Reviewer’s report

Title: Community-associated Methicillin-resistant Staphylococcus aureus Bacteremia and Endocarditis among HIV Patients: a cohort study

Version: 1 Date: 20 May 2011

Reviewer: David Rimland

Reviewer’s report:

Major Compulsory Revisions
1. The definition of community-associated MRSA is problematic. Most studies originally used an epidemiologic definition, excluding cases with health-care associated factors. Some have used the PFGE types, with USA 300 being the most common. Most, but not all, of these cases have the type 4 mec gene and produce PVL. Defining the cases here as USA 300 with a specific spa type, and positive for both ACME and PVL restricts the definition. It would be more meaningful to present the data with either the epidemiologic definition or simply USA 300 vs. others (Methods, para. 4)

2. It is unfortunate that these are relatively old data (2003-2005). There has been a great deal of change in the epidemiology of MRSA in the last several years. (Methods, para. 1)

3. Since the median length of stay was only 7 days, the in-hospital mortality of 8% is not too significant. Are there any data on the 30 or 60 day mortality? (Results, para. 2)

4. Did every case of endocarditis have either a TTE or TEE? (Methods, para. 2)

Minor Essential Revisions
1. Abstract- Conclusions: CA-MRSA was not associated with an increased “incidence” of endocarditis. There was simply a greater prevalence of endocarditis among those with bacteremia.

2. Methods, para. 3- How far apart could episodes of bacteremia be to represent a separate episode? Simply using a separate hospitalization does not mean a separate episode, especially since the median LOS was only 7 days.

3. Results, para. 1- What AIDS definition was used? OIs and or CD4 <200?

4. Results, para. 2- The lack of other independently associated variables could well be due to the relatively small numbers. The confidence intervals are quite wide.

5. Table 1- I would change the title to “Characteristics of Patients with MRSA Bacteremia”

6. Table 1- For several variables (male sex, ART, etc.), indicate that the number in parentheses represent the %.

7. Table 1- What proportion of the ESRD patients were on dialysis? This is a
critical variable for development of bacteremia.

I am also attaching several more recent papers on MRSA bacteremia.


**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.