

## Bacteria isolated from bloodstream infections at a tertiary care hospital in Dar es Salaam, Tanzania – antimicrobial resistance of isolates

**To the Editor:** Retrospective antimicrobial susceptibility profiles from bloodstream infection isolates in Tanzania indicated increasing antimicrobial resistance to the first-line and inexpensive antimicrobial agents.<sup>1</sup> Prospective methicillin-resistant *Staphylococcus aureus* (MRSA) or extended-spectrum beta-lactamase (ESBL) screening should be accompanied by watching multidrug-resistant (MDR) isolates and their susceptibility to first-line antibiotics. MDR isolates in local circulation might still turn out to be susceptible to such drugs, as was found at Sant Parmanand Hospital, a 140-bed private, tertiary care, multidisciplinary hospital in Delhi. From January to November 2010, 5 MDR bacteria were isolated from patients with serious infections.

Isolates were identified by their phenotypic and biochemical characterisation. The antibiotic susceptibility was tested by disk diffusion methods following the Clinical and Laboratory Standards Institute (CLSI) criteria. MDR Gram-negative strains were defined to be resistant to meropenem, piperacillin-tazobactam, cefepime, amoxicillin-clavulanic acid and amikacin. The 5 MDR *Klebsiella pneumoniae* from 1 133 isolates were isolated from urine in 3 patients and from purulent material in 2. Isolates identified included *K. pneumoniae* (468), *Escherichia coli* (413), *Salmonella typhi/paratyphi A, B* group (32), *S. aureus* (110), *S. citreus* (2), *Pseudomonas aeruginosa* (106) and *Proteus spp.* (2). All 3 MDR isolates from urine were susceptible to tigecycline, 2 to ciprofloxacin and 1 each to ofloxacin or rifampicin. Both MDR isolates from purulent materials were susceptible to tigecycline, ofloxacin and chloramphenicol, while 1 each was susceptible to aztroenam or rifampicin.

An annual rather than a 5-year update<sup>1</sup> on local antibiotic susceptibility profiles would be useful for clinicians, who would be able to refer to the previous local antimicrobial susceptibility pattern during pilot antibiotic prescription for their patients. This would be useful before results of *in vitro* susceptibility of isolates are available. For example, the first-line, inexpensive antimicrobials<sup>1</sup> that were developed in the 1940s and 1950s would not be the initial choice among clinicians managing patients with severe MDR. However, they might be the only option available in some cases, even if the *in vitro* susceptibility profiles are dismal.<sup>1</sup>

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1. Moyo S, Aboud S, Kasubi M, Maselle SY. Bacteria isolated from bloodstream infections at a tertiary care hospital in Dar es Salaam, Tanzania – antimicrobial resistance of isolates. *S Afr Med J* 2010;100:835-838.

**Dr S Moyo replies:** Our 5-year retrospective analysis was aimed at establishing the aetiological agents and their antimicrobial resistance patterns. We established that MRSA and ESBL were also of public health importance in our settings. Since it was a retrospective analysis we could not investigate for MDR. We have recently shown a high prevalence of ESBL-producing *E. coli* and *Klebsiella* spp. strains from urine samples, and most of the ESBL-producing isolates were MDR, limiting available therapeutic choices.<sup>1</sup> We are

currently conducting another prospective study to monitor the trends of MRSA and to determine the presence of MDR. These results, together with the previous ones, will guide antimicrobial prescribing practice by our clinicians. MDR bacteria may be susceptible to the first-line antibiotics, but this was not apparent in our study. *In vitro* susceptibility results may not necessarily reflect what would happen *in vivo*. Our view is that when managing patients with severe infections due to MDR organisms, the first-line antibiotics should not be used in order to reduce morbidity and mortality that could be associated with life-threatening infections. In tertiary hospitals like ours or the authors', first-line antibiotics might not be the only option available for management of such cases, as suggested.

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## Tonsillectomy practice in South Africa

**To the Editor:** Tonsillectomy is a very common operation done by ENT surgeons and general practitioners in South Africa. Our impression is that the procedure and its peri-operative care vary greatly. We conducted a web-based survey (approved by the UCT ethics committee) to evaluate tonsillectomy practice among South African ENT surgeons and discuss the findings in relation to evidence-based practice from the literature. We report only on the controversial and interesting aspects. Ninety-three surgeons (27% of the ENT surgeons in active practice in South Africa) completed the survey, of whom 65 were in private practice.

**Method of tonsillectomy.** Sixty per cent of both public and state surgeons remove tonsils by conventional cold steel dissection, which has a lower bleeding rate than more recent techniques such as coblation and bipolar dissection.<sup>1</sup>

**Corticosteroids.** Forty-seven per cent of surgeons use peri-operative steroids. A Cochrane Library report includes Grade A supporting evidence that a single intravenous dose of dexamethasone is effective, relatively safe and inexpensive in reducing morbidity (pain, nausea and vomiting).<sup>2</sup>

**Antibiotics.** Sixty per cent of surgeons prescribe antibiotics, of whom 42% prescribe amoxicillin/clavulanic acid (Augmentin) and 38% amoxicillin. Although many surgeons believe these prevent postoperative bleeding, this is not supported by the literature.<sup>3</sup>

**Local anaesthesia.** Seventeen per cent of surgeons inject the tonsil bed with local anaesthetic. Although not believed to benefit postoperative pain, the latest systematic review seems to show a modest reduction in postoperative pain, and we suggest it as an adjunct to the normal analgesia.<sup>4</sup>

**Postoperative pain.** Tonsillectomy patients experience a great deal of pain. The mean time for cessation of pain is 11 days;<sup>5</sup> most surgeons (80%) agreed with this. Eighty-nine per cent of respondents warned their patients about the 5 - 6-day 'dip', when patients typically called their surgeon and reported that pain had increased, and that they couldn't eat, had become pyrexial and wished to visit the surgeon. There is only one report about this 'dip', in the journal *Pain*, which simply stated that pain declines after 3 days, but that 30% of the sample population made an unscheduled stop at the doctor between days 4 and 7.<sup>6</sup>

**Postoperative chewing gum.** Forty-nine per cent of surgeons advised patients to chew gum to reduce masseter muscle spasm and relieve pain. Only one study could be found that addressed this

issue, which reported that chewing gum increased pain and that resumption of a normal diet was delayed.<sup>7</sup>

**Postoperative diet.** This created the most debate in the survey. Thirty per cent of surgeons prescribed a 'normal' diet, and the remainder advised diets ranging around chips, Nik Naks-type snacks, avocados, pawpaws (Natal graduates) and biltong (particularly Gauteng graduates); others advised patients to avoid 'acidic' foods, bananas and fruit juices. Reasons for prescribing the particular diets included 'experience'; 'patients must eat to prevent bleeding'; 'hard things get stuck in the tonsil bed'; and 'acid burns the tonsil bed'. No publications could be found relating to dietary advice.

Tonsillectomy is a commonly performed operation, and has significant morbidity relating to pain, yet peri- and postoperative pain management practices vary considerably, with little evidence to support some of these practices. Cold steel dissection and intra-operative steroids can be recommended, based on our literature review.

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## Cultural safety and family medicine in Africa

**To the Editor:** It took 3 continents and 11 years post-qualification for me to realise that Western medicine's approach to improving health care in Africa may be flawed. The realisation occurred as a result of reading Belfrage's experiences of working within the Aborigine community in *terra nullius* (Australia's vast inhabited interior) and seeing how, as a doctor of European descent, she and her culture, and the local Aborigines (*Alyawarr*) and their culture, perceived the world in fundamentally different ways.<sup>1</sup>

I was born in Europe, raised in southern Africa where I studied and worked, decided to further my education abroad, and now reside in Melbourne, Australia. My aim has always been to return to Africa and implement the skills I now have.

Family medicine in Africa differs from that in Europe in that it is generally regarded as not the first point of care, usually takes place in

a district or teaching hospital, and often requires considerable surgical expertise in a resource-poor environment. However, both approaches aim to provide comprehensive and compassionate generalist services within a community context.

Western-trained doctors believe in the scientific approach and disbelieve the supernatural or the anecdotal. We believe in the **germ theory** of many diseases. A doctor's work is linear – history, examination, investigation, diagnosis, treatment. Doctors expect patients to believe and share their world view and act on their advice.

'Cultural safety' is quite different for each approach. This concept was developed in the 1980s in New Zealand in response to the indigenous Maori people's discontent with nursing care. Maori nursing students and the work of I M Ramsden supported 'cultural safety', which upheld political ideas of self-determination and de-colonisation of Maori people;<sup>2</sup> it goes beyond ethnocultural practices, political views or being culturally aware or sensitive. Ramsden and others view these latter terms as a learning process continuum: **cultural awareness** is the starting point involving the understanding of differences; **cultural sensitivity** is intermediate where self-exploration begins; and **cultural safety** is the final outcome.

Rather than emphasising learning about other peoples' diverse cultures, cultural safety requires practitioners to identify their own values, beliefs and assumptions that guide their thinking and actions, and then to engage in practice that reflects an understanding and respect for what the patient and family believe is important to healing, health and well-being.<sup>3</sup> Health practitioners cannot assume that they provide culturally safe care, as only the recipient of care can assess the level of risk or safety that they experience. Cultural safety questions the dictum of 'treating everyone the same' regardless of age, ethnicity or gender. A central tenet of cultural safety is that people receiving the care decide what is culturally safe or unsafe, enabling them to believe that the health care is connected to their lives. They are involved and have choices that are not primarily part of someone else's agenda. Cultural safety is often more concerned with not disempowering people than with empowering them.

Whether family medicine in Africa should adopt this concept in clinical care and teaching needs to be explored. Culturally safe, or appropriate, programmes enhance personal empowerment, so promoting more effective health care service delivery for African people.

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