

Clinical Trial Protocol

Iranian Registry of Clinical Trials

17 Sep 2026

A Comparison between Intravenous Furosemide and Nebulized Furosemide in Controlling the Symptoms of the Patients with Pulmonary Edema

Protocol summary

Summary

Pulmonary edema is one of the most common acute respiratory disorders that diagnosis and treatment of the disease still remain as a health problem. So, the aim of this study is to compare the efficacy of intravenous Furosemide and nebulized Furosemide in control of the symptoms of the patients with pulmonary edem. in this clinical trial, 85 patients with pulmonary edema wil enroll . Patients will randomly divide into two groups. In the intervention group the patients will receive nebulized Furosemide at a dose of 1 mg for 20 minutes diluted in 2 ml of sodium chloride 0.9% and in the control group the patients will receive intravenous Furosemide at a dose of 1mg / kg. Then, hemodynamic parameters and estimation of the clinical severity of the pulmonary edema in both groups will assess for two hours.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2017030332853N1**

Registration date: **2017-03-29, 1396/01/09**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2017-03-29, 1396/01/09

Registrant information

Name

Somaye Shaabani

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 61 3373 8317

Email address

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Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapour University of Medical Sciences

Expected recruitment start date

2017-05-01, 1396/02/11

Expected recruitment end date

2017-11-01, 1396/08/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

A Comparison between Intravenous Furosemide and Nebulized Furosemide in Controlling the Symptoms of the Patients with Pulmonary Edema

Public title

Comparison between two different routes of Furosemide administration in Patients with Pulmonary Edema

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patients with shortness of breath during the past six hours, patients with clinical signs of pulmonary edema (tachypnea, increased lung function, use of accessory muscles, crackles, wheezes and gallop rhythm), and radiographically diagnosis of pulmonary edema. Exclusion criteria: Cardiogenic shock and blood pressure less than 90 mmHg, noncardiogenic pulmonary edema, myocardial infarction, severe heart valve

disease, history of pulmonary obstructive disease, patients requiring intubation, cardiac arrhythmias, liver failure, cancer, sensitivity to Furosemide , patient's dissatisfaction and pregnancy.

Age

From **18 years** old to **55 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **85**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

The ethics committee of Ahvaz Jundishapur University of Medical Sciences

Street address

Golestan Blv

City

Ahvaz

Postal code

Approval date

2016-01-01, 1394/10/11

Ethics committee reference number

IR.AJUMS.REC.1394.448

Health conditions studied

1

Description of health condition studied

Pulmonary edema

ICD-10 code

J81.0

ICD-10 code description

Acute pulmonary edema

Primary outcomes

1

Description

Dyspnea severity

Timepoint

15,30,60 and 120 minutes after treatment

Method of measurement

Dyspnea Scale criteria

Secondary outcomes

empty

Intervention groups

1

Description

In the intervention group the patients will receive nebulized furosemide at a dose of 1 mg furosemide for 20 minutes in 2 ml of sodium chloride 0.9%

Category

Treatment - Drugs

2

Description

The control group the patients will receive intravenous furosemide at a dose of 1mg / kg

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Golestan Hospital

Full name of responsible person

Somaye Shaabani

Street address

City

Ahvaz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Somaye Shaabani

Street address

Farvardin Blv

City

Ahvaz

Grant name

Grant code / Reference number

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

Title of funding source
Ahvaz Jundishapur University of Medical Sciences

Proportion provided by this source
100

Public or private sector
empty

Domestic or foreign origin
empty

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
empty

Person responsible for general inquiries

Contact

Name of organization / entity
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty

Study Protocol
empty

Statistical Analysis Plan
empty

Informed Consent Form
empty

Clinical Study Report
empty

Analytic Code
empty

Data Dictionary
empty