

Lightning Learning: Acute Heart Failure



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STOP!

Heart failure is a condition that can be caused by heart muscle dysfunction (systolic or diastolic), arrhythmias, valvular dysfunction or rarer causes. (1) Patients admitted with acute heart failure have a mortality of up to 10%. Following discharge, mortality increases up to 50% over the next 12 months. (2)

With this in mind, it is pertinent to establish ongoing treatment plans with patients as they are highly prone to deterioration.

It can present as new-onset heart failure without any known cardiac dysfunction or as acute decompensation of chronic heart failure.

SYMPTOMS INCLUDE...

- Progressive dyspnoea
- Chest pain
- Orthopnoea
- Oedema (ankle/leg/sacral)
- Fatigue

LOOK

HISTORY Consider asking about...

Pre-existing illness? Infective symptoms? Duration? Exercise tolerance? Orthopnoea, paroxysmal nocturnal dyspnoea? Chest pain? Compliance with medication?

INVESTIGATIONS

ECG (serial ECGs if ischaemic changes); Bloods (consider serum BNP) CXR. Bedside echocardiogram is the key investigation to confirm the diagnosis (refer to your local guideline⁽²⁾ for ECHO features).

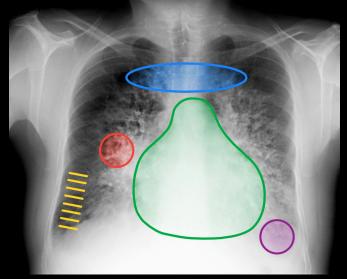
MANAGEMENT

- Perform A-E assessment of the patient.
- Stepwise approach to medical management in acute setting, e.g. Oxygen, IV furosemide (bolus/infusion), IV GTN. Treat co-existing illness, e.g. pneumonia with antibiotics. Input/output monitoring, e.g. patient weight, urine output.
- When medical management not helping, discuss with senior doctor in Resus to initiate CPAP⁽³⁾ (refer to local guideline). Consider escalation status.
- Liaise with Cardiology for admission and ongoing management.

LEARN

CXR FINDINGS⁽⁴⁾ A good mnemonic to remember these principles is ABCDE...

- Alveolar oedema (bat wing opacities)
- Kerley B lines
- Cardiomegaly
- Dilated upper lobe vessels
- Pleural effusion
- (1) bit.ly/2NS5hdk
- (3) bit.ly/33QXqlK
- (2) bit.ly/33SUWU2
- (4) bit.ly/2COtN8B



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