Reviewer’s report

Title: Mortality among patients with tuberculosis requiring intensive care: a retrospective cohort study.

Version: 1 Date: 18 September 2009

Reviewer: Gopi Khilnani

Reviewer’s report:

I have reviewed the manuscript and following are my comments:

Major compulsory revision
In discussion section:

1. There are contradictory statements “Using univariate analysis…… early ICU admissions and VAP as most important factors associated with patient mortality.” In next paragraph authors have written that “surprisingly, we found in univariate and multivariate analysis that VAP was a further protective factor for mortality, in contrast with prior results.”

2. In results it is mentioned that cultures were positive in 35 (52.2%) patients. However with description it is not clear whether authors are talking about mycobacterium tuberculosis or some other organisms.

3. Authors have mentioned that “other reasons were cardiopulmonary arrest (10.4%), septic shock (7.5%), sepsis (6%) and altered sensorium (6%).” However, in next paragraph it is written that “most patients had sepsis (95.5%) and septic shock (83.3%).” These statements are giving different meanings and should be clarified.

In Method and Materials section:

4. Why there was failure to treat within 24 hrs of admission.

5. Various drug regimens (ATT) used should be included in the manuscript. Why some patients did not receive Rifampicin based regimen?

6. Variables in univariate analysis with p-value of <0.20 were considered significant. Why that cut off was taken is not clear.

In results sections:

7. In results there is no mention of effect of Hypoalbuminemia, dyselectrolytemia and Liver functions including Serum alkaline phosphatase on mortality. These all have been found to be associated with mortality in these patients. e.g.


Department of Medicine, All India Institute of Medical Sciences, New Delhi.
We report a retrospective series of 100 non-HIV adult patients with miliary tuberculosis (MTB) treated in a tertiary care centre. There were 51 males. Their mean age was 35 years. Predisposing conditions existed in 34. Twelve patients had larger-than-miliary (> 2 mm) shadows in their chest roentgenograms. Five presented with acute respiratory failure, and early treatment cured four of them. Hyponatraemia occurred in 42/60 patients (70%) for whom values were available. Twelve patients (12%) died of MTB. Temperature > or = 39.3 degrees C (p < 0.01), hypoalbuminaemia (p < 0.01), hyponatraemia (p < 0.001), history of vomiting (p < 0.001) and presence of crepitations on auscultation (p < 0.001) were independent predictors of mortality. Diagnosis of MTB is difficult even in an endemic area, as the clinical symptoms are non-specific and the chest roentgenograms do not always reveal classical miliary changes. A high index of clinical suspicion and diligent efforts in confirming the diagnosis are needed, as early therapy yields good results.

Minor essential revisions

In introduction section:
1. Typographical error “ incidence of TB. Was of 50 cases/100.000………..100 cases/ 100.000….. the annual death rate from TB in brazil was estimated at 4.0/100.000 population per year in 2006. It is probably cases/100,000?

2. Please mention counts as CD4 /mm3.

Discretionary Revisions

3. Authors have not found an association between diagnosis of HIV and mortality in ICU patients. However it is not only infection with HIV, the mortality depends on the stage of disease, level of immunosupression and whether the patient is on effective HAART or not. Data may be analysed keeping this in foresight.

4. Along with MDR TB and absorption problems, drug interactions among Antitubecular drugs and HAART are also important factors.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'