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: 31 March 2006

Reviewer: Robert A Werner

Reviewer's report:

General

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

The authors describe a cost benefit analysis of surgery versus splinting in the Netherlands. The RCT did demonstrate that surgery was more effective than splinting. In the Netherlands the costs of surgery are actually less than the cost of a custom splint. This cost comparison does not hold up outside of the Netherlands. In the United States the costs of CT surgery range from $1,000-8,000 and the cost of a custom splint is approximately $150 (an off the shelf wrist splint is only $15). Thus the cost benefit analysis is limited to the Netherlands and perhaps western Europe but not North America. These issues must be discussed in the limitations of the paper. The authors use data from the United States, i.e. the American Academy of Neurology Practice Parameter, to bolster their conclusions but do not address the how this data is not generalizable.

Additionally, the lost time at work is similar in this cohort for the splint group and the surgery group. However, when outliers are removed the surgery group had a 9.2 days of work lost compared to 3.1 for the splint group. The analysis should be re-run with this subset of participants. In the US the average lost time from work due to CTS is 28 days and this is primarily driven by post surgical care. This would greatly influence the cost benefit analysis in other countries.

The strengths of the study include a relatively large sample with excellent follow-up and was run as part of a RCT. The limitations of the study are not addressed and thus the conclusions may be interpreted as fact whereas they are very limited in how they can be applied to other countries.

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 whose findings are important to those with closely related research
interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

'I declare that I have no competing interests'