

Clinical Trial Protocol

Iranian Registry of Clinical Trials

13 Jul 2026

Comparison of the speed of endotracheal intubation and the first-attempt success rate of endotracheal intubation with direct laryngoscopy and Wi-Fi video laryngoscope in adult patients admitted to the intensive care unit

Protocol summary

Study aim

Determining the time required for tracheal intubation and grading the laryngeal view with Wi-Fi video laryngoscope during intubation of patients in intensive care of unit

Design

A single-blind randomized clinical trial with control group, and parallel groups, on 90 patients. Random generator software was used to randomize.

Settings and conduct

A single-blind clinical trial study is performed on patients that need respiratory support, laryngoscopy and tracheal intubation at Sina Hospital

Participants/Inclusion and exclusion criteria

Inclusion criteria: All patients who need respiratory support, aged 18 years and older who require endotracheal intubation. Non-inclusion criteria: Patients who have an airway pathology; Patients with a history of neck fixation surgery

Intervention groups

Intervention group: Candidate patients for respiratory support and endotracheal intubation in intensive care unit after monitoring and injection of anesthetic drugs, laryngoscopy performed with Wi-Fi video laryngoscope. Control group: Laryngoscopy is performed with direct laryngoscopy with Macintosh blade.

Main outcome variables

Duration of intubation, degree of larynx view, changes in blood pressure and heart rate during laryngoscopy

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20130304012695N10**

Registration date: **2021-07-22, 1400/04/31**

Registration timing: **registered_while_recruiting**

Last update: **2021-07-22, 1400/04/31**

Update count: **0**

Registration date

2021-07-22, 1400/04/31

Registrant information

Name

mohammadreza khajavi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 6312 1220

Email address

khajavim@tums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-31, 1400/03/10

Expected recruitment end date

2022-02-19, 1400/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the speed of endotracheal intubation and the first-attempt success rate of endotracheal intubation with direct laryngoscopy and Wi-Fi video laryngoscope in

adult patients admitted to the intensive care unit

Public title
Evaluation of the speed and accuracy of WiFi video laparoscope

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
All patients who need an endotracheal intubation for respiratory support and mechanical ventilation Aged 18 years and older
Exclusion criteria:
Patients who have an airway pathology Patients with a history of neck fixation surgery

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

Sample size
Target sample size: **90**

Randomization (investigator's opinion)
Randomized

Randomization description
To randomize patients with inclusion criteria Block balanced randomization is used. Before studying, one of the person who is not a member of the research team performs the randomization process by using Random generator software, forms blocks with size of 4 for the intervention and control group. The complete cards of blocks are given to the head of the intensive care of unit, who is unaware of the study, in an envelope. A card is given to each patient before intubation process

Blinding (investigator's opinion)
Single blinded

Blinding description
Patients participating in the study are not aware of the type of laryngoscope for intubation. The name of the person collecting the research information is not on the list of researchers. The analyzer is not involved in the research process.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids
empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of Tehran University of Medical Sciences
Street address
Sina hospital; Hasan Abad square; Emam khomeni street
City
Tehran
Province
Tehran
Postal code
1136746911
Approval date
2021-05-23, 1400/03/02
Ethics committee reference number
IR.TUMS.SINAHOSPITAL.REC.1400.019

Health conditions studied

1

Description of health condition studied
intra tracheal intubation

ICD-10 code
T88.4

ICD-10 code description
Failed or difficult intubation

Primary outcomes

1

Description
Duration of intubation

Timepoint
From the moment the laryngoscope enters the mouth to observe the expiratory wave of the capnograph

Method of measurement
With stopwatch and in seconds

Secondary outcomes

1

Description
Glottic view

Timepoint
At the time of laryngoscopy

Method of measurement
According to Cormac criteria

2

Description
blood pressure

Timepoint
before and after intubation

Method of measurement
Non invasive blood pressure/ mmhg

3

Description

Heart Rate

Timepoint

Before and after intubation

Method of measurement

with monitoring

Intervention groups

1

Description

Intervention group: Intubation is done with a Wi-Fi video laryngoscope

Category

Treatment - Devices

2

Description

Control group: Tracheal Intubation is performed by direct laryngoscopy

Category

Treatment - Devices

Recruitment centers

1

Recruitment center**Name of recruitment center**

Sina Hospital

Full name of responsible person

Mohammad Reza Khajavi

Street address

Sina Hospital; Imam Khomeini street

City

Tehran

Province

Tehran

Postal code

1136746911

Phone

+98 21 6634 8550

Email

khajavim@tums.ac.ir

Sponsors / Funding sources

1

Sponsor**Name of organization / entity**

Tehran University of Medical Sciences

Full name of responsible person

Mohammad Ali Sahraeian

Street address

Central building of Tehran University of Medical sciences, Ghods St., Keshavarz Blvd.

City

Tehran

Province

Tehran

Postal code

1417653761

Phone

+98 21 8163 3698

Email

vcr@tums.ac.ir

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

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**

Tehran University of Medical Sciences

Full name of responsible person

Mohammadreza Khajavi

Position

Professor

Latest degree

Specialist

Other areas of specialty/work

Anesthesiology

Street address

Sina Hospital Hassan Abad square, Imam Khomini street

City

Tehran

Province

Tehran

Postal code

1136746911

Phone

+98 21 6312 1220

Fax

+98 21 6312 0000

Email

khajavim@tums.ac.ir

Person responsible for scientific inquiries

Contact**Name of organization / entity**

Tehran University of Medical Sciences
Full name of responsible person
 Mohammadreza Khajavi
Position
 Professor
Latest degree
 Specialist
Other areas of specialty/work
 Anesthesiology
Street address
 Sina Hospital Hassan Abad square, Imam Khomeini street
City
 Tehran
Province
 Tehran
Postal code
 1136746911
Phone
 +98 21 6312 1220
Fax
 +98 21 6312 0000
Email
 khajavim@tums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
 Tehran University of Medical Sciences
Full name of responsible person
 Mohammadreza Khajavi
Position
 Professor
Latest degree
 Specialist
Other areas of specialty/work
 Anesthesiology
Street address
 Sina Hospital Hassan Abad square, Imam Khomeini street
City
 Tehran

Province
 Tehran
Postal code
 1136746911
Phone
 +98 21 6312 1220
Fax
 +98 21 6312 0000
Email
 khajavim@tums.ac.ir

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
 No - There is not a plan to make this available
Informed Consent Form
 Yes - There is a plan to make this available
Clinical Study Report
 Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
 No - There is not 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
 The results of the main study outcome
When the data will become available and for how long
 Six months after the end of the study
To whom data/document is available
 University and industry researchers
Under which criteria data/document could be used
 Share experiences to increase the use of video laryngoscope
From where data/document is obtainable
 Dr. Khajavi e-mail address khajavim@tums.ac.ir
What processes are involved for a request to access data/document
 Requested by email responds within a week
Comments