Tachycardia With a Pulse Algorithm

Assess appropriateness for clinical condition. Heart rate typically \( \geq 150/\text{min} \) if tachyarrhythmia.

**Identify and Treat Underlying Cause**
- Maintain patient airway; assist breathing as necessary
- Oxygen (if \( \text{O}_2 \text{ sat} < 94\% \))
- 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**
- \( \text{IV access} \) 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**

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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