**Pediatric Tachycardia With a Pulse Algorithm**

**Initial assessment and support**
- Maintain patent airway; assist breathing as necessary
- Administer oxygen
- Cardiac monitor to identify rhythm; monitor pulse, blood pressure, and oximetry
- IV/IO access
- 12-Lead ECG if available

**Probable sinus tachycardia if**
- P waves present/normal
- Variable RR interval
- Infant rate usually <220/min
- Child rate usually <180/min

**Evaluate rhythm with 12-lead ECG or monitor.**

**Cardiopulmonary compromise?**
- Acute altered mental status
- Signs of shock
- Hypotension

**Search for and treat cause.**

**Evaluate QRS duration.**

**Narrow (≤0.09 sec)**
- Probable supraventricular tachycardia
  - P waves absent/abnormal
  - RR interval not variable
  - Infant rate usually ≥220/min
  - Child rate usually ≥180/min
  - History of abrupt rate change
  - If IV/IO access is present, give adenosine or If IV/IO access is not available, or if adenosine is ineffective, perform synchronized cardioversion

**Possible ventricular tachycardia**
- Synchronized cardioversion
  - Expert consultation is advised before additional drug therapies.

**Probable supraventricular tachycardia**
- Rhythm is regular and QRS monomorphic, consider adenosine.

**Wide (>0.09 sec)**
- Probable supraventricular tachycardia
  - P waves absent/abnormal
  - RR interval not variable
  - Infant rate usually ≥220/min
  - Child rate usually ≥180/min
  - History of abrupt rate change

**Possible ventricular tachycardia**
- Consider vagal maneuvers.
  - If IV/IO access is present, give adenosine.

**Evaluate QRS duration.**

**Narrow (≤0.09 sec)**
- Probable supraventricular tachycardia
- If rhythm is regular and QRS monomorphic, consider adenosine.

**Wide (>0.09 sec)**
- Possible ventricular tachycardia
- Expert consultation is recommended.

**Doses/Details**
- **Synchronized cardioversion**
  - Begin with 0.5-1 J/kg; if not effective, increase to 2 J/kg. Sedate if needed, but don’t delay cardioversion.

**Drug Therapy**
- **Adenosine IV/IO dose**
  - First dose: 0.1 mg/kg rapid bolus (maximum: 6 mg)
  - Second dose: 0.2 mg/kg rapid bolus (maximum second dose: 12 mg)