

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

21 Jun 2026

### Comparing volume control versus pressure control mechanical ventilation after cardiac surgery on respiratory parameters

#### Protocol summary

##### Study aim

Comparison of volumetric mechanical ventilation with compressive mechanical ventilation after cardiac surgery

##### Design

Double-blind clinical trial

##### Settings and conduct

After obtaining written approval from the Ethics Committee of Tabriz University of Medical Sciences and obtaining written informed consent from all patients, the number ... , According to a randomized list in one of two groups.

##### Participants/Inclusion and exclusion criteria

All patients over 18 years of age who are candidates for elective cardiac surgery with the help of cardiopulmonary pump at Shahid Madani Hospital.

##### Intervention groups

Volume mechanical ventilation group A group with pressure mechanical ventilation and comparison between them after cardiac surgery.

##### Main outcome variables

Cardiopulmonary pump duration; mechanical ventilation; ICU hospitalization

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200219046554N1**

Registration date: **2020-03-11, 1398/12/21**

Registration timing: **registered\_while\_recruiting**

Last update: **2020-03-11, 1398/12/21**

Update count: **0**

##### Registration date

2020-03-11, 1398/12/21

##### Registrant information

##### Name

Tohid Mahooti

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 44 3343 3633

##### Email address

hi.hooti1992@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-09-23, 1398/07/01

##### Expected recruitment end date

2020-12-20, 1399/09/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparing volume control versus pressure control mechanical ventilation after cardiac surgery on respiratory parameters

##### Public title

Effect of mechanical ventilation mode after cardiac surgery

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

###### Inclusion criteria:

All patient upper 18 year old of elective candid cardiac surgery to cardiopulmonary pump in the madani hospital

###### Exclusion criteria:

Less than 18 years old Emergency surgery Emergency

surgery is not use cardiopulmonary pump

### Age

From **18 years** old

### Gender

Both

### Phase

N/A

### Groups that have been masked

- Participant
- Care provider

### Sample size

Target sample size: **100**

### Randomization (investigator's opinion)

Randomized

### Randomization description

Adult Patients Candidate for Elective Cardiac Surgery with Cardiopulmonary Pump at Shahid Madani Heart Hospital Refer to the Operating Room, respectively, according to a randomized list in one of two groups ... Patients are randomly selected in a time series using volumetric mechanical and pressure mechanical ventilation during and after surgery.

### Blinding (investigator's opinion)

Double blinded

### Blinding description

Adult patients who are candidates for elective cardiac surgery with cardiopulmonary pump at Shahid Madani Heart Hospital are randomly assigned to one of two groups according to the prepared list and participants are blinded to medical treatment.

### Placebo

Not used

### Assignment

Factorial

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Research in Tabriz University of Medical Sciences

##### Street address

Daneshgah street

##### City

Tabriz

##### Province

East Azarbaijan

##### Postal code

5719915674

#### Approval date

2020-02-17, 1398/11/28

#### Ethics committee reference number

IR.TBZMED.REC.1398.1235

## Health conditions studied

### 1

#### Description of health condition studied

Comparison of volumetric mechanical ventilation with compression after cardiac surgery

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

The effect of age, sex, weight, type of cardiac surgery, duration of cardiopulmonary period, need for mechanical ventilation and duration of ICU hospitalization on compressive and volumetric mechanical ventilation

#### Timepoint

Up to 12 months

#### Method of measurement

weight and hour

## Secondary outcomes

### 1

#### Description

Complications after cardiac surgery with different mechanical ventilation modalities

#### Timepoint

From 6 hours after surgery until discharge after surgery

#### Method of measurement

Time control of complications with different mechanical ventilation modes

## Intervention groups

### 1

#### Description

People receiving voluntary mechanical ventilation after cardiac surgery will be considered as the control group, and those undergoing pressure mechanical ventilation will be considered as the intervention group, early and late complications and duration of hospital discharge will be assessed.

#### Category

N/A

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Madani hospital

##### Full name of responsible person

Tohid mahooti

##### Street address

Daneshgah street.madani hospital  
**City**  
Tabriz  
**Province**  
East Azarbaijan  
**Postal code**  
5719915674  
**Phone**  
+98 44 3343 3633  
**Email**  
hi.hooti1992@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**  
Tabriz University of Medical Sciences  
**Full name of responsible person**  
Mohamadreza ardan  
**Street address**  
Daneshgah street.madani hospital  
**City**  
Tabriz  
**Province**  
East Azarbaijan  
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hi.hooti1992@yahoo.com  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
No  
**Title of funding source**  
Organization  
**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**  
Tabriz University of Medical Sciences  
**Full name of responsible person**  
Tohid mahooti  
**Position**  
Medical student  
**Latest degree**

Medical doctor  
**Other areas of specialty/work**  
General Practitioner  
**Street address**  
Daneshgah street.madani hospital  
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## Person responsible for scientific inquiries

#### Contact

**Name of organization / entity**  
Tabriz University of Medical Sciences  
**Full name of responsible person**  
Tohid mahooti  
**Position**  
Medical student  
**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**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be 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**

Data can be played back with respect to patients' rights and their satisfaction

**When the data will become available and for how long**

Access after printing is completed

**To whom data/document is available**

Anyone can use it.

**Under which criteria data/document could be used**

No special conditions for now.

**From where data/document is obtainable**

E-mail and phone calls and websites.

hi.hooti1992yahoo.com, 00989146328349

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

Refer to thesis reference and use thesis text if needed

**Comments**