Surgical treatments compared with early structured physiotherapy in secondary care for adults with primary frozen shoulder: the UK FROST three-arm RCT

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Plain English summary

The UK FROST three-arm RCT

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Plain English summary

Frozen shoulder occurs when the soft tissue envelope around the shoulder joint becomes inflamed, scarred and contracted, making movement painful and stiff. It affects around 1 in 10 people and is more common in women. Most patients are treated in the community. Those who do not improve are offered treatments in hospital. This includes costly and invasive surgical options. It is unclear which treatment provides the best patient outcomes and is cost-effective.

UK FROST (UK FROzen Shoulder Trial) comprised 503 patients (from 35 UK hospitals) who randomly received one of three commonly offered treatments for frozen shoulder:

1. early physiotherapy to restore movement, including a steroid injection for pain relief
2. manipulation under anaesthesia, to stretch and tear the tight capsule to restore movement, and a steroid injection followed by physiotherapy
3. arthroscopic capsular release, which uses keyhole surgery, including manipulation, to restore movement, followed by physiotherapy with pain medication.

No important differences were found between the three treatments in shoulder function or pain at 12 months. Fewer patients who received arthroscopic capsular release required further treatment, and patients who received arthroscopic capsular release had slightly better shoulder function and pain outcomes than those who received the manipulation procedure or early physiotherapy. This improvement, however, was unlikely to be of clinical benefit to patients. Arthroscopic capsular release had slightly higher risks and substantially higher costs. Six serious complications were reported in patients who received arthroscopic capsular release (mostly owing to co-existing health problems) and two were reported in patients who received manipulation under anaesthesia. Physiotherapy was the least expensive treatment, but patients who received manipulation under anaesthesia had slightly better general health than those who received physiotherapy. Early physiotherapy with steroid injection could be accessed quicker than the surgical alternatives. Manipulation under anaesthesia cost more than physiotherapy but provided the best value for money. Patients in the study wanted early access to medical help to improve their shoulder problems.

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