**Tachycardia With a Pulse Algorithm**

**Assess appropriateness for clinical condition.** Heart rate typically ≥ 150/min if tachyarrhythmia.

**Identify and Treat Underlying Cause**
- Maintain patient airway; assist breathing as necessary
- Oxygen (if O₂ sat < 94%)
- Cardiac monitor to identify rhythm; monitor blood pressure and oximetry

**Persistent Tachyarrhythmia Causing:**
- Hypotension?
- Acutely altered mental status?
- Signs of shock?
- Ischemic chest discomfort?
- Acute heart failure?

**Synchronized Cardioversion**
- Consider sedation
- If regular narrow complex, consider adenosine

**Wide QRS? 0.12 second**
- IV access and 12-lead ECG if available.
- Consider adenosine only if regular and monomorphic.
- Consider antiarrhythmic infusion.
- Consider expert consultation.

**Doses/Details**

**Synchronized Cardioversion**

Initial recommended doses:
- Narrow regular: 50–100 J
- Narrow irregular: 120–200 J
- Wide regular: 100 J
- Wide irregular: Defibrillation dose (not synchronized)

**Adenosine IV Dose:**
- **First dose:** 6 mg rapid IV push; follow with NS flush.
- **Second dose:** 12 mg if required

**Antiarrhythmic Infusions for Stable Wide-QRS Tachycardia**

**Procainamide IV Dose:**
- **20–50 mg/min until arrhythmia suppressed, hypotension ensues, QRS duration increases > 50% or maximum dose 17 mg/kg given.**
- **Maintenance infusion:** 1–4 mg/min.
- **Avoid if prolonged QT or CHF.**

**Amiodarone IV Dose:**
- **First dose:** 150 mg over 10 minutes.
- Repeat as needed if VT recurs. Follow by maintenance infusion of 1 mg/min for first 6 hours.

**Sotalol IV Dose:**
- 100 mg (1.5 mg/kg) over 5 minutes.
- **Avoid if prolonged QT.**

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