Reviewer’s report

Title: Risk factors for candidemia caused by Candida albicans and non-albicans Candida species

Version: 1 Date: 14 February 2005

Reviewer: John Baddley

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1) Background: I would disagree that candidemia presents with clinical picture of slow deterioration. In my experience it presents similar to other bacteremias.

3) Statistical analysis section: more explanation of the logistic regression model is needed. What factors were inputted into the final model?
4) Results: Does the term “urinary tract infection” used in Table 1 refer to bacterial, fungal, or both? Was this infection present before or after diagnosis of candidemia?
5) The authors state that leucopenia and thrombocytopenia are “risk factors” for NAC. Were these lab tests drawn before or after the diagnosis of candidemia? If after, then they are not “risk factors” at all, but merely more likely to be associated with patients who have candidemia. The date of lab tests in relationship of diagnosis of candidemia need to be better defined.
6) What does “immunosuppression” in table 1 mean? This needs to be defined in methods. It is unusual, because most previous studies of NAC have shown neutropenia/cancer/immunosuppression to be associated with NAC.
7) The last sentence of the results states that “patients without ICU stay was the risk factor for NAC infections”. This is not correct. Should be changed to “medical ward stay”. Of the C. albicans patients, only 30/68 stayed in medical ward or MICU. Where else did they stay? This should also be used as a risk factor (i.e., other locations. For example, if you stayed on a surgical ward were you more likely to have C. alb or NAC?).
8) Discussion says that “patients with NAC were more likely to require higher doses of fluconazole to achieve clinical cure”. This was not evident from the data presented in the paper.
9) Page 7, second paragraph states “patients without ICU stay” was a risk factor. This is not shown in data. Should be changed to “medical ward stay”.
10) Page 8, last paragraph. NAC have higher MIC’s than C. albicans, but the point should also be made that clinical correlation of MIC’s to outcomes in patients with candidemia is not well established.

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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)

1) Please give a title to table 1 and 2. Explain for the readers what white blood cell (WBC) refers to in
Discretionary Revisions (which the author can choose to ignore)

2) Methods- In 1996-1999 415 candidemias were identified. Why were only 130 cases reviewed? This sample may not be representative of the true population. If those 130 patients were chosen because they died, why were survivors excluded? It may be better to pick a single year or two and analyze all the patients from the time period to have a consistent population.

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

Level of interest: An article whose findings are important to those with closely related research interests

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.