

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

31 May 2026

### comparison of intravenous v/s enteral administration of fat emulsion in very low birth weight infants

#### Protocol summary

##### Summary

The aim of this study is evaluation of short term prognosis of enteral administration of fat emulsion (20% Esmoff) in very low birth weight infants. Three hundred and fifty Very Low Birth Weight infants with birth weight of 700-1499 will be included. The Patients with negative blood culture in 48 hours of age will be chosen during 3-5th days of birth. They will be divided randomly in three groups. One group of the patients will be received fat emulsion 20% (Esmof) between 3-5 days of age by intravenous route. Another group (case) will be receive by enteral form with same dose. Control group will not receive any type of fat emulsion. The dose of fat emulsion will be 1 gr/Kg/d and increase step by step to 3 gr/Kg/d. Daily weight gain, increase of head circumference per week, frequency of necrotizing enterocolitis with grade 2 or more and mortality will be compare in 3 groups.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201310164113N5**

Registration date: **2015-08-01, 1394/05/10**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2015-08-01, 1394/05/10

##### Registrant information

###### Name

Mohammad Bagher Hosseini

###### Name of organization / entity

Tabriz University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 41 1553 9161

###### Email address

hossainm@tbzmed.ac.ir

##### Recruitment status

###### Recruitment complete

##### Funding source

Pediatric health research center of Tabriz University Of Medical Sciences

##### Expected recruitment start date

2015-06-26, 1394/04/05

##### Expected recruitment end date

2015-12-26, 1394/10/05

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

comparison of intravenous v/s enteral administration of fat emulsion in very low birth weight infants

##### Public title

Evaluation of enteral administration of fat in very low birth weight infants

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

Inclusion criteria: Inborn Very Low Birth Weight infants in Alzahra Teaching Hospital; Birth Weight between 700-1499 gram; Appropriate for Gestational Age; without proven sepsis Exclusion Criteria : first blood culture positive( during 48 hours); Major congenital Anomalies; Necrotizing Enteroocolitis; Direct Hyperbilirubinemia( Direct Bilirubin more than 2 Mg/dl and more than 15% of total Bilirubin ); Sever heart failure need treatment or Shock

##### Age

From **3 days** old to **3 months** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **78**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

**Blinding (investigator's opinion)**

Single 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 Tabriz University Of Medical Sciences

**Street address**

Reseaech and Tecnology Chancellor, Buidling 2, Goltasht St

**City**

Tabriz

**Postal code**

**Approval date**

2015-05-25, 1394/03/04

**Ethics committee reference number**

TBZMED.REC.1394.172

## Health conditions studied

### 1

**Description of health condition studied**

prematurity

**ICD-10 code**

P07.2

**ICD-10 code description**

Less than 28 completed weeks (less than 196 completed days) of gestation.

## Primary outcomes

### 1

**Description**

daily weight gain

**Timepoint**

From 3-5 days until 3 weeks

**Method of measurement**

A digital scale with 1 gr sensivity

### 2

**Description**

Frequency of Necrotizing enterocolitis

**Timepoint**

From 3-5 days until discharge from hospital

**Method of measurement**

Aspirate more than 30% of previous feeding and the circumference of the belly more than 2 Cm with radiologic finding

### 3

**Description**

Mortality rate

**Timepoint**

From 3-5 days until discharge from hospital

**Method of measurement**

evaluation of heart rate and respiration

### 4

**Description**

head circumference

**Timepoint**

From 3-5 days until discharge from hospital

**Method of measurement**

use of plastic tape with 1 CM accuracy

## Secondary outcomes

### 1

**Description**

Frequency of proven sepsis

**Timepoint**

From 3-5 days until discharge from hospital

**Method of measurement**

Evaluation of clinical sign and CBC and CRP and Blood Culture

### 2

**Description**

Mean of serum triglycerid

**Timepoint**

From 3-5 days until 3 weeks

**Method of measurement**

mesuring serum triglycerid level by Selectra machin

### 3

**Description**

Frequency of feeding intolerance

**Timepoint**

From 3-5 days until 3 weeks

**Method of measurement**

Evaluation of GI aspirate before each feeding and finding more than 30% of previous one

#### 4

##### **Description**

Frequency of Chronic Lung Disease

##### **Timepoint**

From 28 days until discharge from hospital

##### **Method of measurement**

Need of Oxygen or ventilatoey support

#### 5

##### **Description**

Frequency of Retinopathy Of Prematurity

##### **Timepoint**

From 28 days until discharge from hospital

##### **Method of measurement**

Examination of the retin by indirect Retinoscopy

#### 6

##### **Description**

Mean of hospitalization

##### **Timepoint**

From 3-5 days until discharge from hospital

##### **Method of measurement**

hospitalization recording sheet

#### 7

##### **Description**

Frequency of Cholestasis

##### **Timepoint**

From 3-5 days until discharge from hospital

##### **Method of measurement**

Evaluation of Direct and Indirect Bilirubin level by Selectra Machin

### **Intervention groups**

#### 1

##### **Description**

In intervention group after tolerating the Minimal enteral feeding of breast milk we will start fat emulsion (Esmof20%) enterally. Dose of Fat will be 1 gr/kg/d and will be increased step by step to 3 gr/kg/d.

##### **Category**

Treatment - Drugs

#### 2

##### **Description**

In control group Fat emulsion will be given by intravenous rout. Dose of Fat will be 1 gr/kg/d and will be increased step by step to 3 gr/kg/d.

##### **Category**

Treatment - Drugs

### **Recruitment centers**

#### 1

##### **Recruitment center**

###### **Name of recruitment center**

Alzahra Teaching Hospital

###### **Full name of responsible person**

MohammadBagher Hosseini

###### **Street address**

Alzahra Hospital, Artesh Street

###### **City**

Tabriz

### **Sponsors / Funding sources**

#### 1

##### **Sponsor**

###### **Name of organization / entity**

Peiatric Health Research Center of Tabriz

###### **Full name of responsible person**

Mohammad Barzegar

###### **Street address**

Children Hospitalof Tabriz, Sheshgela Street

###### **City**

Tabriz

###### **Grant name**

###### **Grant code / Reference number**

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

Yes

###### **Title of funding source**

Peiatric Health Research Center of Tabriz

###### **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**

Tabriz University of Medical Scieinces

###### **Full name of responsible person**

Mohammad Bagher Hosseini

###### **Position**

Associate Professor

###### **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*