

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

The effect of nebulized Eucalyptus on microbial contamination of endotracheal tube plaque in ventilated patients

Protocol summary

Summary

This is a single blind clinical trial to evaluate the effect of eucalyptus nebulized on microbial contamination of endotracheal tube plaque in ventilated patients in Isfahan Alzahra Hospital. Seventy intubated patients will be selected according to inclusion and exclusion criteria with purposive sampling and will be randomly divided into intervention (eucalyptus inhalation) and control groups (normal saline inhalation). Once patients intubated, they will receive aerosolized eucalyptus or normal saline (as placebo) every 8 hours through a standard nebulizer until removal the endotracheal tube. Following extubation, a sample will be taken from the end of endotracheal tube lumen by laboratory expert for identification of respiratory pathogens.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014060217955N1**

Registration date: **2014-08-31, 1393/06/09**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2014-08-31, 1393/06/09

Registrant information

Name

Nazanin Amini

Name of organization / entity

Arak University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 3451 5672

Email address

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Recruitment status

Recruitment complete

Funding source

Research Deputy of Arak University of Medical Sciences

Expected recruitment start date

2014-08-06, 1393/05/15

Expected recruitment end date

2014-12-06, 1393/09/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of nebulized Eucalyptus on microbial contamination of endotracheal tube plaque in ventilated patients

Public title

The Effect of Nebulized Eucalyptus on Contamination of Microbial Plaque of Endotracheal Tube

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria: oral intubation; 18-65 years old; lack of pulmonary infection; allergy to herbal compounds; sepsis; pulmonary thromboembolism; Atelectasis; GI inflammatory disease; and severe hepatic disease. Exclusion criteria: discharge or transport from ICU; death; extubation before 72 hours; withdrew from study; Any sudden change in the patient's clinical condition.

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: 70

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Randomization is Simple

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Arak University of Medical Sciences

Street address

Arak University of Medical Sciences, Alamoll Huda Street, Railroad Street

City

Arak

Postal code

Approval date

2014-07-14, 1393/04/23

Ethics committee reference number

93-165-3

Health conditions studied

1

Description of health condition studied

Relation of Microbial Contamination of Plaque of Endotracheal Tube with Respiratory Pathogens

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Type of Microorganisms

Timepoint

End of Intervention

Method of measurement

Sample Culture by Laboratory Expert

2

Description

Microorganisms Count

Timepoint

End of Intervention

Method of measurement

Samples culture by laboratory expert

Secondary outcomes

empty

Intervention groups

1

Description

Four ml of 5% eucalyptus will be diluted in 10 ml normal saline and will be nebulized in about 20 minutes through mechanical ventilator. This work will be performed every 8 hours until extubation.

Category

Prevention

2

Description

Ten ml normal saline will be nebulized in about 20 minutes through mechanical ventilator. This work will be performed every 8 hours until extubation.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Isfahan University of Medical Sciences

Full name of responsible person

DrAhmadrezaYazdannik

Street address

Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Azadi Square, Hezar-Jerib street, Isfahan

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Research Deputy of Arak University of Medical Sciences

Full name of responsible person

Mr.Babaie

Street address

Faculty of Nursing and Midwifery, Arak University of

Medical Sciences,Sardasht,

City

Arak

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Research Deputy of Arak 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

Arak University of Medical Sciences

Full name of responsible person

Nazanin Amini

Position

Bachelor of Anesthetic

Other areas of specialty/work

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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