

1. Purpose

1.1 The purpose of this paper is to inform on the position of the Trust in relation to infection prevention and control during July and August 2010.

2. New Developments

2.1 Outbreaks of gastroenteritis

Critical Care

We investigated and treated a possible outbreak of viral gastroenteritis on the Critical Care Unit at the beginning of August. Nine staff members and five patients were reported as possible cases. Confirmation of the causative organism has not been established.

No harm occurred to any patients. The Critical Care Unit continued activity with strict infection control precautions. External transfers in were halted in liaison with the regional Critical Care network. **Reported as a Serious Incident.**

Reginald Hart

We investigated and treated a possible outbreak of viral gastroenteritis on Reginald Hart ward during August. Six patients were reported as possible cases. Confirmation of the causative organism has not been established.

No serious harm occurred to any patients. The ward was closed to external admission and transfers and strict infection control precautions recommended. The containment of the outbreak was complicated by the admission of two patients into the ward; this has been reported as an incident. **Reported as a Serious Incident.**

At time of writing, there are no current outbreaks of viral gastroenteritis in the hospital

2.2 Nominated for an award

The hospital has been shortlisted for the national 'Cleanest Hospital' award in the annual Healthcare Excellence and Leadership (HEAL) awards.

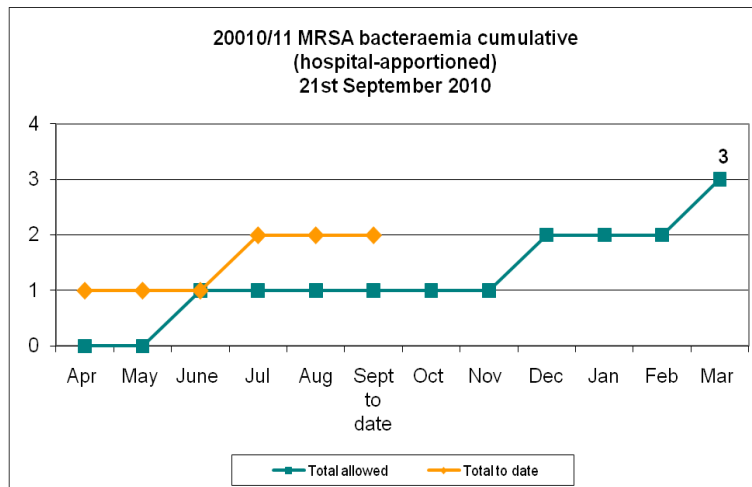
The HEAL awards acknowledge and highlight the hard work and dedication invested in the NHS to ensure a consistently high standard of care.

2.3 HSJ article

A paper submitted to the Health Service Journal by Cranfield University was published on their website on 16th August 2010. The paper is entitled “After the crisis: the maintenance model of effective change” and relates our experience with reducing the number of people acquiring *Clostridium difficile* in the hospital. Link: <http://www.hsj.co.uk/resource-centre/your-ideas-and-suggestions/changes-in-patient-safety/5017551.article>

3. Performance

3.1 MRSA Bacteraemia



We recorded our second hospital-apportioned MRSA bacteraemia of the year in July.

Root cause analysis indicates that this bacteraemia was avoidable and probably secondary to clinical practice related to care of a urinary catheter. However, this was a very complex case and many issues were identified across several disciplines. A trust-wide action plan has been formulated to address these issues. (Verbal update from DIPC).

The risk to the organisation around this key performance indicator is high. The risk has been added to the Trust Risk Register scoring **16**. Recommended improvements:

1. Reduce blood culture contaminants
2. Full compliance with invasive device care policies/care bundles

3. Full compliance with the MRSA policy

Our Consultant Medical Microbiologist undertook an audit to establish our level of blood culture contaminants and found the following:

Conclusion:

1. Sixty per cent of blood cultures were significant and forty per cent were contaminants.
2. One hundred per cent of patients with significant positive cultures were on appropriate antibiotic cover given empirically.
3. This proportion of blood culture bottle contamination is a significant risk to the MRSA bacteraemia target. Contaminants are counted as “avoidable bacteraemias”.
4. The most likely reasons for this level of contamination are:
 - a. Not cleaning the patients’ skin adequately - a 2% chlorhexidine in 70% isopropyl alcohol impregnated swab must be used and allowed to dry.
 - b. Not cleaning the tops of the blood culture bottles adequately - the tops of the culture bottles must be cleaned with a 2% chlorhexidine in 70% isopropyl alcohol impregnated swab and allowed to dry.
 - c. Inadequate hand hygiene – the hands must be decontaminated just before taking the blood culture. The vein must not be palpated again once the skin has been disinfected to prevent cross-contamination.

Recommendations:

1. Immediate improvement is required.
2. The Trust policy for taking blood cultures must be followed (Venous Blood Sampling and Peripheral Blood Culture Procedure for the Adult Patient).
3. Reaudit in one month.

The infection control nurses audited compliance with MRSA decolonisation in the hospital, which means removing as much of the MRSA from the patient’s body as possible. Decolonisation can be carried out either in hospital or at home. It will usually include treatment with disinfectant shower gel and shampoo, and antibiotic nasal cream, in order to remove MRSA from the body, hair, and nostrils respectively.

Inpatients will need either help or instruction from nursing staff with the decolonisation regime and the treatments are prescribed drugs.

A full audit report will be published in time through the Patient Safety Committee, but provisional results show that the overall compliance with decolonisation requires immediate improvement. Recommended improvements:

1. Reformulate the MRSA care plan as a “High Impact Intervention” care bundle (similar to the invasive devices documentation) and monitor monthly as an internal key performance indicator, reported to the Trust Board in this report.
2. The individual divisions to review the audit at their Clinical Risk and Governance meetings and present an action plan for compliance with the policy back to the Hospital Infection Prevention and Control Committee.

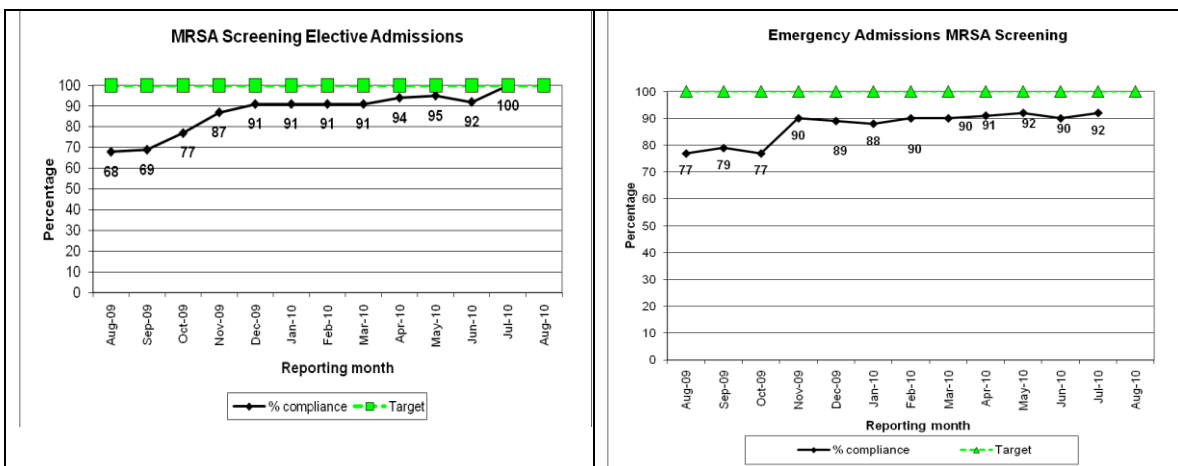
3.2 MRSA screening.

We achieved 100% compliance with MRSA screening for elective admissions for the first time in July. Key risk areas remain for elective screening are patients who attend without pre-operative assessment, erroneous recording of screening results on the pathology system (so they are not seen when the database is interrogated to match screen to patient) and patients who may attend the hospital several times in one month.

We have extended and enhanced systems to ensure that patients are screened appropriately, including use of a web-based tool that highlights elective patients without a valid MRSA screen.

Admission MRSA screening for emergency inpatients must be 100% compliant by 31st December 2010; we have set an internal target of 31st October 2010. Current actions include instigation of a manual check on the day of admission.

At time of writing, the figures for August are not available (verbal update from DIPC).



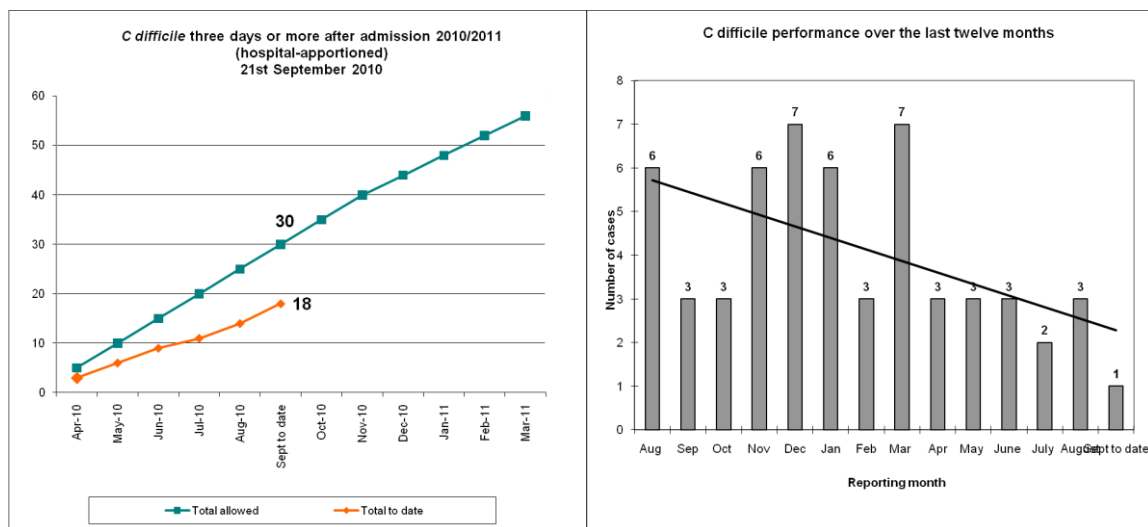
3.3 Clostridium difficile

Our incidence of patients developing *Clostridium difficile* associated disease has fallen significantly so far this year. We have a ceiling of **56** cases for 2010/11,

and until the end of August, we had recorded **14** cases against a ceiling of 25. Our twelve-month projection, based on the last twelve months, is **49** cases. However, if the current good performance is maintained, it will be possible to improve on this considerably.

There does tend to be seasonality with *Clostridium difficile*, with higher numbers during the winter months. This is probably due to a combination of an increase in antibiotic use for treatment of chest infections, overcrowding/high bed occupancy, and the likelihood of outbreaks of viral gastroenteritis.

Vigilance must continue for *Clostridium difficile* management in order to protect patients from contracting this infection.

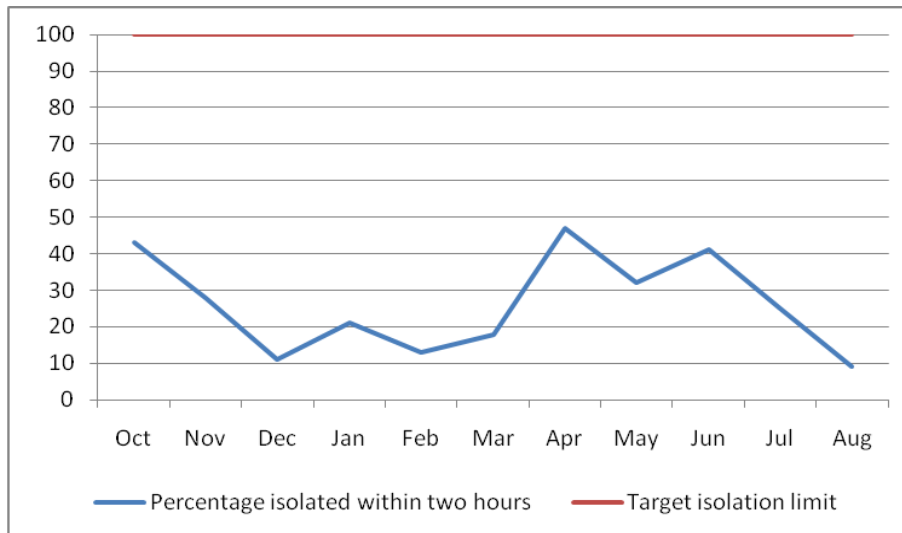


Time to isolation

The correct and timely placement of infected patients (suspected or proven infection) into single rooms can be very effective in reducing the overall numbers of infected patients; it can also reduce the risk of colonisation in other patients within the ward. Isolation practices can also be carried out within the ward areas; this is called 'cohorting' (for example Harpur Cohort ward for patients with *Clostridium difficile* associated disease). Through such measures, it is possible to control the spread and minimise the impact of infections such as MRSA, *C. difficile* and other healthcare-associated infections.

Gold standard infection control advice is to isolate the patient immediately the need is recognised, and high-clean the bed space. The standard time limit set by the Strategic Health Authority for isolation of patients with alert organisms or infections is two hours.

Using the ExtraMed system, we can now measure how long it takes to isolate a patient. The infection control team flags that the patient needs isolation and then contacts the bed manager to request this. The bed manager can then record what time the patient was moved (this can also be done retrospectively). The following charts show the trend over time (October 2009 – August 2010) of patients isolated within two hours.



The performance in August was only 9% of patients isolated within two hours; this **must** be improved upon.

The key barrier to achieving better compliance with prompt isolation is bed occupancy, particularly in the medical division. High bed occupancy means that there is unlikely to be a single room already available for the patient, and a series of moves of patients and high-cleans must take place to enable isolation. It is not uncommon that there is not a bed for the person no longer needing a single room to move to, and this further delays isolation of the infected patient.

Furthermore, movement of patients between wards is a risk to continuity of care, as it is possible that the patients' consultant will change, and the patient and family will be unfamiliar with the new ward team.

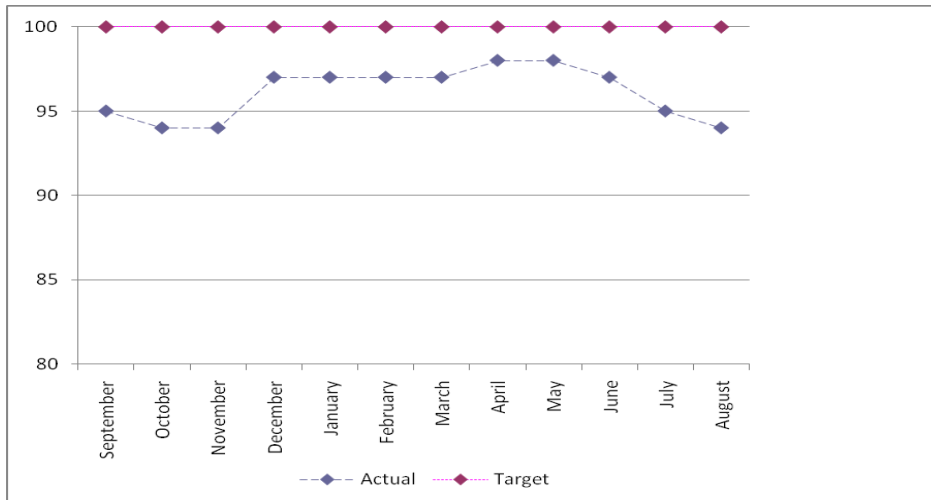
The medical matrons and infection control nurses have investigated use of MRSA cohort bays. These have worked well when demand on beds is lower, but as activity increases, pressure to admit patients dictates that it is not feasible to have ring-fenced beds in bays. There is further pressure on the nursing workforce, as we recommend that in line with advice from the Department of Health, there is a designated nursing team for any cohort bay.

Sixteen per cent of our adult bed capacity is single rooms (excluding specialist beds such as coronary care and critical care).

To increase the likelihood of a patient isolated within two hours, the following needs to be considered:

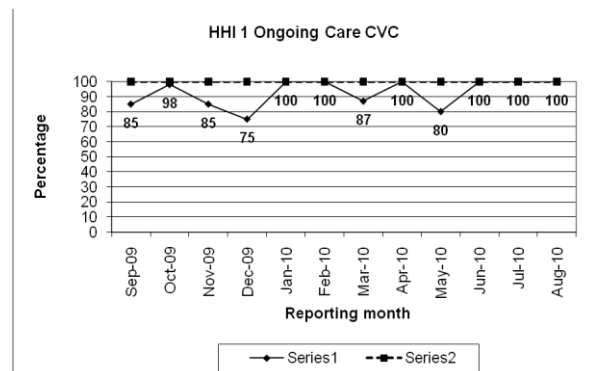
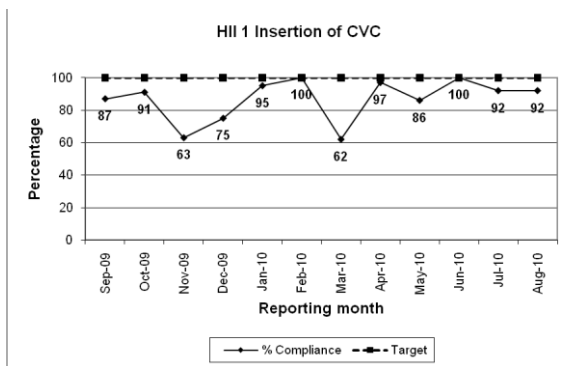
- Reducing bed occupancy in the medical division
- Increasing “special cleans” capacity to speed up high-cleans
- Commitment to and resources for MRSA cohort bays

3.4 Hand Hygiene



The drop in hand hygiene compliance is probably due to the non-submission of audits from some areas, and differences in inter-rata reliability between auditors.

4. High Impact Interventions



Trust Board Report
 Infection Prevention and Control
 August 2010

