

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Combined effect of Task specific training and Rood's approach to improve motor and sensory arm function in patients with stroke.

#### Protocol summary

##### Study aim

To check the combined effect of Task Specific training and Roods approach in improvement of arm sensory and motor function in patients after stroke. To check the combined effect of Task Specific training and Roods approach in improvement of arm spasticity in patients after stroke

##### Design

Community based, parallel group, single blind, randomized controlled trial.

##### Settings and conduct

Settings of the trial are Allied hospital Faisalabad and DHQ hospital Faisalabad. Participants will be blind in the study because treatment will be provided individually and alone. Participants will not know which group they belong to because treatment will be performed by the therapist and will not be explained in detail to the patients.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: • Age between 45-65 years. • Acute <6 months upper extremity paresis after stroke. • Muscle power 0-3 muscle grade of all muscle of upper limb by MMT according to oxford scale • Time since stroke < 6months. • Sufficient cognitive ability to participate. • Both genders • Before stroke they were able to wash their hands and feed themselves. • Had no premorbid severe arm condition before stroke Exclusion criteria: • Uncontrolled Hypertension. • Severe dysphasia. • Occipital/ cerebellar lesion. • Other neurological, neuromuscular or orthopedic lesion. • Severe comorbidity. • Concurrent participation in other upper extremity stroke treatment • Perceptual, apraxic or major cognitive defects. • Arm contracture • Severe arm dysfunction before stroke

##### Intervention groups

Group A will receive common treatment and Rood's treatment approach. Group B will be subjected to task specific training along with common treatment. Group C will receive combination of both Rood's approach and

Task specific training along with common treatment.

##### Main outcome variables

Motor and sensory function of arm

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20210814052177N1**

Registration date: **2021-09-16, 1400/06/25**

Registration timing: **retrospective**

Last update: **2021-09-16, 1400/06/25**

Update count: **0**

##### Registration date

2021-09-16, 1400/06/25

##### Registrant information

##### Name

Maham Saleem

##### Name of organization / entity

The University of Faisalabad

##### Country

Pakistan

##### Phone

+92 41 2644442

##### Email address

dpt-fa14-037@tuf.edu.pk

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2021-05-26, 1400/03/05

##### Expected recruitment end date

2021-08-28, 1400/06/06

##### Actual recruitment start date

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Combined effect of Task specific training and Rood's approach to improve motor and sensory arm function in patients with stroke.

**Public title**

Effect of task specific training & Rood's approach on stroke patients.

**Purpose**

Health service research

**Inclusion/Exclusion criteria****Inclusion criteria:**

Age between 45-65 Acute <6 months upper extremity paresis after stroke. Muscle power 0-3 muscle grade of all muscle of upper limb by MMT according to oxford scale Time since stroke < 6months. Sufficient cognitive ability to participate Both genders Before stroke they were able to wash their hands and feed themselves. Had no premorbid severe arm condition before stroke

**Exclusion criteria:**

Uncontrolled Hypertension. Severe dysphasia Occipital/cerebellar lesion Other neurological, neuromuscular or orthopedic lesion. Concurrent participation in other upper extremity stroke treatment Perceptual, apraxic or major cognitive defects. Arm contracture Severe comorbidity.

**Age**

From **45 years** old to **65 years** old

**Gender**

Both

**Phase**

3

**Groups that have been masked**

- Participant

**Sample size**

Target sample size: **45**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Non probability purposive sampling technique will be done on the patients on individual basis. Simple randomization will be done and patients will be allocated to three different groups by lottery method with sealed envelopes and identical slips of paper.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Participants will be blind in the study because treatment will be provided individually and alone. Participants will not know which group they belong to because treatment will be performed by the therapist and will not be explained in detail to the patients. Both techniques will be performed manually and patient will be unaware of the treatment techniques. As both are manual techniques performance of these intervention will be made similar to patients.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of The University of Faisalabad

**Street address**

P720 neelam street green view colony Faisalabad

**City**

Faisalabad

**Postal code**

38000

**Approval date**

2021-05-25, 1400/03/04

**Ethics committee reference number**

TUF/DR/MSPP/305

**Health conditions studied****1****Description of health condition studied**

Sensory and motor function of arm in Stroke patients

**ICD-10 code**

I63

**ICD-10 code description**

Cerebral infarction

**Primary outcomes****1****Description**

Sensory function of arm

**Timepoint**

Before intervention and after six week of intervention.

**Method of measurement**

Fugl meyer assessment scale

**2****Description**

Motor function of arm

**Timepoint**

Before intervention and after six week of intervention.

**Method of measurement**

Fugl meyer assessment scale

**Secondary outcomes**

## 1

### **Description**

Spasticity of arm muscle.

### **Timepoint**

Before intervention and after six week of intervention

### **Method of measurement**

Modified ashworth scale

## **Intervention groups**

## 1

### **Description**

Intervention group: Intervention group 1 will receive common treatment and Rood's treatment approach for three times a week on alternate days, for six weeks. Rood's approach include: Tapping (over the arm muscle to be facilitated, 3-5 times per repetition, 10 repetitions per day, 3days/ week) • Icing (3-5 sec/ repetition, 10 repetitions/day, 3days/week). • Fast brushing (Apply for 3 to 5seconds & repeated after 30 sec, 10 repetitions/day). • Light touch (3-5 strokes/repetition, 30 sec rest period between strokes, 10 repetitions/day). • Heavy joint compression (Joint Compression >body wt. applied through the longitudinal axis of the bone.)

### **Category**

Rehabilitation

## 2

### **Description**

Intervention group: Intervention group 2 will be subjected to task specific training along with common treatment for 45 minutes, three times a week for six weeks. Task specific training involve 20-30 trials of each activity. Touch a wall at shoulder level • Touch his cheeks and hair • Slide a ball with extensor effect of forearm • Reach activities • Reaching out toward a jar • Driving the wrist/finger extensors to open the paretic hand. • Grabbing the jar • Grasp a ball

### **Category**

Rehabilitation

## 3

### **Description**

Intervention group: Intervention group 3 will receive combination of both Rood's approach and Task specific training along with common treatment. Rood's approach include: Tapping (over the arm muscle to be facilitated, 3-5 times per repetition, 10 repetitions per day, 3days/ week) • Icing (3-5 sec/ repetition, 10 repetitions/day, 3days/week). • Fast brushing (Apply for 3 to 5seconds & repeated after 30 sec, 10 repetitions/day). • Light touch (3-5 strokes/repetition, 30 sec rest period between strokes, 10 repetitions/day). • Heavy joint compression (Joint Compression >body wt. applied through the longitudinal axis of the bone). Task specific training involve 20-30 trials of each activity. Touch a wall at shoulder level • Touch his cheeks and hair • Slide a ball with extensor effect of forearm • Reach activities • Reaching out toward a jar • Driving the

wrist/finger extensors to open the paretic hand. • Grabbing the jar • Grasp a ball

### **Category**

Rehabilitation

## **Recruitment centers**

## 1

### **Recruitment center**

#### **Name of recruitment center**

Allied hospital Faisalabad

#### **Full name of responsible person**

Dr Sobia Nawaz

#### **Street address**

Muslim town, Dr. Tusi Rd, Faisalabad, Pakistan

#### **City**

Faisalabad

#### **Postal code**

38000

#### **Phone**

+92 41 9210082

#### **Fax**

+92 41 9210081

#### **Email**

principalpmc09@yahoo.com

#### **Web page address**

<https://www.customercaarepk.com/allied-hospital-support-phone-number-email-id-address-website/>

## 2

### **Recruitment center**

#### **Name of recruitment center**

District headquarter hospital Faisalabad

#### **Full name of responsible person**

Dr Shaista Bano

#### **Street address**

DHQ hospital Mall Road, Faisalabad, Pakistan

#### **City**

Faisalabad

#### **Postal code**

38000

#### **Phone**

+92 41 9200140

#### **Fax**

+92 41 9200141

#### **Email**

info@pmc.edu.pk

#### **Web page address**

<https://www.businesslist.pk/company/189531/dhq-hospital-civil-hospital>

## **Sponsors / Funding sources**

## 1

### **Sponsor**

#### **Name of organization / entity**

The University of Faisalabad

#### **Full name of responsible person**

Dr Maryam Zafar

**Street address**

Sargodha Road University Town, Faisalabad, Pakistan

**City**

Faisalabad

**Postal code**

38000

**Phone**

+92 41 8868326

**Fax**

+92 41 8868220

**Email**

studentaffairshsw@tuf.edu.pk

**Web page address**

https://tuf.edu.pk/contact

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

The University of Faisalabad

**Proportion provided by this source**

100

**Public or private sector**

Private

**Domestic or foreign origin**

Domestic

**Category of foreign source of funding**

*empty*

**Country of origin****Type of organization providing the funding**

Academic

**Person responsible for general inquiries****Contact****Name of organization / entity**

Faisalabad institute of management and Sciences

**Full name of responsible person**

Maham Saleem

**Position**

Lecturer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

P720 neelam street green view colony Faisalabad

**City**

Faisalabad

**Province**

Punjab

**Postal code**

38000

**Phone**

+92 320 7033581

**Email**

mahamsaleem114@gmail.com

**Person responsible for scientific****inquiries****Contact****Name of organization / entity**

Faisalabad institute of management and Sciences

**Full name of responsible person**

Maham Saleem

**Position**

Lecturer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

P720 neelam street green view colony Faisalabad

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38000

**Phone**

+92 320 7033581

**Email**

mahamsaleem114@gmail.com

**Person responsible for updating data****Contact****Name of organization / entity**

Faisalabad institute of management and Sciences

**Full name of responsible person**

Maham Saleem

**Position**

Lecturer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

P720 neelam street green view colony Faisalabad

**City**

Faisalabad

**Province**

Punjab

**Postal code**

38000

**Phone**

+92 320 7033581

**Email**

mahamsaleem114@gmail.com

**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

I take consent from patients that i will not share their information

**Study Protocol**

Yes - There is a plan to make this available

**Statistical Analysis Plan**

Yes - There is a plan to make this available  
**Informed Consent Form**  
Yes - There is a plan to make this available  
**Clinical Study Report**  
Yes - There is a plan to make this available  
**Analytic Code**  
Not applicable  
**Data Dictionary**  
Not applicable  
**Title and more details about the data/document**  
I will share outcome data of patients but i will not give their personal information.  
**When the data will become available and for how**

**long**  
2022  
**To whom data/document is available**  
Data will be available to all.  
**Under which criteria data/document could be used**  
Whoever will request for data.  
**From where data/document is obtainable**  
Data will be obtainable from email id:  
mahamsaleem114@gmail.com  
**What processes are involved for a request to access data/document**  
Email will be used for requesting to access the data.  
**Comments**