Reviewer's report

Title: Clinical Manifestations and Outcome in Staphylococcus aureus Endocarditis Among Injection Drug Users and Nonaddicts - A Prospective Study of 74 Patients

Version: Date: 7 July 2006

Reviewer: Michael Bronze

Reviewer's report:

General:
In general this is an interesting manuscript dealing with an important topic, namely infective endocarditis in the wake of S. aureus bacteremia. It is reasonably well written. With this in mind, there are several questions the authors should address.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. I question the generability of the information that was collected. This study grew out of a clinical drug study that contained multiple exclusion criteria. Many of the criteria used to exclude patients from the drug trial remove from consideration populations of patients that might have an impact on the data analysis leading to either bias or confusion. For example, MRSA was an exclusion criterion and clearly this is an important cause of both community and hospital acquired SAB and thus endocarditis. Excluding them from a clinical paper detailing SA infective endocarditis limits the generability of the findings. There is no indication of the number of patients with SAB that were actually excluded from consideration.
2. Only 61% of the patients had an echocardiogram. Although this might be in keeping with the literature relative to the percentage of patients with SAB who are studied echocardiographically, if this truly were a prospective clinical study, then this low number could actually represent a bias in that some patients with infective endocarditis and atypical clinical features might have been missed.
3. Since very little detail was provided about antimicrobials and since this was a failed drug study, I do not see the relevance of adding the section on antibiotic treatment. It is difficult to draw conclusions about antibiotic treatment from what is provided especially when there was such a broad range of treatment days in both addicts and nonaddicts.
4. I am not sure that this study provides any meaningful new information that has not been reported recently either in clinical studies of infective endocarditis or SAB.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests.