Multicentre randomised controlled trial of individualised dialysate cooling

**Excluded:**
1. Exposure to haemodialysis for >180 days
2. Contraindications for using MRI (eg. patients with pacemakers and metal implants, pregnancy or lactating)
3. Inability to tolerate MRI due to claustrophobia
4. New York Heart Association grade IV heart failure
5. Mental incapacity to consent

**Inclusion criteria:**
- On HD at least 3 times/week
- Aged 16 years or over
- Willing and able to give consent

**n = 72**

1:1 Randomisation to individualised cooling or control dialysate temperature

**Baseline**
- Monitored Dialysis Investigations*
  - Cardiac and Brain MRI
  - Cognitive assessment

**Cool (tympanic temp - 0.5°C)**

**Control 37°C**

12 months. Primary outcome 5% difference in LVEF by Cardiac MRI

* Monitored Dialysis Investigations comprise:
  - Non-invasive heart function and peripheral blood vessel monitoring with Finometer and Vicorder,
  - Echocardiography and blood tests