Reviewer's report

**Title:** Diet quality is associated with malnutrition and low calf circumference in Canadian longterm care residents

**Version:** 0  **Date:** 23 Jun 2019

**Reviewer:** Hélène Delisle

**Reviewer's report:**

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* General comments

This study on a large stratified sample of senior home residents is very well done and the paper is well written (although further editing for English would be a plus). It is quite innovative as it examines diet quality in detail based on 3 non-consecutive 24h dietary recalls, and it connects it with nutritional status using appropriate methods while taking account of selected determinants. The literature review appears exhaustive and the discussion well done. A few minor issues need to be addressed, however.

* Specific comments

1. The M3 Project would need to be described in more detail.

2. Was CC correlated significantly with other nutritional status indicators? This simple analysis would be recommended and it would justify the use of "not surprisingly" on Line 250

3. Oral nutritional supplements were not taken into account to compute energy and nutrient intake. What is the rationale for this and how different would the findings be if these were included? If justified, the exclusion of ONSs in computing intake should be stated as a limitation of the study.

4. Study limitations are missing from the paper.

5. The adjustment for several variables needs to be better justified, and made clearer in table footnotes.

6. The authors should consider referring to the new Canadian Food Guide in their discussion.
7. Please limit the number of abbreviations.

8. The presentation of the tables needs to be improved.

9. In Table 1, does footnote b) really apply to CC? Please provide Cis for percentage values.

10. Table 3 would be clearer if the 'descriptive results' column were deleted. It is not necessary since these data are presented in Table 2.

**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.

Unable to assess

**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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