

Clinical Trial Protocol

Iranian Registry of Clinical Trials

09 Jun 2026

Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient

Protocol summary

Study aim

The effect of eucalyptus fumigation on ventilator-induced pneumonia is determined in patients undergoing mechanical ventilation.

Design

After approving the plan and obtaining informed consent from the guardian of the patients, the research is done by the researcher and 3 nurses who have received the necessary training. Seventy patients admitted to the intensive care unit of Vali-e-Asr Educational Hospital in Arak were randomly selected and randomly divided into two groups of intervention (35 people) and control (35 people).

Settings and conduct

Location (Environment) Research: Special care wards of Vali Asr Educational Hospital in Arak

Participants/Inclusion and exclusion criteria

Inclusion criteria :Obtaining consent from the treating physician, the presence of a chip tube through the mouth, age 16 to 65 years, artificial ventilation for at least 72 hours, the absence of pulmonary infection based on the clinical score of modified pulmonary infection (MCPIS), insensitivity to plant compounds, lack of Presence of sepsis, pulmonary thromboembolism, atelectasis, inflammatory diseases of the gastrointestinal tract, bile ducts, and severe liver disease at the discretion of a specialist physician) Criteria for leaving the study: Transfer of the patient from the ICU or his death, dissatisfaction of the patient's companions, chest surgery, observation of complications from eucalyptus incense such as urticarial , pruritus and skin rash, sudden changes in The patient's clinical or respiratory status, worsening of the patient's general condition, or decreased level of consciousness due to possible infection.

Intervention groups

Patients are hospitalized in intensive care units of Vali-e-Asr Educational Hospital in Arak.

Main outcome variables

The intensity of ventilator-associated pneumonia patients receiving incense Eucalyptus and control how much?

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20161014030294N3**

Registration date: **2020-08-23, 1399/06/02**

Registration timing: **retrospective**

Last update: **2020-08-23, 1399/06/02**

Update count: **0**

Registration date

2020-08-23, 1399/06/02

Registrant information

Name

Mansoreh Karimikia

Name of organization / entity

Arak University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 86 3367 4702

Email address

m.karimikia@arakmu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-25, 1399/03/05

Expected recruitment end date

2020-07-25, 1399/05/04

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient

Public title

Effect of nebulized eucalyptus on prevention of ventilator-associated pneumonia in ventilated patient

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

Obtaining the consent of the treating physician, presence of endotracheal tube, age 16 to 65 years, mechanical ventilation for at least 72 hours, no lung infection based on the clinical score of modified lung infection (MCPIS), no sensitivity to plant compounds, no Presence of sepsis, pulmonary thromboembolism, atelectasis, inflammatory diseases of the gastrointestinal tract, bile ducts and severe liver disease at the discretion of a specialist (based on physical examination and history taken from the patient).

Exclusion criteria:

Transfer of the patient from the ICU (for any reason) or death before the completion of the study, unwillingness of the patient's companions to continue the study, chest surgery, observation of complications due to eucalyptus fumigation such as urticaria, pruritus and skin rash, sudden changes in The patient's clinical condition or respiratory pattern, worsening of the patient's general condition, or decreased level of consciousness due to possible infection.

Age

From **16 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Care provider

Sample size

Target sample size: **70**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomly replace the block Individual List of replacement blocks

Blinding (investigator's opinion)

Double blinded

Blinding description

Patients and 3 nurses

Placebo

Used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics Committee of Arak University of Medical Sciences

Street address

A'lam-Al-Hoda Street, Shahid Shiroodi Street, Arak, Markazi Province, Iran

City

Arak

Province

Markazi

Postal code**Approval date**

2020-05-02, 1399/02/13

Ethics committee reference number

IR.ARAKMU.REC.1399.041

Health conditions studied**1****Description of health condition studied**

ventilator-associated pneumonia

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Type of microbial contamination of patients' lung secretions

Timepoint

Samples of endotracheal secretions for microbiological studies 72 hours, 7 days and 15 days after inhalation and when the patient is extubated

Method of measurement

Microbiological test

Secondary outcomes**1****Description**

Incidence of possible complications

Timepoint

From the beginning of the intervention continuously

Method of measurement

observation

Intervention groups

1

Description

Intervention group: Nebulizing eucalyptus. In the patients of the intervention group, 4 drops of ready eucalyptus solution (Darou Gostar Barij Essence co) is diluted in 6 ml of 0.9% normal saline and used by the standard nebulizer system for 15 minutes every 8 hours until the endotracheal tube is removed.

Category

Prevention

2

Description

Control group:Patients in the control group are without the use of nebulizing

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Vali Asr Educational Hospital of Arak

Full name of responsible person

Behnam Mahmodie

Street address

Hazrat Valiasr Educational and Medical Center, Hazrat Valiasr Square, Arak

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karimikia93@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Alireza Kamali

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A'lam-Al-Hoda Street, Shahid Shiroodi Street, Arak, Markazi Province, Iran

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research@arakmu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Arak University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Mansoreh Karimikia

Position

Lecturer

Latest degree

Master

Other areas of specialty/work

Nursery

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Mansoreh Karimikia

Position

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Latest degree

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Person responsible for updating data

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Effect of nebulized eucalyptus on prevention of
ventilator-associated pneumonia in ventilated patient

When the data will become available and for how long

Access period starts 6 months after the results are
published

To whom data/document is available

Researchers working in academic and scientific
institutions

Under which criteria data/document could be used

Data and data analysis and results will be sent via email
after the article is published.

From where data/document is obtainable

Responsible person: Mansoreh Karimi Kia Address : Arak
University of Medical Sciences, School of Paramedical
Sciences Contact number 09181600717 Email:
karimikia93@gmail.com

What processes are involved for a request to access data/document

The request is made by phone or email and the results
are sent by email within a week.

Comments