

Mirror Arm Exercises for STROke

Submission date 18/11/2010	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 18/11/2010	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 23/04/2015	Condition category Circulatory System	<input type="checkbox"/> Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
9353

Study information

Scientific Title
Mirror Arm Exercises for STROke

Acronym

MAESTRO

Study objectives

A new technique, called mirror therapy, may improve the recovery of the upper limb. With this method, a mirror is placed alongside the 'good' arm so that the reflection looks as if the weak arm is moving. The patient moves both arms, as much as they can, while looking in the mirror. The appearance of both arms moving normally seems to strengthen the brain's attempts to 'rewire' the connections to produce movements of the weak limb. Ultimately we want to investigate whether mirror therapy works if used during stroke rehabilitation in a manner that is suitable for the NHS. Initially we want to test whether mirror therapy:

1. Is acceptable to patients and the clinical team
2. How much it is used by patients
3. Is practical to use in the NHS
4. Causes any side effects
5. Improves different types of problems such as weakness, numbness, awareness of the affected side, grips and grasps and use of the arm and hands

The results will also tell us how many patients we can recruit, how much therapy they are able to do and how variable their outcomes are; information that we will use in future studies.

Participants who are in a rehabilitation unit will be recruited at least 1 week after their stroke. They will be randomly divided to receive mirror or control therapy. The control treatment is exercises to the legs delivered in the same way as the mirror therapy (but with no mirror). Both groups will also receive usual treatment. Participants will aim to exercise for up to 30 minutes a day (in several sessions according to their ability and tolerance) for 4 weeks. We will assess how well the patient can move and use their weak arm and hand before and after the trial and again one month later. At the end of the treatment we will also assess how acceptable the patients and the clinical team found the therapy, how much the patients used the treatment and whether there were any side effects.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Study design

Multicentre randomised interventional phase II treatment trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Topic: Stroke Research Network; Subtopic: Rehabilitation; Disease: In hospital study

Interventions

Participants in a rehabilitation unit are recruited at least 1 week after their stroke and are randomly divided to receive mirror or control therapy. The control treatment is exercises to the

legs delivered in the same way as the mirror therapy (but with no mirror). Both groups will also receive usual treatment. Participants will aim to exercise for up to 30 minutes a day (in several sessions according to their ability and tolerance) for 4 weeks.

Intervention Type

Behavioural

Primary outcome(s)

How well the patient can move and use their weak arm and hand, measured at baseline, immediately after the trial, and one month after the trial

Key secondary outcome(s)

Measured at end of treatment:

1. Acceptability of therapy to patients and clinical team
2. How much the patients used the treatment
3. Side effects

Completion date

02/07/2012

Eligibility

Key inclusion criteria

1. First time stroke at least 1 week previously and inpatient in a stroke rehabilitation unit
2. No premorbid conditions limiting upper limb function
3. Sufficient cognitive and communication skills to give consent (as judged by the clinical team)
4. Medically stable and able to participate in rehabilitation (as judged by the clinical team)
5. Upper limb weakness which limits activity (Motricity Index Upper Limb score less than 99)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Unable to consent
2. Not a first time stroke
3. Previous condition limiting upper limb function
4. Unable to participate in rehabilitation
5. No upper limb weakness

Date of first enrolment

03/01/2011

Date of final enrolment

02/07/2012

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

University of Salford

Salford

United Kingdom

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Sponsor information

Organisation

University of Salford (UK)

ROR

<https://ror.org/01tmqtf75>

Funder(s)

Funder type

Government

Funder Name

National Institute of Health Research (NIHR) (UK) - Research for Patient Benefit (RfPB) Programme

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration

Study outputs

Output type

[Results article](#)

Details
results

Date created

07/04/2015

Date added

Peer reviewed?

Yes

Patient-facing?

No