# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

17 Sep 2026

## The effects of inhaling lavender on pain and anxiety caused by bone marrow aspiration

## Protocol summary

**Summary**

The most frequent complaint is pain in the bone marrow biopsy. In many studies, it is considered unacceptable pain for patients. Experienced pain during and after the procedure causes fear and patients unwilling to continue the follow-up biopsy. One of the factors affecting the pain and anxiety before the procedure is a bone marrow examination. This investigation aimed to determine the clinical trial is done and its purpose of inhalation of lavender on pain and anxiety caused by bone marrow aspiration. The study included 40 subjects in the intervention and control groups is, in both pain and anxiety before the intervention will be investigated and then the control group patients before bone marrow examination 3 drops of distilled water was dropped on a cotton ball placed inside a sealed container from a distance of 7-10 cm will inhale for 10 minutes. In the experimental group, inhaling lavender, 3 drops of lavender on a cotton spinner bullet and placed inside a box and closed one of the volunteers will be asked to open the door cans and at a distance of 10-7 inches from nose to breathe normally befor 10 minutes. The pain and anxiety after the intervention studied. Then will be compare the results from both methods .

## General information

**Acronym**

Bone marrow aspiration

**IRCT registration information**

IRCT registration number: **IRCT2016121431417N1**
Registration date: **2017-02-13, 1395/11/25**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

**Registration date**

2017-02-13, 1395/11/25

**Registrant information**

**Name**

Fariba Tabari

**Name of organization / entity**

School of Nursing and Midwifery ,Tehran University of Medical Sciences, Tehran, Iran

**Country**

Iran (Islamic Republic of)

**Phone**

+98 21 6105 4327

**Email address**

ftabari@tums.ac.ir

**Recruitment status**

**Recruitment complete**

**Funding source**

Tehran University of Medical Sciences

**Expected recruitment start date**

2016-03-19, 1394/12/29

**Expected recruitment end date**

2017-03-20, 1395/12/30

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

The effects of inhaling lavender on pain and anxiety caused by bone marrow aspiration

**Public title**

The effects of inhaling lavender on bone marrow aspiration

**Purpose**

Supportive

**Inclusion/Exclusion criteria**

• age 18 and older • being alert to time, place and persons at the time of data collection. • insensitivity to lavender • no history for alcohol and drugs consumption

• having the ability to smell • education at least literate • no history of mental illness • lack of moderate and severe pain

**Age**

From **18 years** old to **99 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **80**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

**Blinding (investigator's opinion)**

Not blinded

**Blinding description**

**Placebo**

Used

**Assignment**

Parallel

**Other design features**

This study is a clinical trial that aims to determine the effect of inhalation of lavender on pain and anxiety caused by bone marrow aspiration. RAS generated random sequence using the software and immediately after the biopsy pain and anxiety in patients studied. In the test group to inhale the scent of lavender as well as consult with teachers of traditional medicine 15 minutes before a bone marrow examination 3 drops of lavender ten percent on a cotton ball with spinner inside a box closed one set, and the candidate will be asked doors open cans at a distance of 10-7 inches from nose to breathe normally for 15 minutes until pain and anxiety immediately after the biopsy should be considered. The results of the two methods will be compared.

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**

**Name of ethics committee**

Tehran University of Medical Sciences

**Street address**

School of Nursing and Midwifery, Tehran University of Medical Sciences

**City**

Tehran

**Postal code**

1419733171

**Approval date**

2016-11-21, 1395/09/01

**Ethics committee reference number**

IR.TUMS.FNM.REC.1395.780

## Health conditions studied

### 1

**Description of health condition studied**

Bone marrow puncture

**ICD-10 code**

**ICD-10 code description**

## Primary outcomes

### 1

**Description**

Pain

**Timepoint**

Immediately after biopsy

**Method of measurement**

Data collection Visual Analogue Scale

## Secondary outcomes

### 1

**Description**

Anxiety

**Timepoint**

Immediately after sampling

**Method of measurement**

Anxiety Visual Scale

## Intervention groups

### 1

**Description**

The most frequent complaint is pain in the bone marrow biopsy. In many studies, it is considered unacceptable pain for patients. Experienced pain during and after the procedure causes fear and patients unwilling to continue the follow-up biopsy. One of the factors affecting the pain and anxiety before the procedure is a bone marrow examination. This investigation aimed to determine the clinical trial is done and its purpose of inhalation of lavender on pain and anxiety caused by bone marrow aspiration. The study included 40 subjects in the intervention and control groups is, in both pain and anxiety before the intervention will be investigated and then the control group patients before bone marrow examination 3 drops of distilled water was dropped on a cotton ball placed inside a sealed container from a distance of 7-10 cm will inhale for 10 minutes. In the experimental group, inhaling lavender, 3 drops of lavender on a cotton spinner bullet and placed inside a box and closed one of the volunteers will be asked to open the door cans and at a distance of 10-7 inches from nose to breathe normally befor 10 minutes. The pain and anxiety after the intervention studied. Then will be compare the results from both methods .

**Category**

Other

## Recruitment centers

**1**

**Recruitment center**

**Name of recruitment center**
Shariati Hospital, Tehran

**Full name of responsible person**
Fariba Tabari

**Street address**
Faculty of Nursing and Midwifery, Tehran University of Medical Science, Nosrat St. , Tohid Sq., Post Code

**City**
Tehran

## Sponsors / Funding sources

**1**

**Sponsor**

**Name of organization / entity**
Tehran University of Medical Sciences

**Full name of responsible person**
Dr. Masoud Younesian

**Street address**
Sixth floor, Tehran University of Medical Sciences, Keshavarz blvd.an

**City**
Tehran

**Grant name**

**Grant code / Reference number**

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

**Title of funding source**
Tehran 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**
Faculty of Nursing and Midwifery, Tehran University of Medical Sciences

**Full name of responsible person**
Fariba Tabari

**Position**
PhD

**Other areas of specialty/work**

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## Person responsible for scientific inquiries

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## Person responsible for updating data

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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*