Reviewer's report

Title: Muscle recruitment patterns during the prone leg extension test.

Version: 1 Date: 8 December 2003

Reviewer: Alison McGregor

Reviewer's report:

General
Abstract
No clear statement as why it is important to assess activation patterns during leg extension or the clinical relevance of this.
You mention asymptomatic but asymptomatic of what no really clear here or later what you mean by this a statement of exclusion criteria would help.

You alternate between describing the test as a prone leg extension and then a prone leg raise task, which one is the most accurate description of the movement performed?

Introduction
This can be cut down substantially.
You need to clarify what type of musculoskeletal dysfunction you mean, and what body regions if you like may influence the leg extension task.

In the 2nd paragraph of the intro you make a lot of statements and discuss theories but provide no origins or references if you prefer for these theories are we simply talking clinical beliefs or has there been science behind these theories.
Also when you talk of tightness do you mean shortening or spasm or purely inflexibility?
The paragraph describing Bullock-Saxton paper and then the Vogt Banzer paper are both too detailed and too long and can be condensed considerably as much of the information is irrelevant.

Methods
Need more details of study population inclusion exclusion. How did you know none had a chronic dysfunction pattern resulting from say back pain 5 years ago?
Did you exclude hip and knee injuries and SI injuries?

EMG Processing
Why was 10% considered the cut off level.
What were the resting levels of activity ie before the task was performed.
Why were 5 repetitions of the task chosen?

Results
Were the activation results consistent for each person for each of their 5 trials?
Last sentence of results should really be in discussion.

Discussion
1st paragraph would have been more useful to set the scene for the study in the introduction.
You lose me on the last paragraph particularly the sentence “Even if a delay of approx 200ms in the gluteus..............that incorporates EMG.
What other functional testing procedures are there that don't include EMG?
Conclusion could be more concise by leaving out the last 3 sentences.

Discretionary Revisions (which the author can choose to ignore)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
See above
The case for this study and the important of the findings need to be argued more convincingly, at present there appears to be no relevance as to why this study was performed.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

Statistical review: No