Author's response to reviews

Title: Non-adherence to drug therapy and drug acquisition costs in a national population - a patient-based register study

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Author's response to reviews:

Manuscript “Non-adherence to drug therapy and drug acquisition costs in a national population - an individual-based register study” submitted to BMC Health Service research.

To the editor of BMC Health Service Research.

Thank you for valuable comments upon our paper. We hope that the revised paper is suitable for publication in its present shape. Below, each comment from the reviewers is numbered and commented.

Yours sincerely,

Bo Hovstadius, PhD

1 Editor’s Comments:

The response states that "In the revised manuscript we more consistently use the term "patient", instead of "individual"", but as reviewer 1 states there is still some overlap.

English is not the authors first language and so this is not a criticism, but terms such as 'individual register data' are not clear, maybe 'patient-level register data' would be better.

The required minor revisions relate to this point.

1 Authors’ comments

A patient could be defined as an individual receiving medical care or treatment. In the revised manuscript, we have changed the term “individual” to “patient” where it refers to individuals with prescribed drugs. We also changed the title to “Non-adherence to drug therapy and drug acquisition costs in a national
population – a patient-based register study”.

2 Reviewer: Geva Vashitz

Thank you for the changes to the manuscript.

A Minor Essential Revisions: As I mentioned in the previous review, there is still some inconsistent usage of the "individual" and "patient". I suggest that the authors will choose a consistent form for clarity.

2 Authors’ comments

See our comment number 1.

3 Reviewer: Michael A Fischer

Overall notes:

The authors have been responsive in their revisions and have cleared up several points of definition and terminology raised in the earlier comments. The main issue for this analysis continues to be whether it really adds to our understanding of non-adherence above and beyond reminding us all that about 50% of filled medications are not taken by patients. The authors work very hard to adjust for factors such as the type of medications filled and the number of medications per patient, but at the end of it all, about 40-50% of medications are not taken, and therefore about 40-50% of spending on drugs is wasted. Perhaps seeing this expressed in terms of spending will motivate additional work on the causes of non-adherence and possible interventions to address it.

3 Authors’ comments

In the revised manuscript, we have in line with reviewer Fischer’s comments added the following sentence to “Conclusions”: “Thus, efforts of different types of interventions are needed to improve secondary adherence.”

“Our estimate indicates that drug acquisition costs related to non-adherence represent a substantial proportion of the economic resources in the health care sector. A low rate of primary non-adherence, combined with a high rate of secondary non-adherence, contributes to a large degree of unnecessary medical
spending. Thus, efforts of different types of interventions are needed to improve secondary adherence.”