Reviewer's report

Title: Single tablet regimens are associated with reduced Efavirenz withdrawal in antiretroviral therapy naive or switching for simplification HIV-infected patients.

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Reviewer: Laurent Hocqueloux

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Fabbiani and colleagues conducted a retrospective study to compare the risk to withdraw efavirenz + 2 NRTI containing regimens according to the pills burden (i.e. single tablet regimen [STR] versus several pills once or twice daily). In summary they showed that STR formulation is associated with less interruption (due to virological failure and patient's decision) although the risk of toxicity (particularly on the CNS) remained similar in all groups. This work reinforces the idea that STR regimens are associated with better acceptability and patient's adherence to combined antiretroviral therapy [cART], which issue is of particular importance for long-term efficacy.

This work is well done and well written.

Major Compulsory Revisions

The main limitations of this work are that i. baseline characteristics of groups are not identical and ii. the number of participants in the main interest group is low (only 17% of all patients). I agree that multivariate analyzes can substantially attenuate these differences between groups, but it remains that patients in the STR group have been treated more recently (calendar years), are more likely to have been switched to this regimen (than to be naïve patients starting with), and received better tolerated backbone (TDF+FTC = 100% for STR group whereas one third of other groups received AZT+3TC). Moreover there is slightly less IVDU in STR group. All these factors could bias the comparison and I think only an analysis with propensity score-adjusted baseline characteristics could allow a reliable comparison between groups.

However, this study is of interest because, in the current environment where the provision of generic became a reality, it is important to demonstrate to decision makers (medical experts, health economists) that going back to separate pills risks to undermine the effectiveness of therapy.

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:

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 paper, either now or in the future? YES (pharmaceutical companies: BMS, Gilead, ViiV Healthcare, MSD)

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Do you hold or are you currently applying for any patents relating to the content of the manuscript? NO

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Do you have any other financial competing interests? NO

Do you have any non-financial competing interests in relation to this paper? NO