**Reviewer’s report**

**Title:** Diversity of HIV-1 genotypes and high prevalence of pretreatment drug resistance in newly diagnosed HIV-infected patients in Shanghai, China

**Version:** 0  **Date:** 07 Dec 2018

**Reviewer:** Sviatslau Sasinovich

**Reviewer’s report:**

1. Please revise and proofread the manuscript for the many typographical and grammatical errors;

2. In accordance with BMC infectious diseases guidelines, section "Availability of data and materials" should include information on where data supporting the results reported in the article can be found including, where applicable, hyperlinks to publicly archived datasets analyzed or generated during the study. You indicate only where data can be found but not specify how others can access the data: from the corresponding author on reasonable request? Or if the dataset generated and analyzed during the current study is not publicly available please specify the reason why data is not public available.

See: https://bmcinfectdis.biomedcentral.com/submission-guidelines/preparing-your-manuscript/research-article, go to "Availability of data and materials".

3. Methods. It would be better to confirm HIV genotyping with some of the HIV subtyping tools such REGA (http://dbpartners.stanford.edu:8080/RegaSubtyping/standford-hiv/typingtool/) or COMET HIV-1 (https://comet.lih.lu/index.php);

4. Conclusions. I would suggest do not use word "extremely" in conjunction with the word "diverse" because there is no clear definition of what is extreme diverse and what is not extreme (or regular) diverse;

5. It is not clear what you mean using words "subjects" and "cases" in your article. For example:

Line 58: Among the 317 successfully amplified cases…

Line 119: A total of 338 subjects were enrolled…

Line 156: Among the 338 enrolled individuals, 317 subjects' pol gene sequences…

Please, use appropriate words described a subjects and objects of your study: patients, individuals, sequences, etc.
6. Lines 46 and 85: Genetic variability and liability to develop drug-resistant mutations are the main characteristics of HIV; The main characteristics of HIV are its enormous genetic variability and rapid evolution… Please, specify, what is the main characteristic of HIV;

7. Line 51. HIV patients. Better to use "HIV-infected patients";

8. Line 125. CD4 cell counts is not related to basic epidemiological data. Moreover, if CD4 cell count was performed from patient's blood sample, please indicate this in Methods. Otherwise specify, how you get CD4 cell number;

9. Line 92. Please provide a reference link to confirm that poor capacity for transmission is the main factor for lower HIV-1 groups N, O and HIV-2 infection numbers.

10. Lines 219-220 and 234-235. Duplicated information about subtype prevalence in single section;

11. Line 259. Please, describe what policy "Four Free and One Care" means or specify the link where such information can be obtained;

12. Line 424. Table 1. Please specify, why some nucleotides (g) in the primer sequences are lowercase. If there is no any reason, please make all primer sequences uppercase;

13. Line 424, Table 1. Coordinates of MAW 26 (F) primer are 2028-2050, not 2027-2050;

14. Line 433, Table 2. Why you provide information only for males in the table?

15. Line 439, Table 3. Please note that table title is 15 words maximum (your is 24). Please modify Table 3 title.

16. Line 439, Table 3 header. "317 newly diagnosed treatment-naive AIDS patients". Do all of the 317 patients have an AIDS? Or probably you mean HIV/AIDS? Please correct.

17. Line 439, Table 3. As because the diversity of HIV-1 subtypes is one of the main results of your study it might be better to list in the table all subtypes that you found;

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

No

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

Yes

**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:

Needs some language corrections before being published

**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