

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

27 May 2026

### The effect of inhaled Thyme on the airway condition and oxygen saturation in mechanically ventilated patients

#### Protocol summary

##### Summary

Study on 66 patients under mechanical ventilation in ICU of Imam Khomeini Hospital in Sari. Inclusion criteria : 65-18 years old patients with at least 72 hours and maximum a week intubation, absence of acute and chronic respiratory diseases such as: COPD, emphysema, atelectasis, asthma and bronchitis and chest trauma. Exclusion criteria: pulmonary edema:severe bronchospasm : tracheostomy: unstable vital signs: hypertension: hyperthyroid: pregnancy: corticosteroids: theophylline: expectorants: mucolytics medications, bronchodilators: allergy history of thyme: rosemary and mint. Data collection was done by demographic and medical data recording questionnaires and a checklists for information of airway condition and oxygen saturation. In Intervention group for 3 days, every 8 hours 4 drops of pure thyme essential oil with 10 cc distilled water is given with nebulizer. During the day before intervention and 3 days of intervention, respiratory secretions were collected and examined for weight, volume and concentration. At 8:00 and 10:00 in the morning, 6 area of patient's lung auscultation in the supine position, and the maximum and plateau pressure of airway and oxygen saturation are noted. The control group receives 10 cc distilled water with nebulizer every 8 hours for 3 days. During one day before intervention and 3 days of intervention, respiratory secretions were collected and examined in terms of weight, volume and concentration. At 8 and 10 am, 6 area of patient's lung auscultation in the supine position, and the maximum and plateau pressure of airway and oxygen saturation will be noted.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201608117494N23**

Registration date: **2017-07-24, 1396/05/02**

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

Last update:

Update count: **0**

##### Registration date

2017-07-24, 1396/05/02

##### Registrant information

###### Name

Masoumeh Bagheri Nesami

###### Name of organization / entity

Mazandaran University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 11 3336 7551

###### Email address

mbagheri@mazums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice chancellor for research of Mazandaran University of Medical Science

##### Expected recruitment start date

2017-07-23, 1396/05/01

##### Expected recruitment end date

2018-01-20, 1396/10/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The effect of inhaled Thyme on the airway condition and oxygen saturation in mechanically ventilated patients

##### Public title

The effect of Thyme on the airway condition and oxygen saturation in mechanically ventilated patients

### **Purpose**

Supportive

### **Inclusion/Exclusion criteria**

Inclusion criteria: 18-65 years old patients with at least 72 hours and maximum a week intubation; absence of acute and chronic respiratory diseases such as COPD, emphysema, atelectasis, asthma and bronchitis and chest trauma; Exclusion criteria: pulmonary edema; severe bronchospasm; tracheostomy; unstable vital signs; hypertension; hyperthyroidism; pregnancy; consumption of corticosteroids, theophylline, expectorants, mucolytics medications and bronchodilators; history of allergy to thyme, rosemary and mint.

### **Age**

From **18 years** old to **65 years** old

### **Gender**

Both

### **Phase**

N/A

### **Groups that have been masked**

*No information*

### **Sample size**

Target sample size: **66**

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

Randomized

### **Randomization description**

### **Blinding (investigator's opinion)**

Double blinded

### **Blinding description**

### **Placebo**

Used

### **Assignment**

Parallel

### **Other design features**

## **Secondary Ids**

empty

## **Ethics committees**

### 1

#### **Ethics committee**

##### **Name of ethics committee**

Ethics Committee of Mazandaran University of Medical Sciences

##### **Street address**

Mazandaran University of Medical Sciences, Vice chancellor for research, Moalem street, Moalem square, Sari, Mazandaran, Iran.

##### **City**

sari

##### **Postal code**

4816715793

#### **Approval date**

2017-05-22, 1396/03/01

#### **Ethics committee reference number**

IR.MAZUMS.REC.96-3097

## **Health conditions studied**

### 1

#### **Description of health condition studied**

airway condition

#### **ICD-10 code**

R09.3

#### **ICD-10 code description**

Abnormal sputum

## **Primary outcomes**

### 1

#### **Description**

secretion Concentration

#### **Timepoint**

1 day before intervention and 3 days of intervention

#### **Method of measurement**

Laboratory digital scale

### 2

#### **Description**

maximum and plateau airway pressure

#### **Timepoint**

1 day before intervention and 3 days of intervention

#### **Method of measurement**

Ventilator

### 3

#### **Description**

Ronka's breathing sound

#### **Timepoint**

1 day before intervention and 3 days of intervention, 8 and 10 Am

#### **Method of measurement**

stethoscope

## **Secondary outcomes**

### 1

#### **Description**

oxygen saturation

#### **Timepoint**

1 day before intervention and 3 days of intervention

#### **Method of measurement**

oxygen saturation with pulse oximeter

## **Intervention groups**

### 1

#### **Description**

Patient in the intervention group every 8 hour, for 30 minutes will receive an average of 10 cc distilled water with 4 drops of thyme essence, for 3 days.

#### **Category**

Prevention

## 2

### Description

Patient in the control group will receive an average 10 cc distilled water for 3 days, every 8 hour, for 30 minutes

### Category

Placebo

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

Emam KHomeini hospital

**Full name of responsible person**

Dr Masoumeh Bagheri- Nesami

**Street address**

Emam khomeini hospital, Amir mazandarani Blv, Sari, Mazandaran, Iran

**City**

Sari

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Vice Chancellor for research Mazandaran University of Medical Sciences

**Full name of responsible person**

Dr Ahmad Ali Enayeti

**Street address**

Vice Chancellor for research Mazandaran University of Medical Sciences, Moalem Street, Moalem Square, Sari, Iran.

**City**

Sari

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Vice Chancellor for research Mazandaran 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**

Mazandaran University of Medical Sciences

**Full name of responsible person**

Dr Masumeh Bagheri Nesami

**Position**

PHD/ faculty member

**Other areas of specialty/work****Street address**

Mazandaran University of Medical Sciences, three-way Joibar, highway Basij, Imam square, Sari, Mazandaran

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anna3043@gmail.com

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

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## Person responsible for updating data

### Contact

## 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*