SCREENING

Patients admitted with ADHF + volume overload

- At least 1 sign of volume overload (edema, ascitis, pleural effusion)
- ≥ 1 month maintenance dose of loop diuretics (≥ 1 mg bumetanide, ≥ 40 mg furosemide, ≥ 20 mg torsemide)
- BNP > 250 pg/ml or NT-proBNP > 1000 pg/ml
- Assessed LVEF by any imaging techniques within 12 months of inclusion

Randomisation + start urine collection

TREATMENT

DAY 1

| Group 1: IV therapy with high-dose bumetanide* with placebo | Group 2: IV therapy with high-dose bumetanide* with *azetazolamide* |

STUDY START DOSE
- Bolus of IV bumetanide* (2X the oral dose)
- 500 mg IV bolus of placebo or azetazolamide

DAY 2

Morning: Volume assessment (oedema, pleural effusion or ascites)

Score ≤1:
- Stop IV diuretics
- Continue urine collection

Score >1:
- Continue IV diuretic therapy
- Continue urine collection

STUDY DOSE   8-12AM
- IV bumetanide* (1X the oral dose)
- 500 mg IV bolus of placebo or azetazolamide

Wait 6 hours

STUDY DOSE   2-6PM
IV bumetanide* (1X the oral dose)

DAY 3

Morning: Volume assessment (oedema, pleural effusion or ascites)

Score ≤1:
- Stop IV diuretics
- Stop urine collection

Score >1:
- Continue IV diuretics therapy
- Stop + check urine collection

ESCALATION THERAPY mandatory if urinary output < 3.5l:
- *Doubling IV loop diuretics dose*
- *Add oral chlorthalidone 50 mg daily*
- *Ultrafiltration or renal replacement therapy*

STUDY DOSE   8-12AM
- IV bumetanide* (1X the oral dose)
- 500 mg IV bolus of placebo or azetazolamide

Wait 6 hours

STUDY DOSE   2-6PM
IV bumetanide* (1X the oral dose)

DAY 4

Morning: Volume assessment (oedema, pleural effusion or ascites)

Stop study treatment
Further IV diuretic therapy at the discretion of the treating physician

SFU

DISCHARGE HOSPITAL

FU VISIT @ 3 MONTHS AFTER STUDY START DOSE

*bumetanide is preferred loop diuretic agent
Conversion factor is 1 mg bumetanide = 20mg torsemide = 40 mg furosemide (IV and oral)
Bolus of bumetanide is limited to 5 mg bumetanide