Reviewer’s report

Title: Comparison of tonic spinal cord stimulation and high-frequency and burst stimulation in patients with complex regional pain syndrome: a double-blind, randomised placebo controlled trial

Version: 1 Date: 29 March 2015

Reviewer: Rod Taylor

Reviewer’s report:

This manuscript describes the protocol for a double-blind randomised trial comparing usual (tonic) SCS to high-frequency and burst stimulation in patients with complex regional pain syndrome.

The paper is well written. However, there are few issues that need clarification:

- Outcomes: (1) the protocol describes 3 primary outcomes yet sample size calculation considers only one (pain VAS); (2) medical history, physical examination are not (secondary) outcomes; (3) provide definitions for stimulation evaluation and medication consumption will be assessed; (4) it is implied that walking test will only performed if the lower extremity is compromised – clarify if only applied in this subgroup or all patient; (5) physical activity level of a patient – again needs some definition; (6) clarify if the outcome questionnaire is patient completed or researcher administered.

- Design: (1) Is 2 weeks cross-over duration sufficient? And 2 day wash out sufficient? These timings need some statement of support for their adequacy; (2) provide evidence/citation for correlation of 0.6; (3) why is a period of standard stimulation needed?

- Data analysis: (1) how attrition be handled? (2) clarify if analysis will take account of the two SCS naive vs. SCS failed patients – one would expect that they may have different responses to neurostimulation effect – lack of power; (3) the value of T2 assessment is unclear

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'