

Nosocomial infection in South African intensive care units



This issue of *SAJCC* presents three original articles from South African researchers. Two of these look at the increasing problem of nosocomial infection in intensive care units. This is an area of increasing public awareness, given the recent publicity on deaths of six neonates from nosocomial infection in a major teaching hospital.¹ Nosocomial infections are more likely to occur in patients with neurological impairment, increased therapeutic intervention and prior antibiotic administration.² Hand disinfection before and after every patient contact is clearly vital and difficult to achieve in units where there is not a one-to-one nurse-to-patient ratio, as is the case in some state hospital intensive care units. In this issue, Kindness and Brysiewicz evaluate the knowledge and implementation by nurses of a new infection control protocol in a cardiothoracic ICU.³ They show that while knowledge and compliance improved the results were not ideal, although infection rates appeared to decrease. The point is that it is not enough to impose stricter infection control measures. Staff members should be involved in the development of new protocols so that they come to 'own the process'. As this paper demonstrates, it is crucial to measure the outcome of newly implemented strategies so that further changes can be made if necessary.

Early diagnosis of nosocomial pneumonia in the ICU is vital, as the prompt initiation of appropriate antibiotic therapy reduces mortality.⁴ The problem with ventilator-associated pneumonia is that we rely on clinical findings to make the diagnosis, and many factors can confound the picture. In this issue, Tintinger and colleagues try to correlate a new marker of inflammation, soluble triggering receptor expressed on myeloid cells (s-TREM-1) in bronchial secretions, with a clinical score for nosocomial pneumonia.⁵ Unfortunately the correlation was poor, but the problem may have been with the clinical score – there simply isn't a gold standard for diagnosing ventilator-associated pneumonia, apart from postmortem lung biopsy, which is not exactly useful! However, future progress in this regard is probably going to be with the aid of a specific inflammatory marker like s-TREM-1 that can give an early and rapid indication of lower respiratory tract infection.

In a 'Current Practice' article, Guy Richards discusses antibiotic use in surgical infections.⁶ This is core knowledge, as the inappropriate use of antibiotics not only leads to poor patient outcome but also encourages the development of antibiotic resistance in ICUs.

To date little has been published on the quality of life of patients discharged home from South African ICUs. The follow-up study of penetrating trunk trauma patients by Van Aswegen *et al.* is therefore very useful and shows that patients ventilated for longer than 5 days still have quite severe impairment at 6 months.⁷ A recent paper from Norway also shows a similar decline in health-related quality of life in ICU survivors after one year.⁸ In the latter paper the decline from pre-admission quality of life was most pronounced in the trauma patients, probably because their life was good before the trauma. Of interest is that the Norwegian trauma survivors had a decline in the mental component of their quality of life, which was ascribed to post-traumatic stress disorder. The South African subjects, however, made a rapid mental recovery, attributed by the authors to a 'mental high' as they had 'cheated death'. Their freedom from PTSD is surprising, as all had been subjected to life-threatening assault. So in some respects – local is *lekker*.

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Editor

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