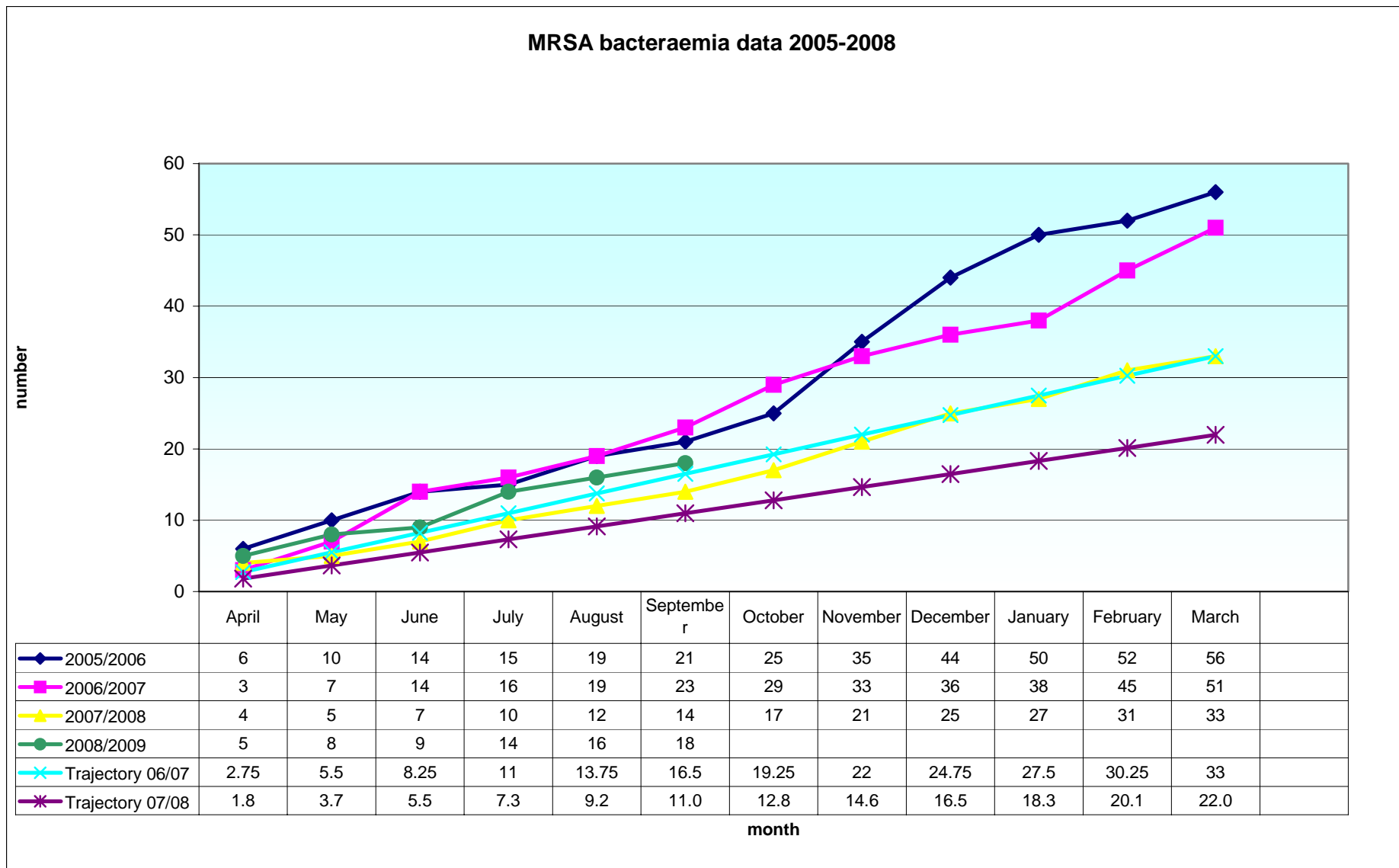
***Note- 1 reallocated to another Trust in April
1 removed on appeal in May**

2.2 Table 1 shows the data for July to September 2008. This indicates that at the end September there were 18 MRSA bacteraemia which was slightly above the monthly trajectory level of 16 cases. Seven out of the eighteen were pre 48 hours.

2.3 In September the Trust received confirmation that one case, relating to April would be re-allocated to the transferring acute trust. This related to a patient who was transferred in April 2008 for specialist care at St Marks. All MRSA positive blood culture episodes detected in the Trust Laboratory have to be reported to the Health Protection Agency even if they are being processed for another healthcare provider.

2.4 In Quarter 2, the Trust was advised by the Strategic Health Authority that the end of year trajectory had been increased from 28 to 32. This related to the transfer of the Harrow PCT wards to the Trust in April 2008.

2.5 The graph shows the accumulated number of MRSA bacteraemia per month, over a three-year period



2.6 Analysis of MRSA bacteraemia cases:

MRSA Bacteraemias 08/09 themes and trends

| CASE | PCT | PRE 48 hours | Admitted from | Prev NWLH < 3/12 | High Risk patient | POST 48 hours | BC Contam | IV Device | Wound | Urine | Admission date | Screened on admission | Positive | Negative | Decolonised |
|------|--|--------------|-------------------|----------------------------------|-------------------|---------------|----------------|-------------------------|-----------------------|-------|----------------|----------------------------|----------------------|---|-------------|
| 1 | Harrow | | Home | - | | • | | • | • | | 17/3/08 | | | | |
| 2 | Harrow | | Home | • 3/7 April 08 | | • | | | • | | 17/4/08 | • (pre-op) • (ITU 18/4) | • | • | • |
| 3 | Harrow | • | Home | - | | | • | | | | 16/4/08 | • | | • | |
| 4 | Harrow | • | Silverlands RH | • 4/7 Feb 08 | • | | | | • (leg ulcers) | | 23/4/08 | • | • | | • |
| 5 | Sussex | • | Worthing hospital | - | • | | | • | • | • | 25/4/08 | • | • | | • |
| 6 | Harrow | | Home | • 1/12 Jan/feb 08 | | • | | | | • | 10/4/08 | | | • (at pre-op) | • |
| 7 | Brent Renal Centre – Removed from NWLH database by HPA | | | | | | | | | | | | | | |
| 8 | Harrow | • | RNOH Stanmore | • 2/7 prior to transfer | | | | | | • | 7/5/08 | • | • positive on return | • (Negative on 20/4 prior to transfer to Stanmore) | • |
| 9 | West Herts | • | Home | • 4/52 Mar/Ap 08 | • | | | | • | | 9/5/08 | • | • | | • |
| 10 | Brent | • | Home | - 6/7 Dec 07 | • | | • | | | | 18/5/08 | • | • | | |
| 11 | Harrow | • | Silverlands RH | • 1/7 April 08 | | | | • Venepuncture at RH | | | 5/6/08 | • | • | | No - RIP |
| 12 | Brent | • | Home | • May 08 | | | • ?possible | | • (pressure ulcer) | | 15/7/08 | • | • | | • |
| 13 | Harrow | • | Home | • Day Case 7/7 | | | | | | • | 17/7/08 | | | | No - RIP |
| 14 | Brent | | Home | | • | • | | | • | | 25/6/08 | • | | • | |

| | | | | | | | | | | | | | | | |
|----|---------|--|----------------------|--------------------------|---------|---|-------------|--------------------------|---------------------------------|--|-----------|----------|--------------------|----------------------|--------------------------------|
| | | | | | 18/1/08 | | | | fistulas | | | (pre-op) | | (had 3x neg) | |
| 15 | Bromley | | Home | In Patient Since 1107 | | • | | • Long term feeding line | | | 26/11/07 | • | • Positive 22/7/08 | • Screened regularly | |
| 16 | Harrow | | Nursing home | | • | | | • | | | 22 /07/08 | | | | RIP |
| 17 | Brent | | Home | • | | | | • Long term Feeding line | • Urine likely source of sepsis | | 16 /08/08 | • | • | | • |
| 18 | Brent | | Home | • | | • | • | | | | 24/6/08 | • | | • | |
| 19 | Ealing | | Hammersmith hospital | In patient since June 08 | • | • | | • | | | 13/06/08 | • | | • On weekly screens | • On going Eradication therapy |
| 20 | Sussex | | Home | | | • | • ?possible | | • Fistula | | 11/08/08 | • | | • | |

2.6 Review of Root Cause Analysis Summary

- 9/18 Harrow PCT, 5/9 are pre 48 hour
- 5/18 Brent PCT, 2/5 are pre 48 hour
- 4/18 Other PCT, 4/4 are post 48 hour
- 4/18 Probable contaminants
- 3/18 Peripheral Line related
- 5/18 St Marks patients
- 7/18 High risk patients
- 3/18 Urological interventions

Actions

| INFECTION CONTROL WORK FOCUS | TRUST ACTIONS | WHOLE HEALTH ECONOMY ACTIONS |
|--|---|--|
| 1.A&E MRSA Admission screening | <ul style="list-style-type: none"> • Patient notes stamped when screen complete • Site Practitioner to check screen complete before accepting bed request • Audit of compliance • Individual follow up of staff who fail to complete screen | <ul style="list-style-type: none"> • Repeat screening of high risk frequent flyers and decolonise • Education and training of PCT Nursing / Residential Care Staff • Participation in RCA's of all pre 48 hour cases |
| 2. Blood Culture Technique | <ul style="list-style-type: none"> • Target training • Follow up of individuals by DIPC of any samples that are contaminants • New pack and audit form • Planned Launch • Audit of Practice by Microbiology F2 • Promote use of Vacutainer system and disposable tourniquet • Laminated flow chart | |
| 3. Five cases of MRSA Bacteraemia in St Marks | <ul style="list-style-type: none"> • Special measures action plan to consolidate actions from all RCA's • Environmental screening of ward areas • Review of Long term Central Venous Line Policy • Weekly review of MRSA positive patients • Education and training of all staff | <ul style="list-style-type: none"> • Follow up of specialist patients as per treatment plan |
| 4. Compliance of Peripheral Line policy | <ul style="list-style-type: none"> • Focussed piece of work with Portfolio manager from DOH • Matrons to report compliance from respective areas to Professional Committee • Infection Control Nurse to undertake spot checks • Review of training for both Medical Staff and Nursing Staff | |
| 5. Earlier confirmation of MRSA positive patients and commencement of decolonisation | <ul style="list-style-type: none"> • Business case to present screening method options to whole health economy • Pre printed prescription to facilitate early decolonisation | <ul style="list-style-type: none"> • Communication with GP's for patient screening follow up and management plans for complex patients/ high risk patients • Brent and Harrow to agree above with GP's • PCT Infection Control Nurses to be advised |

| | | |
|--|--|--------------|
| | | of all cases |
|--|--|--------------|

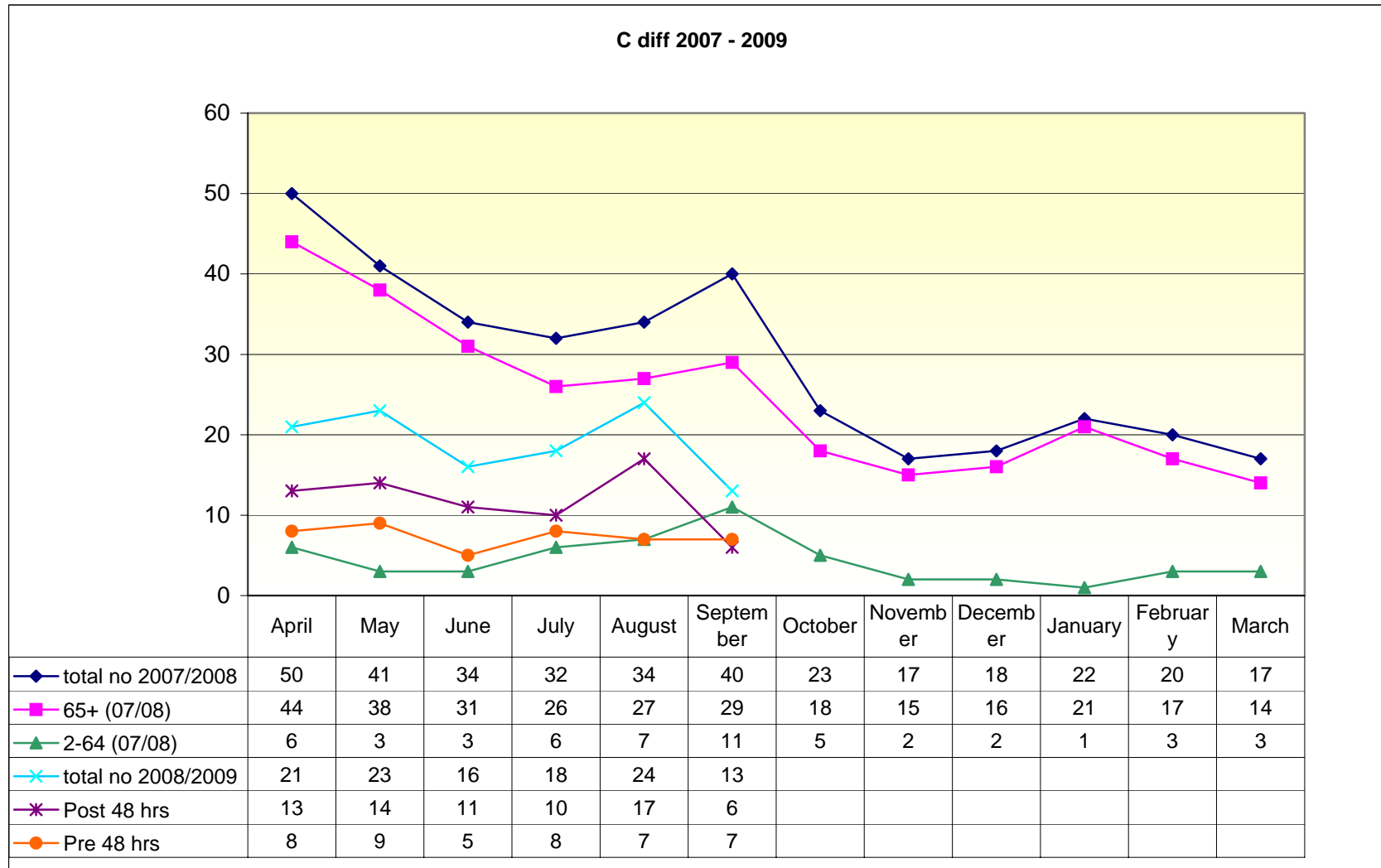
3.0 Clostridium difficile

3.1 The table below shows the number of cases per month. The figures illustrate the Trust has achieved the monthly trajectory target and are currently 37 % below the national target.

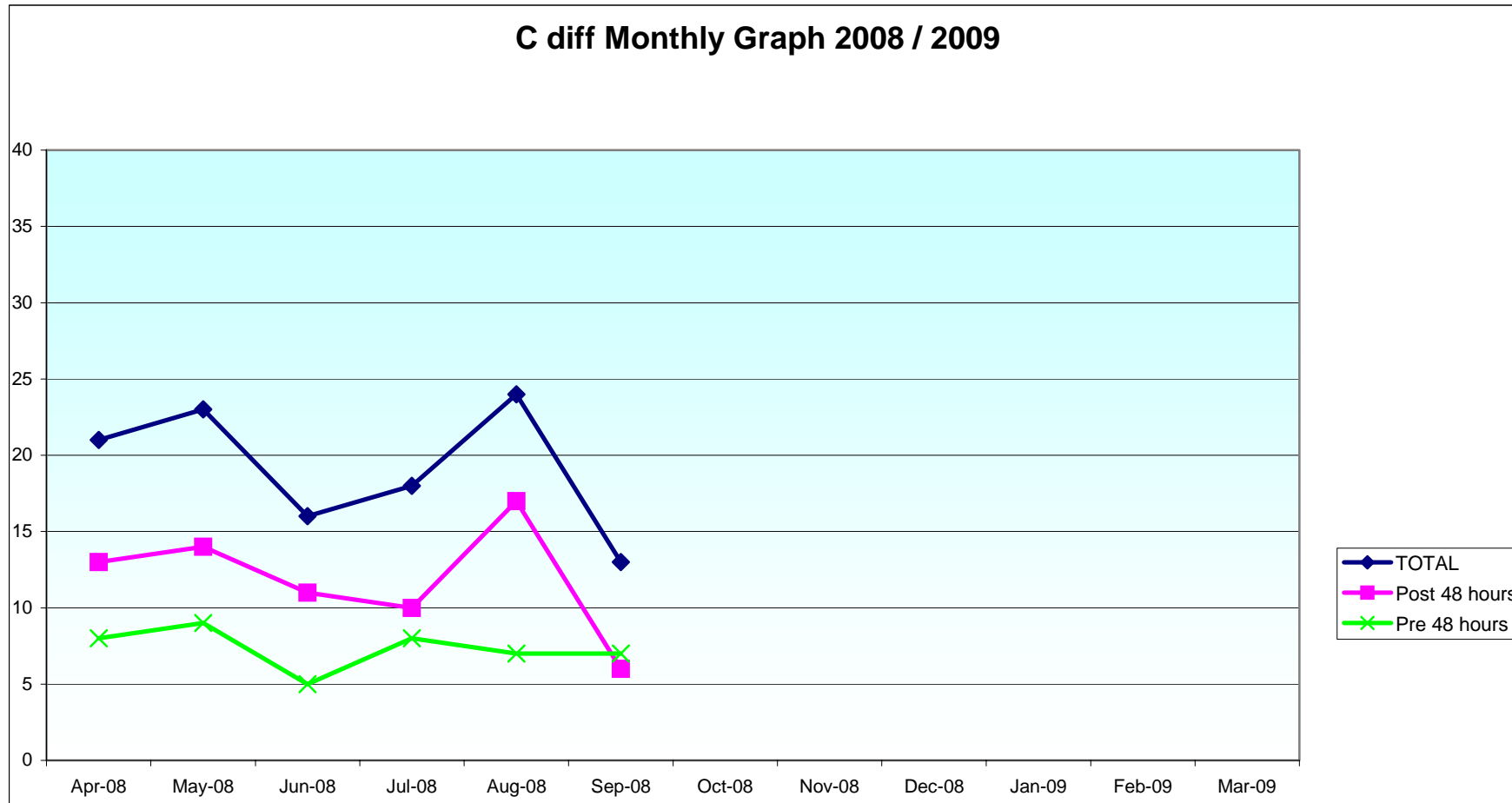
| MONTH | Apr-08 | May-08 | Jun-08 | Jul-08 | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | TOTALS | |
|---------------------------------|-----------|-----------|------------|------------|------------|------------|--------|--------|--------|--------|--------|--------|------------|------------------------------|
| TOTAL | 21 | 23 | 16 | 18 | 24 | 13 | | | | | | | 115 | Local target 324 |
| Post 48 hours | 13 | 14 | 11 | 10 | 17 | 6 | | | | | | | 71 | Presumed national target 223 |
| Pre 48 hours | 8 | 9 | 5 | 8 | 7 | 7 | | | | | | | 44 | |
| GP | 1 | 3 | 0 | 4 | 1 | 4 | | | | | | | 13 | |
| NPH | 18 | 19 | 13 | 13 | 19 | 5 | | | | | | | 87 | |
| CMH | 2 | 1 | 3 | 1 | 4 | 4 | | | | | | | 15 | |
| | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 25 | 223 |
| Variance (post 48 hours) | -5 | -9 | -16 | -24 | -25 | -37 | | | | | | | | |

3.2 At the beginning of 2008/09, the whole health economy target was set at 324 cases. In July 2008, further figures were received from the Strategic Health Authority indicating that the national target for acute hospitals related only to those cases attributable to the Trust i.e. those samples taken from patients post 48 hours of admission. The SHA are still awaiting clarification from the Department of Health, however they have confirmed the working target for the current year of 223 post 48 hour cases. The above table has been amended to separate the pre and post 48 hour cases.

3.3 Graph Showing *Clostridium Difficile* positive results from April 2007 – Sept 2008



3.4 The graph shows *C.Diff* positive results pre and post 48 hours



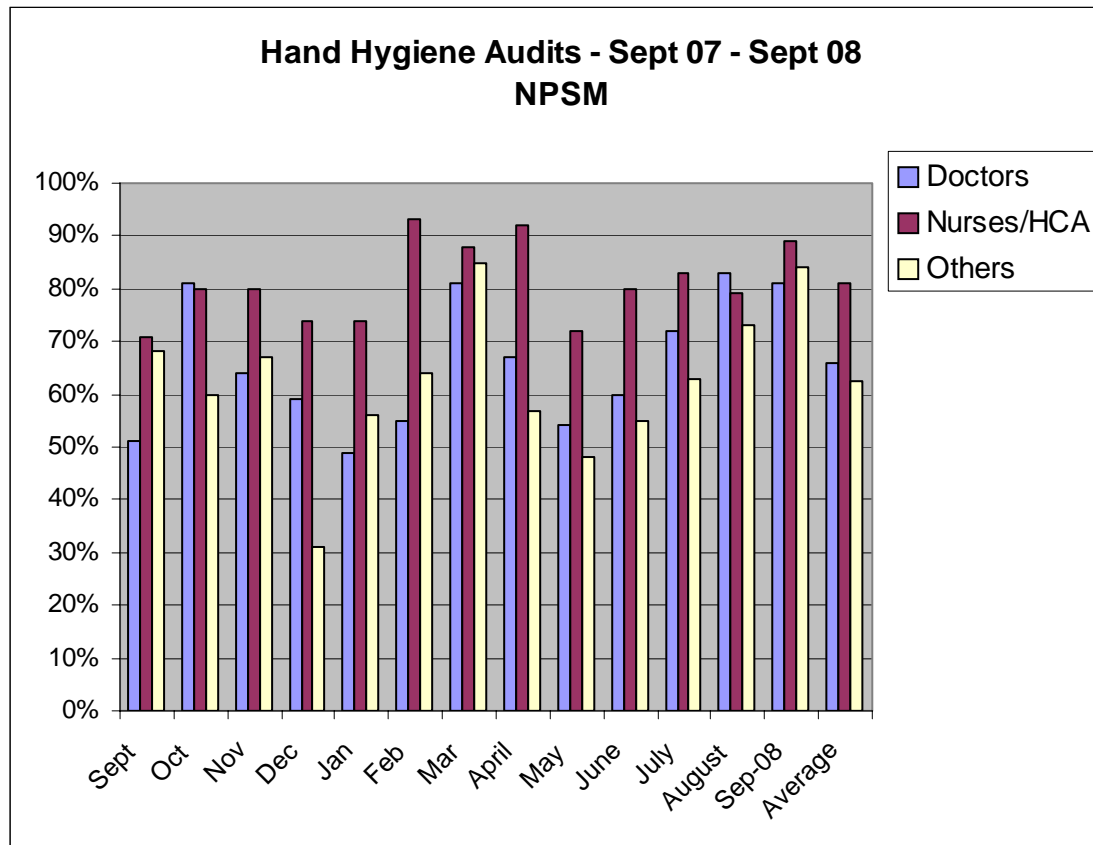
3.5 There was a significant decrease in the number of cases of *Clostridium difficile* reported in the Trust in the month of September. Work has focussed around raising the awareness of *Clostridium difficile*, using the care bundle and antibiotic stewardship.

4.0 Outbreaks/Incidents

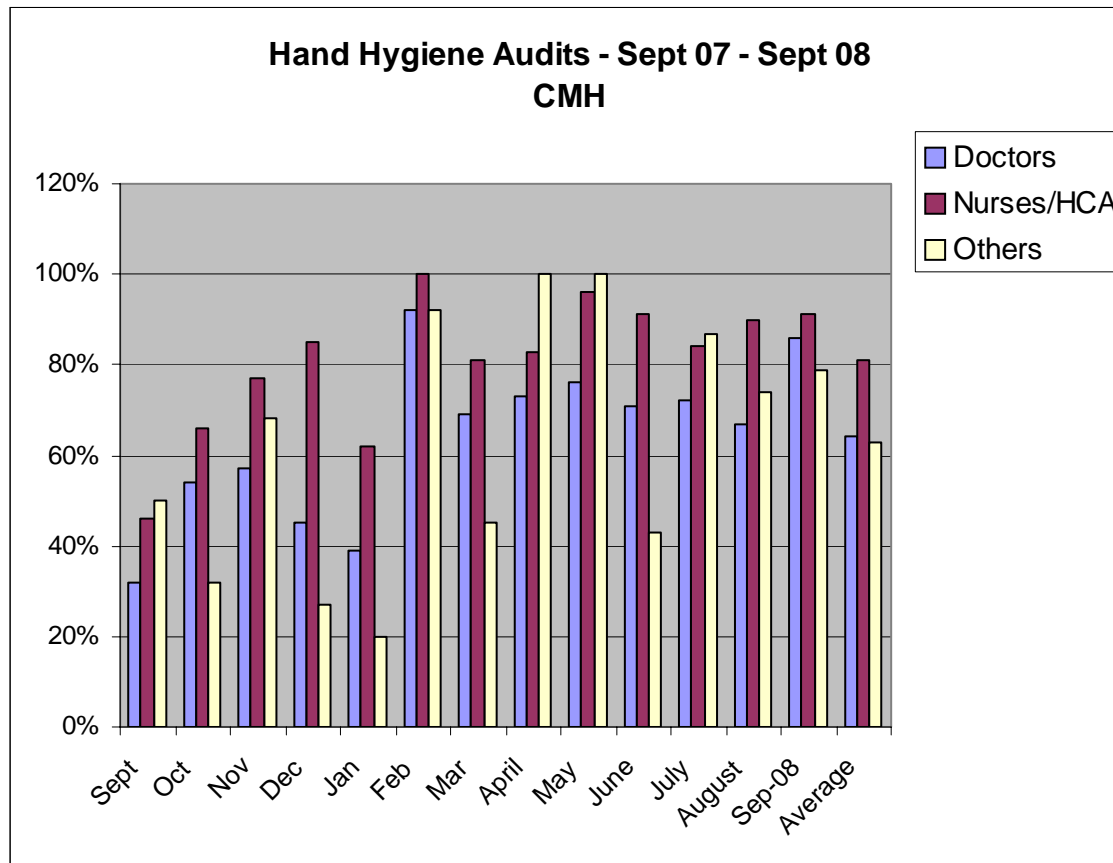
4.1 Fletcher Ward experienced a small outbreak of *Clostridium difficile* in the month of August 2008. An Outbreak meeting was arranged as per Trust policy as a total of four patients had been confirmed with *Clostridium difficile* infection and one patient had diarrhoea. All patients had been isolated and an action plan developed to manage the outbreak. At the time Fletcher Ward had 5 empty beds. A deep clean was commenced using the empty bay as a decant facility. This allowed a thorough clean of all bed frames and steam cleaning to take place. Once the deep cleaning process was complete the Outbreak was formally closed. To date there have been no further cases reported.

4.2 Byrd Ward is a specialist Haematology Ward, where a number of patients have compromised immune systems and are undergoing aggressive chemotherapy regimes. There are weekly infection screens for these patients. In some side rooms it had been noted that two consecutive patients had been confirmed *Clostridium difficile* toxin positive. A meeting was convened to discuss a plan of action with both the Infection Control Team and the Consultant Haematologist. A decision was made not to admit any further haematology patients and close to any other admissions. In view of the repeated cases in the same rooms, the ward was deep cleaned and Hydrogen Peroxide vapour was used to treat the rooms before any further patients were admitted. ATP testing has also been used in the ward to provide an objective measurement of cleanliness.

5.0 Hand hygiene surveillance



5.1 Northwick Park and St Marks shows an average compliance rate of 82 % for Nurses and 65 % for Doctors



5.2Central Middlesex shows an average compliance rate of 81 % for Nurses and 64 % for Doctors

5.3 Failure of any area to submit an audit will result in an invitation to meet the Chief Executive to discuss an improvement plan. During the Quarter 2, she met four areas and results have shown an improvement.

6.0 Developments to support infection control

6.1 Joint Clinical investigation

In August 2008 an extraordinary Clinical Quality Review meeting was held at the request of Brent PCT in relation to their concerns regarding the Trusts ability to achieve the agreed trajectory for MRSA Bacteraemia. It was agreed by both Brent and Harrow PCT to work in partnership with the Trust and commission a Joint Clinical Investigation. The overall aim of this work was to investigate the reasons for a higher than expected level of MRSA Bacteraemia across the Health Economy. A two day visit took place on 11 and 12 September an interim report has been discussed with the three respective Directors of Infection Prevention and Control. The report identified several areas of good practice in the Trust including the recruitment of Clinical Champions and introduction of Care Bundles. They praised in particular our Matrons, who they found to be knowledgeable and committed. The final report is due at the end of October.

6.2 Maternity unit

Following a Serious untoward Incident and a Freedom of Information request the Infection Control Team noticed a significant rise in the number of ESBL isolates and MRSA colonisation in the Maternity Unit. In 2008 the numbers although small appeared to have increased 5-10 fold in comparison to previous years. In view of this clinical significance a meeting was called by the Director of Infection Prevention and Control to investigate this situation and develop an action plan to address areas of concern. A number of measures were put in place including the screening of both mothers and the environment. A full report of this investigation was presented to the Trust Infection Control Committee in September 2008.

6.3 Accident and Emergency

In July 2008 a number of concerns relating to infection prevention and control practice were highlighted by the infection control team to the Head Nurse and Matron. An action plan was developed and included the support of an infection control nurse who based herself in the department for one week. Standards of cleanliness, compliance with MRSA screening of all emergency patients and hand hygiene have improved significantly. This improvement agenda has been driven by both the Matron and Consultant who is the Clinical Champion for the area.

7.0 Staff training in Infection Control

Please note that as from June all data is now recorded using the National Oracle Learning Management System. This is a national system linked to the Electronic Staff Records system, whereby, it gives a holistic view of the staff members training record. It provides single complete employee record containing qualifications, training, personal information, position within career framework – training passport.

However in Quarter 2, 631 members of staff received either Mandatory or Induction Infection Control training. An on line training package has also been developed for new medical staff joining the Trust. A number of other training sessions have been provided by both the Infection Control Nurses and Consultant Microbiologists to Medical Staff.

8.0 DIPC Soap Awards

The soap awards are an initiative to recognise and reward best practice in infection prevention and control. Each month awards are made to either an individual or ward / department teams who have been nominated by other staff for their work. The awards are as follows:

| | |
|------------------|---|
| July | Mr Matt Bartlett and Orthopaedic Team Dr Charles Cayley |
| August | Matron Rachel John and CMH Coronary Care Team Dr Arun Gupta and Radiology Team |
| September | Mr Sam Agwu and Maternity Unit |

9.0 Ongoing priorities for next Quarter

Following a review of all action plans from each of the MRSA Bacteraemia root cause analysis, the following are key priorities to develop and focus the work programme for the next Quarter:

- MRSA screening of Emergency Admissions
- Blood Culture Technique
- Action Plan for St Marks to reflect the needs of this specialist area
- Compliance with Peripheral Line Policy
- Earlier confirmation of MRSA positive patients and commencement of decolonisation therapy.

In terms of *Clostridium difficile* a number of initiatives are planned including an Antibiotic Awareness week and the development of two new Care Bundles for the management and treatment of Urinary Tract and Respiratory Tract infection.