

Tachycardia Algorithm

Assessment:

- assess ABCs
- secure airway
- administer oxygen
- attach monitor
- start IV
- assess vital signs and oxygen saturation
- gather history
- perform physical exam
- identify and treat reversible causes
- have suction and intubation equipment available

Unstable, with serious signs or symptoms?

- chest pain
- shortness of breath
- depressed level of consciousness
- hypotension
- shock
- acute MI
- CHF
- pulmonary congestion

If ventricular rate > 150 bpm:

- prepare for immediate cardioversion
- may give brief trial of medications, depending on arrhythmia
- *premedicate patient if conscious*, e.g., diazepam 2-5 mg IV, midazolam 1-2.5 mg IV, morphine 2-10 mg IV
- immediate cardioversion seldom needed for heart rates <150 bpm

Synchronized cardioversion
 VT and atrial fib: 100 J, 200 J, 300 J, 360 J or equivalent biphasic setting
 PSVT and atrial flutter: 50 J, 100 J, 200 J, 300 J, 360 J or equivalent biphasic setting

QRS wide (>0.12 sec)?

Atrial fibrillation
Atrial flutter
Multifocal atrial tachycardia

- **Diltiazem** 0.25 mg/kg IV
- **Diltiazem** 0.35 mg/kg IV
- OR
- **Verapamil** 2.5-5 mg IV
- **Verapamil** 5-10 mg IV
- OR
- **Medical direction may wish to consider other interventions such as amiodarone**

Paroxysmal supraventricular tachycardia (PSVT)

- **Vagal maneuvers**

- **Adenosine** 6 mg, rapid IV push (1-3 sec)
- **Adenosine** 12 mg, rapid IV push (1-3 sec); may repeat once in 1-2 min.
- OR
- **Medical direction may wish to consider other interventions such as calcium channel blockers**

Torsades de pointes

- **Magnesium** 1-2 gm IV push

Ventricular tachycardia (VT) or uncertain wide complex tachycardia

- **Amiodarone** 150 mg over 10 min
- OR
- **Lidocaine** 1-1.5 mg/kg
- OR
- **Medical direction may wish to consider other interventions such as cardioversion**