Pediatric Tachycardia with Pulse

Assessment and Treatment

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

Search for and treat cause.

Evaluate rhythm with 12-lead ECG or monitor.

CARDIOPULMONARY COMPROMISE?
- Acutely altered mental status
- Signs of shock
- Hypotension

Yes

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

Wide (>0.09 sec)

POSSIBLE VENTRICULAR TACHYCARDIA

SYNCHRONIZED CARDIOVERSION
Expert consultation is advised before additional drug therapies.

No

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

Consider vagal maneuvers.

If IV/IO access is present, give **adenosine.**

Wide (>0.09 sec)

POSSIBLE VENTRICULAR TACHYCARDIA

If rhythm is **regular** and QRS **monomorphic,** consider **amiodarone.**

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
  (max. second dose: 12 mg)