Reviewer’s report

Title: Evaluating integrated headache care: A one-year follow-up observational study in patients treated at the Essen headache centre

Version: 1 Date: 16 August 2011

Reviewer: Andreas R. Gantenbein

Reviewer’s report:

This is a report about an integrated headache care model for difficult to treat chronic and episodic headaches. The presented data of 841 out of 1871 such patients may be a valuable set of information to their treatment strategies. The paper is well written, however it tends to struggle with usual problems of descriptive statistics and missing values. At some stages the reviewer was confused by the different numbers and definitions.

Some points should be specified to the reviewers view:

- the "intention to treat" information of all 1871 patients first visits should be available and would be very valuable in the interpretation of the data.
- it is not clear how many of the 841 patients underwent multidisciplinary treatment (362 psychologist, 91 physiotherapy, 274 MTP). What is the overlap, maybe a circle graph would help
- is there a benefit of the MTP in comparison to neurologist only? the drawn conclusion of >50% headache reduction of multidisciplinary treatment might not be appropriate (as used in the manuscript), as the number includes also the patients only seen by the headache specialist? (306/841, who are the patients?).
- the distribution of episodic and chronic headaches is only touched briefly in a small paragraph. The two groups might be described in more detail in clinical characteristics, instead of giving mean headache frequency.
- definition of different (chronic) headache types might be controversial, however clear definitions should be used throughout the paper (i.e. chronic migraine instead of TTH + Mig)
- the reviewer would be interested in the distribution of the source of referral, i.e. how many patients have been sent by the insurance companies, how many of those have been chronic/prechronic/MOH?
- although data is available for 3 and 6 months, there is not much difference. therefore for reasons of clarity it could be omitted.
- The fact that high frequency headaches have a better outcome than low freq headaches is a matter of statistics and not surprisingly.
- and finally one of the major findings of the study is also only briefly touched. the rate of 90% MOH-treatment success is astonishing and needs more discussion,
especially as the low-edu covariate most probably has not changed during that time.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.