Reviewer's report

Title: Identifying complications of interventional procedures from national routine healthcare databases: a literature review of methods

Version: 2
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Reviewer: Hude Quan

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Major Compulsory Revisions

This is a very interesting topic and authors have done tremendous work to summarize literature on the important topic.

My major concerns:
1. this literature review is focusing on UK data alone. This restricts international application. There are huge amount of literature in other countries. Thus I highly recommend authors to rethink: enlarge the literature search scope to all countries.

2. I am also aware that the large amount of literature on this topic will give hard time to summarize the literature. Thus authors may think restrict their topic to Complications defined using ICD-10/9 codes alone. Thus they will have manageable number of papers for the review. In addition, administrative data have been widely used for evaluating system performance.

3. The complications should be well defined in this paper. Current paper included various types of complications reported in the literature. To narrow the scope, authors may focus on in-hospital complications alone coded in ICD (such as AHRQ PSIs), excluding mortality, LOS, and readmission.

The systematic review on ICD-10/11 codes will be helpful for readers to apply these codes in their data and also inform readers the variation in ICD definitions and compatibilities across studies.

4. ICD focused systematic review will be very helpful for ICD revision for ICD-11 for application of coded data to quality and safety assessment. The following paper will inform how ICD-11 is to be linked with safety.

ICD-11 for quality and safety: overview of the who quality and safety topic advisory group.


I highly recommend authors to reconsider the scope (focusing on ICD coded data and also clinical complications -- means medical condition) and topics of the systematic review.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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.