Pediatric Narrow Complex Tachycardia

Electrical and medication treatments in this protocol are not intended to treat tachycardia that is secondary to underlying conditions (i.e., dehydration, trauma toxins). Consultation with online medical control should be considered for complex patients in whom the cause of the arrhythmia is not obvious.

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

PROBABLE SVT OR PROBABLE SINUS TACHYCARDIA

Probable SVT if:	**Probable Sinus Tachycardia if:**
A. History of abrupt rate changes	A. Compatible history consistent with known cause
B. P waves are absent / abnormal	B. P waves are present / normal
C. HR not variable	C. Constant P-R; variable R-R
D. Infants: rate usually $\geq$ 220 bpm	D. Infants: rate usually < 220 bpm
E. Children: rate usually $\geq$ 180 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. If there is a delay in contacting Medical Control, consider 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.

UNSTABLE

1. If Cardiopulmonary compromise is present as evidenced by hypotension, acutely altered mental status or other signs of shock, contact medical control.

Post-Medical Control

1. If time and condition allow prior to cardioversion, sedate per MCA selection. Refer to **Patient Sedation Procedure.**
2. In borderline unstable patients, consider Adenosine 0.1 mg/kg (maximum 6 mg), IV/IO. May repeat Adenosine 0.2 mg/kg (maximum 12mg) IV/IO.
3. If HR greater than 180, consider Synchronized Cardioversion 0.5 – 1 J/kg.
4. Consider repeat cardioversions at 2 J/kg.

PROBABLE SINUS TACHYCARDIA

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

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

PROBABLE SVT OR PROBABLE SINUS TACHYCARDIA

Probable SVT	**OR**	**Probable Sinus Tachycardia**
• History of abrupt rate changes • P waves absent/abnormal • HR not variable • Infants: rate usually ≥ 220 bpm • Children: rate usually ≥ 180 bpm		• Compatible history consistent with known cause • P waves present/normal • Constant P-R; variable R-R • Infants: rate usually < 220 bpm • 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.

Follow **Pediatric Assessment and Treatment Protocol**
Consider 12-Lead ECG, if available and patient stable

Probable SVT
Unstable with signs of Poor Perfusion

STABLE

- Contact Medical Control early.
- Consider Vagal maneuver.
- Start an IV NS KVO. A large bore antecubital IV should be secured whenever possible.

- If there is a delay in contacting medical control consider 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 with Adenosine 0.2 mg/kg (maximum 12 mg) IV/IO.

Contact Medical Control

UNSTABLE

- If Cardiopulmonary compromise is present as evidenced by hypotension, acutely altered mental status or other signs of shock, contact medical control

Contact Medical Control

- If time & condition allow prior to cardioversion, sedate per MCA selection. Refer to **Patient Sedation Procedure.**

- In borderline unstable patients, consider Adenosine 0.1 mg/kg (maximum 6 mg) IV/IO.
- May repeat Adenosine 0.2 mg/kg (maximum 12 mg) IV/IO.
- If HR greater than 180, consider Synchronized Cardioversion 0.5-1 J/kg.
- Consider repeat cardioversion at 2 J/kg

Probable Sinus Tachycardia

- Assess for cause of sinus tachycardia

- Follow other appropriate protocol

Contact Medical Control