Reviewer’s report

Title: Resource utilization and costs associated with the addition of an antimuscarinic in patients treated with an alpha-blocker for the treatment of urinary symptoms linked to benign prostatic hyperplasia

Version: 0 Date: 05 May 2017

Reviewer: Nyirády Péter

Reviewer's report:

Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

Main concern

This is an uncontrolled study. Costs were compared before and after starting AM treatment. It is hard to know whether cost reduction is the consequence of initiating AM treatment or other confounding factors such as long term effect of ongoing AAB treatment. This should be addressed in discussion section. Patients receiving 5-ARI+AAB treatment or AAB monotherapy could be considered as controllgroup.

Comments

ANCOVA analysis was used to compare costs before and after starting AM treatment. ANCOVA is suitable for comparing two group of patients - e.g. treated vs. not treated - while statistically controlling for the effects of other continuous variables (e.g. age, severity, comorbidity). In this study, only one group of patients was analysed -there were no control -, it is not clear why ANCOVA was used. I suggest use another, proper method for analysis.

Results of 191 patients receiving AM+AAB combination therapy were presented in this study.

Figure 1 is confusing regarding study population. Last box should include only the 191 patients. Now it seems that 5-ARI+AM patients were involved too.

Mean duration of AAB treatment prior adding on AM was not reported.
Mean occupational disability days was 4.7 days (table 4) and 88% of the sample was pensioner. It means that among working patient mean occupational days was 40 days (supposing 0 days among pensioner). It indicates a huge burden. Beside, high standard deviation indicates some extreme value in data set. Occupational day is one of the strongest cost drivers. Way was disability days so high? How does it effect cost-differences? Please discuss it.

**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:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interest above

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal