Reviewer's report

Title: Combined effects of functionally-oriented exercise regimens and nutritional supplementation on both the institutionalised and free-living frail elderly (double-blind, randomised clinical trial)

Version: 2 Date: 22 April 2008

Reviewer: Steven J Stanhope

Reviewer's report:

- Minor Essential Revisions

1) Change the number of study participants to the number that completed the study. Eliminate statements that the four groups were of equal size.

2) The conclusion that only multi-factorial interventions have clear potential for appreciably improving overall functional status of elderly is not supported by the reported effort. Develop a conclusion that relates to the findings of the reported study such as task specificity (strength training increased strength but not function, Functionally-oriented exercises increased functional scores and not strength.

3) The description of the effort to double-blind the study should be restated. While there was an adequate attempt to blind staff to the interventions, it is certainly feasible that staff within any facility or region may communicate and share the nature of the intervention being delivered. Thus, inferences could have been made.

4) Clarify the list of subject inclusion (numbers 2 and 6) and exclusion criteria (numbers 1 and 6.

5) Eliminate the redundant information (inclusion criteria) under overall assessment of physical function.

6) Describe how the dynamometer (a force measuring instrument) was used to measure joint moments in (N.m). Correct any discrepancies that may exist in the force units.

7) Describe the selection criteria and characteristics of the four exercise bands.

8) Describe the resistance exercises and lower limb positions. Consider providing a figure depicting the exercise elements.

9) Eliminate the excessive justification material under the structured exercise regimens and replace the material with a detailed description or table containing information on the actual exercises.

10) Repeat the request under number 9 above for the methods section related to Functionally-oriented exercise and standard exercises.
11) Eliminate the excessive justification related to the use of NUTRICIA. State a brief summary of this delimitation in the discussion section.

12) Eliminate the first paragraph in the results section.

13) Eliminate Figure 1. It provides redundant summary information.

14) On page 20, the reference to gait speed studied by others is in fact relevant to the focus of the manuscript since the 6MW test is a measure of average velocity (distance/time=average rate) and may be compared.

15) The last paragraph on page 20 provides little insight into the results of the study and should be eliminated.

16) References to “flawed” methodology must be eliminated. Certainly, methodologies of other studies (much like the one being reported) may be limited in their scope.

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.