Reviewer's report

Title: Clinical Attributes for the Conservative Gait Pattern in Diabetes

Version: 2 Date: 2 December 2008

Reviewer: Smita Rao

Reviewer's report:

Minor revisions:

Introduction:
1. “There are conflicting reports on the roles of neuropathy, age, and limited mobility in adopting a conservative gait strategy.”

Not enough evidence in the Introduction to support this statement.

2. “While patients with diabetes may adopt this more conservative gait pattern, we are not aware of any studies that looked at individual attributes in a multivariate model within this specific population”

Please clarify individual attributes of what?

3. Please remove sentence about fall risk. Fall risk is not quantified or assessed in this study.

Statistical Analysis:
This is certainly not a fatal flaw but I am curious as to why the authors did not use walking velocity in their multivariate regression model. Walking speed seems to have a large effect size (between groups comparison) and may have improved precision of the estimates even if walking speed, in and of itself, is not one of the primary variables of interest.

Discussion:
1. “The prevalence of conservative gait in our cohort of elderly diabetic veterans was 26% indicating a dramatic need for clinical tools to predict and address fall risk in this population.”

Please eliminate “indicating a dramatic need for clinical tools to predict and address fall risk in this population”. Fall risk was not assessed in the study. Neither was the relationship between gait pattern and fall risk examined in this study.

2. Unfortunately, the discussion seems to have lost much of its coherence. May I respectfully suggest a different strategy to organize the results:

- First paragraph: Description of differences between propulsive and apropulsive gait patterns. Comparisons to literature etc.
- Second paragraph: Discussion of weaknesses and limitations
• Third paragraph: Discussion of multivariate analysis, highlighting the importance of age; the small but statistically significant contributions of ankle mobility and presence of callus. Contrary to current clinical rationale, neuropathy did not emerge as significant predictor of a conservative gait pattern. Discuss possible reasons.

• Fourth paragraph: Discussion of clinical implications.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.