Reviewer’s report

Title: MAPPING THE PREVALENCE AND NATURE OF DRUG RELATED PROBLEMS AMONG HOSPITALISED CHILDREN IN THE UNITED KINGDOM: A Systematic Review

Version: 0 Date: 01 Oct 2019

Reviewer: Antônio Oliveira

Reviewer's report:

This is a relevant and comprehensive review of the incidence of a still poorly defined entity (drug-related problems) in a very heterogeneous population (pediatry). The challenges placed in the selection and organization of the published data are enormous and the authors did an excellent job in the systematization of concepts and in the organization of the results. In addition, the authors provide a very useful and updated review of definitions and methods related to DRPs. I have only two concerns regarding the manuscript:

1. Given the heterogeneity of the pediatric population and of the study designs, I think it would be most useful to provide more information in Supplementary File 3 on those aspects of the studies. Namely, it would be important to know for each study whether it was conducted in a general pediatric wards or in a specialized pediatrics department; what was the age range of the study populations; the number of patients providing data; in observational studies whether they were cross-sectional or cohort and, in the latter case, whether patients were observed throughout the entire hospitalization; in multi-centre studies how many centers collaborated; how and by whom were DRPs detected; whether there was an CPOE system with or without a coupled medication alert system. This information would be important for the reader to judge the validity of the results.

2. The authors made it clear that it was a systematic review, not a meta-analysis. However, they present overall statistics for the combined results as the median value of the studies estimates and interquartile ranges. So in a way this may be seen as a meta-analysis that is not using the adequate meta-analytical methodology. In my opinion, presenting the median estimate is rather confusing as this statistic ignores the precision of the several studies, giving equal weight to studies with 20 and with 200 observations. I understand the authors’ argument that the large heterogeneity across studies, along with the small number of studies, may make meta-analytical estimates unreliable. Still, in my opinion they are more meaningful than the median estimate.

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?
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Unable to assess
Are the conclusions drawn adequately supported by the data shown?
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Yes

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