Reviewer’s report

Title: The impact of preoperative patient characteristics on the cost-effectiveness of total hip replacement: a cohort study

Version: 2 Date: 7 May 2014

Reviewer: Alexander Geissler

Reviewer’s report:

Many thanks for having the opportunity to review this manuscript. The authors estimate the impact of pre-operative patient conditions on the cost effectiveness of hip arthroplasty. The manuscript is well written and I recommend accepting it after some minor revisions.

Results section:

I’m missing some comparisons of the population in your analysis (292 patients) with other studies (e.g. EuroDRG work group: Geissler et al. 2012 http://onlinelibrary.wiley.com/doi/10.1002/hec.2848/pdf). It seems to me that your population is relatively less severe because of the low age and the small number of secondary diagnoses. This validation is important especially because of the small number of cases in your study. Maybe it is also worth to state some DRG statistics in order to see whether the patients were grouped in low or high severity groups.

Discussion section:

Third sentence# Isn`t that the case in Germany that revisions are paid and group differently than primary replacements?

Limitations:

Please incorporate a comment on the selection bias. Data comes from a single but large university hospital. I wonder if you integrated all THR cases from January to June 2012? How different are these cases compared to Germany as a whole?

Conclusions:

It is quite obvious and that the healthier patients the better the outcomes should be. But it might be more interesting to conclude more detailed how your measures can ideally be used in order to improve health care systems.

Minor comments:

Abstract: Results# it should be written primary “replacement” and not revision

Page 3: second paragraph: Abbreviation HRQol should be explained (not just in the abstract)

Tables: please consider to use capital letter in order to facilitate the readability

Table 1:
• “side diagnosis” should be replaced with “secondary diagnosis” (also on other places e.g. page 7)
• top 10 or top 5 diagnoses and procedures should be enough
• please consider the headline: Relevant pre-operative patient characteristics
• Please note that these are ICD-10 diagnoses and German OPS procedure codes
• What means TVT? I can’t find it on the abbreviations list.

Table 2:
• Please think about to use the common matrix format of the InEK cost calculation scheme

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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