

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

Assessment the effects of respiratory exercise education before surgery on patient's pulmonary function after open heart surgery

Protocol summary

2012-07-26, 1391/05/05

Summary

Now a day all known the main roles of nursing groups in open heart surgery wards and improvement in their working basically decrease the patient's mortality and morbidity the goal of this research study is evaluation of the effects of respiratory training patient's education before operation on patients respiratory function after open heart surgery. Methods: This study after approved Local Ethics Committee comprised 80 patients in age 45-65 years old that underwent coronary artery bypass graft (CABG) in Ekbatan Hospital of Hamadan, Iran. Patients were randomly assigned into two groups equally (case and control groups each group 40). Inclusion criteria include: All patients 45-65 years old range without any chronic disease. Exclusion criteria include to event pneumothorax and re intubation due to acute respiratory failure. Both of groups will evaluate of pulmonary Function Test before operation case grope have planned series training during 2.5 hours and continue this training after operation in control group will do this training just after operation. The programs for pulmonary tests in both groups will do Chest X-Rays, listening to breath sound, detect deep of respiration ,respiratory rates, pulse rates, Temperature,SPO2and ABG in a detected range of hours in 1,2,3 days after operation .

Registrant information

Name

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Name of organization / entity

Hamedan University Of Medical Science

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Recruitment status

Recruitment complete

Funding source

HAMEDAN UNIVERSITY OF MIDICAL SCIENCE

Expected recruitment start date

2012-01-05, 1390/10/15

Expected recruitment end date

2012-03-20, 1391/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Assessment the effects of respiratory exercise education before surgery on patient's pulmonary function after open heart surgery

Public title

Effect of respiratory physiotherapy on pulmonary function

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: open heart surgery; age 45 to 65;

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201112188451N1**

Registration date: **2012-07-26, 1391/05/05**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

patient satisfaction, lack of acute and chronic lung disease; having pft acceptable and normal, having a normal chest Exclusion criteria: lack of patient satisfaction; pneumothorax; advanced lung infection; referred back to the operating room; the incidence of adverse events after surgery;prolonged surgical procedures; re-intubation; pulmonary embolism; pleural effusion; pulmonary edema; emphysema

Age

From **45 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description**Blinding (investigator's opinion)**

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

HAMEDAN UNIVERSITY OF MEDICAL SCIENCE

Street address

HAMEDAN MAHDIYEH S. NEAR THE MARDOM PARK

City

HAMEDAN

Postal code**Approval date**

2012-11-13, 1391/08/23

Ethics committee reference number

2854/35/16/د/پ

Health conditions studied**1****Description of health condition studied**

CRONARY HEART DISEASE AND VALVE DISEASE

ICD-10 code

I25.1

ICD-10 code description

Atherosclerotic heart disease

Primary outcomes**1****Description**

HEAR RATE

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

CARDIAC MONITORING

2**Description**

DEEP OF RESPIRATION

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

WHIT OBSERVATION

3**Description**

RESPIRATORY RATE

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

NUMBER OF RESPIRATORY RATE

4**Description**

Saturation of Peripheral Oxygen

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

MONITOR AND PULSE OXIMETRY

5**Description**

TEMPERETURE

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

BY TERMOMETER

6**Description**

PULMONARY SOUND

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

AUSCULATION

7

Description

chest x-ray

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR
AND PER 6 HR AND PER 12 HR AND THURSE DAY

Method of measurement

CHEEST RADIOGRAPHY

8

Description

atrial blood gas

Timepoint

BEFORE OF SURGERY AND AFTER SURGERY PER 2 HR
AND PER 6 HR AND PER 12 HR

Method of measurement

ASSESSMENT ATRIAL BLOOD GAS

Secondary outcomes

1

Description

PNEMOTHORAXS

Timepoint

DURING TO RESEARCH

Method of measurement

CXR

Intervention groups

1

Description

Case Group: Patients divided in groups 3-5 person respiratory training (diaphragmatic respiration, incentive Respirametry and effective Cough and...) will do practical and face to face in 2 times 2.5 hours 2 days before operation. If patients don't learn repeat the programs and the patients with low function will be deleted of study.

Category

Prevention

2

Description

Control Group: in This group Educational training Will be done 2 days after operation routinely .

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

EKBATAN HOSPITAL OPEN HEART SURGERY

Full name of responsible person

MOHSEN SALAVATI

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HAMEDAN

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Hamedan University Of Medical Science

Full name of responsible person

Heydar Tavilani

Street address

Near Mardom Park, Mahdiye ST, Hamedan

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Hamedan

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Hamedan University Of Medical Science

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

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Full name of responsible person

ATEFEH BOOSTANBAKSH

Position

Master Science Critical Nurse Student

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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