Reviewer’s report

Title: An investigation of factors predicting the type of bladder antimuscarinics initiated in Medicare nursing homes residents

Version: 0 Date: 07 Aug 2017

Reviewer: Philip Toozs-Hobson

Reviewer's report:

Thank you for asking me to review, what is an extremely impressive undertaking in terms of the resources and probably time. Overall the final paper is a little disappointing given the work it must have taken to produce the data.

Firstly for an international audience the focus is very american. I accept the first author is a PhD from the school of Pharmacy, but the lack of clinical oversight is disappointing and I suspect this was from the outset as it was a pharmacology project. The introduction requires a huge amount to set the scene. For example why were people who had previously had treatment excluded, as this would give insight to how secondary (and perhaps more selective prescribing) occurs. Likewise the lack of reference to other treatments e.g. Onabotulinum toxin, beta 3 agonists (not currently available in the US??) and topical oxybutynin leaves a gap in the overall positioning. Likewise not having an idea of what % this refers to (we know that 12899 are included, but how many in total were reviewed?). There are also no references to decision making tools or guidelines to give an indication of compliance.

Perhaps also including a table with the theoretical relative merits and disadvantages of the medications included would help.

Finally I would expect to see some recommendation of where this potentially could go and how it should be tackled as such reference to value based healthcare and modelling might help the reader understand the true value of the project.

I am sorry I haven't been more positive on what clearly has been a huge piece of work. I am sure if it can be top and tailed with what makes it truly relevant will improve it dramatically.
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.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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