Reviewer's report

Title: Cotrel-Dubousset instrumentation for the correction of adolescent idiopathic scoliosis. Long-term results with an unexpected high revision rate.

Version: 1 Date: 6 February 2012

Reviewer: Jens Ivar Brox

Reviewer's report:

Major Compulsory Revisions.

First, this is not the first 10-year follow-up. The first was published by Bjerkreim et al. in 2007. The conclusion is not supported by the data. The present study is a small retrospective review of 40 patients and only 35% reported patient related outcome which means that SRS-24 is not valid for the whole sample. The poor results may be related to the surgical method applied, to patient selection or to the surgeons conducting the operations. This is not discussed. Reference to other surgical methods has not been made. The best design to evaluate one particular intervention or method is the randomised trial. The design of the present study is weak and no firm conclusion can be made, but the authors should be able to better discuss their results. From the literature discussed, the reoperation rate is variable but low in most studies, in particular in the large studies. The present study reports the worst results of all, and most likely this is attributed to patient selection or the surgeons. As compared with Bjerkreim operation time was 325 min versus 202 min, and 13 versus 9 segments were fused, the age of the patient was 16 versus 16.8, 23/40 versus 99/100 had King-Moe II-III, the major curve was reduced 48% from 69 degrees versus 66% from 56 degrees. In particular the discussion and the conclusion in the manuscript and the abstract needs a major revision.

Minor essential revision: The primary and secondary goal of the study is not stated, just that the authors conducted a retrospective study. The treatment method and the patients is adequately described, but SRS-24 is not described. The authors should delete the analysis of predictors from results since this is not described in statistics and the sample is too small to draw any conclusions. Writing is acceptable.

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.