Reviewer’s report

Title: Differences in pain treatment between surgeons and anesthesiologists in a physician staffed prehospital emergency medical service: a retrospective cohort analysis

Version: 0 Date: 21 Nov 2018

Reviewer: Sujoy Banik

Reviewer's report:

I thank the editorial team for the opportunity to review the work done by the authors and I commend the authors on their excellent work. Pain management is always an issue at every level, and prehospital management of pain has its own challenges, significantly the monitoring available, the personnel who can do and interpret monitoring effectively, and multi-factorial causes of pain, along with the treatment of the actual complaint for which care was administered.

I’m surprised to see a slightly older population of emergency physicians, mean age 41, my experience in a developing country was that emergency physicians are usually younger (mean age 25-30), and the job is usually treated as a stop-gap before actual residency/postgraduation. This should mean that the physicians managing prehospital care in Germany should be relatively experienced and able to manage most conditions more effectively. The presence of physicians themselves in EMS is quite commendable. Also, I wish to note that surgeons are not taught the same way about opioid prescription as anesthesiologists. Was there any data about any other NSAIDs like diclofenac or ketorolac been given? In my experience, surgeons tend to be quite familiar with those medications than opioids. Also, is there any data about the actual pain experienced in terms of actual scores? Just the mere fact of documentation and treatment does not qualify as proper treatment. Were the NRS scores lower after the administration? Also, a lot of patients don’t have their end GCS scores present (48%). I would think that would have to be essential to handover to the treating team. Is there any data about respiratory rate? That would have been documented hopefully, but has not been commented on in the study. Did the heart rates or BP go down after pain relief drug administration?

Also, I would like to understand the effect of female physicians. Did they order more or less opioid, and did that factor as surgeons/anesthesiologists?

With the amount of documentation non-compliance, I’m not sure what meaningful data interpretation can be factored in to improve outcomes at all levels. What were the factors for non-compliance? For example, would a handover sheet mandatorily filled out improve this compliance? Again increasing paperwork usually decreases actual care. That’s just one suggestion from my side though.
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

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Yes

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