

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Efficacy of Co- enzyme Q-10(Ubiquinone) in geriatrics community-acquired pneumonia

Protocol summary

Summary

Several clinical trials and case series have provided evidence, supporting the use of CoQ10 in the prevention and treatment of various disorders related to oxidative stress. It has been shown that CoQ10's antioxidant properties and central role in mitochondrial oxidative phosphorylation make it useful as adjunct therapy for cardiovascular diseases such as CHF, hypertension, stable angina, drug-induced cardiotoxicity, and ventricular arrhythmia, and non-cardiac conditions including cancer, periodontal disease, compromised immune systems, COPD, and muscular dystrophy. Therefore, we are advocating its use as a supplement in a prospective randomized double-blind sequential sampling. All patients with community acquired pneumonia(CAP) accidentally referring to two groups. In group A addition to the usual treatment of CAP (based on the infectious diseases society of America guideline), will receive Co- enzyme Q-10 200 mg daily for 14 days, and in Group B, in addition to the usual treatment (based on the infectious diseases society of America guideline), will receive a placebo. As well as the two groups will be matched (GROUP MATCHING) and information of patients in the two groups include demographic data and changes to the clinical symptoms and laboratory (including CBC, ESR, CRP qualitative, ABG) at the beginning of the third, seventh and fourteen day of therapy will check with the use of a questionnaire, and finally data were analyzed by SpSS using Chi square and Fisher exact test and student test and odds ratio will be doing and the P-value less than 0.05 To be considered significant.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201305159855N3**

Registration date: **2013-06-02, 1392/03/12**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2013-06-02, 1392/03/12

Registrant information

Name

Aiasghar Farazi

Name of organization / entity

Arak University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Arak University of Medical Sciences

Expected recruitment start date

2013-05-15, 1392/02/25

Expected recruitment end date

2013-11-15, 1392/08/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Efficacy of Co- enzyme Q-10(Ubiquinone) in geriatrics community-acquired pneumonia

Public title

Efficacy of Co- enzyme Q-10 in pneumonia

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria : age \geq 65; Community acquired pneumonia patients
exclusion criteria : the age of less than 65 years ; hemodynamic instability ; chronic liver failure; chronic heart failure; chronic renal failure ; Co-enzyme Q-10 consumption during 1 month before arrival to study; history of allergic reactions; receiving the drugs or compounds with antioxidant effect such as vitamin C; vitamin E or vitamin A; HIV patients

Age

From **65 years** old to **99 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **150**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Arak University of Medical Sciences

Street address

Sardasht, Arak University of Medical Sciences, Arak

City

Arak

Postal code

Approval date

2012-12-06, 1391/09/16

Ethics committee reference number

91-137-8

Health conditions studied

1

Description of health condition studied

community acquired pneumonia

ICD-10 code

J13

ICD-10 code description

Pneumonia due to *Streptococcus pneumoniae*

2

Description of health condition studied

community acquired pneumonia

ICD-10 code

J14

ICD-10 code description

Pneumonia due to *Haemophilus influenzae*

3

Description of health condition studied

community acquired pneumonia

ICD-10 code

J15

ICD-10 code description

Bacterial pneumonia, not elsewhere classified

Primary outcomes

1

Description

Clinical Signs and Symptoms (Temperature, Respiratory rate, Pulse rate, Blood pressure, Dyspnea, Sputum production, Crackle and rale)

Timepoint

0,3,7,14

Method of measurement

Physical examination based on questionnaire

Secondary outcomes

1

Description

Decrease of leukocyte count

Timepoint

0,3,7,14

Method of measurement

Complete blood count

2

Description

Decrease of CRP and ESR

Timepoint

0,3,7,14

Method of measurement

Check of ESR and CRP

3

Description

Blood O₂ Saturation

Timepoint

0,3,7,14

Method of measurement

Check of blood O₂

Intervention groups

1

Description

Intervention group :Standard treatment of pneumonia (Ceftriaxon + Azithromycin) + Coenzyme Q 100mg BID for 14 days

Category

Treatment - Drugs

2

Description

Control group : Standard treatment of pneumonia(ceftriaxon + Azythromycin)+ placebo

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Valiasr hospital of Arak

Full name of responsible person

Aliasghar Farazi

Street address

Department of infectious diseases, valiasr hospital,Arak,Iran

City

Arak

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak University of Medical Sciences

Full name of responsible person

Dr. Saeed Changizi Ashtyani

Street address

Management of Research services,Sardasht, Arak University of Medical

City

Arak

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

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

Arak University of Medical Sciences

Full name of responsible person

Ghazaleh Akbarifard

Position

Secretary of research Council

Other areas of specialty/work

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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