

# 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**

**Paroxysmal supraventricular tachycardia (PSVT)**

**Torsades de pointes**

**Ventricular tachycardia (VT) or uncertain wide complex 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**

• **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**

• **Magnesium**  
1-2 gm IV push

• **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**