Pediatric Advanced Life Support
Pediatric Tachycardia with a Pulse and Poor Perfusion

Search for and treat the cause.
Monitor:
- Heart rhythm
- Oxymetry
- Blood pressure
Provide as needed:
- Maintain an open airway.
- Give oxygen.
- IV/IO access
- Consider 12-lead ECG.

Narrow QRS complex ≤ 0.09 seconds
- Monitor.
- Consider 12-lead ECG.

Probable sinus tachycardia?
- Infant: rate generally < 220 bpm
- Child: rate generally < 180 bpm
- P wave is present and normal
- Consistent P-R interval
- Variable R-R interval
- Indicating history

Find and treat the cause.

Probable supraventricular tachycardia?
- Infant: rate generally ≥ 220 bpm
- Child: rate generally ≥ 180 bpm
- P wave absent or abnormal
- Heart rate is not variable
- Indicating history
- History of sudden HR changes

Consider immediate vagal maneuvers.
If IV/IO access:
Give adenosine.
If no IV/IO access or adenosine fails:
Perform synchronized cardioversion.

Wide QRS complex > 0.09 seconds

Possible ventricular tachycardia with cardiopulmonary compromise?
- Low blood pressure
- Change in mental status
- Shock

- Yes
  - Synchronized cardioversion

- No
  - If rhythm is regular and QRS is monomorphic:
    - Request expert consultation.
    - Give amiodarone.
    - Consider giving adenosine.
    - Give procaainamide.

Synchronized cardioversion:
- Consider sedation but avoid delays.
- 1st dose: Give 0.5-1 J/kg.
- If not effective:
  - 2nd dose: Give 2 J/kg.

Adenosine dose:
- 1st dose: 0.1 mg/kg IV/IO push (max dose of 6mg).
- 2nd dose: 0.2 mg/kg IV/IO push (max dose of 12 mg).

Do not regularly give amiodarone and procaainamide together.

Amiodarone dose:
- Give 5 mg/kg IV/IO over 20-60 min.

Procainamide dose:
- 15 mg/kg IV/IO over 30-60 min.

https://ecgguidelines.heart.org/wp-content/uploads/2015/09/Pediatric-Tachycardia-With-a-Pulse-and-Poor-Perfusion-Algorithm.png
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