ITEM: 11/067
Doc: 12.1.1

Meeting:	Trust Board
Date:	27th April 2011

Title:	**Infection prevention and control report: 2010/11 Quarter 4 January – March 2011.**

Executive Summary:

The attached report outlines the Trust's position in relation to Infection Prevention and Control Performance and activity for the 4th Quarter January-March 2011. There is also a brief synopsis of data for the mandatory year 2010-2011 where applicable.

Work has continued throughout the year to implement and embed the trust's infection prevention and control plan, including meeting all the external targets.

MRSA Bacteraemia
There have been 2 Trust attributable, 3 PCT attributable MRSA bacteraemia episodes for 2010/11.

MRSA Screening
February 2011 MRSA screening audits demonstrate 95.5% (January 96.6% 2011) for our emergency patients including Isis patients and 97.2**%** (January 95.8% 2011). There has been a slight improvement on elective screening including compliance including Oncology & Haematology.

MSSA bacteraemia data
January; 2 pre 48-hour cases, 1 post 48-hour case
February; 6 pre 48 hour cases, 0 post 48 hour cases
March; 0 pre 48 hour cases, 0 post 48 hour cases
(22 in total for the year, 16 pre 48-hour cases 6 post 48-hour cases)

C-Difficile
Trust attributable *C.difficile* cases up to the end of March 2011 were below trajectory with 37 cases against target to date of 79. The objective for 2011/12 is 34.

Surgical Site Surveillance (SSI)
The Trust's SSI rates are currently above the national average for patients who have undergone specific orthopedic surgery (Hip replacement, Knee replacement, Hemi – arthroplasty). This can be explained by the fact that the Trust performs a low rate of this type of operation therefore a small increase in infection episodes will result in a higher percentage rate than the national average.

Action:	For information

Report from:	P. Folan IC Matron

Sponsor:	Bronagh Scott Director of Nursing and Clinical Development & DIPC

Financial Validation Lead: Director of Finance	Name of finance officer

Compliance with Care Quality Commission Regulations / Outcomes Lead: Director of Nursing & Clinical Development	**Reference:** Regulation 12 / Outcome 8: Cleanliness and infection control

Infection prevention and control update: Quarter 4 January -March.2011

1. Performance against Trust targets

1.1 MRSA Bacteraemia

There have been 2 Trust attributable MRSA bacteraemia episodes for 2010/11. One case was in a surgical patient on Critical care in May. The findings of the RCA investigation were presented at July ICC and ongoing actions added to HCAI action plan. The agreed objective for 2010/11 is **4** trust attributable cases. The second case was a baby on NICU January 2011. RCA meeting has been held RCA report and findings completed. RCA findings were presented at the March ICC.

There have been 3 PCT attributable MRSA bacteraemia episodes for 2010/11, one identified in August and November 2010. The appropriate PCTs have investigated. RCA have been presented by IPCT at ICCM.
There has been an additional MRSA bacteraemia identified in February 2011. It is a Camden PCT attributable episode as the blood culture was collected in ED (Pre 48 Hour). Although this patient is well known to the Whittington Hospital and was discharged only a couple of weeks prior to this admission. The ICT have investigated with the assistance of the ITU team and a full RCA report has been completed.

1.2 MRSA Screening

February 2011 MRSA screening audits demonstrate 95.5% (January 96.6% 2011) for our emergency patients including Isis patients and 97.2**%** (January 95.8% 2011). There has been a slight improvement on elective screening including Oncology & Haematology.
Trauma and orthopaedics have improved to 72.3%, from 60.3% in January.
Overall screening compliance has improved by approximately 12% in both categories in the last year. Non-compliance for emergency patients occurs mainly in the Emergency Department at weekends, or when patients are admitted by another route other than ED, such as directly from clinic, or from another hospital. There are also some problems with the correct labelling and paper work of some samples that can therefore not be processed. The Infection Prevention and Control team is working closely with ED staff to resolve this issue. Performance is monitored by the Infection Control Committee at its meeting every 2 months.
Screening compliance data is sent out to the appropriate staff when it is available; this is usually the second week of the subsequent month.

1.3 MSSA bacteraemia data

The DH has requested that from the 1st of January 2011 it is a mandatory requirement for all NHS acute trusts to report MSSA bacteraemias. (This is a new requirement). There is no targets or RCAs required at present.
Case numbers as follows:
January; 2 pre 48-hour cases, 1 post 48-hour case
February; 6 pre 48 hour cases, 0 post 48 hour cases
March; 0 pre 48 hour cases, 0 post 48 hour cases
The total numbers for the mandatory year 2010/2011 was 22. 16 pre 48-hour cases 6 post 48-hour cases. Most patients had another infection source elsewhere i.e. chest infection or in the majority of

cases a wound infection. This data is not comparable at present with other NHS Trusts, as this year's data has not yet been published. Last year's data collection was on a voluntary basis.

1.4 Clostridium Difficile (C.diff)

Trust attributable *C.difficile* cases up to the end of March 2011 were below trajectory with 37 cases against target to date of 79. The objective for 2011/12 is 34.
There have been two *C.difficile* deaths recorded on two patient's death certificate's (Part 1 A) 29/11/10 and 12.01.11. Investigations have been completed and NHS London via STEIS recorded for both incidents.

Whilst we have come in below the target for 2010 there is no room for complacency. Our target set for 2011 is achievable. Staff are constantly reminded of the need to maintain vigilance around hand hygiene, environment cleaning (especially commodes) and good isolation practice, as well as medical staff prescribing antibiotics appropriately.

1.5 Surgical Site Surveillance (SSI)

The Trust's SSI rates are currently above the national average for patients who have undergone specific orthopaedic surgery (Hip replacement, Knee replacement, Hemi – arthroplasty). This can be explained by the fact that the Trust performs a low rate of this type of operation therefore a small increase in infection episodes will result in a higher percentage rate than the national average. In summary the Trust reports show that in the previous year we preformed 139 Knee replacements with 1 infection (0.72% SSI rate), 122 Hip replacements with 3 infections (2.5% SSI rate) and 149 Repair of Neck Of Femur (NOF) with 8 infections (5.4% SSI rate). (It is estimated accurate data for this year 2010 will be available by the end of April 2011)

SSI in repair of NOF cases are traditionally higher than in the other surgical patient groups. This is because the majority of patients, who require emergency surgery, are elderly and belong to a known high-risk category.

Specifically since October 2010 there has been a cluster of SSI in a group of patients who had undergone surgery to repair fractured NOF. This was identified as a pseudomonas infection most likely associated with water contamination. This type of infection is a national issue. The Trust is fortunate in that one of its microbiologists was a lead at the Department of Health investigating with this issue.

A working group has been established within the Trust led by the Director of Facilities and Dr. Kelsey to further investigate the underlying causes associated with this cluster. A number of actions have been implemented to date, including the testing of water samples and the installation of filtered showerheads.
This working group reports to Infection Control Committee, which meets on alternate months and through it to the Clinical Governance Committee.

Orthopaedic surgical site infection surveillance data October to December 2010 was submitted on the 31.03.11 .The preliminary results are 1 neck of femur, 1 hip and one knee wound infections. (This data will not show up in the first generated report as two sets of patient's clinical notes are missing and their reports will need to be updated on the system at a later time. These were two of the query-infected cases.
Vascular and large bowel surgical site infection surveillance has also just been submitted for October to December 2010. The preliminary results are 3 bowel surgical wound infections.
Mr. Mukhtar has also set up a surgical site infection group that meet once per month. The first meeting occurred on 31.03.11. A look back is currently being redone in relation to orthopaedic surgery for the last year 2010.
There is also a retrospective study ongoing in relation to these cases to identify possible sources of infection.
These working group reports to Infection Control Committee, which meets on alternate months and through it to the Clinical Governance Committee.

1.6 Root Cause Analysis (RCA)

Each case of MRSA Bacteraemia and outbreak of c.diff is reported externally to NHS London via STEIS and fully investigated through an infection control specific RCA. Actions arising from the findings are converted to an RCA action plan which is monitored bi-monthly at the Infection Control Committee, until all actions have been completed.

Deaths which occur as a result of *C.difficile* and are recorded on part one A of a patient's death certificate also has a full RCA preformed and are also reported to NHS London via STEIS. The actions emerging from the RCA are monitored by the infection Control Committee.

1.7 Monitoring

NHS London

As well as the trust wide action plan and ward-based dashboards, which are discussed below, a weekly "flash report" is produced, that sets out progress against the key targets (Appendix 1). This is shared with the executive committee, (IPCT / HPCT) and relevant senior managers/clinical staff throughout the trust weekly.

Outbreaks / incidents

There has been a Norovirus outbreak affecting Coyle ward. The ward was closed on the 11/02/11 and re-opened on the 19/02/11. Nine patients and three members of staff had potential symptoms with three confirmed cases. HPU have been informed.

There have been two new (different strains) cases of MRSA colonisation on NICU identified on 28/03/11. This occurrence is currently under investigation.

2. Progress against trust-wide infection prevention and control plan

A Trust wide Infection Control Plan is monitored by the infection Control Committee at its Bi-monthly meeting. To date the plan is showing that of the eleven Saving Lives actions, 12 are green, four amber and one is red rated, the remaining red being prevention of surgical site infection. All four governance actions are green rated.

With regards to surgical site infection surveillance, good progress has been achieved in orthopaedics joint replacements, colorectal and vascular specialties. An initial caesarean section surveillance exercise was carried out, but will not be resumed until an electronic system is in place to capture the data. (It is not currently included in CQUINs). CQUIN surveillance has commenced as of January 1st 2011. A business case has been successful and an additional nursing post has been created for this work.

A specific action plan related to a cluster of pseudomonas infections in patients with Hip operations in Coyle ward is currently being implemented and reported to the Infection Control Committee. The cluster of cases occurred in November 2010 and there have been no additional cases since.

3. Ward infection prevention and control indicator dashboard

Individual ward scores against the relevant infection prevention and control indicators are set out in an easy to read 'rag rated' dashboard. The dashboard is shared with the ward staff and matrons as soon as it is available, so that corrective actions can be taken as soon as possible where indicated. The dashboard also shows the previous quarter's scores so that progress can be monitored over time.

The latest dashboard (Appendix 2) shows that 85.6% of wards were green and fully compliant. The 6.9 of reds are of concern, the main area being hand hygiene. The relevant ward managers and matrons are addressing this and daily audits are being carried out until the performance has improved. For

example where audits demonstrate compliance to be below the 95% target in any area the audits are repeated until there are 3 consecutive audits demonstrating compliance above 95%.

The Infection Control link worker's role has extended to training at least 5 staff members every month in correct hand hygiene techniques. The number of staff members trained will be collated and monitored by the Infection Control Team.

A hand hygiene promotion poster competition has been run to help promote hand hygiene and also provide for the Trust new hand hygiene posters. All winning posters have been printed and used in clinical areas.

In relation to peripheral lines a number of actions have been implemented to improve compliance. This has included training of link staff on each ward to oversee and monitor practice and performance.

Issues have been identified with staff not using the 'clean labels' on the commodes. A reminder to all staff will be sent out by the IPCT. The matrons have been informed.

Environmental audits have been carried out by VLT on 04/04/11. This data is not available as yet to update the dashboard. Overall most areas scored above 95% compliance except for a few areas including the DTC and MSN.
The Trust is also participating in a London wide initiative known as the Safety Thermometer where monthly prevalence rates of a number of safety indicators are conducted including care of peripheral lines and care of catheters. This initiative commenced in December 2010 and will provide benchmarking data across a number of Trusts and will also encourage the sharing of good practice.

4. Training

A critical success factor in preventing and controlling infection is to ensure that our staff have up to date skills and knowledge to enable them to practice safely. An ongoing trust-wide training programme, supported by competency assessment, is therefore essential. This is built into the action plan and focuses on the management of urinary catheters, peripheral cannulae and taking of blood cultures. During the last year training has been provided to junior doctors by the Director of Infection Prevention and Control/infection control team, and to nurses/midwives by the Trust's training team. Training needs analysis has been undertaken to show how much more training needs to be provided and the number/type of trainers needed to provide it.

Infection Control Nurses also provide training on all clinical and non-clinical mandatory study days and two training sessions on Trust Induction organised by the training and development department.
6 study days per year are provided for the Infection Control link staff.

Infection Control Nurses also participate on IV study days and take part in ad-hoc training such as the student nurse / pharmacy trainees' induction.