Reviewer’s report

Title: Associations between ERα/β Gene Polymorphisms and Osteoporosis Susceptibility and Bone Mineral Density in Postmenopausal Women: A systematic review and meta-analysis

Version: 0 Date: 01 Nov 2017

Reviewer: Torben Harslof

Reviewer’s report:

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1. First sentence is not true. Postmenopausal women may very well have secondary or glucocorticoid-induced osteoporosis.

2. Introduction line 5. "It was estimated that 10 million individuals older than 50 years-old suffered from osteoporosis."
   Where??

3. The introduction is too long and bears too much resemblance to a review of osteoporosis pathophysiology and discusses previous finding too thoroughly.

4. Page 7, line 14: "Although there existed meta-analyses that explored the relationships between ER gene polymorphisms and BMD or fracture risk, none of these studies were performed to discuss these issues in postmenopausal women. In addition, to the best of knowledge, no meta-analysis has been conducted to determinate the associations between ER gene polymorphisms and PMOP susceptibility in postmenopausal women." The sentence is unclear. Please rephrase.

5. Page 10, line 4: "We calculated odds ratios (OR) and 95 % confidence interval (CI) to evaluate the association between ER gene polymorphisms and PMOP risk." Please state the applied definition of PMOP.

6. Fig. 1. The text in the two upper boxes concerns VDR-polymorphisms??

7. The language needs a general revision by someone fluent in English.

8. The discussion is way too long and extends 10 pages. This should at least be halved. E.g. ref 14 is discussed both on the first and third page of the discussion (for the same polymorphism XbaI). In addition it is pointless to discuss all studies included in a meta-analysis. Some of the studies have to differ from each other and the conclusion of the
meta-analysis. Otherwise there would be no point in making the meta-analysis. Therefore the discussion should be of a more general character.

**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?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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

Needs some language corrections before being published

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