

Tachycardia

v1.1

Tachycardia may be the result of underlying disease process, new pathology or related to treatment. The ALS tachycardia algorithm is on the next page

START: IMMEDIATELY NOTIFY DRIVER, STOP SAFELY

1 Immediate actions

- Follow Key Basic Plan
- Check pulse
 - If no pulse, treat as cardiac arrest (→ EAC)
 - If critical hypotension, perform DC cardioversion (Box B)

2 Breathing

- Exclude **hypoxia** and **hypercarbia** as causes

3 Circulation

- Check rhythm – differentiate sinus vs SVT/VT
- Check perfusion, recheck blood pressure
- Perform 12 lead ECG
- Apply defibrillator pads

4 Disability

- Ensure appropriate sedation and analgesia

5 Consider potential causes (Box C)

- Treat accordingly

6 Consider rate control (Box D)

Box A: CRITICAL CHANGES

- If problem worsens significantly, or a new problem arises, go back to **START** of Key Basic Plan
- If Transfer Practitioner or Transfer Doctor transfer, contact Remote Duty Consultant
- Consider contacting Leadership SPOC for support, if required

Box B: DC CARDIOVERSION WITH ZOLL X-SERIES

- Ensure adequate sedation / analgesia (consider ketamine)
- Press synchronise button and check for dot above R wave
- Deliver shock (Zoll X-series energy below):
 - SVT: 70, 120, 150, 170J
 - VT: follow automated escalation of energies starting at 120J

Box C: POTENTIAL CAUSES

- Medical causes:
 - Hypovolaemia
 - Hypoxia (→ EAC)
 - Hypercarbia
 - Malignant arrhythmia
 - Myocardial ischaemia or infarction (→ EAC)
 - Electrolyte disturbance
 - Raised intracranial pressure (→ EAC)
 - Anaphylaxis (→ EAC)
- Inadequate sedation / analgesia
- Consider drug error

BOX D: DRUGS FOR TACHYCARDIA

- Fluid bolus 250ml (consider blood if haemorrhage suspected)
- Magnesium 2g over 10min
- Amiodarone 300mg over 3-5min (avoid in pregnancy unless no alternative)
- Labetalol 0.25mg/kg (12.5-25mg / 2.5-5ml); repeat as necessary
- Esmolol 0.5mg/kg over 30secs; follow with infusion of 0.3mg/kg/min
- Adenosine 6mg then 12mg for SVT