

ECG #44

A 57-year-old man presents to the emergency department with a 3-day history of increasing dyspnoea and pre-syncopal symptoms.

Describe and interpret his initial 12-lead electrocardiogram:



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DESCRIPTION:

- Ventricular rate 127 bpm
- Irregularly irregular rhythm with no discernible P waves
- Northwest QRS axis (249°)
- Prolonged QRS duration (128 ms)
- Beats 11 through 13: broad complex tachycardia (150 bpm) with different morphology to remainder of ECG

INTERPRETATION:

- Atrial fibrillation with aberrant conduction
- Fast ventricular response
- Non-sustained episodes of ventricular tachycardia (triplet)

12-lead electrocardiogram 30-minutes later with worsening shock/haemodynamic instability:



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DESCRIPTION:

- Ventricular rate 156 bpm
- Irregularly irregular rhythm with no discernible P waves
- Northwest QRS axis (238°)
- Prolonged QRS duration (118 ms)
- Several runs of broad complex tachycardia (150 bpm) with different morphology to remainder of ECG

INTERPRETATION:

- Atrial fibrillation with aberrant conduction
- Fast ventricular response
- Non-sustained ventricular tachycardia

12-lead electrocardiogram post-cardioversion:



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DESCRIPTION:

- Ventricular rate 102 bpm
- Sinus rhythm
- Borderline prolonged PR interval (196 ms)
- Northwest QRS axis (263°)
- Prolonged QRS duration (136 ms)
- T wave inversions in leads I and aVL

INTERPRETATION:

- Sinus tachycardia
- Non-specific intraventricular block

CASE RESOLUTION:

- ...to follow