

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Sep 2026

Effect of insulin injection training on blood glucose control among patients with type 2 diabetes

Protocol summary

Study aim

Determining the effect of insulin training on blood sugar control in patients with type 2 diabetes

Design

quasi-experimental study before and after on 400 patients with type 2 diabetes treated with insulin pen

Settings and conduct

Yazd Diabetes Center is study place . According to easy sampling, the samples are selected and entered into the study. The questionnaire is completed for all individuals who meet the inclusion criteria. Then, the face to face correct injection training is given to the people and an educational video will be provided to them in this regard. Questionnaires will be completed and analyzed three months after the last retraining session.

Participants/Inclusion and exclusion criteria

Patients with type 2 diabetes who are referred to the Yazd Diabetes Center, who are being treated with insulin. Inclusion criteria include: over 30 years of age, use of insulin pen for at least three months, insulin injection by a regular person. Exclusion criteria consist of dialysis patients, Missing training session, changing in the patient's daily insulin dose.

Intervention groups

The correct insulin injection technique is taught to each patient through face-to-face training. In order to remind the trained technique, an educational video has been prepared in this regard and provided to the participants via email or social networks or CDs. Symptoms of hypoglycemia and proper actions in hypoglycemia will be mentioned in video.

Main outcome variables

The daily dose of insulin received: The amount of fasting blood sugar: The amount of 2hpp

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200426047208N1**

Registration date: **2020-06-30, 1399/04/10**

Registration timing: **retrospective**

Last update: **2020-06-30, 1399/04/10**

Update count: **0**

Registration date

2020-06-30, 1399/04/10

Registrant information

Name

Akram Mehrabbeik

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 35 3728 0226

Email address

mehrabbeyk@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-05-21, 1399/03/01

Expected recruitment end date

2020-06-21, 1399/04/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of insulin injection training on blood glucose control among patients with type 2 diabetes

Public title

Effect of insulin injection training on blood glucose control among patients with type 2 diabetes

Purpose
Education/Guidance

Inclusion/Exclusion criteria
Inclusion criteria:
Age >30 Use of insulin pen for at least three months
Insulin injection by a regular person
Exclusion criteria:
Dialysis patients Miss training sessions Changing in the patient's daily insulin dose

Age
From **30 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **400**

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shahid Sadoughi University of Medical Sciences

Street address

Bahonar Sq

City

Yazd

Province

Yazd

Postal code

8917693571

Approval date

2020-02-15, 1398/11/26

Ethics committee reference number

IR.SSU.REC.1398.213

Health conditions studied

1

Description of health condition studied

Insulin injection technique

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The daily dose of insulin received

Timepoint

At the beginning of the study (before intervention)and three months after the intervention

Method of measurement

Researcher-made questionnaire

2

Description

The amount of fasting blood sugar

Timepoint

At the beginning of the study (before intervention)and three months after the intervention

Method of measurement

Blood test

3

Description

The amount of 2hpp

Timepoint

At the beginning of the study (before intervention)and three months after the intervention

Method of measurement

Blood test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: a face-to-face educational session by diabetes center training expert in the correct technique of insulin injection, emphasizing the cases in which the patient has insufficient skill and also display the correct insulin injection technique in the form of a 10-5 minute instructional video via email, CD or virtual networks as a reminder

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Yazd Diabetes Research Center

Full name of responsible person

Akram Mehrabbeik

Street address

Talar Honar Alley- Bahonar Sq

City

Yazd

Province

Yazd

Postal code

8917693571

Phone

+98 35 3728 0226

Email

info@ssu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yazd University of Medical Sciences

Full name of responsible person

Dr. Masoud Mirzaei

Street address

Bahonar Sq

City

Yazd

Province

Yazd

Postal code

8917693571

Phone

Email

drc@ssu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Yazd 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

Yazd University of Medical Sciences

Full name of responsible person

Akram Mehrabbeik

Position

کارشناس آموزش بهداشت

Latest degree

Ph.D.

Other areas of specialty/work

Health Promotion

Street address

Talar e honar alley,shahid saduqi blv

City

Yazd

Province

Yazd

Postal code

۸۹۱۷۶۹۳۵۷۱

Phone

+98 35 3728 0226

Email

Mehrabbeyk@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Yazd University of Medical Sciences

Full name of responsible person

Akram Mehrabbeik

Position

Health education expert

Latest degree

Ph.D.

Other areas of specialty/work

Health Promotion

Street address

sadouqi blv. Talar honar alley

City

Yazd

Province

Yazd

Postal code

۸۹۱۷۶۹۳۵۷۱

Phone

+98 35 3728 0226

Email

Mehrabbeyk@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Yazd University of Medical Sciences

Full name of responsible person

Akram Mehrabbeik

Position

Health education expert

Latest degree

Ph.D.

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Phone

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Email

Mehrabbeyk@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be 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

Not applicable

Analytic Code

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

Data Dictionary

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

Title and more details about the data/document

Insulin injection technique in patients with type 2 diabetes

When the data will become available and for how long

3 months after the publication of the article

To whom data/document is available

Researchers and health educators

Under which criteria data/document could be used

More research or plan educational interventions

From where data/document is obtainable

Yazd University of Medical Sciences - Diabetes Research Center

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

Research Director of Diabetes Research Center - Project Manager

Comments