

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

01 Jul 2026

### Effectiveness of passive chest physiotherapy with and without mechanical percussion among inpatients children

#### Protocol summary

##### Study aim

- The purpose of the study is to evaluate the effects of manually applied percussions as opposed to mechanically applied percussions

##### Design

The research will use a prospective randomized control trial as a study design. a study design in which participants are randomly assigned to either an experimental or control group. A hypothesis may be tested to see which variables are most likely to be significant explanatory factors.

##### Settings and conduct

These investigations will be carried out in pediatric general ward and pediatric intensive care unit in Memon Medical Institute Hospital Karachi.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: • Children who will admit with symptoms of lower respiratory tract infection • Pneumonia patients of age 3months-15 years • Pneumonia patients who are confined to a hospital bed for an extended period of time. Exclusion criteria: • Over fractures, spinal fusion, or osteoporotic bone. • Over tumor area. • If a patient has a pulmonary embolus. • If a patient has a condition in which hemorrhage could easily occur. • In recent neurosurgery, head down position is contraindicated. • If patients has a hyper-reactive airways(cystic fibrosis) and severe bronchospasm (asthma) though, not an absolute contraindication

##### Intervention groups

The targeted population for this research will be pediatric population admitted under diagnosis of pneumonia in Memon Medical Institute Hospital.

##### Main outcome variables

- There will be no significant effects of manual and mechanical percussions.
- There will be no significant effects of chest physiotherapy of admitted pediatric patients.
- There will be significant effects of manual and mechanical percussions.
- There will be significant

effects of chest physiotherapy of admitted pediatric patients.

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220804055615N1**

Registration date: **2022-09-06, 1401/06/15**

Registration timing: **registered\_while\_recruiting**

Last update: **2022-09-06, 1401/06/15**

Update count: **0**

##### Registration date

2022-09-06, 1401/06/15

##### Registrant information

##### Name

Mohabbat Ali

##### Name of organization / entity

Memon Medical Institute Hospital

##### Country

Pakistan

##### Phone

+92 21 99261810

##### Email address

ramal\_209@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-09-01, 1401/06/10

##### Expected recruitment end date

2022-09-15, 1401/06/24

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**  
empty

**Scientific title**  
Effectiveness of passive chest physiotherapy with and without mechanical percussion among inpatients children

**Public title**  
Effectiveness of passive chest physiotherapy with and without mechanical percussion among inpatients children.

**Purpose**  
Education/Guidance

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
Children who will admit with symptoms of LRTI Pneumonia patients of age 3months-15 years Pneumonia patients who are confined to a hospital bed for an extended period of time  
**Exclusion criteria:**  
Over fractures, spinal fusion, or Osteoporosis bone. Over tumor area If a patient has a pulmonary embolus. If a patient has a condition in which hemorrhage could easily occur In recent neurosurgery, head down position is contraindicated. If patients has a hyper-reactive airways(cystic fibrosis) and severe bronchospasm (asthma) though, not an absolute contraindication

**Age**  
From **3 months** old to **15 years** old

**Gender**  
Both

**Phase**  
2

**Groups that have been masked**  

- Participant

**Sample size**  
Target sample size: **68**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
The research will use a prospective randomized control trial as a study design. Groups of participants will assign randomly in to two groups. participant will be treated with two variables one is manual and other with mechanical percussion. A hypothesis may be tested to see which variables are most likely to be significant explanatory factors.

**Blinding (investigator's opinion)**  
Single blinded

**Blinding description**  
To reduce the chance of bias single blind criteria will be carried out. Participant should know the treatment but not know the which group is mechanical and which is manual percussion

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Memon MEdical Institute Hospital

##### Street address

Scheme 33 Safora Goth MMI Hospital

##### City

Karachi

##### Postal code

75270

#### Approval date

2022-08-05, 1401/05/14

#### Ethics committee reference number

IRB/MMIH/2022/07

## Health conditions studied

### 1

#### Description of health condition studied

Comparison of manual and mechanical percussion

#### ICD-10 code

J18. 9

#### ICD-10 code description

Pneumonia, unspecified organism

## Primary outcomes

### 1

#### Description

Manual VS mechanical percussion

#### Timepoint

Variable form will be fill out initially before the percussion and 30 minute after the percussion to check the difference.

#### Method of measurement

1. Modified respiratory distress assessment instrument (RDAI), 2. Wang clinical severity score 3. Face, Legs, Activity, Cry, Consolability score

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Participant will be with same condition intervention will be different one group with manual and second group with mechanical percussion

#### Category

Rehabilitation

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**  
Memon Medica Institute Hospital  
**Full name of responsible person**  
Mohabbat Ali  
**Street address**  
Safoora Goth Scheme 33  
**City**  
Karachi  
**Postal code**  
75270  
**Phone**  
+92 21 99261810  
**Fax**  
+92 21 34691193  
**Email**  
mohabbat.ali@mhef.edu.pk  
**Web page address**  
<https://mmi.edu.pk/>

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**  
Memon Medical Institute Hospital  
**Full name of responsible person**  
Mohabbat Ali  
**Street address**  
Safoora Goth Scheme 33  
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+92 21 34691193  
**Email**  
mohabbat.ali@mhef.edu.pk  
**Web page address**  
<https://mmi.edu.pk/>  
**Grant name**  
Study fund  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
Yes  
**Title of funding source**  
Memon Medical Institute Hospital  
**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**  
Other  
**Person responsible for general inquiries**  
**Contact**  
**Name of organization / entity**  
Memon Medical Institute Hospital  
**Full name of responsible person**  
Mohabbat Ali  
**Position**  
Assistant Professor  
**Latest degree**  
Specialist  
**Other areas of specialty/work**  
Rehabilitation management  
**Street address**  
Safoora Goth Scheme 33  
**City**  
Karachi

## Country of origin

### Type of organization providing the funding

Academic

2

### Sponsor

**Name of organization / entity**  
Memon Medical Intitute Hospital  
**Full name of responsible person**  
Mohabbat Ali  
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### Grant name

Study fund

### Grant code / Reference number

### Is the source of funding the same sponsor organization/entity?

Yes

### Title of funding source

Memon Medical Intitute Hospital

### 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

Other

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
Memon Medical Intitute Hospital  
**Full name of responsible person**  
Mohabbat Ali  
**Position**  
Assistant Professor  
**Latest degree**  
Specialist  
**Other areas of specialty/work**  
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## Person responsible for scientific inquiries

### Contact

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**Full name of responsible person**  
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Specialist  
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## Person responsible for updating data

### Contact

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**Other areas of specialty/work**

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mohabbat.ali@mhef.edu.pk  
**Web page address**  
<https://mmi.edu.pk/>

## Sharing plan

### Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

### 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

Undecided - It is not yet known if there will be a plan to make this available

### Title and more details about the data/document

Effectiveness of manual vs mechanical percussion along with drainage positions among admitted pediatrics

### When the data will become available and for how long

3month

### To whom data/document is available

Only for academic and clinical

### Under which criteria data/document could be used

There is team to evaluate the data including paedics consultant.

### From where data/document is obtainable

Data will be collected from Memon Medical Institute Hospital Karachi from those patients that will be admitted in paediatric ward

### What processes are involved for a request to access data/document

Only physical therapist will collect the data for three month

### Comments

This is totally clinical for rehabilitation study