Author’s response to reviews

Title: Discharge Outcomes Among Elderly Patients Undergoing Emergency Abdominal Surgery: Registry Study of Discharge Data from Irish Public Hospitals

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11th Jan 2020

Dear Editorial Office
I regret the late response to your request for modifications to our manuscript but I was unable to resubmit through the web pages during my vacation.

As requested I have not included the email of the corresponding author in the title page
The title page, abstract and declarations have been checked and re-uploaded
The map in Figure 3 are our own product based on the data. We have included a reference to the statistical software we used to produce this map.
The figures have been reproduced in high resolutions.

I did experience some difficulties in uploading these revisions and hope I have managed to do so to satisfy the requirements.

In relation to the received review comments our previous submitted comments appear below.

Kind regards
Jan Sorensen

17th Dec 2019:

Dear Alessandro Morandi,
Thank you very much for providing two sets of review comments on our manuscript submitted to BMC Geriatrics. We have carefully considered the comments and incorporated them into the revised manuscript as described below.
Reviewer reports:

Claudio Codignola, M.D. (Reviewer 1): Well conducted and solid study. Statistical analysis is correctly performed and results are interesting and could influence daily activities in surgery wards.
Response: Thank you
It should be very interesting to know something more detailed about the diagnosis and the surgical procedure adopted as well as the ASA score, but this is not possible, as stated by the Authors.
Response: We have previously reported the detailed information about the procedure codes which is available as online supplementary material for reference 8. To clarify the included procedures we have edited the text to:

Clinical experts defined procedure codes corresponding to emergency abdominal surgery based on the Australian Classification of Interventions in Health (ACHI). To be comparable with UK NELA work appendectomy, cholecystectomy, aortic and trauma surgical emergency procedures were excluded. The full list of included procedures is available as supplementary material in (8). Data on emergency episodes for individuals aged 65 years or older with these codes were obtained from the NQAIS database for the study period January 1st 2014 - December 31st 2018.

Regarding the ASA score we have included the following statement:
A five-category physical status score based on the American Society of Anaesthesiologists’ classification system (ASA) was missing for 16.8% of the episodes and hence was not included as a descriptive variable (mean score 2.9; SD 0.80; n=4119).
Minor criticism is about tables, since they should be reviewed by the Authors: in some cases the sum of partial percentage is not equal to 100. Please correct this or explain the reason why the total is not 100.
Response: We have verified and edited the data in the four tables based on the results from the statistical analysis. We have become aware of the potential violation of patient confidentiality from reporting groups with low number of patients. This applied in particular to table 4 where very few patients admitted from nursing homes were discharged to home or other hospitals. We had the choice of reporting these patients as “low number” which was our approach in the previous draft, but this would mean that the small numbers can be reconstructed based on subtractions of the reported numbers from the total sample size. An alternative approach would delete these participants from the analysis. We are uneasy with this approach as our aggregated number of patients will not match across the tables. Therefore we have solved the confidentiality problem by recoding the group of individuals and remarked this in footnotes to the tables. In that way we enable readers to confirm that we are reporting data for the full sample.
Thank you for the comments on Table 3. Some numbers were misplaced. The percentages show proportions of patients from different admission sources discharged to different destinations as intended.

Peter Svenningsen (Reviewer 2):

There should be a comment on the LOS before surgery, more than 5 days seems rather long for emergent surgery.
Response: We agree that pre-operative length of stay over 5 days is long time, however, it appears to be a feature of the current system which partly relates to the need for pre-operative diagnostics and stabilisation and generally scarce theatre capacity. We have inspected the pre-operative length of stay carefully and patients who wait more than 7 days for surgery are likely to be a special subgroup of
patients. In our exploration of the available data we have not been able to identify particular characteristics of this subgroup.

The comparison to the NELA population should be explained, what are the differences and what are the similarities, or excluded.

Response: As mentioned above we have now included text that emphasises that our aim was to identify a patient group that would be comparable with the UK-NELA work. However, comparisons and interpretations of the two data sources (Irish routine administrative data and UK clinical audit data) require careful considerations. We have revisited the formulations about this and believe that the wording expresses this sentiment.

In addition to these changes we have updated the reference list with reference 8 which has now been published.