Reviewer’s report

Title: Effect of leisure time physical activity on severe knee or hip osteoarthritis leading to total joint replacement: a population-based prospective cohort study

Version: 1 Date: 22 December 2011

Reviewer: Bård Natvig

Reviewer’s report:

In my opinion this is a well written and well designed study that adds to current knowledge in an important field of research. The are several limitations in the, but they are adressed properly in the discussion.

I have only minor comments, questions and suggestions:

1. Abstract: The RR for hip OA (0.66) could be explained (as protective effect), it is not selfevident. It is stated in the conclusion, but the direction of the effect can be stated in the result abstract.

2. Leisure time physical activity: Reference 13 does not seem to be an obvious refernce for assesment of leisure time physical activity? Would i tbe better do describe how it was assessed straightforward: ...assessed with a modified.....

3. The figure (flow chart) with alternative n for knee and hip (with hips in brackets) could have been easier to interpret. Knee and hip should be equally important? Please consider another design, or perhaps to parallell figures?

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 interest