



GODIF: Goal-directed fluid removal with furosemide in intensive care patients – July 2025

FACTS:

- Over 170,000 Australians are admitted to ICUs annually, with fluid therapy being nearly universal and often contributing to fluid overload.
- Fluid overload increases the risk of death by 19% for every additional litre per kilogram of body weight.
- Studies show that ICU patients often retain an extra 0.5-3 litres fluid each day during the first three days of their admission.

PROJECT CYCLE:

2023 - 2028

PARTNERS:

The George Institute for Global Health,
Australia

Copenhagen University Hospital,
Denmark

SUPPORTERS:

Novo Nordisk Foundation
Madsen's Foundation
Ehrenreich's Foundation
Andersen's Foundation
Sygeforsikringen Denmark

PRINCIPAL INVESTIGATOR:

Prof Anders Aneman

BACKGROUND:

- Fluid overload is a common and serious complication in critically ill patients, but there is a lack of clear, evidence-based guidance on the timing and methods for safely removing excess fluid.
- Excess fluid contributes to organ failure and death, yet strategies for fluid removal in intensive care units (ICUs) are inconsistent, under-researched, and not supported by evidence from randomised clinical trials.
- There is an urgent need to identify safe and effective fluid removal practices to support recovery, reduce complications, and maximise time alive and out of hospital.

AIM:

- To evaluate the effects of goal-directed fluid removal with furosemide, compared to placebo, on outcomes that matter to adult ICU patients experiencing fluid overload.

METHODS:

- The trial evaluates furosemide using patient-important outcomes such as survival, time spent out of hospital, and long-term quality of life one year after ICU discharge.
- The trial includes detailed follow-up to track survival, adverse reactions, cognitive function (MoCA), and overall quality of life (EQ-5D-5L) using standard health assessments.

IMPACT

- This study will determine whether a low-cost, widely available treatment can improve survival and recovery for critically ill patients.
- The findings will inform national and global clinical guidelines and may reduce the healthcare burden by shortening the need for organ support.
- The trial will build research capacity in metropolitan hospitals across Australia.

CONTACT:

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