**1. RULE OUT 2 IMMEDIATE LIFE-THREATS**

1. Hyperkalemia - get ECG, electrolytes off blood gas
2. Severe acidosis - get blood gas

**2. ASSESS FOR ADEQUATE PERFUSION**

Use your history, physical examination and POCUS to assess for perfusion and shock (hemorrhagic, vasodilatory, cardiogenic etc.) and treat accordingly.

**3. ASSESS FOR BOTH PULMONARY & PERIPHERAL EDEMA**

Assess JVP and lungs with POCUS for pulmonary edema, look and palpate for peripheral edema (pre-tibial and sacral edema).

If there is no evidence of pulmonary or peripheral edema, give a fluid challenge.

AKI with adequate perfusion, with pulmonary edema (+/- peripheral edema)

- Give furosemide 1mg/kg IV (or 1.5mg/kg IV if on furosemide already)
- Consider pulmonary renal syndromes other than CHF (such as anti-GBM disease, ANCA associated vasculitis, circulating immune complex syndromes eg. lupus), and look for clinical clues (inflammatory arthritis, purpura, Raynaud’s, mononeuritis multiplex, uveitis or Sicca syndrome)

AKI with adequate perfusion, with peripheral edema but no pulmonary edema

- Give furosemide 1mg/kg IV (or 1.5mg/kg IV if on furosemide already)
- If no improvement in renal function, consider hypovolemia ("pre-renal") despite peripheral edema
  - Low serum albumin: treat underlying cause, and consider hepatorenal syndrome and may require IV albumin
  - Venous insufficiency and/or lymphedema: give crystalloid, consider compression therapy
  - Drug induced edema: give crystalloid, reassess offending drug
  - Severe myxedema: give L-thyroxin and monitor

**4. THE GOLDEN RULES OF AKI WORKUP**

1. Measure post-void residual (PVR) with bladder scan or urethral catheter
2. Urine dip to look for blood and protein suggestive of nephritic syndrome
3. Monitor urine output ideally with urethral catheter
4. Avoid nephrotoxins (NSAIDs, ACEI, ARBs, gentamicin etc.)

**5. CONSIDER IMAGING FOR POST-RENAL AKI**

Consider imaging only in those who:

- Do not improve with fluid challenge (less likely pre-renal)
- Normal urine dip (less likely intra-renal)
- Post-void residual <100mL (less likely BPH)
- Have obvious hydronephrosis on POCUS

These patients warrant further imaging as they might have a rare post-renal AKI cause of bilateral ureteric obstruction such as metastatic cancer, lymphoma or kidney stone with a solitary kidney.