Author's response to reviews

Title: Pediatric Complex Chronic Conditions Classification System Version 2: Updated for ICD-10 and Complex Medical Technology Dependence and Transplantation

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Author's response to reviews: see over
June 25, 2014

RE: MS# 1651535377118842

Dear BMC Pediatrics Editors, Reviewers, and Staff,

We greatly appreciate the additional suggestions provided by the reviewers of this manuscript. We now have further revised the manuscript for resubmission, based on these suggestions. We addressed each of the reviewers concerns in the paper (highlighted in red), as documented below.

Again, thank you for the excellent feedback on this manuscript.

Sincerely,
Chris Feudtner, MD PhD MPH

Reviewers' comments:

Reviewer: Eyal Cohen
Reviewer's report:
Thank you for the opportunity to re-review this manuscript. I think that the authors have substantially improved the manuscript and it is worthy of publication. I have one residual concern regarding the response to my 3rd comment. My concern was not about changes resulting from moving from ICD9 to ICD10 but just highlighting the potential issues related to a substantial update to a coding system. Specifically, the authors are implying that CCC v2 is an improved system over CCC v1 without really noting any limitations to the new approach in the discussion of the manuscript. For instance, the addition of new codes that are noted by the authors to lead to improved comprehensiveness (I think the more appropriate term here is ‘sensitivity’) has a potential trade-off of decreased specificity in capturing children with complex chronic conditions using the CCC v2 codes. While I think the changes are well justified in general, I do think this point is important to consider as it has implications for future users of the CCC classification scheme.

We thank for this suggestion and agree that the improved sensitivity of CCC v2 may have a potential trade-off of decreased specificity in capturing children with complex chronic condition. We have added this point in our discussion. The sentence now reads: “In future studies with CCC v2, however, investigators should keep in mind that the increased sensitivity in identifying children with complex chronic conditions may have decreased specificity.”
Reviewer: David Rappaport
Reviewer’s report:
Thank you for your revisions of this manuscript. Overall I think this version is considerably improved and much clearer for most readers. Just a few comments.

1. INTRODUCTION: Overall much clearer than previously. Consider adding something in this section about individual patients being able to be classified in more than 1 CCC, as this is referenced in the Discussion.

   We now have added this point to the introduction section, the first sentence of the 3rd paragraph: “The CCC classification system (v1) can be used to either examine a particular CCC category or to identify patients with multiple CCC categories.”

METHODS: Overall much clearer as well.

2. RESULTS: Under proportions of CCC categories between CCCv2 and CCCv1, you say "CCCV2 classified more patients as having complex chronic conditions than CCCV1 (except malignancy CCC in NEDS). This seems to miss cardiovascular in KID and malignancy in KID.

   Thank you for pointing out this. We have changed the text in the manuscript and as “except for the malignancy and cardiovascular CCC categories”. We have also marked the changes as negative in Table 2, and edited the discussion a bit accordingly (page 15, highlighted in red).

3. Also Table 2’s title could be clearer: is this a percentage of patients who fall into a specific CCC category?

   Yes, the percentage is the percent of patients who fall into a specific CCC category. We have changed the Table 2 title to make it clearer. It now reads: “Table 2: Percentages of patients with CCCs classified by CCC v1 versus CCC v2 in KID 2009 and NEDS 2010”.

4. DISCUSSION: Regarding the term health vector, does this refer to the direction of changes in an individual patient’s health over time? Or a group?

   Since the term “vector” appears to be confusing, we have changed the term to “health (or illness) trajectory”, which refers to an individual patient’s change in health state over time. Groups of individuals with similar conditions may or may not have similar health trajectories.

Overall again much improved. Thanks for the opportunity to review this paper.