Reviewer's report

Title: Predictors of pain intensity and persistence in a prospective Italian cohort of patients with herpes zoster: relevance of smoking, trauma and antiviral therapy.

Version: 2 Date: 30 May 2010

Reviewer: Wim Opstelten

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Major Compulsory Revisions:
1. Out of 519 patients, 37 patients (9 insufficient data at inclusion, 28 consent withdrawal during follow-up) were excluded. Which were the demographic and clinical data of those excluded patients in comparison with the included patients and which were the demographic data of those patients who refused enrolment in the study (to assess the possibility of selection)?
2. The authors collected data at enrolment and at 1, 3, 6 and 12 months. They do not report, however, the data at 6 and 12 months. What is the reason for this?
3. Measurement of pain: the patients were asked to report on the worst pain intensity experienced since their last visit or phone call. As the measurement moments had broad time intervals, there is a high possibility of recall bias. Moreover, this may have resulted in an over-estimation as a severe pain experience in the beginning of a broad time-window will be carried forward to the following endpoint.
4. It is a shortcoming, that the duration of prodromal pain, the severity of rash, and the time between the onset of the rash and the first consultation have not been entered in the model. Have any of these data been collected?
5. The author report that there were less than 5% missing values. As the tables only show percentages (and not numbers), this cannot be checked by the reader.
6. Could the association between acute pain and trauma have been caused by recall bias?
7. The design of this study does not allow to draw any conclusion about the effectiveness of antivirals with respect to pain. An RCT would be the appropriate design.
8. Did the authors consider using techniques for validation of their prediction model (i.e., bootstrapping)?

Minor Essential Revisions:
1. What means the abbreviation PRC (pain relief centre)?
2. Could the authors give a more precise definition of malignancies (present, in the past, disseminated, including minor (dermatological) malignancies?), neurological disease (e.g. also minor diseases as carpal tunnel syndrome?) and
depression or psychiatric illnesses? Were those co morbidities checked in the patients’ files?

3. The description of the statistical data analysis is very difficult to read and to understand. Could the authors rephrase this section?

4. What do the authors mean by ‘independent study design’? Do they mean that the study has been designed and executed independently (e.g. of a pharmaceutical company)?

5. The authors state, that any selection of study participants is unlikely because there are no epidemiological data. Especially in the absence of such data, however, selection can not be excluded.

6. ‘Trauma or surgery at the site of HZ already emerged as a predictor…’ I prefer ‘has been suggested’.

7. Table 1: as noticed before, I prefer the numbers of patients with the concerning variables in stead of only the percentages. 31% of all patients previously had a surgical intervention at the HZ site. Isn’t that an implausible high figure in this predominantly healthy population?

8. Table 2: the use of analgesics does not seem a very discriminative variable as it is in fact a consequence of the severity of pain.

9. Table 2: it has formerly been reported that elderly have less severity of acute pain. Could the authors discuss this issue?

10. Table 3: in their discussion, the authors confirm age as an independent predictor of PHN. Table 3, however, does not show statistical significance at this point.

Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.