Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Evaluating the Effect of Chlorhexidine on Decreasing Contamination of Toothbrush with Streptococcus Mutans.

Protocol summary

Summary

Background and Objectives: The aim of this study is to evaluate the best method using of chlorhexidine mouthwash in removing Streptococcus Mutans containing dental plaques through the evaluation of pathogens on person's toothbrush. Inclusion criteria is no dental caries and exclusion criteria is disconspire with volunteer In this study, 84 dental students is randomly divided into 4 groups: 1-dipping continuously toothbrush in chlorhexidine, 2-simple washing with chlorhexidine after brushing. 3-dipping toothbrush in mouthwash for 10 minutes. 4-simple washing with water. Colony Forming Unit (CFU) of Streptococcus mutans on toothbrush is a primary outcome measure and Colony Forming Unit (CFU) of Streptococcus mutans in saliva is a Secondary outcome measure.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016091529133N3**
Registration date: **2016-11-06, 1395/08/16**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-11-06, 1395/08/16

Registrant information

Name
Neda Gholami
Name of organization / entity
Zanjan University of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 21 7770 1401
Email address
dr.gholami.n@zums.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Zanjan University of Medical Sciences

Expected recruitment start date

2016-05-09, 1395/02/20

Expected recruitment end date

2016-05-30, 1395/03/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluating the Effect of Chlorhexidine on Decreasing Contamination of Toothbrush with Streptococcus Mutans.

Public title

Evaluating the Effect of Chlorhexidine on Decreasing Contamination of Toothbrush with Streptococcus Mutans.

Purpose

Prevention

Inclusion/Exclusion criteria

inclusion criteria: a good oral hygine,no dental caries or periodontal desease,no mouth breathing,cleft palate,disuse mouth wash chlorhexidine in last3 weeks,ability to brushing teeth exclusion criteria:oral caries,disconspire with volunteer

Age

From **18 years** old to **32 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **84**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Block Randomazation

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Zanjan University of Medical Sciences

Street address

Azadi Square, Zanjan, Zanjan University of Medical Sciences

City

zanjan

Postal code

Approval date

2016-02-18, 1394/11/29

Ethics committee reference number

zums.rec.1394.3

Health conditions studied

1

Description of health condition studied

dental caries

ICD-10 code

k02

ICD-10 code description

K02.9

Primary outcomes

1

Description

Colony Forming Unit (CFU) of Streptococcus mutans on toothbrush

Timepoint

3 weeks after intervention

Method of measurement

Toothbrush sample collection for culture

Secondary outcomes

1

Description

Colony Forming Unit (CFU) of Streptococcus mutans in saliva

Timepoint

3 weeks after the study

Method of measurement

sampling of saliva and culture in the laboratory

Intervention groups

1

Description

Intervention Group 1: Patients kept toothbrush for 24 hours in Chlorhexidine

Category

Prevention

2

Description

Intervention Group 2: Patients kept toothbrush for 10 minutes in Chlorhexidine

Category

Prevention

3

Description

Control Group : Did not use mouthwash and just used water

Category

Placebo

4

Description

Intervention Group 3: Patients just washed the toothbrush with Clorhexidine

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Faculty of dentistry, Zanjan University of Medical Sciences

Full name of responsible person

dr neda gholami

Street address

Azadi Square, Zanjan, Zanjan University of Medical Sciences

City

zanjan

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice Chancellor for research of Zanjan University of Medical Sciences
Full name of responsible person
dr Masud Vakili
Street address
Azadi Square, Zanjan, Zanjan University of Medical Sciences
City
zanjan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice Chancellor for research of Zanjan 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
دانشگاه علوم پزشکی زنجان
Full name of responsible person
dr neda gholami
Position
Assistant Professor of Oral Medicine
Other areas of specialty/work
Street address
Azadi Square, Zanjan, Zanjan University of Medical Sciences
City
zanjan
Postal code
Phone
+98 24 3342 4766
Fax
Email
dr.gholami.n@zums.ac.ir
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
Zanjan University of Medical Sciences
Full name of responsible person
dr neda gholami
Position
Assistant Professor of Oral Medicine
Other areas of specialty/work
Street address
Azadi Square, Zanjan, Zanjan University of Medical Sciences
City
zanjan
Postal code
Phone
+98 24 3342 4766
Fax
Email
dr.gholami.n@zums.ac.ir
Web page address

Person responsible for updating data

Contact
Name of organization / entity
Zanjan University of Medical Sciences
Full name of responsible person
dr neda gholami
Position
Assistant Professor of Oral Medicine
Other areas of specialty/work
Street address
Azadi Square, Zanjan, Zanjan University of Medical Sciences
City
zanjan
Postal code
Phone
00
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