Reviewer’s report

Title: Variations in bariatric surgical care pathways: a national costing study on the variability of services and impact on costs

Version: 1 Date: 31 Jul 2018

Reviewer: Anne Rudisill

Reviewer's report:

Dear authors,

This article highlights an important area of research in the health economics of bariatric surgery. The authors have highlighted the great variation in costs of preoperative and postoperative assessments. The design of the study supports the research findings of variation in pre and post operative costs. This article will hopefully encourage decision-makers to set guidance on the clinical pathway for pre and post operative care so that patients are getting the resources that will benefit outcomes most.

The article would be strengthened by focusing on how this research will inform patient care. This paper offers an analysis that will be most useful when mapped again patient outcomes so it can be definitely said whether high, medium or low intensity care pathways translate into differential patient outcomes. It would also be of interest to know about patient preferences in this context. There is a big difference between one to one and group psychological support as patients may be more or less willing to share challenges, needs. It would be important to know whether not just intensity but design of pre-op and post op care impacts outcomes.

My recommendation would be that the authors re-write the discussion section to focus on what these results mean for bariatric surgery care pathways. There is a long discussion about how existing economic evaluation either do not cost the pathway or use a tariff rate to cost pre-op and post-op care. The authors mention that the costs of pre-op and post-op care would likely not change the results of an economic evaluation and economic evaluations often use average costs anyway. Therefore, the article's discussion would benefit from focusing on what this article adds to the research base and policies around patient care. It could also talk about the importance of these services being reimbursed to improve patient outcomes (if further fundings demonstrate that more intensive services lead to better outcomes).
A few other points

(1) it is called an 'annual' questionnaire in multiple places but it is really a single questionnaire so no need for the word 'annual', which implies that there are multiple surveys

(2) Table 1 - pre-surgery targets. These results should be discussed more as they have implications for pre-surgery costs.

(3) Table 2 - it was not clear how the costing handled MDT costs as they would vary (meaning the underlying per hr labor cost).

(4) Page 7 - lines 10-11, Decisions on staffing may not entirely be down to cost but also availability of specialists.

(5) Page 7- Gulliford et al. costs the pre-op and post-op patient pathway using tariffs

(6) Page 8- first paragraph up to line 38. Not sure what all of that really adds because it undermines the points made in the previous paragraph. The key addition of this paper is starting in line 38 and my recommendation would be to build out that section of the discussion.

(7) Page 8 - line 46, this study focuses on more than the 12 months following surgery.

(8) Page 8 - line 51. There is an implication that applying a flat rate for pre and post operative care is inadequate but that would be standard practice with sensitivity analysis being used to assess how the range of differences impact the ICER.
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

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I have no financial competing interests but I have conducted research in the area of health economics in bariatric surgery and one of the studies on which I am a co-author is cited in this manuscript.

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