Reviewer’s report

**Title:** Incidence and predictors of regimen-modification from first-line antiretroviral therapy in Thailand: A cohort study

**Version:** 2  **Date:** 25 August 2014

**Reviewer:** Soranun Chantarangsu

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**MAJOR COMPULSORY REVISIONS**

1. Abstract, Results paragraph: HLA-B*3505 was independently associated with rash-related regimen modification (aHR 7.61, 95%CI:3.12-18.60). The aHR and 95% CI revealed the same value as in the Results, paragraph Predictors of regimen modification. But the values are different from Table 3b predictors of regimen modification due to rash. In the table, the authors show the value aHR 7.73 (95%CI: 3.16-18.9).

2. Results, Predictors of regimen modification paragraph: as I mentioned above the difference of aHR and 95% CI values appeared in the Abstract, in this paragraph and in the Table 3b, as well as the p-value between this paragraph (p-value<0.0001) and Table 3b (p<0.001).

**MINOR COMPULSORY REVISIONS**

3. Introduction, first paragraph: GPOvir has been produced and widely used since 2002 as mentioned in the reference No. 2.


4. With the ever increasing number of HLA alleles described, it has been decided to introduce colons (:) into the allele names to act as delimiters of the separate fields. Hence, HLA-B*3505 should be corrected to HLA-B*35:05, HLA-B*4001 should be corrected to HLA-B*40:01 throughout the manuscript.


5. Methods, Decision of regimen modification: "toxic epidermal necrosis" should be edited as "toxic epidermal necrolysis"
6. Results, Baseline characteristics of study participants paragraph: the statement "Male-to-female ratio was nearly 1.0" can make misunderstanding I recommended to change the statement to "There is almost an equal between gender."

7. Results, Baseline characteristics of study participants paragraph: the statement "18 (2.0%) had HLA-B*3505 variant and 168 (18.5%) had B*4001 variant." The word "variant" should be appropriate to correct to be "allele".

8. Results, Regimen modifications and reasons paragraph: the drug named "Efavilenz" should be corrected to "Efavirenz".

DISCRETIONARY REVISIONS

9. From the previous study reported HLA-B*35:05 associated with NVP-induced skin rash of Chantarangsu et al, the variables in the final logistic regression model including HLA-B*3505 status, positive history of drug allergy and the number of CD4 cells before the NVP treatment were found to be significantly associated with the risk of skin rash and the regimen of the lead-in dosing of NVP significantly decreased the risk of skin rash. The author should clarify whether all of patients in this study started NVP with lead-in dosing or not since it may affect the occurrence of rash and risk of rash-related regimen modification.


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

Quality of written English: Needs some language corrections before being published

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.