**PUSH-AHF trial**

**Natriuresis guided therapy in acute heart failure**

**Conclusion**

A pragmatic natriuresis guided diuretic approach in patients with acute heart failure (AHF) significantly increases 24-hour natriuresis without impacting all-cause mortality or HF rehospitalisation.

**Impact on clinical practice**

Clinicians should consider natriuresis guided diuretic therapy as a first step to a personalised treatment approach in patients with AHF to improve decongestion.

**Study objectives**

The PUSH-AHF trial investigated the effectiveness of natriuresis guided diuretic therapy on natriuresis and clinical outcomes in patients with AHF.

**Study population**

- **Patients**
  - AHF requiring treatment with intravenous (IV) loop diuretics

  The inclusion and exclusion criteria were intentionally broad to enrol a contemporary, representative, all-comer AHF population.

**Who and what?**

- **310 patients**
  - Randomised 1:1

**Natriuresis guided diuretic therapy**

- Twice daily IV diuretic therapy

**Standard of care**

- Twice daily IV diuretic therapy

**Where?**

University Medical Centre Groningen, the Netherlands

**Primary endpoints: p<0.025 for each was considered statistically significant**

- 24-hour natriuresis
  - 409 ± 178 mmol
  - 345 ± 202 mmol
  - p=0.0061

- Combined endpoint of time to all-cause mortality or HF rehospitalisation at 180 days
  - 46 patients (31%)
  - 50 patients (31%)

Hazard ratio 0.92; 95% CI 0.62 to 1.38; p=0.6980