TACHYCARDIA ALGORHYTHM (with pulse)

if sinus tachycardia - correct the cause only
If not sinus tachycardia - follow the algorithm

SVT	VT/Acute AF
100-150 J	150 J
270 J	270 J
270 J	270 J

Assess with ABCDE approach

- Give oxygen if appropriate and obtain IV access
- Monitor ECG, SPO2,12LEAD ECG
- Identify and treat reversible causes in the table

Life threatening features?

1. Shock
2. Syncope
3. Myocardial ischaemia
4. Severe heart failure

YES

Synchronised DC shock up to 3 attempts

- Amiodarone 300mg IV over 10-20min and repeat shock

followed by;

- Amiodarone 900mg over 24hrs

Causes
D-drugs
I-infection
I-ischemia
E-electrolytes
E-endocrine
S-shock
S-sepsis
S- stimulants

UNSTABLE

STABLE
Seek expert help

NO

Is the QRS narrow (< 0.12 s)?

BROAD QRS
Is QRS regular?

IRREGULAR

Possibilities include:

- **Atrial fibrillation with bundle branch block** treat as for irregular narrow complex
- **Polymorphic VT** (e.g. torsades de pointes) give magnesium 2 g over 10 min

REGULAR

If VT (or uncertain rhythm):

- Amiodarone 300 mg IV over 10–60 min
- then 900mg over 24hrs

If previously confirmed **SVT with bundle branch block**: give adenosine as for regular narrow complex tachycardia

NARROW QRS
Is QRS regular?

REGULAR

Vagal manoeuvres

If ineffective:

- Give Adenosine (if no pre-excitation)
  - 6 mg rapid IV bolus
  - If unsuccessful, give 12 mg
  - If unsuccessful, give 18 mg
- Monitor ECG continuously

Normal sinus rhythm restored??

YES

Probable re entry PSVT

- Record 12 lead ECG
- If recurs give adenosine again and consider choice of antiarrhythmic prophylaxis

NO

Seek expert help

- Possible atrial flutter Control rate eg. beta blocker

IRREGULAR

Probable atrial fibrillation:

- Beta blockers or diltiazem
- Consider digoxin or amiodarone if evidence of heart failure
- Anticoagulated if duration>48hrs

❖ *In acute AF before electrical cardioversion, give iv heparin 5000 U bolus*
❖ *In stable SVT/VT if failed chemical cardioersion, go for electrical cardioversion*

Indications for Admission

1. SVT/ AF/Atrial flutter rate not controlled (>110) medically and needs anticoagulation before DC cardioversion.
2. Untreated underlying cause; eg: ischaemia/ electrolyte imbalances/ severe dehydration.
3. Ventricular tachycardias/ frequent ectopics eg: bigeminy/trigemini.

When to discharge

1. Known AF/SVT/Atrial flutter- rate controlled medically or DC cardioversion in an anticoagulated patient and excluded ischemia/ corrected electrolyte imbalances and dehydration.