Reviewer’s report

Title: The Impact of HAART Initiation Timing on HIV-TB co-infected patients, a retrospective cohort study

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Reviewer: nesri padayatchi

Reviewer’s report:

The manuscript was very well written and I commend the authors for this. The rationale for these aims are based on the moderate TB burden in Taiwan and the good health infrastructure and public health system to execute the national HIV and TB program.

The prior research on which the rationale is based are from the results from the randomized control trials providing evidence regarding the timing of HAART initiation and treatment outcome in HIV/TB co-infected patients.

1. Major Compulsory Revisions:

None

2. Minor Essential Revisions:

2a. The study’s specific aims are well described and was to understand the TB outcome of HIV-infected adults under routine programmatic conditions in Taiwan. However the scientific contribution in understanding of when to initiate HAART in co-infected patients is unclear. The authors state that an important limitation of randomized control trials is that all the interventions are under controlled conditions which were often difficult to replicate in clinical settings. Whilst this may be true, I would recommend that the authors revisit the contribution that they wish to make.

3. Discretionary Revisions

3a. ‘We only included bacteriologically confirmed TB for analysis which was defined as: ‘a positive smear of acid-fast bacilli (AFB) with negative culture or culture not done and clinical compatible with TB infection’ - this definition is contradictory. It is unlikely that a positive smear will result in a negative culture. Suggest they rephrase/ revise this.

3b. The authors compared the groups by ‘died’ versus ‘survived’. Table 1: Suggest calculate p values comparing the 2 groups ‘died’ and ‘survived’ in order to establish if there were significant differences between the 2 groups.

3c. The tables and figures do not bias the interpretation. The heading and formatting of Table 3 needs some attention. Suggest that the IRIS table be separate from the mortality table – this will make interpretation easier.
3d. Table 3: Regarding the CD4 count at TB diagnosis (per cell increase)- the adjusted and unadjusted HR are not biologically plausible –I suggest they re-analyse this category by a 50 cell increase rather than a per cell increase.

3e. The conclusions although different from the SAPIT, CAMELIA and STRIDE studies provided a compelling argument in the context of the Taiwanese setting. The conclusion being that “Deferring HAART to 31-60 days of TB treatment may lower the risk of IRIS and was not associated with increasing mortality”

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests