Reviewer's report

Title: Preoperative assessment and evaluation of instrumentation strategies for the treatment of adolescent idiopathic scoliosis: computer simulation and optimization

Version: 1 Date: 30 August 2012

Reviewer: Nachiappan Chockalingam

Reviewer's report:

Introducing patient specific models for designing treatment intervention is a novel approach and various groups are working in this area. Although, this is a well written report, I would like the authors to consider the following points.

Background: The manuscript will benefit from a paragraph highlighting the usefulness of patient specific models. Provide a succinct review of your previous work and the origin of the model that you have within this study.

Methods: I suggest that the authors should consider subheadings within this section which will make the section easy read for clinical practitioners.

Discussion: Please highlight that this is a “case series” analysis than a “full study”.

Line 7: “thus impacting” – please check and rephrase this sentence.

Line 10-12: This is an important finding and I suggest that the authors should further discuss this and relate it to clinical practice

Last paragraph: This again is an important point for discussion. The authors should clearly highlight and discuss the limitation. Whilst the authors have attempted to discuss this – the manuscript will benefit from a clearer description with a focus on clinical practitioners.

Conclusion: Line 1. Avoid “ours”. Rephrase to “This study...”

Level of interest: An article of importance in its field

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'