Reviewer’s report

Title: Does using a femoral nerve block for total knee replacement decrease postoperative delirium?

Version: 2 Date: 17 January 2012

Reviewer: Allan Gottschalk

Reviewer’s report:

Minor Essential Revisions
1. This is a paper about total knee replacements. However, on p 8 the reader is told only that there were 674 subjects undergoing noncardiac surgery. How many of them underwent TKA? This helps to get at issue of bias that can accompany a nested case control design. Once this is made clear, some mention about potential bias of this type of study should be given in the paragraph on limitations of the study.

2. The fact that between the initial submission and current one additional data was incorporated and analyzed, bringing the results to significance needs to be addressed. The years that data was acquired in the Results section, and fact that a trend was seen and this led to the more complete analysis. Some mention of this should also be in the study limitations. This relates a bit to the "multiple looks" issue when performing a study. The reader should at least be aware that this did take place.

Minor discretionary

Although the data seem to support the hypothesis that regional adjuncts reduce postoperative delirium, the only opioid sparing effect is seen during surgery, and there appears to be no difference in subsequent pain or opioid consumption. Although the data is not available, it could well be that the amount of sedation/anesthetic levels were reduced in the nerve block group (as reflected by the reduced opioid requirements). This would be consistent with the observations of Sieber et al, now cited. However, this explanation may not work either as there were no differences between regional/general. Presumably, the femoral nerve block would add little to the epidural/spinal. Just trying to broaden the interpretation of the results...

Level of interest: An article whose findings are important to those with closely related research interests

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'