Reviewer's report

Title: Ventilatory and ECMO treatment of H1N1-induced severe respiratory failure: results of an Italian referral ECMO center.

Version: 1 Date: 20 July 2010

Reviewer: Thomas Bein

Reviewer's report:

The authors report on a small cohort on ARDS-patients (n=12) suffering from severe H1N1-infection. 7 of them were treated with ECMO, and the mortality rate was low.

1. The authors report a "safe and feasible ECMO assistance", but in 3 of 7 cases (43 %) a device-associated bleeding occurred leading to blood transfusion. Is that "safe and Feasible?"

2. There is no algorithm for including patients to ECMO-group or conventional treatment. Please report a clear decision pathway: fast entry vs. slow entry etc.

3. There is no information on ventilation management: adequate PEEP? How was the maneuver for setting PEEP "above lower inflection point curve" performed. Normally for estimation of lower inflection point you will have to perform a sophisticated maneuver including change of PEEP starting at "0", and I cannot believe that it is suitable in severe hypoxemic ARDS. The median PEEP level of 14 cm H2O seems to be too low in severe ARDS.


minor comments:

1. What means "rescue solution"? (key messages)
2. in table 1 are some severe numerical errors: PEEP 185, 5 (???), Compliance (which compliance, how measured?) 617 (???)

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
The reviewer received honoraria from Novalung company, Talheim, Germany