Reviewer's report

Title: Fast track hip fracture care and mortality – an observational study of 2230 patients.

Version: 0 Date: 26 Oct 2018

Reviewer: Cecilia Rogmark

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The study is within the scope of BMC Musculoskeletal disorders; it adds important knowledge on the much popular - but little evidence based - principles of fast track care for hip fracture patients. The setting of the study with public healthcare, well-functioning national registers and personal ID number is optimal for an observational study.

The major concern is, to me, that the authors pull out the patients with optimal fast track care and draw the final conclusion on them. That organizational obstacles lie in the way for a 100% functioning fast track are more the rule than the exception in everyday work. Therefore, I think the fast track group should be analyzed as a whole, at least in the main conclusions. That some patients with a particularly "lucky" path through the hospital will have better outcome is quite obvious. I also consider it remarkable that admission time is reported as a result in Table 6, when it in fact is the definition of Fast track admission group (<60 min).

I can't understand in which group patients excluded due to medical conditions, high energy trauma, other fractures or neurovascular injury end up. Are they part of the control group, as they don't receive fast track care, or are they totally excluded from the current paper. How many are they? I think a more detailed information on this group, who may suffer higher risk of mortality, will increase the reader's chance to compare with other cohorts.

I think both the current paper - to some extent - and the cited literature are influenced by temporal trends. The mean time to surgery in the control group of 25 hrs are low in comparison to national standard in many countries, and lowering it to 23 hrs doesn't make that big differences. I.e. the conventional care in Norway in the 2010s seems to be of such high standard that there is little room for improvement. One can compare to Pedersen's study from Denmark, conducted 2003-2004 starting with the improvable LOS 15 days and 1-year-mortality of 29%. Regardless of the authors agree on this speculation or not, a bit more clinical perspective would add value to the paper. Should we bother to do fast-track? Can we improve hip fracture care by other means?

Reoperations and infections: As reoperation reporting to the NHFR were only 2/3 for internal fixation and infection were not gathered for internal fixation of femoral neck fractures, why didn't the study include a search of the medical records for these important complications? The different degree of completeness for different procedures could at least be discussed, limitation?
To conclude; as much as I understand that the authors are eager to show a benefit of the fast-track concept (is it a post-hoc analysis of the "fast track admission group"?), maybe the continuous improvement of hip fracture care in Scandinavia during the last 15 years is the plausible explanation for the negative result in both this and other contemporary studies* over the topic? If the authors agree this may be added to the Discussion.


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.

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 recommend additional statistical review

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