

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

01 Jul 2026

### Comparing the effect of pressure support ventilation and volume assured pressure support ventilation in weaning of mechanical ventilation in patients after cardiac surgery

#### Protocol summary

##### Summary

One of the most common methods of weaning from mechanical ventilation is using pressure support ventilation (PSV). The main features of this method is that it enables the patient to the tail, to determine the volume and respiratory rate. But on the other hand, this method is not able to ensure the delivery of tidal volume assured pressure support ventilation using one of the big obstacles is. In contrast, the volume mode changes like trying stability of the respiratory tidal volume, lung compliance and airway resistance are provided. If the current size of the patient's condition is not reached, the ventilator will automatically close the volume offers. Actually, this method represents a mixture of air pressure and air volume of the merits of the two methods are in a breath. Consequently, a study was conducted to evaluate this method of mechanical ventilation is required. This study aimed to compare the effect of pressure support ventilation (PSV) technique commonly used with pressure support ventilation with the size (VAPS) upon separation from mechanical ventilation in patients after cardiac surgery is performed.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2013040512896N1**  
Registration date: **2013-05-24, 1392/03/03**  
Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2013-05-24, 1392/03/03

##### Registrant information

##### Name

Zohreh Mohamadzadeh Tabrizi

##### Name of organization / entity

Mashhad University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 915 119 4044

##### Email address

mohamadzadehz1@mums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Mashhad University of Medical Sciences

##### Expected recruitment start date

2013-05-22, 1392/03/01

##### Expected recruitment end date

2013-09-21, 1392/06/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparing the effect of pressure support ventilation and volume assured pressure support ventilation in weaning of mechanical ventilation in patients after cardiac surgery

##### Public title

Comparing the effect of pressure support ventilation and volume assured pressure support ventilation in weaning of mechanical ventilation in patients after cardiac surgery

##### Purpose

Supportive

## Inclusion/Exclusion criteria

Inclusion criteria: coronary bypass surgery or heart valve repair or replacement surgery is considered; age over 18 years old; the patient has no history of chronic lung disease; the patient has an EF  $\geq$  30% and duration of mechanical ventilation for more than 8 hours. Exclusion criteria: during the separation process from ventilator patients requiring cardiac resuscitation is pulmonary; drain bleeding area greater than 100 ml / h during 3 hours; the need for further surgery; PEEP > 10 cmH<sub>2</sub>O; FiO<sub>2</sub> > 60%; PF ratio < 200; hemodynamic instability (MAP < 65); electrolyte abnormalities affecting weaning of mechanical ventilation (Hypo speech, hypothyroidism, magnesium, hypophosphatemia); dangerous dysrhythmias leading to hemodynamic impairment; inotropes or vasopressor drug dependence and there agitation or severe sedation RASS more than 0 and less than -1

### Age

No age limit

### Gender

Both

### Phase

N/A

### Groups that have been masked

No information

### Sample size

Target sample size: 35

### Randomization (investigator's opinion)

Randomized

### Randomization description

### Blinding (investigator's opinion)

Single blinded

### Blinding description

### Placebo

Not used

### Assignment

Parallel

### Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Mshhad University of Medical Sciences

##### Street address

Mashhad- University St - Mshhad University of Medical Sciences

##### City

Mashhad

##### Postal code

#### Approval date

2013-05-04, 1392/02/14

#### Ethics committee reference number

911157

## Health conditions studied

### 1

#### Description of health condition studied

Time of weaning from mechanical ventilation in patients after cardiac surgery

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Weaning time

#### Timepoint

Immediately after intervention

#### Method of measurement

Clock(timer)

## Secondary outcomes

### 1

#### Description

Reintubation

#### Timepoint

After intervention

#### Method of measurement

Clock(timer)

## Intervention groups

### 1

#### Description

In the intervention group, patient after cardiac surgery, if within 6 hours do not wean; we use of volume assured pressure supported ventilation (vaps) and register the time.

#### Category

Treatment - Devices

### 2

#### Description

In the control group, patient after cardiac surgery, if within 6 hours do not wean; we use of pressure supported ventilation (psv)( routine method) and register the time.

#### Category

Treatment - Devices

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Emam Reza Hospital

**Full name of responsible person**

Zihreh Mohamadzadeh Tabrizi

**Street address**

Abdolotalleb blv.

**City**

Mashhad

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Mashhad University of Medical Sciences

**Full name of responsible person**

Ms. Farzaneh Hasanzadeh

**Street address**

Nursing &amp; Midwifery Faculty

**City**

Mashhad

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Mashhad 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**

Mashhad University of Medical Sciences

**Full name of responsible person**

Zohreh Mohamadzadeh Tabrizi

**Position**

Msc- critical care nursing student

**Other areas of specialty/work****Street address**

Mashhad

**City**

Mashhad

**Postal code****Phone**

+98 51 1723 3643

**Fax****Email**

mohamadzadehz1@mums.ac.ir

**Web page address****Person responsible for scientific inquiries****Contact****Name of organization / entity**

Mashhad University of Medical Sciences

**Full name of responsible person**

Dr Shahram Amini

**Position**

Associate professor

**Other areas of specialty/work****Street address**

Mashhad

**City**

Mashhad

**Postal code****Phone**

+98 51 1802 2314

**Fax****Email**

shahramamini@hotmail.com

**Web page address****Person responsible for updating data****Contact****Name of organization / entity**

Mashhad University of Medical Sciences

**Full name of responsible person**

Zohreh Mohamadzadeh Tabrizi

**Position**

Critical care nursing student

**Other areas of specialty/work****Street address****City**

Mashhad

**Postal code****Phone**

+98 51 1723 3643

**Fax****Email****Web page address****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*