Reviewer’s report

Title: Predictive factors of virological success to salvage regimens in HIV-1 infected children

Version: 2 Date: 25 February 2007

Reviewer: Mona Loutfy

Reviewer’s report:

All comments are Major:

Larru et al. review

Overall
I recommend acceptance with mentioned changes
Several grammar errors

Title page
? Since study is related to PI-containing regimen – this should be in title
? hiv should be capitalized in title and short title
? Either all authors have degree or none

Abstract
? Sentence “...children candidates to rescue interventions.” Doesn’t make sense – could write “...children who received rescue salvage antiretroviral therapy after virologic failure (rescue intervention).”
? Sentence “A total of 33 children were selected” is better as “A total of 33 children met the inclusion criteria and were included in the analysis.”
? Give decimal for HIV-1 RNA and CD4% i.e. was it 4.0 and 23.0% or other
? Change to “The median duration that children were taking the new rescue regimen was 24.3 weeks (and give range or IQR).
? For 47% was this for all 33 or a different N
? Use children or infant consistently throughout abstract and text
? Put p-value after 3.8 vs. 5.4
? Put “the” before mean number of ...
? Spell out 18 as eighteen and change “with a regimen containing a boosted-PI

Background
- Change to “…through to adolescent ...
- “However, children taking antiretroviral ... present with higher viral ...”
- Add explanation of why boosting shows greater activity

Methods
- “… PI-containing regimens were used as salvage ...”
- Be consistent with copies/ml or copies per ml

Results
- “Distribution according to sex was: ...
- Spell out PIs – i.e. nelfinavir, etc since not abbreviated earlier”
- “48.6% had taken 1 ... etc”
- “At time of analysis, 60.6% were using NFV ...”
- “The median CD4+ cell count and percentage were”
- Decimals for all values
- How many had NNRTI resistance, what was fold change for LPV/rit, how many had M184V and were abacavir and tenofovir resistant
- Do you mean 46.9% achieved a 1 log drop and 66.6% also achieved a VL < 50 copies/ml – please make clearer.
- “… of follow-up”
- “… we found the following differences: ...
- What were the unboosted PI regimen
- Use ART consistently
“...there was no association between ..., nor the number (?) of RT mutations ...and VR” – sentence not clear
- Need to comment and add data on other classes in new rescue regimen – what was mean number of NRTIs in regimens, how many received NNRTIs, what was genotypic sensitivity score of regimens, was tenofovir used and susceptible
- Did NNRTI in regimen predict success – very important confounder
- Any double boosting of PIs

Discussion
- “…predictive factors …”
- Poorly written first 3 sentences then 5, 6
- Use VR consistently in text
- Expand on why children have lower response rates than adults and how this information could help that
- End with what other information and studies would be useful in the future
- Add limitation of study paragraph

Table 1
- Add information about NNRTI use
- Add LPV/rit fold change of IC50, % with M184V mutation, % sensitive to tenofovir and % sensitive to abacavir
- Either all decimals or none

Table 2
- Report as OR instead of B-coefficient
- Should have all variable in Table 1 here even if not significant

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.