Author's response to reviews

Title: Clinical Chemistry Profiles in Injection Heroin Users from Kenya

Authors:

Tom Were (tomwere@gmail.com)
Josca O Wesongah (jwesongah@hotmail.com)
Elly Munde (ochiengmunde@yahoo.com)
Collins Ouma (collinouma@yahoo.com)
Titus M. Kahiga (tkahiga@gmail.com)
Francisca O. Owuor (fatieno@yahoo.com)
James Kiarie (jkiarie@swiftkenya.com)
Aabid A. Ahmed (aabid.ahmed@bomuhospital.org)
Ernest P. Makokha (epmakokha@gmail.com)
Valentine Budambula (valbudambula@gmail.com)

Version: 2
Date: 27 May 2014

Author's response to reviews: see over
May 26th, 2014

The Editor  
BMC Clinical Pathology

RE: Re-submission of manuscript “MS: 6947543471231555” - Clinical Chemistry Profiles in Injection Heroin Users from Kenya

Dear Ms Ma Celine Zapanta

We appreciate the thorough review of our work. We have meticulously made the suggested changes in the manuscript based on the reviewers’ comments. We have in addition read through the comments and addressed them in a point-by-point manner and indicated in the text of the revised version of our work. The corrections are indicated in red in the text. We are therefore pleased to re-submit the manuscript for publication in BMC clinical Pathology journal.

Comment #1: Opiates or opioids should be used. Sometimes both terms appear.

Response 1: For consistency, we have used the term “opioids” instead of “opiates” throughout the manuscript.

Comment #2: It is not for me clear the participant selection criteria. How authors known that heroine has being consumed if toxicological analysis were not performed? It was only based in the report of participants?

Response 2: We are thankful to this great point. We have clarified in the revised manuscript the study participant selection criteria by including “Only individuals (age ≥18 yrs.) exhibiting needle scars, reporting injection heroin use at least once in the previous month and providing written informed consent were recruited into the study” in the materials and methods chapter (page 6).

Comment #3: Is there possibility of being other opioids?

Response 3: We have taken note of this important comment by including “Although recruitment into this study was based on self-reported injection heroin use, it is possible that the study participants were also using other opioids, hence the need to carry out toxicological analyses to provide additional insights into the complex interactions between injection drugs and anti-retroviral treatment” in the revised manuscript (page 18).

Comments #4: Some patients, participants disclosure that khat is also abused and contains a monoamine alkaloid called cathinone, an amphetamine-like stimulant, which is said to cause excitement, loss of appetite, and euphoria. No discussion was performed in the possible influence of other substances in obtained results. Other substances were also reported and interactions are possible.
Response 4: We have taken note of this most important comment by including in the Discussion section (see page 18) the following statements, “Our results clearly show high rates of poly-drug use among injection heroin users in Mombasa. It is highly likely that the complex interactions of opioids and/or active compounds in bhang (Δ9-tetrahydrocannabinol), cigarettes (nicotine), rohypnol (benzodiazepines), alcohol, khat (cathinone), and anti-retroviral drugs promote the occurrence of drug dependence and adverse events. With regards to clinical chemistry profile such complex interactions induce hepatic metabolic derangements leading to toxicity and altered profiles of clinical chemistry markers. Consistent with these propositions, previous studies among drug users showed that interactions between opioids and benzodiazepines or alcohol increase occurrence of adverse events, overdose and death [34], as nicotine increase rates of opioid consumption [35]. In addition, drugs of abuse (alcohol, opioids, benzodiazepines, marijuana, and nicotine) reduce the efficacy of anti-retroviral drugs leading to toxicity, treatment failure and high viral loads [36]. Taken together, poly-drug use appears to promote toxicity leading to altered clinical chemistry profiles in both HIV-1 infected and uninfected injection drug users.

Comment #5: Finally, for several times authors state the ration albumin/protein. I believe that “protein” means “total protein”. Should be clarified.

Response 5: We have changed “protein” to “total protein” for clarity of this important aspect of the study.

If you have any further comments and/or suggestions, we would be happy to address these concerns.

Dr. Tom Were (PhD)