

## Roberta L. Ainsworth - Publications

### Physiotherapy rehabilitation in patients with massive, irreparable rotator cuff tears.

Ainsworth, RL. (2006).  
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#### **Abstract:**

**Background:** Massive rotator cuff tears provide a challenge for effective rehabilitation. Work has been ongoing at Torbay Hospital, Devon since 2000 to develop an exercise programme for the management of this patient group. This programme has been evaluated in a pilot study and a further randomised controlled trial is currently taking place which will enable us to estimate the treatment effect. This paper discusses the background to the development of the rehabilitation programme, the programme itself and the results of the pilot study. The pilot study was an evaluation of the rehabilitation programme.

**Objectives:** This study examined the effectiveness of a physiotherapy regime for the treatment of patients with massive rotator cuff tears.

**Methods:** Patients identified through primary and secondary care referrals to physiotherapy with a clinical diagnosis of a massive rotator cuff tear underwent an ultrasound scan to confirm the diagnosis. A massive cuff tear was one where the leading edge of the tear had retracted past the glenoid margin. The clinical diagnosis was based on the presence of some or all of the following signs: positive humeral thrust on elevation, gross weakness and wasting of supraspinatus and infraspinatus, infraspinatus lag and rupture of the long head of biceps. Eligible patients were invited to take part in the study and informed consent was obtained. The baseline assessment was carried out and then the patient undertook the treatment programme. Outcome measures were reassessed 12 weeks from the baseline assessment.

**Design:** A cohort study of 10 patients evaluating the change from baseline to twelve weeks in the shoulder function of patients undergoing a programme of anterior deltoid strengthening and functional rehabilitation. The outcome measures used were the Oxford Shoulder Disability Questionnaire (OSDQ) and SF36. The OSDQ is validated for use with the UK population and has 12 questions with 5 point responses. The lowest (best) score is 12 and the highest (worse) score is 60. Results: Scores on the OSDQ improved with all patients. The mean improvement was 9 (range 3 to 16, standard deviation 10.3). The SF36 showed an improvement in the pain scores for all patients (mean 22 points) and an overall improvement of 10 points for the sections on role limitation due to physical health. There was an overall decline in perceived general health (9 points) and in role limitation due to emotional health (23 points).

**Conclusions:** As all 10 patients showed improved scores on the OSDQ, in spite of the long-standing nature of many of their shoulder problems, this rehabilitation programme was shown to improve shoulder function in this group of patients. The variation shown in the quality of life scores reflects the age group of this cohort who had a mean age of 75.5 years. All patients deemed their pain and function to have improved over the three-month period.