

## Micro News

August / September 2008

### 1. Update of *C. difficile* 027 in Europe

A useful update on the spread of *C. difficile* NAP1/027 in Europe reports that 027 has been identified in an increasing number of European countries (Kuijper et al. 2008). Twelve European countries have reported the 027 strain including six outbreaks. It is likely that 027 is present in other European countries, which have not yet established surveillance systems.

### 2. Community-associated *C. difficile* – an emerging problem?

*C. difficile* infection (CDI) is classically associated with older patients who are hospitalised and have had recent antibiotic usage. However, a recent retrospective case-control study from Leeds suggests that the traditional risk factors for CDI do not hold true for community-associated CDI (Wilcox et al. 2008). In this study, community-acquired CDI did not exclude patients with recent healthcare contact and CDI was associated with antibiotic use, older patients and hospitalisation. Surprisingly, cases were more likely to be associated with infants  $\leq 2$  years, almost half of the cases had not received antibiotic therapy in the month before CDI, and approximately one-third did not have exposure to antibiotics or recent hospitalization. It remains to be seen whether there has always been a low undetected background of CA-CDI or whether CA-CDI is a new phenomenon associated with 027 or other strains.

### 3. HPV decontamination in an outbreak of MRSA in the UK

A surgical ward in Winchester experienced a polyclonal EMRSA-15 outbreak affecting 11 patients (Dryden et al. 2008). MRSA was cultured from 8 (27.6%) of 29 sites (including hand-touch sites such as two communal mobile pharmacy computers and a telephone) and six staff members were found to be colonised with MRSA. The ward was decontaminated using HPV and sampling was conducted before and after HPV then at weekly intervals over 4 weeks. MRSA was cultured from 1 (3.4%) of 29 sites immediately after HPV; from 0 of 29 standardised sites in three weekly screens; and from 3 (10.3%) of 29 sites in the final weekly screen. Colonised staff were successfully decolonised. No patients acquired MRSA on the ward in the four weeks after HPV. Patient and staff decolonisation combined with environmental decontamination were associated with the termination of the outbreak.

### 4. MRSA surface contamination at home?

Several families with young children and pets in the Boston area were recruited to assess MRSA contamination in the home environment (Scott et al. 2008). 34/35 homes were contaminated with *S. aureus* and 9 (26%) of the homes were contaminated with MRSA. Two of the nine households with MRSA contaminated surfaces housed a healthcare worker and seven households had a cat. This study suggests that contamination of the home environment and pets may contribute to refractory MRSA carriage in humans.

## 5. ***Acinetobacter* transmission dynamics on an ICU**

A detailed 10-week study from an Argentinean ICU has reported on the transmission dynamics and reservoirs of *Acinetobacter baumannii* (Barbolla et al. 2008). Colonised patients remain the primary source of transmission, but many of the environmental surfaces sampled were contaminated including 31% of 65 alcohol hand rub dispensers and 39% of 105 bedrails. *A. baumannii* was also cultured from 16% of 93 staff hand samples but only 7% of 54 air samples. The authors conclude that environmental surfaces showed potential for the transmission of epidemic clones via transient staff hand carriage.

## 6. **CA-MRSA SSTIs increase nationally in the USA**

Using national databases, a US team investigated visits to emergency departments and outpatient units to treat various skin and soft tissue infections (SSTIs), which are characteristic of CA-MRSA (Hersh et al. 2008). Significant increases were observed for all SSTIs and abscesses/cellulites in particular, which increased 88% from 17.3 to 32.5 visits per 1000 individuals from 1997 to 2005. Increases were notably larger among black and among young patients visiting emergency departments, suggesting that CA-MRSA disproportionately affects certain populations.

## 7. **Improved cleaning can reduce contamination**

An 8-month study of discharge cleaning on an ICU demonstrates that educational interventions can improve the efficacy of discharge cleaning (Goodman et al. 2008). The study was split into a 6-week baseline and a 6-month intervention period, where an improved discharge cleaning regimen was implemented. The efficacy of discharge cleaning was assessed by fluorescent marks and by microbiological culture. The rooms tested in the intervention period post discharge clean had a higher proportion of black marks removed (71% vs. 44%) and a lower proportion of sites yielding MRSA or VRE (27% vs. 45%). However, 27% of the surfaces in the rooms that had been cleaned in the intervention period post discharge harboured MRSA or VRE, and hand-touch surfaces, which are more difficult to clean than large horizontal surfaces, were more frequently contaminated.

## 8. **And finally...The dangers of bedside Bibles!**

Following some recent media attention on bedside Bibles as a potential source of MRSA in hospital, a team from Birmingham, UK, swabbed 42 Bible and cultured MRSA from one of them! Many of the Bibles were old and dusty so the authors recommend better management and cleaning rather than removal of bedside Bibles, which are an important source of comfort to some patients (Lloyd-Hughes et al. 2008).

## References

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