Simultaneous Use of Hypertonic Saline and IV Furosemide for Fluid Overload

**A Systematic Review and Meta-Analysis**

### Study Selection
- Randomized controlled trials
- Hospitalized adults
- ADHF* with fluid overload
- Interventions: HTS + Furosemide vs. Furosemide alone

### Study Results

**Compared to furosemide alone, HTS + furosemide significantly**

- ↓ All-cause mortality
  - (RR 0.55, CI 0.46 – 0.67, p < 0.05)
- ↓ HF-related readmissions
  - (RR 0.5, CI 0.33 – 0.76, p < 0.05)
- ↓ Hospital length of stay
  - (Mean diff -3.28 days, p < 0.05)

- 11 RCTs
- 2987 patients
- Furosemide doses 40 – 2000 mg/day
- HTS 1.4% - 7.5%
- Duration ranged 1 – 12 days
- Daily diuresis (583.87 mL, p < 0.05)

*ADHF = Acute decompensated heart failure

**GRADE certainty of evidence ranged from low to moderate**

### Conclusion

Hypertonic saline plus IV furosemide is associated with a ↓ in mortality in hospitalized patients with ADHF