Reviewer's report

Title: Surgery is more cost-effective than splinting for carpal tunnel syndrome. Results of an economic evaluation alongside a randomized controlled trial.

Version: 1 Date: 27 April 2006

Reviewer: Vilh Finsen

Reviewer's report:

General This is a worthwhile question to investigate, but I find the resulting paper disappointing. Furthermore, there is a lot of cost-benefit technicalities and jargon that I am unfamiliar with, as will be probably 95% of orthopaedic surgeons reading the paper. I am unsure whether this is the right place to publish such a paper. It seems odd that so few patients should be considered for inclusion in 13 hospitals during such a long time. How were they selected *for consideration* for inclusion?

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

I have two main objections to the study.

1: The costs of surgery are either incorrect or they are so abnormal in Holland that they are without interest for anyone living in another country. In Norway the cost of surgery (to the health service or private hospital) would be at least 10 times higher than the 70 Euro used in this paper. In Norway this would be the sum the patient had to pay himself. The national health insurance would pay the rest. Is 70 Euro the actual cost of the operation?? This is of some importance at the only difference in cost detected by the authors is the direct medical cost.

2: My other main objection is that although the number of diaries not returned is accounted for, there is no mention of the completeness of the returned diaries. Were the patients told to tick each day if no costs had been incurred, or did they more likely wait until the day before they were to return for review and then try to remember all that had happened since they were there last. Is this the reason, for instance, that a fairly high proportion of the patients who were operated had no sick leave at all. Did they actually go to work, leave for the hospital and be operated, and then return to work the same day. It seems unlikely.

It is not a very important point, but I prefer to have "worst imaginable pain" at the end of the VAS scale rather than "very severe symptoms". The authors may consider changing this in later studies.

Do the authors mean i.e. or e.g. before over-the-counter medicine on page 5.

In a journal meant fairly for general orthopaedic surgeons without intimate knowledge of cost-benefit analysis is would be appropriate to give some indication of the meaning of "shadow price", "bootstrap confidence intervals" and other specialized terms, even if a reference is given which presumably explains it.

The first sentence under the heading sensitivity analysis is badly frased and should be broken up and rewritten.

A lot of new information is given in the discussion section which should be moved to the methods section.

Table 2 is very hard to understand. To begin with I thought this might be data from the start of the study, and that the authors thus had made a mistake putting them in this table (Waking up 3-4 nights each week, etc). After a great deal of thought I have started to wonder whether it perhaps is the mean change at 12 months compared to values at inclusion. The reason it looks odd is that we are not told how often they woke up initially. This table needs to be revised.

It looks odd in table 3 not to have a column showing the differences like in tables 2 and 4.

The upper right hand box in figure 1 does not make it clear how many patients refused to continue the treatment because of a strong preference for splinting and how many because of a strong preference for
surgery.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

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

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests