Reviewer’s report

Title: Repeated False Reactive ADVIA Centaur® and Bio-Rad GeeniusTM HIV Tests in a Patient Self-Administering Anabolic Steroids

Version: 0 Date: 08 Nov 2019

Reviewer: Sanjay Mehta

Reviewer's report:

This is an interesting case of an individual with a positive 4th gen HIV screen and a positive Geenious test which was ultimately diagnosed as false positive result.

Major comments

While the authors note that the specificity of the Geenious test is can be as low as 93%, in that study all of the Geenious results were indeterminate, not positive as in this case. I think for the purposes of this case report, it would be important to know which of the bands on the Geenious test were reactive. I think the authors should present this data in the manuscript. If these were Ag duplicated in the Inno test, then there was something assay related, and not cross-reactivity associated as the authors suggest. I am unaware of a mechanism by which steroids would impact the assay, but it may be worth asking BioRad about this issue.

Also I would add that paragraph starting on line 172 is poorly written and the study types and results are unclear. This should either be rewritten, or converted to a small table.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

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.

Not relevant to this manuscript
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Acceptable

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