Caring for Outpatients After Acute Kidney Injury (COPE-AKI) Trial:

This is a multicenter phase III, randomized, parallel-arm clinical trial. It will compare whether a multimodal post-discharge intervention combining study physician and nurse navigator oversights, and a pharmacist-led medication review, improves recovery after acute kidney injury compared with usual care. Participants are randomized 1:1 using a secure, web-based system stratified by site. The primary outcome is hospital-free days through 90 days, with secondary outcomes including major adverse kidney events, recurrent AKI, and patient-reported health and quality-of-life measures. The aim is to test and develop "process of care" interventions to reduce post-AKI outcomes.

Funding: NIDDK, 1U01DK129989-01 https://www.clinicaltrials.gov/study/NCT05805709

Probe – Fluid Trial

The Proactive prescription-based Fluid Management vs Usual Care in Critically Ill patients on Kidney Replacement Therapy is an open-label pilot multicenter randomized controlled trial. It compares a prescription-based fluid management strategy to usual care. The intervention aims to achieve neutral or negative daily fluid balance by standardizing how fluid removal is prescribed, while still allowing the care team to adjust targets based on clinical judgment. The primary objective is the difference in cumulative fluid balance over the first 5 days, with additional assessments of feasibility, safety, short-term outcomes, and resource utilization.

https://clinicaltrials.gov/ct2/show/NCT05473143

TIGRIS Trial

The Safety and Efficacy of Polymyxin B Hemoperfusion (PMX) for Endotoxemic Septic Shock in a Randomized, Open-Label Study (TIGRIS) is a multicenter, prospective, randomized clinical trial. Eligible adults with septic shock and endotoxin activity are randomized to receive two PMX treatments about 24 hours apart or usual care. Mortality status is assessed at Day 28, Day 90, and 12 months. It aims to compare the safety and efficacy of using the PMX cartridge (Toraymyxin) along with standard care

https://clinicaltrials.gov/study/NCT03901807

KOURAGE Trial

Auxora for the Treatment of AKI and Modulation of Injurious "Crosstalk" With the Lung: A Randomized Control Trial (KOURAGE) is a double-blind, placebo-controlled study enrolling patients with severe AKI and associated acute hypoxemic respiratory failure at up to 40 sites. Participants will be randomized 1:1 to receive Auxora or matching placebo. The trial evaluates the efficacy, safety, and tolerability of Auxora. Mortality and clinical status will be assessed through Day 90.

https://clinicaltrials.gov/study/NCT06374797

CLEAR-AKI Trial

This Phase 2b Study to Investigate the Safety and Efficacy of TIN816 in Sepsis-associated Acute Kidney Injury (CLEAR-AKI) is designed to evaluate the safety, efficacy, and dose-response of three single IV doses of TIN816 in adults hospitalized with sepsis-associated AKI. The study is a multicenter, randomized, double-blind, placebo-controlled, four-arm, parallel-group and dose-finding trial. Eligible participants are randomized in a 3:1:1:3 ratio to receive a one-time infusion of TIN816 or placebo.

https://clinicaltrials.gov/study/NCT05996835

DIAMOND

A multicenter observational prospective sample-collection study to validate the NEPHROCLEAR™ CCL14 Test. Urine samples were collected from patients in the ICU with KDIGO Stage 2 or 3 AKI. Those samples were be used to validate the NEPHROCLEAR™ CCL14 Test as a tool in the risk assessment of ICU patients for developing severe and persistent acute kidney injury. The primary outcome is the presence of persistent severe AKI, determined by physician adjudication within 5 days.

NCT04785391, https://clinicaltrials.gov/ct2/show/NCT04785391?term=NCT04785391&draw=2&rank=1

EPACRA-AKI

Establishment of ProNephro AKI (NGAL) Cut Off Value for Risk Assessment of Moderate to Severe Acute Kidney Injury in Adults (EPACRA-AKI) is an observational study that collects blood and urine samples from adult ICU patients to evaluate the performance of the ProNephro AKI (NGAL) assay. The goal is to determine how well this lab test helps identify patients at risk for developing acute kidney injury.

https://clinicaltrials.gov/study/NCT06652100

HARMONY-HRS

HRS-Harmony is a multi-center academic collaborative of U.S. researchers and specialists with the goal of improving care of patients with kidney and liver disease.

AKI-EPI 2

This is an international, multisite, retrospective observational cohort study. Acute Kidney Injury – Epidemiology in ICU patients 2 aims to investigate the epidemiology and outcomes of acute kidney injury in critically ill patients, providing a contemporary update on the epidemiology (rates, severity, duration, and etiology) of AKI and associated outcomes in critically ill patients.

LATAM-EPI

The LATAM registry aims to investigate the epidemiology, the outcomes and the processes of care for patients with acute kidney injury requiring RRT in Latin American countries. It is an international, multicenter, retrospective observational study. Critically ill patients undergoing any form of renal replacement therapy RRT in Latin American hospital centers are participating in the study. The overall objectives of the study are to describe the epidemiology of patients with AKI requiring RRT in Latin America and the processes of care for this specific population.

CRRTNet

The CRRTNet Registry – A Prospective Observational Registry is a prospective observational cohort study. It tracked outcomes of continuous renal replacement therapy (CRRT) in adults with acute kidney injury. The aim of this registry is to evaluate contemporary epidemiology, outcomes and process of care of adults with acute kidney injury undergoing treatment with CRRT. https://clinicaltrials.gov/ct2/show/NCT02034448?term=CRRTnet+Registry&draw=2&rank=1

UAB CRRT BIOBANK

This prospective single-center study includes critically ill adult patients with AKI undergoing CRRT. The primary objective is to establish a biobank of longitudinal biological samples from patients receiving CRRT.

SPRINT KLOTHO R01 DK128208

This NIDDK-funded study "Relation of Soluble Klotho with Cardiovascular Disease, Chronic Kidney Disease Progression, and Blood Pressure in Systolic Blood Pressure Intervention Trial" aims to investigate the relationship of soluble Klotho with cardiovascular and kidney disease progression in the Systolic Blood Pressure Intervention Trial.

https://reporter.nih.gov/search/qIIvD68Q9kygufDPx3kXfQ/project-details/11123384

Artificial Intelligence to Predict Outcomes in Patients with Acute Kidney Injury on Continuous Renal Replacement Therapy R01-DK133539

Patients with severe AKI and hemodynamic instability often require CRRT, yet predicting kidney recovery, mortality, or response to fluid removal remains challenging. Fluid overload is a key modifiable risk factor, and no universally accepted tools exist to guide personalized CRRT management. Leveraging advances in artificial intelligence, this project proposes developing deep learning models using multi-institutional time-series data to continuously predict clinical outcomes and identify sub-phenotypes of AKI patients on CRRT. This work aims to enable precision-medicine approaches and inform future clinical decision support tools for optimizing CRRT delivery. https://reporter.nih.gov/search/FKYEH9S8IUyyf4fkTRSwdA/project-details/11018619

Blood and Urine Biomarkers for Predicting Long-Term Adverse Kidney and Cardiovascular Outcomes after Cardiac Surgery R01 HL148448

This study will address three specific aims: 1) To determine the association between in-hospital AKI biomarkers and occurrence of MAKE during long-term follow-up; 2) To determine the association between in-hospital AKI biomarkers and occurrence of MACE during long-term follow-up; and 3) To develop clinical prediction models for long-term MAKE and MACE after cardiac surgery. In addition to traditional regression modeling, we will use machine learning that leverages detailed perioperative data including time-varying intraoperative and intensive care unit clinical data and blood and urine AKI biomarker data to create high performing prediction models.

https://reporter.nih.gov/search/NZ4eeSeBvUunlB6yTlBmtw/project-details/9930135

From data pipeline to clinical decision support to improve continuous renal replacement therapy processes and outcomes (SMART-CRRT) PRIYA NAGAR, MD, INNOVATION AWARDS for KIDNEY RELATED DISEASES

This project aims to develop advanced Artificial Intelligence and Machine Learning tools that combine different data types in Electronic Health Records (EHR) and Continuous Renal Replacement Therapy (CRRT) machines. By addressing challenges such as temporal irregularity and asynchrony from heterogeneous data, we aim to create a comprehensive computational framework that improves clinical workflows, supports predictive modeling, and enables real-time clinical decision support for critical patients with acute kidney injury (AKI) receiving CRRT. Our ultimate goal is to transform current reactive management into a proactive, data driven approach that enhances patient outcomes in nephrology care.