Reviewer's report

**Title:** A Within-Subjects Trial to Test the Equivalence of Online and Paper Outcome Measures: The Roland Morris Disability Questionnaire

**Version:** 1 **Date:** 5 February 2010

**Reviewer:** Chad J Gwaltney

**Reviewer's report:**

This is an interesting and important study examining the equivalence of paper and online versions of the RMDQ. The experimental design is appropriate and it is described in sufficient detail. There were only a few limitations of the study and manuscript.

There study did not seem to control the timing and order of questionnaire completion. If patients did not complete the questionnaires in the clinic, there does not appear to have been any way to verify whether the instructions regarding administration order were followed or how long the interval was between completion of the first and second administrations. Is it possible that a patient could have completed them at the same time, i.e., fill out one item online and then complete the corresponding paper item at the same time? This lack of experimental control is an important limitation.

**Minor essential revisions:**

1. The comparison of mean differences and Bland-Altman plot are appropriate methods for analyzing the data. However, calculating an ICC may also be useful, as it provides a straightforward quantitative metric of equivalence that, unlike mean differences, accounts for changes in an individual's responses.

**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 am a consultant to invivodata, inc., which provides electronic data capture technology for clinical trials.