Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 2026

Comparison of the transparent dressing and impregnated dressing with chlorhexidine 2% on the colonization at the site of central venous catheter in patients hospitalized in intensive care unit

Protocol summary

Study aim
Comparison of the transparent with gauze dressing impregnated with chlorhexidine 2% on the colonization at the site of central venous catheter in patients hospitalized to the intensive care unit

Design
A randomized, controlled trial. The block method was used for randomization.

Settings and conduct
This study will be performed in Shahid Chamran Hospital in Boroujerd and on patients hospitalized to the intensive care unit. Samples are randomly divided into intervention and control groups.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Age between 18 to 60 years, lack of known infection in any part of the body. Exclusion criteria: Lack of known infection in any part of the body.

Intervention groups
Intervention group: For patients in the intervention group, a transparent dressing impregnated with 2% chlorhexidine solution produced by Morvabon company will be used. The dressing is transparent, impermeable to moisture and made of polyurethane with dimensions of 10. 10 cm. The transparent dressing will be changed every 4 days. Control group: In the control group, sterile gauze with dimensions of 10 × 10 cm impregnated with 2 ml of chlorhexidine solution will be used in similar conditions. The gauze dressing will be changed every day.

Main outcome variables
Microbial colonization at the site of the central venous catheter.

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20210408050900N1**
Registration date: **2021-06-15, 1400/03/25**
Registration timing: **registered_while_recruiting**

Last update: **2021-06-15, 1400/03/25**
Update count: **0**

Registration date
2021-06-15, 1400/03/25

Registrant information

Name
Majid Goodarzi
Name of organization / entity
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Iran (Islamic Republic of)
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-05-31, 1400/03/10

Expected recruitment end date
2021-09-01, 1400/06/10

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of the transparent dressing and impregnated dressing with chlorhexidine 2% on the colonization at the

site of central venous catheter in patients hospitalized in intensive care unit

Public title
The effect of chlorhexidine dressing on the colonization at the site of central venous catheter
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Age between 18 to 60 years Lack of known infection in any part of the body
Exclusion criteria:
Dissatisfaction of the patient or family to participation in the study
Age
From **18 years** old to **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **44**
Randomization (investigator's opinion)
Randomized
Randomization description
To generate the random sequence, permutation block randomization will be used. At first, 6 blocks will constructed as "ABBA, BAAB, AABB, BBAA, BABA, ABAB", then these blocks are arranged using a random number table, and individuals will assigned to two groups according to A and B letters.
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 Arak University of Medical Sciences
Street address
Arak University of Medical Sciences, Basij Sq., Sardasht Region
City
Arak
Province
Markazi
Postal code
3848176593
Approval date
2021-04-28, 1400/02/08
Ethics committee reference number
IR.ARAKMU.REC.1400.015

Health conditions studied

1

Description of health condition studied
Microbial colonization of the central venous catheter entry site
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Number of bacteria at the site of central venous catheter
Timepoint
At the beginning of the study (before the intervention) and 4 days after dressing
Method of measurement
Sabroud Dextrose Agar culture medium

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: For patients in the intervention group, a transparent dressing impregnated with 2% chlorhexidine solution produced by Morvabon company will be used. The dressing is transparent, impermeable to moisture and made of polyurethane with dimensions of 10. 10 cm. The dressing will be changed every 4 days.
Category
Prevention

2

Description
Control group: In the control group, sterile gauze with dimensions of 10 × 10 cm impregnated with 2 ml of chlorhexidine solution will be used in similar conditions. The gauze dressing will be changed every day.
Category
Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center
Shahid Chamran hospital

Full name of responsible person
Afsane Amam Dost

Street address
Daneshgah St., Fatemi St.

City
Boroujerd

Province
Lorestan

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6813833946

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publicrelation@lums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Arak University of Medical Sciences

Full name of responsible person
Alireza Kamali

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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
Arak 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
Arak University of Medical Sciences

Full name of responsible person
Majid Goudarzi

Position
Nursing

Latest degree
Bachelor

Other areas of specialty/work
Nursery

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Latest degree
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Person responsible for updating data

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Name of organization / entity
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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
Not applicable
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
Not applicable
Data Dictionary
Not applicable
Title and more details about the data/document
It is provided unrecognizably at the request of individuals.
When the data will become available and for how long
The access period will start after the results are printed.
To whom data/document is available
Researchers at other Universities are allowed access.
Under which criteria data/document could be used
Documentation is provided in order to know how the work is done and to critique it.
From where data/document is obtainable
Majid Goudarzi majidgoodarzi1365@gmail.com
What processes are involved for a request to access data/document
After stating the purpose of accessing the information, the requested items will be sent via email.
Comments