

## 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 SaO<sub>2</sub> / +/- 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 SaO<sub>2</sub>

Position patient upright

Oxygen titration SaO<sub>2</sub>>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