

Letters to the Editor

Cost Improvement Through Prudent Infection Control in a Brazilian Hospital

To the Editor:

Cavalcante et al presented in their article¹ data on antimicrobial susceptibilities of surgical and ICU isolates that contradict all common knowledge on antimicrobial agents. Although the authors don't state how these resistance data were generated, the occurrence of oxacillin-susceptible Enterobacteriaceae and *Pseudomonas aeruginosa* is astonishing. Penicillinase-resistant penicillins are never effective against Enterobacteriaceae and *Pseudomonas* spp.^{2,3}

Another almost unbelievable fact is the significantly higher resistance of *E coli* and *S aureus* against amikacin than against gentamicin. Amikacin is usually regarded as the aminoglycoside with the highest antimicrobial activity and therefore should be held in reserve for treatment of patients with infections caused by resistant organisms.³⁻⁵ Studies from all over the world underscore the higher activity of amikacin in comparison to the other aminoglycosides, exhibiting resistance rates ranging from 0% to 18% for amikacin, 0% to 21% for tobramycin, and 0% to 70% for gentamicin.⁶⁻¹⁰ Even the assumption that ongoing overuse of amikacin may lead to an increase in aminoglycoside resistance must be rejected: Staehr Johansen et al showed that there is a good correlation between gentamicin consumption patterns and the occurrence of multiresis-

tant bacteria. However, this was not true with amikacin.⁹ Therefore, we don't see a rational explanation for the resistance patterns presented by Cavalcante et al.

However, the primary purpose of my letter is not only to criticize these data, but to stress the importance of a reliable and efficacious diagnostic microbiology laboratory for an optimal infection control program.

First, besides clinical data, exact microbiological diagnostic and concurrent information on antimicrobial resistance patterns are the cornerstone of all interventional measures.

Second, Pannuti states in the editorial comment to the article by Cavalcante et al¹¹ that the overuse of antibiotics in developing countries is of more concern than in the Western world. However, the solution to this problem is not only to restrict the access to antibiotics, but to provide prescribing physicians with a correct and reasonable antibiogram. The laboratory information about an oxacillin-sensitive *E coli* strain may lead to a therapy with this drug, albeit proven clinically ineffective, and by this way may enforce overuse and increase costs.

Although the improvement of microbiological diagnostics is costly, in the long run it will save money and contribute significantly to an overall cost-effective infection control.

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REFERENCES

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(Dr. Cavalcante was offered the opportunity to respond, but as yet has not done so. We look forward to his future response.)

continued on page 252



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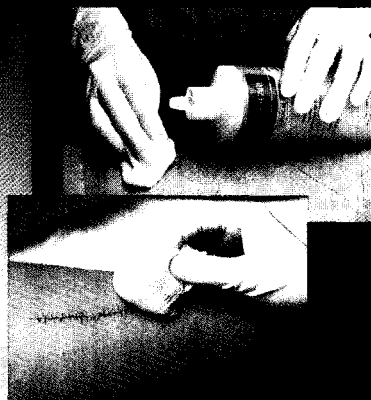
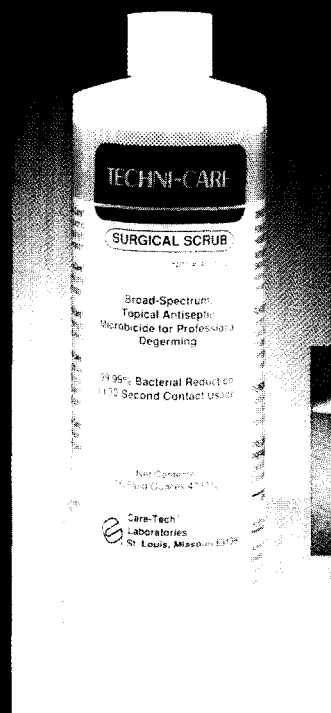
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