Reviewer’s report

Title: Estimation of the incidence of severe fever with thrombocytopenia syndrome in high endemic areas in China: An inpatient-based retrospective study

Version: 1 Date: 09 Nov 2017

Reviewer: Francesco Maria Fusco

Reviewer's report:

Dear authors, SFTS is an emerging issue, and all additional knowledge about this disease is essential. For this reason, I think that your paper is interesting, since it gives a preliminary but important insight about the underdiagnosis of this virus in endemic area. But, before publication, some minor but essential issues should be improved:

- In Background, line 58: you say "SFTS... had a 30% fatality rate at the beginning". According to this sentence, I suppose that now the case/fatality rate is changed. Please specify the new CFR, or remove "at the beginning";

- Line 74: you include septicemia among non-infectious diseases. Septicemia is a serious bloodstream infection, and should be included among infectious diseases;

- Methods, line 93-95: you included as "control area" an area that had no reported cases of SFTS. It is a methodological mistake. In order to validate your "case definition" (Fever, Thrombocytopenia, and Leukopenia, in the various combinations), you should select healthy people from the same area, and not from a different area where the incidence of disease is lower. Using as "control area" a low incidence area, the difference of serology rate is not due to the predictive value of the case definition, but by the "pre-existing" difference among the two areas. Please add an explanation about your choice, alternatively please specify this problem among the limits of the study;

- Line 113: Why subject included were required to be healthy? Please add a reason for this;

- Results, lines 191-199: very few acute-phase serum were found, just 14. Please add an explanation about this point;

- Table 3 is hard to read. In order to increase readability, you may use Low and High (L and H) instead of Decreased and R (increased), or mathematical symbols;

- Lines 212-220: I agree with your methods about the calculation of incidence estimation, but you should state that this estimation is conservative. Your decided to include patients with IgG > 400 only, bt it is likely that some of patients with lower IgG titles were true positive cases, only;
- Discussion, lines 265-278: after this paragraph, considering the low sensibility of RT-PCR, I would add an additional sentence suggesting the use of serology during acute phase also, in order to increase the diagnostic sensibility for SFTS. I think that this suggestion is more important that adding a new SFTS category, as you suggest in line 284.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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