Reviewer's report

Title: Prevalence rates of foot complications in subacute inpatient rehabilitation facilities. A cross-sectional prevalence study

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Reviewer: Gordon Hendry

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Manuscript title: Prevalence rates of foot complications in subacute inpatient rehabilitation facilities. A cross-sectional prevalence study

Thank you for the opportunity to review this manuscript. It is well-written but could benefit from revisions which I have outlined point-by-point below.

1. Is the question posed by the authors new and well defined?
   Yes, but perhaps ‘to survey the rate of risk factors for foot infections/ulceration’ would be more appropriate.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   Yes.

3. Are the data sound and well controlled?
   Yes.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes, although the specific ethic committee that provided approval should be stated in the methods.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Yes, although I have made some comments as to where there should be some additional information concerning the limitations of the study and I have recommended re-wording of the abstract conclusion.

6. Do the title and abstract accurately convey what has been found?
   Yes, although the final sentence of conclusion of the abstract needs re-wording.

7. Is the writing acceptable?
   Yes.
Yes, the standard of writing is very good and only minor spelling/grammar revisions are required.

Major Compulsory Revisions

1. Abstract, conclusion, final sentence: Prevalence of foot complications/risk factors alone is not necessarily justification for screening. Is there any evidence to suggest that screening will result in alterations to care in these patients and subsequently result in reduced risk and improved outcomes? I don’t think that this sentence of the conclusion is supported by the study findings and should perhaps be re-worded to read more cautiously, and should acknowledge that further evidence of benefit from screening is required before such conclusions can be drawn.

2. Methods, 1st paragraph, 3rd sentence: “from the relevant institutional human research ethics committee” is too vague and the specific ethics committee that provided approval should be stated.

3. A general comment concerning the primary aim of the study (prevalence): This study design is effectively a cross-sectional survey which has used descriptive statistics to describe how many participants who attended the rehab centre within 2 4 week periods had risk factors for infection/ulceration. Does it truly assess prevalence of a condition? Prevalence usually a ratio to express the proportion of a population with a condition/disease such as number of cases with an ulcer per 1,000. The population studied here was at a single rehabilitation centre (not necessarily generalizable to the wider population of subacute rehab patients), and presence of 1 of a range of risk factors was used to class participants as having or not having a ‘condition’. The study should be framed more as a descriptive survey of risk factors at a single local centre, as opposed to a true epidemiologic study of prevalence.

4. General comment: The use of the term ‘foot complication’ is confusing. The use of the ‘risk factor’ for infection and/or ulceration should be used as ‘foot complication’ is ambiguous and should in my opinion only be used where the screening has been far more wide ranging/all-encompassing. For example, there are specific ‘foot complications’ that were not screened for in this study such as malignant melanoma. There is a predominant focus on diabetes and ulcers in this study - no doubt as a result of the origins of the QHRFF tool. It would be far more transparent to use specific terminology related to the infection and ulcer risk factors that were actually screened for. I recommend removing the ambiguous term ‘foot complications’ and replacing with “risk factors for infection and/or ulceration”.

5. Discussion: The authors mention resource strain and that there may be a need to screen subacute rehab patients for foot complications. Were any data collected to determine whether these patients were already having their feet screened/managed by podiatry services? It would seem like duplication of efforts to suggest that screening is required for all of these patients where they may have received routine diabetic or high risk foot screening conducted by
podiatrists. If data were not collected on this then recommendations as a result of these findings should be phrased more cautiously.

6. Table 2 and discussion: There is a high proportion of participants who presented with foot deformity, and I wonder how many of these were isolated cases of foot deformity that could skew your results. Normally foot deformity in isolation without at least one other risk factor (at least in the case of screening tools for diabetes) such as PAD or neuropathy would not be considered a risk factor. PAD and neuropathy are discussed at length in the discussion but not foot deformity even though this was one of the main complications found in this sample population. Perhaps an additional analysis that excludes foot deformity in isolation should be conducted to give a more adequate representation.

7. Table 2 and discussion: Could the authors comment on the reliability and validity of self-reported presence/absence of neuropathy and PAD using this tool? Are the authors sure the participants correctly understood the terminology? Surely the non-invasive examinations for PAD and neuropathy would be better than simple self-report.

8. Discussion: An additional paragraph outlining the limitations of the study in terms of the small sample size and single centre design are required, particularly if this is supposed to be representative of the wider population of subacute rehab patients. How representative is this single subacute rehab centre to rehab services in rural Australia, or even urban Australia out-with the big cities?

9. Title: This should be edited to read “Prevalence rates of foot complications in a subacute inpatient rehabilitation facility. A cross-sectional prevalence study” as participants were recruited from one single centre and the results are not necessarily generalizable.

Minor Essential Revisions

1. p6 Introduction, 1st paragraph, 2nd sentence: Is there any evidence to suggest that failure to address functional impairments in older people results in higher acute re-admission rates. The difficulty with this statement is that it is a broad sweeping claim made in the context of a discussion regarding chronic diseases and not one specific disease. I recommend re-wording or removing the 2nd part of this sentence.

2. p6 Introduction, 2nd paragraph, 2nd sentence: The grammar of this sentence is not quite right. ‘End stage renal failure’ is not an at-risk population.

3. p6 Introduction, 3rd paragraph, 2nd sentence: The end of the sentence should read “in one study [13]”.

4. p7 Introduction, 2nd paragraph, 1st sentence: Should the second aim be “to survey foot complications and risk categories” as opposed to provide baseline data?

5. p8 Methods, 2nd paragraph, 1st sentence: Why was data collection conducted
over 2 4-week blocks? Some justification or explanation would be useful to the reader here.

6. p8 Methods, 3rd paragraph, 3rd sentence: The QHRFF citation stated is 46 whereas the reference list only goes up to 37. Perhaps a minor c+p error?

7. Discussion, 1st sentence: Should read “multiple clinically diagnosed”.

8. Discussion, 1st sentence: Can you say these were clinically diagnosed complications when some of these were self-reported? Unless the self-reported complications were specifically verified by the diagnosing clinician, this sentence should be edited to read more conservatively.

9. Discussion, 1st sentence: I think there is use of interchangeable terminology here. Instead of saying foot complication placing them at risk – could this not be phrased as “at least one risk factor for developing a foot ulcer”? Indeed are these ‘foot complications’ or are they risk factors?

10. Discussion, p13, 2nd paragraph, 2nd sentence: It would be better to acknowledge the limitation of the study and omit the anecdotal hypothesis.

Discretionary Revisions

n/a.

**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