

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

03 Jul 2026

### A comparative study for efficacy and safety between Zitux (Rituximab manufactured by AryoGen) and Mabthera on patients with chronic lymphocytic leukemia (CLL)

#### Protocol summary

##### Summary

The objective of this randomized, double blind trial is to compare the efficacy and safety of Mabthera® and Zitux (Rituximab manufactured by AryoGen) on patients with chronic lymphocytic leukemia (CLL). In this study, 60 patients with CLL who meet the inclusion/exclusion criteria will be recruited and randomly assigned equally into two intervention or a control group. The patients in the intervention group will receive Zitux and in the control group will receive Mabthera® as same dosage and form. response to treatment according to national cancer institute response to treatment criteria for CLL will be measured after the intervention and compared between the groups.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201305296302N5**

Registration date: **2013-06-07, 1392/03/17**

Registration timing: **prospective**

Last update:

Update count: **0**

##### Registration date

2013-06-07, 1392/03/17

##### Registrant information

###### Name

Kamran Kamyar

###### Name of organization / entity

AryoGen Biopharma Company

###### Country

Iran (Islamic Republic of)

###### Phone

00982616102587.00982616101568

##### Email address

kamyark@aryogen.com

##### Recruitment status

**Recruitment complete**

##### Funding source

AryoGen Biopharma Company

##### Expected recruitment start date

2013-08-09, 1392/05/18

##### Expected recruitment end date

2013-12-09, 1392/09/18

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

A comparative study for efficacy and safety between Zitux (Rituximab manufactured by AryoGen) and Mabthera on patients with chronic lymphocytic leukemia (CLL)

##### Public title

A comparative study between Zitux (Rituximab manufactured by AryoGen) and Mabthera on patients with chronic lymphocytic leukemia (CLL)

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

inclusion criteria: patient with chronic lymphocytic leukemia according to national cancer institute diagnostic criteria for CLL who hasn't been treated already or is new case of CLL or relapsed/refractory CLL with indication for treatment; Age between 18 to 75; Binet stage disease B,C; ECOG performance status: 0 to 1; CD20 positive; patient has indication for treatment in the beginning of study; written informed consent form.

exclusion criteria: Bil>2 mg/dl; Cr> 2 mg/dl; Alk-p> 2 times of upper limit normal; Trans aminase > 2 times of upper limit normal; Coexistence of serious active infection or underlying disorder( Hepatitis B,C, HIV positive, cardiopulmonary disease, recent MI, uncontrolled diabetes or HTN, seizure); HBSAg or HBCAb positive; other cancer treatments in the last 5 years; severe autoimmune hemolytic anemia, pregnancy or breast feeding  
exclusion criteria: Bil>2 mg/dl; Cr> 2 mg/dl; Alk-p> 2 times of upper limit normal; Trans aminase > 2 times of upper limit normal; Coexistence of serious active infection or underlying disorder( Hepatitis B,C, HIV positive, cardiopulmonary disease, recent MI, uncontrolled diabetes or HTN, seizure); HBSAg or HBCAb positive; other cancer treatments in the last 5 years; severe autoimmune hemolytic anemia, pregnancy or breast feeding

**Age**

From **18 years** old to **75 years** old

**Gender**

Both

**Phase**

3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **78**

**Randomization (investigator's opinion)**

Randomized

**Randomization description****Blinding (investigator's opinion)**

Double 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 Iranian Blood Transfusion Organization

**Street address**

IBTO bldg, Hemmat Exp.Way, Next to the Milad Tower, Tehran, Iran

**City**

tehran

**Postal code**

14665-1157

**Approval date**

2013-03-16, 1391/12/26

**Ethics committee reference number**

378/پ

**Health conditions studied****1****Description of health condition studied**

chronic lymphocytic leukemia

**ICD-10 code**

C91.1

**ICD-10 code description**

Chronic lymphocytic leukaemia of B-cell type

**Primary outcomes****1****Description**

Overall response rate according to national cancer institute response to treatment criteria

**Timepoint**

2 and 4 months after beginning of treatment

**Method of measurement**

physical exam and laboratoty results according to national cancer institute response to treatment criteria

**Secondary outcomes****1****Description**

Complete response rate

**Timepoint**

2 and 4 months after beginning of treatment

**Method of measurement**

physical exam and laboratoty results according to national cancer institute response to treatment criteria

**2****Description**

Partial response rate

**Timepoint**

2 and 4 months after beginning of treatment

**Method of measurement**

physical exam and laboratoty results according to national cancer institute response to treatment criteria

**3****Description**

Stable disease rate

**Timepoint**

2 and 4 months after beginning of treatment

**Method of measurement**

physical exam and laboratoty results according to national cancer institute response to treatment criteria

**4****Description**

Progressive disease rate

**Timepoint**

2 and 4 months after beginning of treatment

**Method of measurement**

physical exam and laboratoty results according to national cancer institute response to treatment criteria

**5****Description**

CD20 reduction rate

**Timepoint**

monthly after beginning of treatment

**Method of measurement**

flucytometry

**6****Description**

Complete response rate according to flucytometry

**Timepoint**

monthly after beginning of treatment

**Method of measurement**

flucytometry

**7****Description**

side effect rate, fever

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**8****Description**

side effect rate, cardiovascular

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**9****Description**

side effect rate, digestive

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**10****Description**

side effect rate, hematologic

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

laboratoty results

**11****Description**

side effect rate, metabolic

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam and laboratoty results

**12****Description**

side effect rate, Musculoskeletal

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**13****Description**

side effect rate, respiratory

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**14****Description**

side effect rate, skin

**Timepoint**

monthly during 4 months of treatment

**Method of measurement**

physical exam

**Intervention groups****1****Description**

intervention group: combination therapy with (Fludarabine, Cyclophosphamide, Zitux) for 4 cycle with 28 days intervals as below: first treatment cycle: Zitux: 375 mg/m<sup>2</sup> IV in first day Fludarabine: 25 mg/m<sup>2</sup> IV in second to forth day Cyclophosphamide: 250 mg/m<sup>2</sup> IV in second to forth day second to forth treatment cycles: Zitux: 500 mg/m<sup>2</sup> IV in first day Fludarabine: 25 mg/m<sup>2</sup> IV in first to third day Cyclophosphamide: 250 mg/m<sup>2</sup> IV in first to third day

**Category**

Treatment - Drugs

**2****Description**

control group: combination therapy with (Fludarabine, Cyclophosphamide, Reditux) for 4 cycle with 28 days intervals as below: first treatment cycle: Reditux: 375 mg/m<sup>2</sup> IV in first day Fludarabine: 25 mg/m<sup>2</sup> IV in second to forth day Cyclophosphamide: 250 mg/m<sup>2</sup> IV in second to forth day second to forth treatment cycles: Zitux: 500 mg/m<sup>2</sup> IV in first day Fludarabine: 25 mg/m<sup>2</sup> IV in first to third day Cyclophosphamide: 250 mg/m<sup>2</sup> IV in first to third day

**Category**

Treatment - Drugs

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**

Iranian Blood Transfusion Organization

**Full name of responsible person**

Dr. Gholamreza Toogeh

**Street address**

IBTO bldg, Hemmat Exp.Way, Next to the Milad Tower, Tehran, Iran

**City**

tehran

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

AryoGen Biopharma company

**Full name of responsible person**

Dr. Behrouz Vaziri

**Street address**

Cross Tajbakhsh Street, 24th Kilometer Makhsoos, Tehran - Iran . AryoGen Biopharma Co.

**City**

Garmdareh

**Grant name**

**Grant code / Reference number**

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

Yes

**Title of funding source**

AryoGen Biopharma company

**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**

AryoGen Biopharma company

**Full name of responsible person**

Dr. Kamran Kamyar

**Position**

General Practitioner/ Medical Manager

**Other areas of specialty/work**

**Street address**

Cross Tajbakhsh Street, 24th Kilometer Makhsoos, Tehran - Iran . AryoGen Biopharma Co.

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**Phone**

+98 263610156872

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

Iranian Blood Transfusion Organization

**Full name of responsible person**

Dr. Mohammad Faranoush

**Position**

Pediatric Hematologist Oncologist Associate Professor

**Other areas of specialty/work**

**Street address**

IBTO bldg, Hemmat Exp.Way, Next to the Milad Tower, Tehran, Iran

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tehran

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**Fax**

**Email**

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**Web page address**

## Person responsible for updating data

### Contact

**Name of organization / entity**

**Full name of responsible person**

Dr. Kamran Kamyar

**Position**

**Other areas of specialty/work**

**Street address**

**City**

**Postal code**

**Phone**

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**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*