



Advanced Life Support

Tachycardia Algorithm (with pulse)

- Support ABCs: give oxygen; cannulate a vein
- Monitor ECG, BP, SpO₂
- Record 12-lead ECG if possible; if not, record rhythm strip
- Identify and treat reversible causes (e.g. electrolyte abnormalities)

Synchronised DC shock*
Up to 3 attempts

- Amiodarone 300 mg IV over 10-20 min and repeat shock; followed by:
- Amiodarone 900 mg over 24 h

Unstable

Is patient stable?

Signs of instability INCLUDE:

1. Reduced conscious level
2. Chest pain
3. Systolic BP < 90mmHg
4. Heart failure

(Rate-related symptoms uncommon at less than 150 beats min⁻¹)

Stable

Broad QRS
Is QRS regular?

Is QRS narrow (< 0.12 sec)?

Narrow QRS
Is QRS regular?

Irregular

Regular

Regular

Irregular

Seek expert help

- Possibilities include:
- **AF with bundle branch block** treat as for narrow complex
 - **Pre-excited AF** consider Amiodarone
 - **Polymorphic VT (e.g. torsade de pointes)** give magnesium 2 g over 10 min

- If Ventricular Tachycardia**
(or uncertain rhythm):
- Amiodarone 300 mg IV over 20-60 min; then 900 mg over 24 h
- If previously confirmed **SVT with bundle branch block**:
- Give adenosine as for regular narrow complex tachycardia

- Use vagal manoeuvres
- Adenosine 6 mg rapid IV bolus; if unsuccessful give 12 mg; if unsuccessful give further 12 mg;
- Monitor ECG continuously

Normal sinus rhythm restored?

Yes

- Probable **re-entry PSVT**:
- Record 12-lead ECG in sinus rhythm
 - If recurs, give adenosine again & consider choice of anti-arrhythmic prophylaxis

- Irregular Narrow Complex Tachycardia**
Probable atrial fibrillation
- Control rate with:
- β-Blocker IV or digoxin IV
If onset < 48 h consider
 - Amiodarone 300 mg IV 20-60 min; then 900 mg over 24 h

No

Seek expert help

- Probable **atrial flutter**
- Control rate (e.g. β-Blocker)

* Attempted electrical cardioversion is always undertaken under sedation or general anaesthesia