



ROYAL AUSTRALASIAN COLLEGE OF SURGEONS

MEDIA RELEASE

Burns bacteriology in a tropical ICU setting

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The burns centres of hospitals in hot and humid climates fight a constant battle against wound infection, delegates to the 80th Annual Scientific Congress (ASC) of the Royal Australasian College of Surgeons have been told.

Dr Si Jack Chong of Singapore General Hospital's Department of Plastic, Reconstructive and Aesthetic Surgery said that with infection a major cause of morbidity and mortality in burns patients, appropriate antimicrobial therapy must be guided by knowledge of the prevalent bacteriology in the local context and by the results of culture studies.

Accordingly Dr Chong gathered the data on, and the records of culture isolates from, all 94 patients admitted to the Burns Intensive Care Unit between 2004 and 2009, by means of a prospectively recorded, computerised hospital-wide database.

"We studied 402 tissue cultures, 238 wound swab cultures, 269 endotracheal cultures, 125 urine cultures, 249 fungal cultures and 474 blood cultures," Dr Chong said. "Bacteriology and epidemiological data were analysed. *Acinetobacter baumannii* were the most prevalent bacteria across all culture methods. We also found that the yield of wound swabs is in general lower than tissue cultures."

"Sixty per cent of all bacteremic episodes occur within 48 hours of burns excision, and there is significant correlation between bacteremia and time from surgery. All culture methods had good correlation (>70 per cent), yielding the same bacteria strand causing the bacteremia.

"Our burns centre continues to fight the battle against nosocomial burns wound infection from the flora in a hot, humid environment. Knowledge of local flora and the adoption of strict infection control measures are needed to reduce burns wound infection rates.

"In addition, the choice of appropriate culture and the timing of the culture should be carefully considered to ensure good and timely information; this is essential to effective antimicrobial therapy," Dr Chong concluded.

Dr Chong's presentation is one of hundreds at this year's ASC, covering all surgical specialties and aspects of surgical history and education. Nearly 2,000 delegates are expected to attend the ASC, which runs from 2 to 6 May and is being held at the Adelaide Convention Centre. The ASC program is available online at www.surgeons.org

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