Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 pediatrics 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 peadiatrics patients. • There will be significant effects of manual and mechanical percussions. • There will be significant effects of chest physiotherapy of admitted peadiatric 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 Intitute Hospital
Country
Pakistan
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+92 21 99261810
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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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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Memon Medical Institute Hospital
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mohabbat.ali@mhef.edu.pk
Web page address
https://mmi.edu.pk/
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
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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 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
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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 paeds 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