Reviewer’s report

Title: Procalcitonin Guided Antibiotic Therapy of Acute Exacerbations of Asthma: A Randomized Controlled Trial

Version: 4 Date: 21 August 2013

Reviewer: Alan Kaplan

Reviewer’s report:

On page 12 and in your response letter you talk about IL6 and PCT as indicators of infection and that the fact that they are both higher in patients with more severe disease, that this type of patient must have more bacterial infections. While you may be correct, I think we overall see more inflammatory mediators in more severe asthma and this supposition seems potentially flawed to me. If you can defend this thought with published work that describes only elevated IL6 in infection, then state it and reference it and include it. Otherwise, I am not convinced of this statement.

WRT Limitations, the fact that NO secondary factors were impacted is a touch concerning and indicates either overtreatment with antibiotics (possible) in the control group or that antibiotics don’t seem to matter! Did you look at any other issues of resolution such as duration of illness etc?

Most of the antibiotic differential seems to be in milder asthma (table 3) This needs some commenting on as it seems that all the severe asthmatics needed antibiotics? This again speaks to my first point.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

no competing interests