Pediatric Tachycardia With Pulses and Adequate Perfusion Algorithm

Pediatric Advanced Life Support

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

TACHYCARDIA
With Pulses and Adequate Perfusion

- **Assess and support ABCs as needed**
- **Provide oxygen**
- **Attach monitor/defibrillator**
- **Evaluate 12-lead ECG if practical**

Evaluate QRS duration

QRS normal (≤0.08 sec) → ***Evaluate rhythm***

QRS wide (>0.08 sec) → ***Possible ventricular tachycardia***

Probable sinus tachycardia

- Compatible history consistent with known cause
- P waves present/normal
- Variable R-R with constant PR
- Infants: rate usually <220/min
- Children: rate usually <180/min

→ ***Search for and treat causes***

Probable supraventricular tachycardia

- Compatible history (vague, nonspecific; history of abrupt rate changes)
- P waves absent/abnormal
- HR not variable with activity
- Infants: rate usually ≥220/min
- Children: rate usually ≥180/min

Consider vagal maneuvers →

- Establish vascular access
- Consider ***adenosine*** 0.1 mg/kg IV (maximum first dose: 6 mg)
  May give second dose of 0.2 mg/kg IV (maximum second dose: 12 mg)
  Use rapid bolus technique

→ ***Consider expert consultation; search for and treat reversible causes***

Consider Pharmacologic Conversion

- ***Amiodarone*** 5 mg/kg IV over 20 to 60 minutes
  or
- ***Procainamide*** 15 mg/kg IV over 30 to 60 minutes

Do not routinely administer amiodarone and procainamide together

- May attempt ***adenosine*** if not already administered

Consider Electrical Conversion

- Consult pediatric cardiologist
- Attempt ***cardioversion*** with 0.5 to 1 J/kg (may increase to 2 J/kg if initial dose ineffective)
- Sedate prior to cardioversion
- Obtain 12-lead ECG

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