



Cardiac: Narrow Complex Tachycardia with Pulse

Assessment

Pediatric Pearls:

- Use pediatric dosing of medications or electrical therapy for a pediatric patient < 37 kg and as defined by the PEDIA Tape.
- Focus on rapid and early BLS airway and ventilation tools. Intubation may not be the best option for these patients.
- Pediatric pads should be used in children < 10 Kg or PEDIA tape color purple.

Signs & Symptoms:

- QRS \leq 0.12 sec
- Pale or Cyanosis
- Diaphoresis
- Tachypnea
- Vomiting
- Hypotension
- Altered Level of Consciousness
- Pulmonary Congestion
- Syncope

Differential:

- Heart disease (WPW, Valvular)
- Sick sinus syndrome
- Myocardial infarction
- Electrolyte imbalance
- Exertion, pain, emotional stress
- Fever
- Hypoxia or Anemia
- Hypovolemia
- Drug effect / Overdose
- Hyperthyroidism
- Pulmonary embolus
- Alcohol withdrawal

Clinical Management Options

P	P	P	P	P	P		<ul style="list-style-type: none"> • Oxygen PRN titrated to SpO₂ 92%-96% • Basic airway management
L	L	L	L	L	L		<ul style="list-style-type: none"> • 4 lead and 12 lead ECG placement and acquisition • Apply waveform EtCO₂
1	2	3	4	5	6		<ul style="list-style-type: none"> • Vascular access • Isotonic Crystalloid PRN titrated to SBP \geq 100 mmHg or MAP \geq 65
							<ul style="list-style-type: none"> • Monitor and interpret of ECG • Valsalva Maneuver (Adults only)
							<ul style="list-style-type: none"> • Adenosine x2 doses as needed • Continuous 12-lead ECG during Adenosine administration, if possible • Diltiazem (Adults only) – DO NOT admin if Hx or 12 lead presentation of WPW • Sedation: Midazolam or Ketamine as appropriate • Adult Synchronized Cardioversion at maximum joules • Pediatric Synchronized Cardioversion 0.5 to 1.0 j/kg, repeat as needed at 2 j/kg • 12 lead ECG post conversion

Consult Online Medical Control As Needed

Pediatric Dosing Chart	3 kg	4 kg	5 kg	6-7 kgs	8-9 kgs	10-11 kgs	12-14 kgs	15-18 kgs	19-23 kgs	24-29 kgs	30-36 kgs
	6.6 lbs in18.25-20.25	8.8 lbs in20.25-21.5	11 lbs in21.5-23.25	13-15 lbs in23.25-26.25	17-20 lbs in26.25-29.25	22-24 lbs in29.25-33	26-30 lbs in33-37.5	33-40 lbs in37.5-42.5	42-50 lbs in42.5-47.75	53-64 lbs in47.75-51.25	66-80 lbs in41.25-56.25
Synchronized Cardioversion	0.5 j	1	2	3	4	5	7	8	10	15	15
	1.0 j	3	4	5	6	8	10	15	15	20	30
	2.0 j	6	8	10	15	15	20	30	30	50	70



Cardiac: Narrow Complex Tachycardia with Pulse

Pearls:

- Refer to drug formulary charts for all medication dosing for both adults and pediatric patients.
- Use caution in patient currently on antihypertensive medication
- Adenosine may not be effective in identifiable atrial flutter / fibrillation but is not harmful.
- Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention.
- Continuous pulse oximetry is required for all atrial fibrillation patients.
- Narrow complex tachycardia in setting of alcohol withdrawal should be treated aggressively with midazolam, not diltiazem. If SVT is "exquisitely regular", any heart rate variability should lead you to consider sinus tachycardia or atrial fibrillation.
- Consider a change of vector of initial cardioversion is unsuccessful to anterior/posterior pad placement.
- Sinus tachycardia may be misinterpreted as SVT or A-fib. Sinus tach >150 (adult) or >180 (pediatric) may be seen in the septic patient.