

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

07 Jun 2026

### Comparison of the analgesic effect of Ibuprofen, morphine, and ketorolac in patients with renal colic

#### Protocol summary

##### Study aim

The aim of this study is to investigate the comparison of Ibuprofen, Ketorolac, and Morphine on acute renal colic pain relief.

##### Design

A clinical trial with a control group, with parallel and randomized groups.

##### Settings and conduct

In this randomized clinical trial, patients suspicious of renal colic referred to the emergency department of Ahvaz were evaluated. Diagnosis of the disease is based on the pain of the flank, history of the disease and the presence of blood in the urine that confirmed by ultrasound or spiral abdominal CT. Patients were selected from the emergency department of Imam Khomeini and Golestan hospitals in Ahwaz, Iran. Patients' pain was measured by Visual analogue scale (VAS) and patients with a pain score of more than 3 were evaluated based on this system. The patients were randomly divided into 3 groups receiving morphine, ketorolac and ibuprofen. The pain was recorded at different time points

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Confirmed acute renal colic by computed tomography scan or urinary tract ultrasound.  
Exclusion criteria: History of the heart, renal or hepatic disease and fever

##### Intervention groups

Group A received 800 mg I.V Ibuprofen during 5 minutes  
Group B received 30 mg I.V Ketorolac Group C treated by 5 mg I.V Morphine sulfate

##### Main outcome variables

Pain

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20170423033599N2**

Registration date: **2018-10-22, 1397/07/30**

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

Last update: **2018-10-22, 1397/07/30**

Update count: **0**

##### Registration date

2018-10-22, 1397/07/30

##### Registrant information

###### Name

**Name of organization / entity**

###### Country

Iran (Islamic Republic of)

###### Phone

+98 61 3161

###### Email address

yazdani.p@ajums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2017-03-21, 1396/01/01

##### Expected recruitment end date

2018-11-22, 1397/09/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of the analgesic effect of Ibuprofen, morphine, and ketorolac in patients with renal colic

##### Public title

Comparison of ibuprofen, morphine, and ketorolac in the treatment of kidney pain

##### Purpose

Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**  
Confirmed acute renal colic by computed tomography scan or urinary tract ultrasound

**Exclusion criteria:**  
Pregnancy Patients with history of Heart, renal or hepatic disease Fever

**Age**  
No age limit

**Gender**  
Both

**Phase**  
3

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **183**  
Actual sample size reached: **183**

**Randomization (investigator's opinion)**  
N/A

**Randomization description**

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Other

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

**Name of ethics committee**

Jundishapour University of Medical Sciences Ethical Committee

**Street address**

Golestan

**City**

Ahvaz

**Province**

Khuzestan

**Postal code**

6455134358

**Approval date**

2016-04-09, 1395/01/21

**Ethics committee reference number**

IR.AJUMS.REC.1395.554

## Health conditions studied

### 1

**Description of health condition studied**

Renal Colic

**ICD-10 code**  
N23

**ICD-10 code description**  
Unspecified renal colic

## Primary outcomes

### 1

**Description**

Pain

**Timepoint**

Baseline, 15, 30, 60 and 120 minutes after intervention

**Method of measurement**

Visual analogue scale

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**

Intervention group1: An intravenous single dose of 800 mg will be injected within 5 minutes

**Category**

Treatment - Drugs

### 2

**Description**

Intervention group2 : A single dose of 30 mg intravenous Ketorolac will be injected

**Category**

Treatment - Drugs

### 3

**Description**

Intervention group3: A single dose of 5 mg intravenous morphine will be injected

**Category**

Treatment - Drugs

## Recruitment centers

### 1

**Recruitment center**

**Name of recruitment center**

Golestan Hospital

**Full name of responsible person**

Parivash Yazdani

**Street address**

Golestan

**City**

Ahvaz

**Province**

Khuzestan

**Postal code**  
6455136472  
**Phone**  
+98 21 8670 5503  
**Email**  
Ali.khosravi70@yahoo.com

## 2

### Recruitment center

**Name of recruitment center**  
Imam Khomeini Hospital  
**Full name of responsible person**  
Parivash Yazdani  
**Street address**  
Golestan  
**City**  
Ahvaz  
**Province**  
Khuzestan  
**Postal code**  
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**Phone**  
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**Email**  
Ali.khosravi70@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**  
Vice chancellor for research, Ahvaz University of  
Medical Sciences  
**Full name of responsible person**  
Parivash Yazdani  
**Street address**  
Golestan  
**City**  
Ahvaz  
**Province**  
Khuzestan  
**Postal code**  
6455128422  
**Phone**  
+98 61 3374 3079  
**Email**  
Ali.khosravi70@yahoo.com

#### Grant name

#### Grant code / Reference number

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

Yes

#### Title of funding source

Vice chancellor for research, Ahvaz 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**  
Ahvaz University of Medical Sciences  
**Full name of responsible person**  
Parivash Yazdani  
**Position**  
Resident  
**Latest degree**  
Medical doctor  
**Other areas of specialty/work**  
Emergency Medicine  
**Street address**  
Golestan  
**City**  
Ahvaz  
**Province**  
Khuzestan  
**Postal code**  
64661823172  
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**Email**  
ali.khosravi70@yahoo.com

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
Ahvaz University of Medical Sciences  
**Full name of responsible person**  
Parivash Yazdani  
**Position**  
Resident  
**Latest degree**  
Medical doctor  
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**Email**  
ali.khosravi70@yahoo.com

## Person responsible for updating data

### Contact

**Name of organization / entity**

Ahvaz University of Medical Sciences

**Full name of responsible person**

Parivash Yazdani

**Position**

Resident

**Latest degree**

Medical doctor

**Other areas of specialty/work**

Emergency Medicine

**Street address**

Golestan

**City**

Ahvaz

**Province**

Khouzestan

**Postal code**

64661823172

**Phone**

+98 61 3374 3079

**Email**

ali.khosravi70@yahoo.com

## Sharing plan

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

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

**Study Protocol**

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

**Statistical Analysis Plan**

Not applicable

**Informed Consent Form**

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

**Clinical Study Report**

Not applicable

**Analytic Code**

Not applicable

**Data Dictionary**

Not applicable