A Comment on Marschall et al

To the Editor—We read with interest the recent article by Marschall et al [1] on the impact of prebiopsy antibiotics on pathogen recovery in hematogenous vertebral osteomyelitis. The authors found that antibiotic therapy before diagnostic biopsy for vertebral osteomyelitis did not affect the microbiologic yield of an open bone biopsy. The authors acknowledge some limitations; for example, the higher diagnostic yield may have reflected the fact that patients with more extensive infection were more likely to require surgery, leading to improved sampling and presumably higher bacterial load.

The main goals of diagnostic evaluation for spinal osteomyelitis are to identify the causative microorganism and determine the extent of infection. Microbiologic diagnosis through computed tomography–guided percutaneous biopsy or open biopsy is essential for the management and pathogen-specific therapy of such severe infections. In the study of Marschall et al [1], methicillin-resistant *Staphylococcus aureus* (MRSA) was the predominant pathogen recovered from biopsy specimens, and vancomycin was the antibiotic most frequently used before biopsy. In our view, these findings are relevant for the interpretation of this study. MRSA is not rapidly killed by vancomycin [2], and therefore the application of vancomycin before biopsy is unlikely to sterilize the culture and explain the results. However, other bacteria, such as streptococci [3, 4], are highly susceptible to β-lactams, and cultures negative for streptococci after initiation of antimicrobial treatment are common. In this context, antibiotics had to be discontinued at least 14 days before biopsy to optimize the microbiologic yield for diagnosis of device-associated osteomyelitis [5].

For these reasons, the data presented by Marschall et al [1] have to be interpreted with caution and may not be generalizable to settings where the prevalence of MRSA and use of vamcomycin is less frequent. Obtaining biopsy specimens before initiating empirical antibiotic treatment should remain the state of the art [6].

Notes

Potential conflicts of interest. All authors: No reported conflicts.

All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

Baharak Babouee,[1] Luigia Elzi,[1] Reno Frei,[2] Andreas Widmer,[1] and Manuel Battegay[1]

[1]Department of Medicine, Division of Infectious Diseases and Hospital Epidemiology, University Hospital Basel, and [2]Department of Laboratory Medicine, Division of Clinical Microbiology, University Hospital Basel, Basel, Switzerland

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Correspondence: Manuel Battegay, MD, Division of Infectious Diseases and Hospital Epidemiology, University Hospital Basel, Petersgraben 4, 4031 Basel, Switzerland (mbattegay@uhbs.ch).

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