

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

16 Sep 2026

### Bronchodilator Effect of B-Type Natriuretic Peptide in Acute Asthma Attack Patients (Randomized Controlled Trial Phase I & II)

#### Protocol summary

##### Summary

Objectives: Analysis of infusion of BNP in Acute Asthma Exacerbation Design, setting and conduct: In this Clinical Trial Study that is a pilot study and will be done on 40 patients in case and control groups, we'll give BNP in addition to standard treatment to the case group and so the control group will receive standard treatment Major Inclusion and Exclusion criteria: Age above 18 years old; Clinically or Para-clinically Asthma History include and History of Cardiovascular Diseases; History of COPD; History of other pulmonary diseases; History of Smoking more than 10 years; Pregnant women; History of hypersensitivity to the BNP; Systolic Blood Pressure less than 100 mmHg exclude Intervention: BNP infusion to the Case group main outcome measures: Peak Flow Metery parameters will be assessed in two groups

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2015022215446N2**

Registration date: **2015-10-07, 1394/07/15**

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

Last update:

Update count: **0**

##### Registration date

2015-10-07, 1394/07/15

##### Registrant information

###### Name

Hassan Motamed

###### Name of organization / entity

Emergency Department , Ahvaz Jundishapour  
University of Medical Sciences , Ahvaz , Iran

###### Country

Iran (Islamic Republic of)

##### Phone

+98 61 3374 3079

##### Email address

motamed-h@ajums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Ahvaz University of Medical Sciences

##### Expected recruitment start date

2015-05-22, 1394/03/01

##### Expected recruitment end date

2016-01-21, 1394/11/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Bronchodilator Effect of B-Type Natriuretic Peptide in  
Acute Asthma Attack Patients (Randomized Controlled  
Trial Phase I & II)

##### Public title

Effect of infusion of B-type Natriuretic Peptide in Acute  
Exacerbation of Asthma

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion Criteria: Acute Asthma Attack with: Age above  
18 years old; Clinically or Para-clinically Asthma History  
Exclusion Criteria: History of Cardiovascular Diseases;  
History of COPD; History of other pulmonary diseases;  
History of Smoking more than 10 years; Pregnant  
women; History of hypersensitivity to the BNP; Systolic  
Blood Pressure less than 100 mmHg

##### Age

From **18 years** old to **80 years** old

##### Gender

Both

**Phase**  
1-2

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **40**

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

**Randomization description**

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**  
Method of closed envelopes that randomly puts the patient in one of intervention or control groups will be used.

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Ahvaz University of Medical Sciences

##### Street address

Research Assistant, Next to central Building, Ahvaz Jundishapur University of Medical Sciences, University town, Ahvaz

##### City

Ahvaz

##### Postal code

##### Approval date

2015-04-29, 1394/02/09

##### Ethics committee reference number

IR.AJUMS.REC.1394.234

## Health conditions studied

### 1

#### Description of health condition studied

Acute Exacerbation of Asthma

#### ICD-10 code

J45

#### ICD-10 code description

Asthma

## Primary outcomes

### 1

#### Description

Forced Expiratory Volume in First Second (FEV1)

#### Timepoint

Before intervention, 30 minutes after intervention, 60 minutes after intervention, 90 minutes after intervention

#### Method of measurement

Milliliter with use of Peak Flow Meter

### 2

#### Description

Peak Expiratory Flow Rate (PEFR)

#### Timepoint

Before intervention, 30 minutes after intervention, 60 minutes after intervention, 90 minutes after intervention

#### Method of measurement

Milliliter with use of Peak Flow Meter

## Secondary outcomes

### 1

#### Description

Blood Pressure

#### Timepoint

Before Intervention

#### Method of measurement

Millimeter of Hg

## Intervention groups

### 1

#### Description

Intervention Group: Salbutamol 2.5mg each 20 minutes via nebulizer Atrovent 2.5mg each 20 minutes via nebulizer Prednisolone 50mg one time by mouth MgSO4 2gr one time IV infusion in 20 minutes BNP 2mcg per kilogram IV Bolus BNP 0.01mcg per kilogram IV Infusion in first 30 minutes BNP 0.02mcg per kilogram IV Infusion in second 30 minutes BNP 0.03mcg per kilogram IV Infusion in third 30 minutes

#### Category

Treatment - Drugs

### 2

#### Description

Control Group: Salbutamol 2.5mg each 20 minutes with nebulizer Atrovent 2.5mg each 20 minutes with nebulizer Prednisolone 50mg by mouth one time MgSO4 2g intravenous infusion in 20 minutes

#### Category

Treatment - Drugs

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**  
Ahvaz Imam Khomeini Hospital  
**Full name of responsible person**  
Dr. Hassan Motamed  
**Street address**  
Imam Khomeini Hospital, 24metri Street, Ahvaz  
**City**  
Ahvaz

## 2

**Recruitment center**  
**Name of recruitment center**  
Ahvaz Golestan Hospital  
**Full name of responsible person**  
Dr. Hassan Motamed  
**Street address**  
Imam Khomeini Hospital, 24metri Street, Ahvaz  
**City**  
Ahvaz

## **Sponsors / Funding sources**

### 1

**Sponsor**  
**Name of organization / entity**  
Vice challencor for reasearch of Ahvaz Jundishapur University of Medical Sciences  
**Full name of responsible person**  
Dr. Nader Saki  
**Street address**  
Vice chancellor for research, Ahvaz Jundishapur University of Medical Sciences  
**City**  
Ahvaz  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
Yes  
**Title of funding source**  
Vice challencor for reasearch of 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**  
Ahvaz University of Medical Sciences  
**Full name of responsible person**

Dr Hassan Motamed  
**Position**  
Emergeny medicine assistant professor  
**Other areas of specialty/work**  
**Street address**  
Golestaan hospital, Golestan st.  
**City**  
Ahvaz  
**Postal code**  
**Phone**  
+98 61 3374 3079  
**Fax**  
**Email**  
motamed-h@ajums.ac.ir  
**Web page address**

## **Person responsible for scientific inquiries**

**Contact**  
**Name of organization / entity**  
Ahvaz Jundishapur University of Medical Sciences  
**Full name of responsible person**  
Dr. Hassan Motamed  
**Position**  
Emergency medicine assistant professor  
**Other areas of specialty/work**  
**Street address**  
Golestaan hospital, Golestan st.  
**City**  
Ahvaz  
**Postal code**  
**Phone**  
+98 61 3374 3079  
**Fax**  
**Email**  
motamed-h@ajums.ac.ir  
**Web page address**

## **Person responsible for updating data**

**Contact**  
**Name of organization / entity**  
Ahvaz Jundishapour University of Medical Sciences  
**Full name of responsible person**  
Dr. Hassan Motamed  
**Position**  
Emergency medicine assistant professor  
**Other areas of specialty/work**  
**Street address**  
Golestaan hospital, Golestan st.  
**City**  
Ahvaz  
**Postal code**  
**Phone**  
+98 61 3374 3079  
**Fax**  
**Email**  
motamed-h@ajums.ac.ir  
**Web page address**

**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*