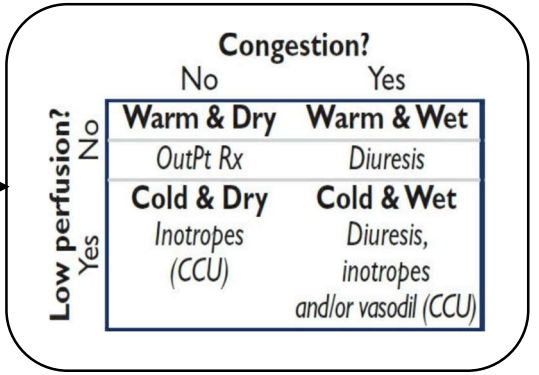
## ACUTE DECOMPENSATED HEART FAILURE (ADHF)

### KEY PHYSICAL EXAMINATION FINDS

**Increased congestion**: peripheral edema, raised JVP, sustained hepatojugular reflux: ≥4 cm, audible S3, dullness at base, crackles, hepatomegaly, ascites.

**Reduced perfusion**: cool pale extremities, narrow pulse pressure (<25% of SBP), pulsus alternans, reduced UOP.




### ADHF PRECIPITANTS (MNEMONIC FAILURES)

Consider natural progression of disease vs. new precipitant. Always search for reversible cause listed below.

**F**orgetting HF drugs or taking drugs that can worsen HF (e.g. CCB, NSAIDs).
**A**rrhythmia (esp. AF), ACS, Acute vascular dysfunction, IE MR or AR.
**I**nfections (CAP/UTI).
**L**ifestyle indiscretions- high salt, alcohol, excessive fluid intake.
**U**pregulation/increased metabolic demands (pregnancy and hyperthyroidism)
**R**enal failure (AKI, progression of CKD, or insufficient HD/PD).
**E**mbolus (pulmonary) or worsening COPD.
**S**tenosis (worsening AS), SBP elevation hypertensive crisis.

### INVESTIGATIONS

Blood tests; FBC, RFT, LFT, CMP, RBS, HBA1c, lipid profile, LFTs. Add on tests blood cultures, urine cultures, TSH, ferritin, BNP, uric acid.

ECG, CXR. Echo (after cardiology approval).

### ACUTE MANAGEMENT

Aim; Assess degree of congestion & adequacy of perfusion.

1 Perform your **ABCDE** (Airway, Breathing, Circulations, Drug for ACLS resuscitation, Draw Bloods place 2 cannulas, Full vitals, RBS + ECG). Nurse in HDU. Add broad spectrum antibiotics (ceftriaxone/cefotaxime) if septic.
2. Give **furosemide** IV; total daily dose 2.5× usual daily PO dose (not to exceed 200mg/dose). Add inotropes prior if MAP < 65.
3. **Supplement oxygen** in hypoxemic patients (SPO2 < 90%).
4. Position patient sitting up & legs dangling over side of bed if possible.
5. Adjust HF medications; **ACEI/ARB**; hold if hypotension. Consider switching to **hydralazine** & **nitrates** if worsening renal function with Hypertensive Emergency. **βB**: reduce dose by at least 1/2 if mod HF, hold in severe HF (hypotension needing inotropes).

### INOTROPES

(Arranged in order of preference)

1. **Dobutamine** 2–20 µg/kg/min
2. **Dopamine** 3–5 µg/kg/min
3. **Epinephrine** 0.05–0.5 µg/kg/min

NB: Administer infusion preferably through central line or 16G/18G cannula, on continuous ECG monitoring. Check BP hourly (target MAP > 65). Monitor UOP.