Reviewer’s report

Title: Comparison of transcatheter aortic valve implantation with other approaches to treat aortic valve stenosis: a systematic review and meta-analysis

Version: 0 Date: 21 Oct 2018

Reviewer: Wisit Cheungpasitporn

Reviewer's report:

Major comments:

1. Who are investigators who performed search in "We searched the electronic databases", need to be very specify?

2. "All searches in electronic databases were conducted by an experienced medical information specialist" This means only 1 investigator performed the search?

3. "Two investigators independently rated the risk of bias"; please specify by the initials.

4. This review is not registered online? Please clarify and include this point in limitation of the study.

5. Strongly suggest the investigators proving PRISMA Checklist in Online

6. Currently, I2 was showed in Figures, but investigators selectively included in the results of manuscript only when I2 was not significant. Strongly suggest mentioning all I2 in the results.

7. A multivariate meta-regression model is suggested when there are significant heterogeneities.

8. We recommend the authors apply the ROBINS-I (Risk of Bias in Nonrandomized studies of Interventions) tool. The authors already applied the Newcastle Ottawa Scale, which is a validated tool and was an acceptable choice. However, to enhance the reproducibility and comparability of this review to future reviews of a similar topic (possibly an update of this review) I recommend including a risk of bias assessment using ROBINS-I, since it is the newest and most robust method of assessing risk of bias in systematic reviews/meta-analyses.

9. The authors should address publication bias and provide both a funnel plot and Egger test result. Please perform Egger test.
10. For transparency, I would suggest making the data for this review publicly available, possibly through the Open Science Framework (osf.io). A link to the OSF page with all the information can be included in this manuscript. Items to include: list of excluded studies, commands for statistical analysis, spreadsheets or data used for the meta-analyses, etc. Making data publicly available will promote the reproducibility of the review and is best practices for systematic reviews and meta-analyses.

Otherwise, the authors present a thoughtful and well-written systematic review and meta-analysis.

**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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No