Reviewer’s report

Title: Phenytoin versus Leviteracetam for Seizure Prophylaxis after Brain Injury - A Meta Analysis

Version: 1 Date: 21 March 2012

Reviewer: Judith Marcoux

Reviewer’s report:

General appreciation:
1) The meta-analysis proposed by SN Zafar et al. to compare the efficacy of Phenytoin versus Leviteracetam in preventing seizures addresses a very contemporary issue in neurosurgical care. As shown in recent literature on the subject, the traditional Phenytoin is being progressively replaced by Leviteracetam for seizure prophylaxis in neurosurgical patients, without scientifically sound proof of a superior efficacy of the newer, and more expensive agent. Trying to cumulate all the available data comparing the two agents is therefore useful.

2) The literature search is exhaustive, the methodology detailed, and the analysis is overall adequate.

Minor essential revision:
3) in the pdf document, the methods section was after the results. THis has to be corrected

4) p 5 and p 8 of the manuscript: the term "early seizure" is not used in a standard definition here. Early post-traumatic seizure are define as occurring within seven days and late after seven days. there is no such clearcut definition for other neurosurgical pathologies. The analysis of the publicated data renders the use of that definition difficult since many papers use different definitions. The authors choose to use a compromising solution with late seiarues defined as after 1 month. This is a limitation of the meta-analysis and should be emphasized more in the discussion; or even better try to have results for seven days. The duration of therapy is of paramount importance to the occurence of side effects.

5) a major point of comparison that is lacking here is the cost-effectiveness of both therapies. This point should be elaborated in the discussion.

6) page 7 of the manuscript, last paragraph, line 5, there is a typo: it should be "studies" and not "studied"

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests