Pediatric Narrow Complex Tachycardia

Narrow complex tachycardia in pediatric patient with a pulse and poor circulation may represent:

PROBABLE SVT OR PROBABLE SINUS TACHYCARDIA

Probable SVT if:

A. History of abrupt rate changes
B. P waves are absent / abnormal
C. HR not variable
D. Infants: rate usually ≥ 220 bpm
E. Children: rate usually ≥ 180 bpm

Probable Sinus Tachycardia if:

A. Compatible history consistent with known cause
B. P waves are present / normal
C. Constant P-R; variable R-R
D. Infants: rate usually < 220 bpm
E. Children: rate usually <180 bpm

If probable Sinus Tachycardia, evaluate and treat the cause, no cardioversion is indicated.

SYNCHRONIZED CARDIOVERSION PRECEDES DRUG THERAPY FOR UNSTABLE PATIENTS. Unstable patients may be defined as those suffering a narrow complex tachycardia with: significant chest pain, shortness of breath, decreased level of consciousness, hypotension, shock, or pulmonary edema. Adenosine is only used for regular rhythm tachycardia.

Pre-Medical Control

PARAMEDIC

1. Follow the **Pediatric Assessment & Treatment Protocol**.
2. Consider 12-Lead ECG if available and patient is stable.

PROBABLE SVT

STABLE

1. Contact Medical Control early. Consider Vagal maneuver.
2. Start an IV NS KVO. A large bore antecubital IV should be secured whenever possible.
3. Administer Adenosine 0.1 mg/kg (maximum 6 mg) IV/IO, rapid IV push through the most proximal injection site. This should be followed immediately with a 5 - 10 ml NS flush. May repeat adenosine 0.2 mg/kg (maximum 12mg) IV/IO and contact Medical Control.

UNSTABLE

1. If time and condition allow prior to cardioversion, sedate per MCA selection.
2. In borderline unstable patients, adenosine may be tried. Administer Adenosine 0.1 mg/kg (maximum 6 mg), IV/IO. May repeat adenosine 0.2 mg/kg (maximum 12mg) IV/IO.
   - If HR greater than 180, consider Synchronized Cardioversion 0.5 – 1 J/kg. If no conversion repeat at 2 J/kg, then at 4 J/kg.
   - Contact Medical Control.

PROBABLE SINUS TACHYCARDIA

1. Assess for cause of sinus tachycardia.
2. Follow other appropriate protocol.

Sedation : (Select Options)
(Titrate to minimum amount necessary)

- [x] Midazolam 0.05 mg/kg IV/IO titrated slowly, may repeat once in 5 minutes to a maximum of 0.1 mg/kg.
- [ ] Diazepam 0.1 mg/kg IV/IO titrated slowly, may repeat every 5 minutes to a maximum of 0.3 mg/kg.
- [ ] Lorazepam 0.1 mg/kg, max single dose 4 mg IV/IO titrated slowly, may repeat every 5 minutes to a maximum of 8 mg.
- [x] Fentanyl 1 mcg/kg IV/IO titrated slowly, may repeat once in 5 minutes to a maximum of 2 mcg/kg.