

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effect of synbiotics and zinc in the treatment of acute diarrhea in children

Protocol summary

Study aim

Comparison of the effect of synbiotics and zinc in the treatment of acute diarrhea in children

Design

Clinical trial, With parallel group, Without blinding, On 80 patients. Rand function of Excel software was used for randomization.

Settings and conduct

This study was performed on children who were referred to the infectious ward of Qazvin Quds Hospital with a diagnosis of acute diarrhea. Patients are divided into two groups and group A will be given a sachet containing probiotics daily and group B will be given 5 mg of zinc gluconate syrup every six hours for 10-14 days. This study is performed without blinding.

Participants/Inclusion and exclusion criteria

Inclusion criteria: 1- Existence of acute diarrhea (watery or loose stools three or more times in 24 hours for less than 14 days) 2- Existence of mild dehydration and intermediate 3- Age 2-5 years 4- No antibiotic, zinc-containing compounds, Probiotics and synbiotics in the last 1 month Exclusion criteria: Children with chronic diarrhea (diarrhea over 14 days), bacterial diarrhea (presence of any number of white blood cells with or without red blood cells in fecal examination with abnormal stool culture), parasitic infections (such as Giardia and amoebae), dehydration Severe (more than 9%), abdominal distension, intestinal obstruction, comorbidities and underlying diseases such as malnutrition and diabetes.

Intervention groups

Group A will be given a sachet of probiotics and prebiotics dissolved in water daily. Group B will be given 5 mg of zinc gluconate syrup every six hours for 10-14 days

Main outcome variables

1- Determining the average number of daily diarrhea in children receiving synbiotics and zinc 2- Determining the average recovery time of diarrhea in children receiving

synbiotics and zinc 3- Determining complications in the group receiving synbiotics and zinc 4. Mean hospital stay in the group receiving synbiotics and zinc

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210523051375N1**

Registration date: **2021-09-16, 1400/06/25**

Registration timing: **registered_while_recruiting**

Last update: **2021-09-16, 1400/06/25**

Update count: **0**

Registration date

2021-09-16, 1400/06/25

Registrant information

Name

banafshe samadpour

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 28 3333 4807

Email address

rad2180@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-06-30, 1400/04/09

Expected recruitment end date

2022-06-30, 1401/04/09

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Comparison of the effect of synbiotics and zinc in the treatment of acute diarrhea in children

Public title
Evaluation of the effect of synbiotics and zinc in the treatment of acute diarrhea

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Existence of acute diarrhea Existence of mild to moderate dehydration Not receiving antibiotics, zinc-containing compounds, probiotics and synbiotics in the last 1 month
Exclusion criteria:
Existence of severe dehydration Children with chronic diarrhea Bacterial diarrhea Ileus

Age
From **1 year** old to **5 years** old

Gender
Both

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **80**

Randomization (investigator's opinion)
Randomized

Randomization description
Patients are assigned to two groups a and b using the balance block method (Balance block randomization). The size of each block is 4. Balanced randomization allocation method for participants in a randomized clinical trial study is the effect of synbiotics (group a) and zinc (group b) in reducing diarrhea in children . The tool is random allocation software.

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

Ethics committee of Qazvin University of Medical

Science

Street address
Valiasr Square, Shahid Beheshti Boulevard, Quds Hospital

City
Qazvin

Province
Qazvin

Postal code
3415914595

Approval date
2021-02-27, 1399/12/09

Ethics committee reference number
IR.QUMS.REC.1399.512

Health conditions studied

1

Description of health condition studied

Diarrhea

ICD-10 code

R19.7

ICD-10 code description

Diarrhea, unspecified

Primary outcomes

1

Description

Diarrhea recovery time

Timepoint

Based on the length of hospital stay

Method of measurement

Day-Questionnaire

Secondary outcomes

1

Description

Number of diarrhea

Timepoint

Duration of hospitalization

Method of measurement

Clinical examinations

2

Description

Synbiotic complication in children

Timepoint

Duration of hospitalization

Method of measurement

Clinical examinations

3

Description

Zinc complication in children

Timepoint

Duration of hospitalization
Method of measurement
Clinical examinations

Intervention groups

1

Description

Control group:Synbiotic, Daily sachet pack containing probiotics and probiotic Kidi Lact(Kidi Lact of Tehran Bio Fermentation Company, which contains 7 probiotics)

Category

Treatment - Drugs

2

Description

Intervention group: Zinc gluconate syrup in the amount of 5 mg every six hours(Zinc gluconate syrup of Amin Isfahan Pharmaceutical Company, which contains 5 mg of zinc element every 5 cc)

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Quds Hospital

Full name of responsible person

Banafshe Samadpour

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Valiasr Square, Shahid Beheshti St, Quds Hospital

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Qazvin University of Medical Sciences

Full name of responsible person

Research Assistant Quds Hospital

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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

Qazvin 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

Qazvin University of Medical Sciences

Full name of responsible person

Banafshe Samadpour

Position

Resident

Latest degree

Medical doctor

Other areas of specialty/work

Pediatrics

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Person responsible for scientific inquiries

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Full name of responsible person

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Latest degree

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Other areas of specialty/work

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Fax**Email**

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

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

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

All data can be shared after people are not identified

When the data will become available and for how long

Access period starts 6 months after the results are published

To whom data/document is available

Data will be available for researchers working in academic and scientific institutions.

Under which criteria data/document could be used

Any kind of analysis on the delivered data is allowed. Send a message to the author's email to request access to data or documentation.

From where data/document is obtainable

banafshe samadpour - rad2180@yahoo.com

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

After the publication of the article, the applicant is able to access the information by sending an email to the author and its duration is about one month

Comments**Person responsible for updating data****Contact****Name of organization / entity**

Qazvin University of Medical Sciences

Full name of responsible person

Banafshe Samadpour

Position

Resident

Latest degree

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Other areas of specialty/work

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