Author's response to reviews

Title: Crystalloid or colloid boluses for the management of dengue shock syndrome in the presence of ascites and pleural effusions?

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Author's response to reviews: see over
Dear Diana,

Kindly find the revised manuscript entitled *Crystalloid or colloid boluses for the management of dengue shock syndrome in the presence of ascites and pleural effusions?* For your kind consideration for publication in the BMC Infectious Diseases. I am extremely sorry that I could not meet with the deadline due to ill health and subsequent other commitments of the institution. I sincerely hope that you would kindly accept the delay in sending the revision.

I have addressed all the issues raised by the three reviewers. They are highlighted below in point form and included in the manuscript in blue.

Many thanks and best wishes

Prof. Ranjan Premaratna

Corresponding author.

**Responses to reviewer’s report**

**Title:** Crystalloids or colloid boluses for the management of dengue shock syndrome in the presence of ascites and pleural effusions?

**Reviewer: Siripen Kalayanarooj**

1. Need more details of all three patients….. All these were added and the cases were separated as requested

2. The total amount of oral and iv fluid before shock... added in the relevant paragraphs. We included the 1997 WHO guideline as well in references.
3. Pleural effusion and ascites could be detected in all three patients at the time. As Dr. Siripen suggested, we carefully went through the 1997 WHO guidelines in the management of DSS, however we could not find clear recommendations of the use of colloid solution in the cases with DSS with fluid overload. In fact what we found was that colloids should be given to patients with severe shock who do not respond to resuscitation with crystalloids.

4. The author has to clarify which rate of iv fluid that they used to treat. We have included the required data under each patient.

5. The rate of iv fluid for resuscitation of DSS. We fully agree with the referees comments.

6. In WHO TDR guideline 2009... We agree with the referees view.

Reviewer: Ayesha Almas

Major compulsory revisions

1. Introduction should mention briefly with reference about crystalloid and colloids... we have added the details under introduction.

2. In the case presentation section; the summary of all 3 patients is not adequate. We have revised them and patient details were added. However, we have not included them in a table and addressed the same issue as suggested by the first reviewer.

3. Again authors should avoid using pulmonary oedema... we have revised our mistake to include pulmonary oedema

4. Was Echo done in each cases to rule out underlying cardiac illness.. yes, ECHO was done in all three and it was included under each patient
5. Was CVP measured in all three cases? This was included under each patient.

6. The entire discussion needs to be re-written. We have re-written the entire discussion as suggested by the reviewer.

7. Minor essential revision: we have revised the conclusion remark in the abstract as suggested by the reviewer.

Reviewer: Po-Liang Lu

Major compulsory revisions

1. The authors presented 3 DSS cases... we agree with the reviewer’s comments that fluid overload could be related to DSS itself but not necessarily be due to crystalloids. However, what we try to highlight here is the fact that, when patients with DSS who are already fluid overloaded, whether they should be managed with colloids rather than with crystalloids.

2. The cases received not only crystalloid but also colloid therapy. Without a control group using colloid fluid only, it is hard to test the hypothesis that colloids... we fully agree with the reviewer and the purpose of this report is to highlight our hypothesis using these three cases, in order to encourage a proper randomized control trial to test this hypothesis.

3. Although 3 DSS cases with poor outcome are reported, it is not reported whether DSS cases with good outcome also received... we agree with the reviewers comment. We have not yet looked into this aspect in detail. However, after careful study of these three patients, we observed precautions to manage similar patients with colloid boluses rather than with crystalloid boluses and we were able to overcome the fluid overload related pulmonary oedema during recovery phase in all the other patients who were managed thereafter. However, we are in the opinion that this hypothesis should be tested with a proper RCT.

4. Minor essential revisions: It would be good to provide references or data about the incidence rate of pulmonary oedema in accordance to WHO.... Sorry we do not have incidence rates,
however, this fact was highlighted by the WHO experts in the management of DF, who analyzed the clinical records of patients who died during the 2009 dengue outbreak in Sri Lanka.

5. Are there references for “Many deaths were thought to be due to...” I have added the reference under introduction; its unreported data of the Epid Unit, Colombo, Sri Lanka following analysis of case records by WHO experts.