Reviewer’s report

Title: Clinical and immunological failure among HIV positive adults taking first line Antiretroviral therapy in Dire Dawa, Eastern Ethiopia

Version: 0 Date: 10 Feb 2019

Reviewer: Mohammed Ayalew

Reviewer's report:

1. title........ Remove the repeated phrase "Antiretroviral therapy"

You may modify the title as "clinical and immunologic failure among HIV positive adults taking first line antiretroviral therapy Dire Dawa, Eastern Ethiopia"

2. Abstract, objective.... Remove the date

3. Introduction ....... Introduction should be well organized and have a meaning full flow that contains ideas related to HIV, benefits from ART, the challenges of treatment failure, brief review of studies done on the topic in Ethiopia justification for the current study and finally the objective of this study.

4. Material and methods, design...... Add the total number of RVI patients served at the health facilities of Dire Dawa

Add separate "study area" sub section

5. Material and methods, measurements........ Definition of treatment failure should be connected to virologic failure. clinical and immunologic failure may not necessary be true failures.

Modify the title as clinical and immunologic failure rather than treatment failure.

6. Material and methods, Data collection...... Mention how the data collection tool was developed. Cite relivant litteratures reviewed or previously used tools.

7. Result, table 1....... What is your standard for age classification eg old is >65 while you put >55 as the highest class.

Mention "others" under the table

8. Table 2...... Why you take cut point for CD4 as 100, why not 200 or 350
9. Page 9 line 34......Not clear, rewrite the sentence.

10. Factors associated with first line ART failure...... How can death be a factor for treatment failure? It is a result of failure but not a reason for it.

11. Discussion line 43-45....... clinical failures =19.3%, immunological failure= 2% both= 1.4% Did patients with both failure counted in the immunologic failure or clinical failure? If so the over all failure rate should be 20.3%. If not add the word 'only' with immunologic and clinical failures.

12. Discussion, Line 55-58....... 'The highest magnitude'…. do you exostively searched the literature? Rephrase it.

13. Page 13 Line 12-15...... "It also shows a gradual decline in the magnitude of treatment failure overtime"….. did you do cohort study to see this. Your study is crosssectional which cannot give you such information.

14. Page 13, Line 34-41........... 'enrolled to care with severe immune suppression'….show the mean baseline CD4 in your study and study in reference 20 to support this claim.

Is the adherence in study 20 better than your sample patients.

15. Page 13, Line 49-53.......... "This shows that patients who are failing on first line regimen are not or not timely switched to second line regimen"……..do you think that all patients with clinical or immunological failure should be switched to second line regimen without confirming for viral load?

16. Conclusion, line 7-10........ Did all patients with 'ambulatory or bedridden functional status' have treatment failure. Line 7-10 has that message.

17. Conclusion ..........Your recommendations should be based on your research result.


19. References............. Put date of access for references taken from web pages.

Use consistent referencing (e.g. journal name abbreviated or full, style of referencing- harvared, vancover…), put the volume, issue, and page numbers for journal articles.
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.

Unable to assess

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

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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