Reviewer’s report

Title: Effectiveness of treatment of newly diagnosed hypertension in family medicine practices in South Croatia

Version: 0 Date: 01 Dec 2018

Reviewer: Larry A. Green

Reviewer's report:

Please include all comments for the authors in this box,

1. This historical cohort study exploits a nice natural distribution of patients and their care across different parts of Croatia and makes important contributions and is interesting to both public health and primary care clinicians/family physicians in particular.

2. The title needs attention; it presently invites readers to learn about the importance of primary care and it is really about effects of treatment of newly diagnosed hypertension.

3. There is a good opportunity to enrich the introduction and discussion with data about the role of family physicians in Croatia and internationally recognized research about the importance of primary care. Indeed, the data presented set up a conclusion that primary care matters in Croatia and is capable of making important contributions to individual and population health. A very nice contribution indeed, if so developed.

4. Methods: Early on and consistently throughout, declare that this paper measures and reports the cost of pharmacotherapy of newly diagnosed hypertension comparing the diverse settings of Croatia. This report is not about the cost of treating hypertension—as belatedly acknowledged near the end of the paper. There is nothing wrong with this limited focus; it just needs to be honored and sentences that make claims about "cost of tx" must stay within this definition. Can you provide numbers for the initial sample from the records in the practices and then how many were excluded, and then showing the resulting study population? The tables showing demography of the patients are good; can you provide fuller description of the practices from whence the study population came—how big, how many doctors/staff, long-standing or newly established, perhaps taking an approach similar to published standards for reporting implementation studies in primary care practices (sometimes called "Dissemination and Implementation" research). Illuminate the nature of the National Insurance Fund for unfamiliar readers and further explain the importance of the difference between fully covered and partially covered drugs.
5. The bias introduced concerning thiazides--only available in combinations—is quite important and if possible, you might explain/comment on how this may have distorted your findings and whether or not you think it is important in drawing your conclusions. It seems to me that by definition, a clinician prescribing a thiazide is deciding to use a two-drug regimen, perhaps to initiate treatment, whereas a clinician starting with an ACE inhibitor only is deciding to commence treatment with a one drug regimen--an important clinical decision that is subject to guideline recommendations.

6. Back to the importance of primary care, given what your study shows: Don't you have evidence that supports confirming that Croatia's family physicians in the countries diverse settings are capable--of diagnosing and managing hypertension, and already are succeeding in establishing control for more than half of their diagnosed patients; AND at the same time calling out the gap in treatment of recognized hypertensive patients that can be closed to good effect???? How good could this get? And what steps might be taken to help family physicians detect more of their patients with hypertension and get a larger proportion under control? Here lies important implications worthy of publication.

7. If readily available, might you compare the costs of drug treatment that you define in Croatia to reported costs in other countries? This is an opportunity to comment on whether these costs are small or big, comparatively. This comparison would be similar to the comparisons of control numbers you cite inf references 14, 33, 34, 35, 36, 37. A nice package of relevant published numbers that position your research and show its importance.

8. The paper is well written and easy to understand. There are a few minor edits related to English that can readily be addressed and at least a couple that are probably substantive, e.g. in methods "input data" probably means "demographic data" and in the conclusion "convergence" probably means "association."

**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.

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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