

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

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Email address

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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**

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Web page address

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