

Health Technology Assessment Project: 11/36/37,

The SWIFFT study finds that for a scaphoid waist fracture

a plaster cast should be used first and if the fracture doesn't heal it should be fixed with a screw

RCT (study design) Fracture of the scaphoid bone (one of eight small bones in the wrist) is common in young, active people, caused by a fall on the hand or the hand being suddenly forced backward.

In this study, 439 adult patients agreed to either have surgery to hold the broken scaphoid with a special screw or to have the wrist held still in a plaster cast (with surgery offered after six weeks to those that are still not healed). The decision about which treatment was given was made using randomisation, which is similar to tossing a coin. This ensures that the two groups are as similar as possible.

Patients reported their own wrist pain and function at six weeks, three months, six months and one year. Information was also collected on bone healing, complications from treatment and costs.

Benefit what works)

- Pain and function: Patients filled in a questionnaire (called the PRWE: Patient Rated Wrist Evaluation) that assessed their wrist pain and function and the total score is a value between 0 and 100, where a higher score indicates worse pain and function. At one year, patients in the surgery group had a PRWE score of 12 and in the plaster group it was 14.
- Healing: Over the year after injury the fracture did not heal properly in four patients (2%) in the surgery group compared with nine patients (4%) in the plaster cast group.
- Days off work: In the year after injury, surgical patients reported having lost 16 days of work and patients in the plaster cast group having lost 18 days of work on average.

Risk Irm to patients Over the year, the hospital recorded any complications caused by the treatments given.

- Of those patients who had surgery to fix the broken scaphoid 12% had complications that caused some lasting change.
- Of those treated in a plaster cast 2% had such problems.

COST (value for money to the NHS)

Patients completed a questionnaire about their Quality of Life (QoL) that asked about their mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The QoL score has a value between 0 to 1, and a higher score indicates better health. Over the year, patients in the surgery group had a QoL score of 0.832 and in the plaster group had a QoL score of 0.814.

Over the year, the cost of surgery to the NHS was £2,350 and cost of plaster cast treatment was £727.

The considerable extra cost of surgery for the little benefit in QoL was not good value.