Reviewer's report

Title: Internet based patient education improves informed consent for elective orthopaedic surgery: A randomized controlled trial.

Version: 3  Date: 25 November 2014

Reviewer: Mark Cote

Reviewer's report:

Major Compulsory Revisions

I commend the authors on undertaking a randomized trial to examine Internet based education to augment informed consent for operative procedures. This is an important issue and conducting a randomized trial is not easy to say the least. My rationale for listing comments 1-3 in this section is that if addressed, they will strengthen the manuscript as a whole.

Comment 1: The selection of a randomized clinical trial study design helps strengthen the validity however there are areas that I believe need to be improved to get a complete appreciation of the strength of the study. Line 115: I'm not sure how the sequence of randomization was generated. I understand STATA was used but was it simple randomization? Block randomization? Line 122: Please elaborate on the method of facilitation for the experimental arm. For example, Was their oversight during viewing of the website? Did the viewing of the website take place on site? Were there measures in place to ensure the website was viewed? Was assistance available and or provided at any point? How long after viewing the website did they fill out the survey? Were the research personnel present during any part of this process? These details go to the validity of your study as influence by the research personnel may impact the results. Without a more detailed description, I'm concerned the reader will not have the information needed to make a decision on the validity of the results.

Comment 2: Participants undergoing a wide array of procedures were eligible for the study. This included patients undergoing arthroscopy and ACL reconstruction to lower extremity arthroplasty (Lines 108-109). These procedures likely encompass a wide range of ages and experience and comfort with the Internet. Was a subgroup analysis for example by age or procedure considered? Are you able to report the proportion of participants from each of these procedures both for the entire cohort as well as a breakdown between the groups? We’re they balanced? A subgroup analysis or discussion that subgroups were considered as well as their potential impact would be helpful.

Comment 3: Line 156: Statistics- if patients were randomly assigned to groups, then inferential statistics in Table 1 comparing baseline variables is not necessary and discouraged. The question isn’t whether the differences are due to chance or randomness (you already know that they are as you randomized
them to the study groups) but rather whether the differences are clinically important. Also, the Chi Square is not the appropriate test to compare a continuous variable and Table 1 suggests that a two-sample t test was used. Lines 173-174 may need to be rewritten as they reference statistical significance rather than clinical significance.

Minor Compulsory Revisions

Comment 3: What you’ve shown is the website is useful for immediately improving the quality of informed consent as it pertains to risks of surgery. In the Discussion starting at Line 207), the utility of the website is in part framed as a resource for patients while they wait to a specialist. The referral to a specialist insinuates that the treatment plan has not yet been established. This may seem small but your study is designed around the idea that the website can augment the traditional informed consent process. I agree that having a website with accurate information is important but your findings should be discussed in the context in which the Internet education was provided.

Comment 5: Lines 183 to 186: are these meaningful between group differences?

Discretionary Revisions

Comment 6: Line 48. I assume this is a score out of a 100?

Comment 7: Line 69: Recommend the use of “information” over “message”

Comment 8: Line 143: Recommend providing the survey.

Comment 9: Line 210: Recommend changing “message” to “information”

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.