

Post DCU Research: Recommendations for future research

In light of the limitations to the present study (page 7) future studies should investigate the effectiveness of the ATM^{®2} over more realistic treatment durations with exercise programmes tailored to the needs of the patient/subject. The specifics of the exercise programme, in light of the patient's specific pathologies, require study. This could be facilitated by adopting a long term strategy of encouraging clinicians to record each patient's presenting pathologies (standard format), their capacity on a number of simple functional tests (e.g. pain in standing, range of trunk motion and pain during range of trunk motion test) and outcome of treatment (e.g. functional capacity questionnaires).

The treatment should be compared to other clinically adopted treatment modalities (e.g. education, exercise, manipulation, massage, transcutaneous muscle stimulation), employing a randomised controlled design. Outcome measures either identical or similar to those in the present study could be employed. Torenbeek et al. (2001) and Wood-Dauphinee (2001) provide reviews of the use of various outcome measures in the evaluation of low back pain. In the comparison with other treatments the following issues should be addressed:

- clinical effectiveness
- cost-effectiveness
- the influence of directed (patient) self use on the patient's capacity to recover in light of the increased access to treatment (the equipment) and self empowerment during the rehabilitation process
- the influence of directed (patient) self use on the clinician's potential ability to increase the number of treatments/patients and the clinician's perception of their role.
- appropriate number and type of treatments in light of the different presenting pathologies

The treatment should be examined in light of its effect on:

- lumbo-pelvic stability
- specific muscle hypertrophy
- altered muscle recruitment pattern
- atrophy of passive tissue (e.g. ligaments, cartilage)
- altered vertebrae orientation