Reviewer’s report

Title: Prevalence of the potentially inappropriate Kampo medications to be used with caution among elderly patients taking any prescribed Kampo medications at a single centre in Japan: a retrospective cross-sectional study

Version: 0 Date: 30 Jan 2018

Reviewer: Tetsuhiro Yoshino

Reviewer's report:

This article reports interesting topic, prevalence of potentially inappropriate Kampo medications to be used with caution in Japanese older patients.

I recommend authors to revise this article according to some points below.

Major revision required

page 6, Participants and inclusion criteria

- It is difficult to understand how long each patient' information was reviewed. I understood that the screened period was from Jan 1st to March 31st 2015. Then, how long did you review the chart? All of available charts or not? If the patient had long history before 2015, how did you deal with?

- Did you checked and included Kampo medications from other hospitals or clinics in your analysis?

- We can find a statement "OTC Kampo medications were excluded." Did you excluded OTC medications itself or patients who were prescribed OTC Kampo medications? Next sentence contains "also", so that the meaning is difficult to interpret.

- It is usually very difficult to collect complete information about medications from other institutions. How did you make sure that you did NOT have missing data?

page 8

Hypertension is one of indications of hachimijiogan sold by Tsumura. Therefore, I think that the definition of "uncontrolled" is crucial in this analysis, and I do not agree that the number itself mean "uncontrolled". If you do not have any data of blood pressure, one option is adding one
more criterion, "prescription period", in your definition of controlled or uncontrolled; e.g. if you could find that the patient was receiving 3 or more antihypertensive medications for 3 or more consecutive consultations, you defined the patient as controlled.

page 9, statistical analysis

I could not understand why you could "reduce selection bias" with your screening criterion.

In the same sentence, "three consecutive months" does not make sense for me. Is is Jan to March 2015?

Table 2
- You can omit "Male" row.

- The numbers of medications are discrete variables, and you need to be very cautious in calculating means. I believe medians with ranges would be better for discrete variables.

- The number of Kampo medication might be 1 for most of patients, and this would affect the regression analysis. The linearity of variable might not be achieved. You should also report the proportion of patients who were prescribed two or more Kampo medications, and consider using it as a binary variable in regression analysis.

Table 3
The total mean does not make sense for me. What is it? If the number is 0.263, it is just a proportion.

You can omit "used" from the sentence, glycyrrhizae radix for CKD or by loop diuretic user.

Did you know any cases who experienced side effect or adverse event with potentially inappropriate Kampo medications? It would be a non-surrogate marker in this analysis.
Minor revision required

In scientific article, it is better for you to avoid starting sentence with abbreviation.

page 6, line 105., page 8 line 129.
https://www.editage.jp/insights/scientific-writing-avoid-starting-sentences-with-a-number-or-abbreviation

page 8, line 131
Please consider my correction below.

used for patients with uncontrolled hypertension, or patients with tachyarrhythmia.
(Original sentence means that aconite composition is used for the treatment of hypertension, and I don't think it is what you meant.)

page 8, line 135
or patients with liver cirrhosis.

Table 1
sya -> sha; goshajinkigan and keishikashakuyakuto.

page 10, line 162-4
This sentence has two "(in order) to".

page 10, line 163 and table 4.
Multivariable and multivariate have different meaning. You might mean multivariable.
Many

baicalensi -> baicalensis

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**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:

Needs some language corrections before being published

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