Reviewer’s report

Title: Genetic Diversity and Epidemiology of Genogroup II Noroviruses in Children with Acute Sporadic Gastroenteritis in Shanghai, China, 2012-2017

Version: 0 Date: 02 Jun 2019

Reviewer: Jing Lu

Reviewer's report:

Lu et al., described the genetic diversity and epidemiology of Novs in children with AGS in Shanghai, 2012-2017. The major novelty of the study is the difference of Nov genotype distribution found in AGS outpatients from this study and in AGS outbreaks frequently reported in mainland China. I have following questions and hope could be addressed in the revision.

1. In this study, the sequences of RdRp and VP1 gene were sequenced separately. This could not provide the solid evidence on the combination of RdRp/VP1 Nov genotype. Are there any multiple genotypes infections identified in a single case? If there is, the combination of RdRp/VP1 genotype could be wrong due to PCR bias.

2. Short sequences of RdRp and VP1 may be difficult to define the sub genotypes of NoVs. In the Figure 3, the GII.4_2006b and GII.4_Sydney_2012 phylogenetic clusters should be clearly marked if author wanted to mention the dynamic change of these two GII.4 subgenotypes in AGS cases. The full length of RdRp and VP1 genes of representative isolates are recommended used in phylogenetic analysis.

3. Why did author choose Kimura two-parameter model for ML analysis? Was it based on the model test result?

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.

Unable to assess

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

No

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

**Declaration of competing interests**

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal