

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.¹ 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 update¹ 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 antimicrobials¹ 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.¹

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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.¹ 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.

1. Moyo SJ, Aboud S, Kasubi M, Lyamuya EF, Maselle SY. Antimicrobial resistance among producers and non-producers of extended spectrum beta-lactamases in urinary isolates at a tertiary hospital in Tanzania. *BMC Research Notes* 2010;3:348 (24 December 2010).

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.¹

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).²

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.³

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.⁴

Postoperative pain. Tonsillectomy patients experience a great deal of pain. The mean time for cessation of pain is 11 days;⁵ 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 7.⁶

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