Reviewer's report

Title: Clinical course following diagnostic bronchoalveolar lavage in critically ill mechanically ventilated patients

Version: 2
Date: 6 May 2015

Reviewer: Joseph M Swanson

Reviewer's report:

The authors present an observational study (unclear whether this was prospective or retrospective) investigating the clinical complications of bronchoalveolar lavage (BAL) for the diagnosis of ventilator-associated pneumonia (VAP). The manuscript provides an excellent description of the procedure and diagnosis of VAP at the institution. The description of potential (and monitored) clinical complications is appropriate. The authors found a high percentage (28% BAL + and 56% BAL -) of hemodynamic instability with patients undergoing BAL as well as decline in PaO2/FiO2 ratio. Despite these complications, the authors conclude that the benefits of BAL outweigh the risks.

Major Compulsory Revisions

1. The authors should better describe the hemodynamic changes that occurred. There is a difference in transient tachycardia versus hypotension, but both could be considered hemodynamic instability. This is important, because an incident of 56% is concerning if there are clinically important hemodynamic changes occurring following BAL.

2. Table 4 should be clarified. There is a row for PaO2/FiO2 no change or increase. To what is this relating? Also, it is unclear what 1h after BAL means. Are you stating that in BAL + patients with a PaO2/FiO2 decrease of <25% 38% still had this decrease at 1 hour? Why not report the PaO2/FiO2 for each group with a separate column for percentage of patients remaining in that category at 1 hour and at 24 hours?

Minor Essential Revisions

1. There are several typos in the manuscript (e.g. en is written instead of and). These should be corrected.

2. Limitations of the study should be added to the discussion.

Discretionary Revisions

1. None

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, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.