Progressive exercise compared with best-practice advice, with or without corticosteroid injection, for rotator cuff disorders: the GRASP factorial RCT

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Plain English summary

The GRASP factorial RCT

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Plain English summary

The rotator cuff is a group of muscles and tendons that stabilise the shoulder and allow it to move. Problems with the rotator cuff are very common. Symptoms include pain, which can affect a person's ability to work, sleep well or perform daily tasks. It is not known which treatments work best for shoulder pain, how exactly they should be delivered and whether or not people do better if they are given a steroid injection.

The GRASP (Getting it Right: Addressing Shoulder Pain) trial tested whether or not people with a rotator cuff disorder would do better after a progressive exercise programme (supervised by a physiotherapist over six appointments spread out over 16 weeks) compared with a one-off best-practice advice session with a physiotherapist. The trial also tested whether or not giving a corticosteroid injection in the shoulder before starting either regime would help people recover more. We assessed the cost of delivering these treatments to the NHS.

We recruited 708 people from 20 NHS-based musculoskeletal centres in the UK. People were allocated to one of four treatment groups at random: (1) progressive exercise (six or fewer physiotherapy sessions), (2) best-practice advice (one physiotherapy session), (3) corticosteroid injection then progressive exercise (six or fewer physiotherapy sessions) or (4) corticosteroid injection then best-practice advice (one physiotherapy session). Trial participants were asked to complete a questionnaire that asked about their level of shoulder pain and their ability to perform basic daily tasks before treatment, and then again at 8 weeks and at 6 and 12 months.

Participants' shoulder pain and function improved over time in each of the four treatment groups. The GRASP trial showed that there was no difference between the best-practice advice session with a physiotherapist and the more comprehensive exercise programme. Corticosteroid injection improved people's shoulder pain and function, but only by a small amount and in the short term. No serious side effects were observed during the 12-month follow-up period. Best-practice advice in combination with corticosteroid injection is likely to be most cost-effective to the NHS.

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