

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 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

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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

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Grant name

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

Academic

2

Sponsor

Name of organization / entity

Memon Medical Intitute Hospital

Full name of responsible person

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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

Rehabilitation management

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Person responsible for scientific inquiries

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Person responsible for updating data

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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 paediatric 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