Reviewer’s report

Title: Reference intervals for thyroid stimulating hormone and free thyroxine derived from neonates undergoing routine screening for congenital hypothyroidism at a university teaching hospital in Nairobi, Kenya: A cross sectional study

Version: 1 Date: 09 Mar 2016

Reviewer: Jennifer Yee

Reviewer's report:

Overall, the manuscript is much improved based on the revisions in response to both reviewers.

However, there are still a few issues that need some clarification or revision.

1. Line 94. Need clarification, suggest revision to "where reduced function from dysgenesis or dyshormogenesis results in an increase….."

2. Line 106. In the background section about detection, I recommend removing statements about subclinical hypothyroidism because the main goal of this paper is to establish references ranges to assist in the detection of congenital hypothyroidism so that infants may receive treatment. In adults and older children, subclinical hypothyroidism involves a TSH<10, but still above normal range, and normal thyroid hormone levels. These patients are sometimes treated, sometimes not, but the management is controversial. False positives for congenital hypothyroidism newborn screening do occur, but are uncommon. For this paper, I would recommend focusing on establishment of the reference range for the purpose of the detection of primary congenital hypothyroidism, and removing comments on "subclinical hypothyroidism."

3. Line 108. Suggest changing "higher prevalence" to "higher diagnostic rate"

4. Line 192. Need clarification. 34 TSH values and 30 fT4 values were excluded. Were TSH AND fT4 values in the same patient excluded? Did some patients only have TSH performed and not fT4?
5. Although Table 1 and Table 2 are noted to have some differences between groups, they are not noted by asterisks or other marker.

6. Figure 1. In the graph legend, there is "+ Suspect data." Are these the values that were excluded? Should they be removed from the graph?

There are quite a few grammatical, spelling or diction errors that need correction. Here are some examples below.

7. Line 176. Grammar, verb should be past tense, ie,"Values were compared…"

8. Line 177. Need a period after "as appropriate."

9. Line 177. "Age wise" should be hyphenated.

10. Line 209. Duplicate ss in "ranks."

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.
I am able to assess the statistics
Quality of written English

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Needs some language corrections before being published

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