Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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
Glotic 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
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Tehran
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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.
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1417653761
Phone
+98 21 8163 3698
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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
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Sina Hospital Hassan Abad square, Imam Khomini street
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Person responsible for updating data

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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
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 respons within a week
Comments