

HISTORY FINDINGS

- SOB
- **Cough:** Pink frothy sputum
- **Peripheral oedema**
- **Orthopnoea**
- **Paroxysmal nocturnal dyspnoea**
- **PMH:** IHD / Cardiomyopathy / Valvular disease

EXAMINATION FINDINGS

- **Physical observation:** High RR / reduced SaO₂ / +/- Tachycardia
- **Auscultation:** Bibasal crepitations / +/- associated 'cardiac' wheeze
- **Raised JVP**
- **Peripheral pitting oedema**

INVESTIGATION FINDINGS

- **Bloods:** Raised BNP
- **ECG:** +/- LV hypertrophy / Ischaemia (T wave inversion / ST depression) / +/- Tachyarrhythmias
- **CXR:** Alveolar oedema 'Bats wing appearance' / Cardiomegaly / Upper lobe diversion / Pleural effusions (usually bilateral)
- **ECHO:** Reduced ejection fraction / diastolic dysfunction / structural cause of failure

MANAGEMENT

Symptomatic patient - SOB / low SaO₂

Position patient upright
Oxygen titration SaO₂ >94%
Initial Diuresis:

- STAT Furosemide 40mg IV

On-going Diuresis:

- Titrate dose appropriately to ensure negative fluid balance
- May require Furosemide infusion

Nitrates: If no benefit from Initial Diuresis and BP acceptable
NIV: Consider CPAP

Symptomatic patient - Peripheral oedema only

Elevate legs
Diuresis:

- If not on diuretics - consider regular IV/PO Furosemide
- Already on diuretics - consider increasing regular dose
- Consider adding spironolactone if evidence of heart failure

All patients

Bloods: Troponin / U&E's / VBG (lactate) / D-dimer (to exclude PE)
Monitoring:

- Fluid balance chart +/- Urinary catheter
- Daily weights
- Monitor renal function and electrolytes

Optimisation of all heart failure medication
Heart failure team review

CONTACT SENIOR

- **Hypotensive patients Systolic BP < 90mmHg:** Consider vasopressors
- **Hypoxia requiring increasing supplementary oxygen / NIV**
- **Patients requiring increased doses of diuretics**
- **Tachyarrhythmias associated with heart failure**
- **Patients not improving / deteriorating after initial management**

Always consult BNF for dose / administration and contraindications for all above medications