Reviewer's report

Title: The management of severe hypertension in Australian general practice

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Reviewer: Edward Janus

Reviewer's report:

This paper addresses and adds to the important issue of poor detection and treatment of hypertension in Australia and worldwide by focusing on management of severe hypertension in Australian General Practice.

The study is well conducted with key messages but the text needs substantial rewriting to make it clearer and to address specific issues as outlined below.

Major compulsory revisions

By using the category of normotension the report assumes that a change from 180/110 or worse to anywhere above 140/90 represents a failure/no improvement. If BPs just above 140/90 are achieved this is still a gain in treatment even if it does not qualify as achieving normotension/sustained normotension. It’s the issue of SBP and DBP as categorical vs continuous variables. Can the authors address this issue which comes up in multiple places in the paper.

Results – 436 GPs in the study but more than 1000 on GPRN. Clarify inclusion/exclusion criteria for GPs. Add number of visits per patient data – looks like about 10 on average.

Clarify baseline treatment.

Are the patients who are referred (or their GPs) different from the rest?

The paragraph starting - Antihypertensive drug treatment and BP control...... is hard to read and in some parts ambiguous.

The reader is referred to appendix 1 when the hierarchical model is discussed but there are no statistics in the results presented. There should be some or alternatively it could be stated that the statistically significant findings were .... as detailed in appendix 1.

Minor essential revisions

Abstract- results line 7 should be “electronic record BP recordings” as electronic recording could imply 24 hour ambulatory BP monitoring if someone only reads the abstract since 24 hour recordings are used in this context.

Change Figure 1 to consort diagram format

Redo table 1 to show medians and percentiles in an easier to read format.

Male patients with unknown lipid results (noted in results section) – could have perceived low risk, infrequent attendance or may not have had lipids measured
despite having SHT. This could be briefly addressed in the discussion.
Can you indicate effect sizes (%) – see variance of outcome measures under results.

Discretionary revisions
In background – paragraph 2 – in elderly renal impairment, multidrug therapy, dizziness and falls risk may limit treatment in hypertension
Data and methods – last line – could include general physicians here
Results – variance in achievement of normotension – paragraph 2- suggest “clinics with more than 20 SHT patients”
Discussion – Should at least mention patient compliance with multiple drug therapy – often control of BP improves if patients actually take the drugs eg in a Webster pack.

Tools for management need to be user friendly and readily available at the point of care rather than exhaustively comprehensive.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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'