

In elderly patients over 90 years old with acute kidney injury post-infection, does prolonged intermittent renal replacement therapy improve outcomes compared to standard therapy?

Submission date 18/08/2024	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 19/08/2024	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 19/08/2024	Condition category Urological and Genital Diseases	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

This study investigates the effectiveness of a specialized treatment called Prolonged Intermittent Renal Replacement Therapy (PIRRT) in elderly patients over 90 years old who develop acute kidney injury (AKI) following an infection. The goal is to understand how well this treatment works in such elderly patients and to identify factors that affect their survival.

Who can participate?

The study was conducted on elderly patients aged 90 and above who developed AKI after an infection and were treated at the China-Japan Friendship Hospital.

What does the study involve?

We collected and analyzed medical data from patients treated with PIRRT over the past five years. The study focuses on their treatment outcomes and the factors that may influence their survival.

What are the possible benefits and risks of participating?

The findings suggest that nearly half of the elderly patients survived for more than 90 days after receiving PIRRT, indicating that this treatment can be effective. However, patients with pre-existing chronic kidney disease, certain complications like low calcium levels, rapid heart rates, or high potassium levels had a poorer prognosis.

Where is the study run from?

China-Japan Friendship Hospital (China)

When is the study starting and how long is it expected to run for?

June 2019 to May 2024

Who is funding the study?

This research is funded by the National Natural Science Foundation (China) (82304363)

Who is the main contact?

Dr Zheng Zhang, 88dahongmao88@sina.com

Contact information

Type(s)

Public, Scientific, Principal investigator

Contact name

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Additional identifiers

Clinical Trials Information System (CTIS)

Nil known

ClinicalTrials.gov (NCT)

Nil known

Protocol serial number

Nil known

Study information

Scientific Title

Prolonged intermittent renal replacement therapy in elderly patients over 90 years old with acute kidney injury post-infection: a retrospective cohort study

Study objectives

Prolonged intermittent renal replacement therapy (PIRRT) improves clinical outcomes compared to standard therapy in elderly patients over 90 with acute kidney injury following infection.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 27/09/2016, China-japan Friendship Hospital Clinical Research Ethics Committee (2 Yinghua East Street, Chaoyang District, Beijing, 100029, China; +86 10 66937166; zryyec@126.com), ref: S2016-100-01

Study design

Observational single-center retrospective cohort study

Primary study design

Observational

Study type(s)

Efficacy

Health condition(s) or problem(s) studied

Renal replacement therapy for acute kidney injury after infection in elderly patients

Interventions

Using prolonged intermittent renal replacement therapy (PIRRT), observe patient survival time and explore the correlation between clinical factors and prognosis.

Intervention Type

Procedure/Surgery

Primary outcome(s)

Measured using patient records:

1. Age at baseline
2. Gender at baseline
3. Systolic Blood Pressure: Average all measurements taken from baseline over the next 3 days
4. Diastolic Blood Pressure: Average all measurements taken from baseline over the next 3 days
5. Heart Rate: Average all measurements taken from baseline over the next 3 days
6. Creatinine at baseline
7. Estimated Glomerular Filtration Rate at baseline
8. Urea at baseline
9. Sodium at baseline
10. Potassium at baseline
11. Calcium at baseline
12. Phosphorus at baseline
13. B-type Natriuretic Peptide at baseline
14. Hemoglobin at baseline
15. White Blood Cell Count at baseline
16. Neutrophil Count at baseline
17. Lymphocyte Count at baseline
18. Platelet Count at baseline
19. C-Reactive Protein at baseline
20. Procalcitonin at baseline
21. Prothrombin Time at baseline
22. Activated Partial Thromboplastin Time at baseline
23. SOFA Score at baseline
24. APACHE II Score at baseline

Key secondary outcome(s)

There are no secondary outcome measures

Completion date

01/05/2024

Eligibility

Key inclusion criteria

1. Patients over 90 years old
2. Acute kidney injury (AKI) due to infection
3. Received Prolonged Intermittent Renal Replacement Therapy (PIRRT)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

90 years

Upper age limit

150 years

Sex

All

Total final enrolment

20

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

01/06/2019

Date of final enrolment

01/05/2024

Locations

Countries of recruitment

China

Study participating centre
China-Japan Friendship Hospital
2 Yinghua East Street, Chaoyang District
Beijing
China
100029

Sponsor information

Organisation
China-Japan Friendship Hospital

ROR
<https://ror.org/037cjxp13>

Funder(s)

Funder type
Government

Funder Name
National Natural Science Foundation of China

Alternative Name(s)
Chinese National Science Foundation, Natural Science Foundation of China, National Science Foundation of China, NNSF of China, NSF of China, National Nature Science Foundation of China, Guójiā Zìrán Kēxué Jījīn Wěiyuánhùi, , NSFC, NNSF, NNSFC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
China

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request, 88dahongmao88@sina.com

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes