

Clinical Trial Protocol

Iranian Registry of Clinical Trials

01 Jul 2026

Comparison Dopamine and Nor-epinephrine on End tidal carbon dioxide pressure in patients with septic shock

Protocol summary

Study aim

comparing the effect of using norepinephrine or dopamine on ETco2 of patients with infectious shock

Design

394/5000 The first group received epinephrine light medication and the second group received dopamine. Age, sex, blood pressure at baseline and 30 minutes and 120 minutes after treatment and initial ET-CO2 and ET-CO2 at 30 and 120 minutes, respectively. It is then measured and recorded, and then the effects of each of the two drugs mentioned above in treating shock based on improved hemodynamic symptoms and increased CO2 levels are compared and compared.

Settings and conduct

The study will be conducted in Imam Khomeini hospital of sari a training center on 138 patients with depressive disorder. The drugs were formulated and put in a separate container and then given a separate code for each container. The physician, nurse, and patient were unaware of the type of medication, and the patients were randomized based on simple random

Participants/Inclusion and exclusion criteria

The inclusion criteria comprised patients aged 18 years or older, undergone mechanical ventilation, and required vasopressor (dopamine or norepinephrine) for shock therapy patients under 18 years of age, with trauma, chronic lung disease, definite brain death, cardiac arrhythmia, referred from other centers, or with more than 2-hour hospitalization in the emergency department were excluded from the study.

Intervention groups

The first group of epinephrine The second group is dopamine

Main outcome variables

ETco2 Measurement

General information

Reason for update

Modify the number of study samples

Acronym

IRCT registration information

IRCT registration number: **IRCT2015101924606N1**

Registration date: **2016-10-13, 1395/07/22**

Registration timing: **registered_while_recruiting**

Last update: **2020-01-28, 1398/11/08**

Update count: **1**

Registration date

2016-10-13, 1395/07/22

Registrant information

Name

Hamed Aminiahidashti

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 11 3336 1700

Email address

h.aminiahidashti@mazums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Mazandaran University of Medical Sciences

Expected recruitment start date

2016-02-18, 1394/11/29

Expected recruitment end date

2017-02-18, 1395/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison Dopamine and Nor-epinephrine on End tidal carbon dioxide pressure in patients with septic shock

Public title

End tidal carbon dioxide pressure in patients with septic shock

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients with septic shock conditions

Exclusion criteria:

patients under 18 years patients more than 75 year
Those who received more than 4 hours vasopressor drugs
brain death Those with severe cardiac arrhythmia
Traumatic patient Brain death

Age

From **18 years** old to **75 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant
- Care provider
- Outcome assessor

Sample size

Target sample size: **138**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization Patients were divided into two groups and randomly assigned to each of the two groups. The drugs in each group were of the same size and shape, each of these numbers was coded and sealed in a seal envelope.

Blinding (investigator's opinion)

Double blinded

Blinding description

Drugs in a similar container in an opaque bag numbered and the prescribing physician and nurse practitioner were unaware.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

کمیته اخلاق دانشگاه علوم پزشکی مازندران

Street address

Mazandaran University of Medical Sciences, Jooybar

treeway, Imam Square

City

Sari

Province

Mazandaran

Postal code

4815724971

Approval date

2016-07-17, 1395/04/27

Ethics committee reference number

IR.MAZUMS.REC.95.1547

Health conditions studied

1

Description of health condition studied

Septic Shock

ICD-10 code

A41.9

ICD-10 code description

Septicaemia, unspecified, Septic Shock

Primary outcomes

1

Description

Blood pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

mmhg, manometer

2

Description

End Tidal Carbon Dioxide Pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

mmhg, capnograph

Secondary outcomes

1

Description

Heart Rate

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

number per minutes

2

Description

Oxygen Saturation

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Puls oxymeter

3

Description

Carbon Dioxide Pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Blood gas

4

Description

Oxygen Pressure

Timepoint

Before intervention, 30 minutes after intervention, 120 minutes after intervention

Method of measurement

Blood gas

Intervention groups

1

Description

Amp Neurepinephrine, 0.5 micro gram/kilogram/minutes, For 2 hours

Category

Treatment - Drugs

2

Description

Amp Dopamine, 5microgram/kilogram/minutes, For 2 hours

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Vice chancellor for research, Mazandaran University of Medical Sciences

Full name of responsible person

Ahmadali Enayati

Street address

Vice chancellor for research, Mazandaran University of Medical Sciences, Moallem Square

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Mazandaran University of Medical Sciences

Full name of responsible person

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Sari 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

Mazandaran University of Medical Sciences

Full name of responsible person

Hamed Aminiahidshti

Position

Assistant Professor

Latest degree

Specialist

Other areas of specialty/work

Emergency Medicine

Street address

Emergency Department, Imam Khomeini Hospital, Amirmazandarani avenue

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

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Web page address**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

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is 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

All potential data is shared after unidentifiable people

When the data will become available and for how long

It has started in 2016

To whom data/document is available

Academic researchers

Under which criteria data/document could be used

All data analysis and actions are coordinated and informed by the project manager

From where data/document is obtainableProject Officer - Research Deputy of Mazandaran
University of Medical Sciences**What processes are involved for a request to access data/document**Written Request to Research Deputy of Mazandaran
University of Medical Sciences**Comments**