

How should we treat a patient with a distal radius fracture after closed reduction? A cluster RCT

No registrations found.

Ethical review	Positive opinion
Status	Recruitment stopped
Health condition type	-
Study type	Interventional

Summary

ID

NL-OMON27921

Source

Nationaal Trial Register

Brief title

CAST study

Health condition

Displaced distal radius fractures, suitable for conservative treatment after reduction.

Sponsors and support

Primary sponsor: ZonMw

Source(s) of monetary or material Support: ZonMw

Intervention

Outcome measures

Primary outcome

Fracture re-displacement

Secondary outcome

Surgical intervention rate, functional outcome, complication rate, analgesics use, pain severity, cost-effectiveness

Study description

Background summary

Rationale:

Distal radius fractures (DRF) are the most common fractures in the adult population. There is no consensus on conservative treatment of a displaced DRF.

Objective:

To evaluate the cost-effectiveness of treatment with a circumferential cast compared to treatment with a splint, in patients with a reduced distal radius fracture. The hypothesis is that reduced distal radius fractures treated with a circumferential cast instead of a splint, results in less fracture re-displacement, fewer surgical interventions, less complications and lower costs.

Study design: Cluster randomized design, randomization will take place on hospital level. All patients will be followed for 1 year.

Study population: Adult patients with a primary displaced fracture of the radius which is treated conservatively after closed reduction.

Intervention:

In one group the fracture will be initially immobilized with a circumferential below-elbow cast. In the other group the fracture will be initially immobilized with a below-elbow splint.

Study objective

Reduced distal radius fractures, primarily treated with a circumferential cast instead of a dorsal splint, results in less fracture re-displacement, fewer surgical interventions, less complications and lower costs.

Study design

Baseline, 1 week, 2 weeks, 6 weeks, 3 months, 6 months, 12 months

Intervention

Below-elbow circumferential casting or below-elbow splinting

Contacts

Public

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Scientific

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Eligibility criteria

Inclusion criteria

Primary displaced distal radius fracture, treated with closed reduction. Age above 18 years

Exclusion criteria

Failure to reach proper fracture alignment after reduction(s), insufficient command of the Dutch language, both-bone fracture (styloid fracture excluded), concomitant injuries to ipsilateral extremity, multiple trauma patient

Study design

Design

Study type: Interventional
Intervention model: Parallel
Allocation: Randomized controlled trial

Control: Active

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	14-01-2020
Enrollment:	560
Type:	Actual

IPD sharing statement

Plan to share IPD: Undecided

Ethics review

Positive opinion	
Date:	14-01-2020
Application type:	First submission

Study registrations

Followed up by the following (possibly more current) registration

ID: 48181
Bron: ToetsingOnline
Titel:

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
NTR-new	NL8311
CCMO	NL71020.078.19
OMON	NL-OMON48181

Study results

Summary results

B.Barvelink et al. The CAST study protocol: a cluster randomized trial assessing the effect of circumferential casting versus plaster splinting on fracture redisplacement in reduced distal radius fractures in adults. BMC Musculoskelet Disord. 2021 Apr 20;22(1):370. doi: 10.1186/s12891-021-04238-0