Adult Tachycardia with a Pulse
Assessment and Treatment

ASSESS APPROPRIATENESS FOR CLINICAL CONDITION.
Heart rate typically ≥150/min if tachyarrhythmia.

IDENTIFY AND TREAT UNDERLYING CAUSE
- Maintain patent airway; assist breathing as necessary
- Oxygen (if hypoxemic)
- Cardiac monitor to identify rhythm; monitor blood pressure and oximetry
- IV access
- 12-lead ECG, if available

PERSISTENT TACHYARRHYTHMIA CAUSING:
- Hypotension?
- Acutely altered mental status?
- Signs of shock?
- Ischemic chest discomfort?
- Acute heart failure?

YES →

SYNCHRONIZED CARDIOVERSION
- Consider sedation
- If regular narrow complex, consider adenosine

NO ↓

WIDE QRS?
≥0.12 second

YES →

CONSIDER
- Adenosine only if regular and monomorphic
- Antiarrhythmic infusion
- Expert consultation

NO ↓

- Vagal maneuvers (if regular)
- Adenosine (if regular)
- β-Blocker or calcium channel blocker
- Consider expert consultation

IF REFRACTORY, CONSIDER
- Underlying cause
- Need to increase energy level for next cardioversion
- Addition of anti-arrhythmic drug
- Expert consultation

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DOSES/DETAILS

Synchronized cardioversion:
Refer to your specific device's recommended energy level to maximize first shock success

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.

NOTES: