Reviewer's report

Title: Retrospective Analysis of the Diagnostic Yield of Newborn Drug Testing

Version: 2 Date: 2 June 2014

Reviewer: Crystal Silva

Reviewer's report:

The authors have done a nice job incorporating most of the edits and suggestions made in the initial review process. Overall, the manuscript is a comprehensive and understandable presentation of the study. That said, there are still a number of edits that need to be made. Although most of the additions since last review are necessary and have added needed clarity, they are not without error and unfortunately some of the suggested changes resulted in too drastic of changes. Please see comments below, indicating the necessary and suggested changes after my second review.

Major Compulsory Revisions:

1. Methods, under statistical analysis: please change range to interquartile range, as this is standard presentation when presenting the median.

2. Table 1 is too wordy and needs additional revisions:
   a. Replace range with IQR as per above
   b. Remove the words “Median” and “range” from every box. Either list in the left-most column (“Maternal age, years (median, IQR)”, etc.) or insert a note below table.
   c. Remove “not calculated” and replace with dash mark if you don’t want to calculate. Is there a reason you don’t want to give these values?
   d. Please add back in “n” values where % is given. My initial edit was for the addition of %.
   e. Superscript 1 note: please add clarifying statement “Frequency calculations were done on the group sample of 200” [or 1,916].

3. Results, under Yield of Screening: this section needs substantial edits as it is very repetitive as written. The second paragraph basically repeats what the first paragraph states. This also highlights the potential to combine Figure 3 and Table 3 since the information presented in both is very similar, though I will leave that revision up to the authors.

4. Table 3:
   a. add n everywhere you have %
   b. superscript 1 note: please add clarifying statement: “Frequency calculations were done on the group sample of 200” [or 1,916]

Minor Essential Revisions:
5. Ensure spacing before source brackets throughout manuscript

6. Background, 6th paragraph, 2nd sentence: add hyphens for punctuation as such:
   “…medical dug use – such as maternal history of…or domestic violence – may be …”

7. Background, 6th paragraph, last sentence: add “the” before “expense of specificity.”

8. Methods, 3rd paragraph, throughout: this section does not read well. Consider generating list and deleting “was for” when describing groups. For example, insert colon after “drug testing results” in first sentence. Then start with “1) Group A: cases where…; 2) Group B: cases where:” etc.
   a. Delete the bracketed note regarding Group C (“[note that meconium for cases in…]”) as it does not add anything
   b. Description of group D is overly wordy and needs revised. Consider the following revision: Immediately after “…Group C is summarized in Table 2”, insert “; Group D: 69 cases with drug(s) and/or drug metabolite(s) detected that were…demonstrate non-medical drug use. These cases are described in more detail in the Results section.”

9. Results, under statistical analysis: delete “(SPSS)” at end of 4th sentence as its redundant to first sentence in this section.

10. Results, 1st paragraph, 2nd sentence: add hyphens for punctuation as such: “Drug testing – urine, or meconium, or both – was order…”

11. Results, 2nd paragraph: delete “(A, B, C, and D)” as this is clearly stated multiple times before.

12. Results, 3rd paragraph, 2nd sentence: delete “in Figure 1” after “Group A” as the description applies to multiple figures and tables.

13. Results, 4th paragraph, 1st sentence: delete “in Figure 1” after “Group B” for reasons above

14. Results, 6th paragraph, 1st sentence: delete “in Figure 1; Figure 2A” after “Group D” for reasons above

15. Results, 6th paragraph, throughout: add % where you have “n=” to be consistent with previous paragraphs.

16. Results, under findings in urine: change “were screen positive” to “screened positive” throughout.

17. Results, 8th paragraph, 4th sentence: delete “(even the three that were…” as it is redundant.

18. Results, 8th paragraph, 5th sentence: this is still unclear. Please add “positive” or “negative” following “confirmed” to the addition you added after last review.

19. Discussion, 2nd paragraph, last sentence: awkward, please revise. Suggestion: “These two factors alone were the reason for screening
approximately 30% of the cases…”

20. Discussion, 3rd paragraph, 1st sentence:
a. add “use” after first appearance of “drug”
b. clarify the timing of incarceration of mother – during pregnancy? Ever incarcerated?

21. Discussion, 3rd paragraph, 2nd sentence: delete “even”

22. Discussion, 4th paragraph, 2nd sentence: awkward, please revise.
   Suggestion: “Although delta-THC, the active ingredient in marijuana, crosses the placenta, the association of prenatal marijuana use with premature delivery, low birth weight or congenital malformations is not clear [sources]”

23. Figure 3: delete “Above indications” from key for 2nd and 3rd entry as this is true for all groups and is already indicated by the group labels above.

Discretionary Revisions:

24. Background, 3rd Paragraph, 2nd sentence: Change “…analysis theoretically can detect…” to “…analysis can theoretically detect…”

25. Results, 2nd paragraph: add oxford comma after “birth data”

26. Discussion, 4th paragraph, 3rd sentence: add oxford comma after “attention”

27. Discussion, 9th paragraph, 3rd sentence: rewrite “two weeks or longer” to read “upwards of 2 weeks”

Level of interest: An article of importance in its field

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.