

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Epidemiology and disease burden of complex wounds for inpatients in China: an observational study from Sichuan province
AUTHORS	Jiang, Qingling; Dumville, Jo C.; Cullum, Nicky; Pan, Jay; Liu, Zhenmi

VERSION 1 – REVIEW

REVIEWER	Denis Anthony University of Derby UK
REVIEW RETURNED	09-Jul-2020

GENERAL COMMENTS	<p>This is an excellent paper. I have a few comments:-</p> <p>Page 4 line 7. they should be They line 27 wounds should be wound</p> <p>Page 7 line 29. labors should be labourers</p> <p>Page 8 line 13. LOS has been measured in matched samples and similar risk profile patients had higher LOS if they had pressure ulcers (Anthony DM, Reynolds T, Russell L. The role of hospital acquired pressure ulcer in length of stay. Clinical Effectiveness in Nursing. 2004;8(1):4-10.) - I am an author in this paper so there is a conflict of interest - please ignore this comment if you prefer to. line 46 ceteris paribus - most readers will not know of this Latin phrase page 7 line 7. effected should be affected</p>
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REVIEWER	Adrian Barbul Vanderbilt University Medical Center, USA
REVIEW RETURNED	23-Jul-2020

GENERAL COMMENTS	<p>This comprehensive review examines the prevalence of complex wounds in a hospital population Sichuan Province. The authors find that the commonest wound is pressure injury and that wounds increase hospital length of stay and costs.</p> <p>There are several issues to be addressed:</p> <ul style="list-style-type: none">- while I commend the authors on their efforts, this study has value for the local health authorities; it has been known for a while that wounds affect LOS/costs/outcomes and there is nothing specific about the findings here- the rate of pressure injury appears low and raises the question on how well the presence of wounds was captured
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	- including pre-existing wounds such as VLU and DFU with one assumes to be hospital acquired pressure ulcers muddles the conclusions and their overall value
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 (Anthony, Denis)

Please leave your comments for the authors below

This is an excellent paper. I have a few comments:

Page 4 line 7. they should be They

line 27 wounds should be wound

Thank you, and we revised them.

Page 7 line 29. labors should be labourers

Thank you, and we revised it.

Page 8 line 13. LOS has been measured in matched samples and similar risk profile patients had higher LOS if they had pressure ulcers (Anthony DM, Reynolds T, Russell L. The role of hospital acquired pressure ulcer in length of stay. Clinical Effectiveness in Nursing. 2004;8(1):4-10.) - I am an author in this paper so there is a conflict of interest - please ignore this comment if you prefer to. Thanks for your excellent paper but our target population is not hospital acquired pressure ulcers.

line 46 ceteris paribus - most readers will not know of this Latin phrase

Thanks, and we changed “ceteris paribus” into “controlling other confounders”

page 7 line 7. effected should be affected

Thanks, and we changed.

Reviewer: 2 (Barbul, Adrian)

Please leave your comments for the authors below

This comprehensive review examines the prevalence of complex wounds in a hospital population Sichuan Province. The authors find that the commonest wound is pressure injury and that wounds increase hospital length of stay and costs.

There are several issues to be addressed:

- while I commend the authors on their efforts, this study has value for the local health authorities; it has been known for a while that wounds affect LOS/costs/outcomes and there is nothing specific about the findings here

We thank the author for this comment. Whilst we agree that complex wounds are widely recognised as a serious issue for patients and health systems, we suggest the data presented are highly specific.

The information gap we seek to fill is on the specifics of wound epidemiology and burden in China. Currently there is almost no published wound-related epidemiological data on this large, national population. Published UK reports of complex wound epidemiological and associated cost data (published in this Journal) highlight this information can be influential in terms of research and also at a national policy level. This study is the first to present summary epidemiological estimates around complex wounds for the Chinese population: it raises important issue in terms of potential patient need and will seed further primary research.

We note that whilst these data are from one province in China — Sichuan; the population covered is 83.41 million people (in 2018) and considered fairly representative of the wider population in terms of distribution of population, GDP, healthcare facilities (see Figure A1 in APPENDIX). The size and scope of this work makes it one of the largest complex wound epidemiological studies undertaken to date.

It is for the reasons noted the findings of the paper are specific and make an important contribution to the literature.

- the rate of pressure injury appears low and raises the question on how well the presence of wounds was captured

Thank you for this comment.

The reported rates of pressure ulcers were 1.47 per 1,000 among inpatients and 0.07 per 1,000 among residents in Sichuan.

Recent estimates from the UK reported a point prevalence for community treatment pressure ulcer figures of 0.18 per 1000 (around double our community estimate). A point prevalence estimate of pressure ulceration across all care setting was 0.31 per 1000 people, about a fifth of our estimate.

So whilst the inpatient data doesn't suggest that the PU figures are comparatively low per se when contrasted with other estimates, we acknowledge that the community figures are those that are most likely to be affected by the limitations of these data.

As we mentioned in the "Strengths and limitations" part of our manuscript, the estimates of community prevalence may be underestimated and this is more acute for community treated wounds due to the inability in identifying those patients who may have had complex wounds that received care at outpatient sectors or/and did not receive inpatient care during the study period but were "self-treating". We cannot avoid these limitations because of the data used, we do flag the issue repeatedly and this highlights the need for more work in this area. We have removed the community prevalence estimates from the abstract to avoid undue focus on these in the evidence summary.

- including pre-existing wounds such as VLU and DFU with one assumes to be hospital acquired pressure ulcers muddles the conclusions and their overall value

We note that all people with complex wounds were identified using ICD-10 codes, which allows clear categorisation of the different wound types.

From available data we cannot identify whether pressure ulcers were hospital acquired or not. We have noted this issue in the "limitations" part of the paper.