Reviewer’s report

Title: Gabapentin in procedure-specific postoperative pain management - preplanned subgroup analyses with meta-analyses and trial sequential analyses

Version: 0 Date: 17 Feb 2017

Reviewer: Nathalie Clavier

Reviewer’s report:

This meta-analysis study attempts at examining the relative effects of perioperative gabapentin depending on surgical procedure.

It is a pre-planned subgroup analysis from a general systematic review, which completes its previously published results (ref 13), with clear and well supported conclusions.

These results deserve to be published, as they differ markedly from number of publications addressing the same issue, probably due to the high quality of the methodology used.

However, the presentation of the results is somehow misleading. The authors include the results with "all trials" (that is, including the vast majority of high risk of bias trials) which is confusing: these trials with high or unclear risk of bias were not supposed to be included in the analysis. Thus showing figures including all trials is misleading. In addition, the manuscript would be far easier to read if the results included only the analysis based on low-risk trials.


Background, page3 , line 30 reference 13 should be quoted "In a recent systematic review …"
In addition, in this introduction, the authors should recall the main results of their general review "Firm evidence for use of gabapentin is lacking as clinically relevant beneficial effect of gabapentin may be absent and harm is imminent, especially when added to multimodal analgesia. »

Methods, page 5, line 42 : the authors should explain the reason for their choice of surgical procedures and state why they added post-oc subgroups (thoracic surgery and orthopedic arthroplasty surgery)

Results, page 10, the serious adverse events should be described.

In the discussion p13 line 32-35, I don't understand the sentence "Our selection of surgical subgroups was based on a clinical hypothesis reported by previous studies, and several systematic reviews report similar findings". The selection of subgroups is not a finding, it is a protocol decision.

References :

Ref 21 and ref 17 are identical

Ref 70 and 71 are identical (Pandey CK, Priye S, Singh S, Singh U, Singh RB, Singh PK. Preemptive use of gabapentin significantly decreases postoperative pain and rescue analgesic requirements in laparoscopic cholecystectomy. Can J Anaesth 2004; 51: 358-63), and there is one missing reference, quoted as Pandey 2004c in the tables (Pandey CK, Sahay S, Gupta D, Ambesh SP, Singh RB, Raza M, Singh U, Singh PK. Preemptive gabapentin decreases postoperative pain after lumbar discoidectomy. Can J Anaesth 2004; 51: 986-989). The reference quoted as "Pandey 2004a" in the tables should be quoted as "Pandey 2005"

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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