Reviewer's report

Title: Clinical Significance of Hypoalbuminemia in Outcome of Patients with Scrub Typhus

Version: 1 Date: 18 April 2010

Reviewer: Meng-Chih Lin

Reviewer's report:

1. The manuscript was well prepared and written. However there were several critiques needed to be answered before further decision.

2. Major critiques:
   a). In background part. Authors stated in the last paragraph: to determine their ‘cause and effect’ relationship. Since this is a retrospective study not a prospective one, the cause and effect would be not clear enough. The suggestion is to rewrite the purpose of the study-to confirm (establish the impact or) the significance of hypoalbuminemia on the outcome of patients with scrub typhus.
   b). Methods part. study population and design: Authors had listed exclusion criteria but had no clear definition. What is the definition of liver cirrhosis, chronic renal failure or heart failure? Those was defined by laboratory data or image studies? The number of patients in groups 1 and 2 should be clearly mentioned in the text and put the figure 1 in a clear area in the text (not seen). Concerning about the complications of the patients, there were no clear definition of pulmonary edema, pleural effusion and pneumonia. Were those findings confirmed by using chest radiographs (in what extent) or chest sonography? Other complications such as pericardial effusion, ischemic heart disease, peptic ulcer, pancreatitis should also be well defined. It is impossible to make a diagnosis of acute pancreatitis simply based on clinical symptoms and signs. That needed further explanation.
   c). The most substantial part is the definition of hypoalbuminemia. Authors did not mention the timing of the data: what did that mean on admission? Within 24 hours?
   d). What appropriate treatment represented in AT interval. Same question existed in the cost part. Authors should define clearly what were room and board.

3. Minor critiques:
   a). If the albumin levels were the very first one checked after admission, how many patients received further correction. This measure may answer partly why there was no difference on the outcome (intensive care or mortality). Authors needed to make comments on this part in the discussion.
   b). Discussion part: As compared to other studies, authors stated that they had different finding on the complication of pneumonia. Was there any difference of
patient characteristics? Authors should have further discussion here.
c). Authors should list the limitation of their in the discussion, such as retrospective…..
d). The last paragraph of the discussion: …would ultimately cure the unnecessary use of medical resources. In fact, I don’t see the truth. In this study, authors can only say that they confirmed the clinical significance of serum albumin as a marker but have nothing to do with “unnecessary use of medical resources”. Please rewrite the sentence. In my point of view, authors should just re-emphasize their findings.

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

**Declaration of competing interests:**

I declare that I have no competing interests