Correspondence

Multiple Blood Cultures for Diagnosing Bacteremia

Sir—The model used by Lamy et al. [1] to assess the relevance of obtaining multiple blood cultures used as the criterion for test positivity “any positive sample,” regardless of bacterial species and clinical syndrome. This leaves uncertain the relevance to clinical practice of the investigators’ conclusion that obtaining a single blood sample is preferable to obtaining multiple samples. Clinicians commonly use the number of bottles (or sets) that produce positive results to assess the significance of cultures that yield coagulase-negative staphylococci. This is because, with intravascular device infections or endocarditis (i.e., syndromes in which such organisms may be true pathogens), sustained bacteremia is expected.

Although each additional venipuncture increases the likelihood that at least 1 bottle or set will produce a false-positive result, it decreases the likelihood that a single false-positive result will lead to a false conclusion of bacteremia, provided that a “majority rule” is applied to the results. For example, if 3 samples are collected and the background false-positive rate is 25%, the probability of having at least 1 false-positive result is 58%. Clearly, this percentage is unacceptably high, and it is much greater than the 25% false-positive rate for the single-sample model advocated by Lamy et al. [1]. However, the probability of ≥2 samples having false-positive results is only 15.6%, and the probability of all 3 samples having false-positive results is 1.6%.

By using clinical judgment as to what criterion should be used to define a positive test result for a given patient, the clinician can take advantage of multiple sampling to avoid false conclusions based on contaminants. The analysis by Lamy et al. [1] does not adequately address this issue, and, therefore, does not provide a persuasive rationale for abandoning the practice of performing multiple cultures with blood samples obtained from different sites in patients with suspected bacteremia.

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The author has received honoraria, grant support, and/or consultancies from Bayer, Merck, Wyeth-Ayerst, Ortho-McNeil, and Rochester Medical.

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Clinical Infectious Diseases 2003; 37:738
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Quinolones and Arrhythmia

Sir—I read with interest the brief report by Nicholson et al. [1] on bradycardic syncope in patients receiving gatifloxacin. Such arrhythmic effects have been described in patients receiving all quinolones, and such effects were to be expected. Infectious disease experts seem to have forgotten that, in 1993, flosequinan—a quinolone—was registered and marketed as a vasodilator for use in treating heart failure [2]. Soon after, in April of the same year, it was withdrawn from the market, most probably because of arrhythmogenesis. All quinolones should be used with caution in patients at risk for arrhythmia.

Fatal Mycobacterium bovis Bacille Calmette-Guérin Infection Caused by Contamination of Chemotherapeutic Agents and Not by Endogenous Reactivation: Correction of a Previous Conclusion

Sir—Live attenuated Mycobacterium bovis bacille Calmette-Guérin (BCG) Oncotic bacteria are used for bladder instillation in patients with bladder carcinoma. Iatrogenic transmission can happen by contamination of the medication prepared in hoods that have been contaminated with BCG bacteria. In The Netherlands, we recently identified 5 immunocompromised patients in 3 different hospitals who had nosocomial, disseminated M. bovis BCG infections [1]. All patients had received chemotherapeutic agents prepared in biological safety cabinets that had also been used to prepare BCG bladder instillation preparations. One of these patients was earlier described as having fatal meningitis caused by late endogenous reactivation of BCG vaccine bacteria [2]. The respective M. bovis BCG isolate was

References

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Clinical Infectious Diseases 2003; 37:738
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