Reviewer’s report

Title: Predictors of the effects of treatment for shoulder pain: Protocol of an individual participant data meta-analysis

Version: 0 Date: 08 Feb 2019

Reviewer: Georgios Markozannes

Reviewer's report:

Thank you for the opportunity to review this work. This is a protocol of an individual participant meta-analysis that aims to investigate the potential effect modification of shoulder pain treatment based on a number of predefined candidate predictors. Potentially, the results of this study will be important for the clinical practice of shoulder pain management. I am providing few comments that hopefully you will find helpful.

The methodology is clearly described, however there are several inconsistencies between the manuscript and the protocol registered in PROSPERO (eg. The reported search strategies are somewhat different), partly because the PROSPERO protocol is somewhat dated.

P10 Searching and selection section: Please, clearly mention the databases that were/will be searched.

P16 L12-14: "If studies use different pain or disability scales, these will be converted to a common scale if possible or otherwise estimates will be expressed as standardised mean difference." Regressing on the final scores after adjusting for the baseline values and regressing on the standardised mean difference are two separate analyses which address different questions and it is not guaranteed that they will provide similar results. Instead, using the z-transformed outcome values and adjusting for the z-transformed baseline values may be a better way to address the former question.

P16 L17-18: The use of fractional polynomials or splines for assessment of non-linearity. However only fractional polynomials are mentioned in the abstract and in the sensitivity analyses sections. Will spines be used?

P17 L14-20: Please note that in an IPD meta-analysis the use of Egger's test and Pete's test will not necessarily correspond to the evaluation of small study effects, but to possible non-participation bias.

Level of interest

Please indicate how interesting you found the manuscript:

An article of importance in its field
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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