

POLICY: 555.15  
TITLE: Pediatric Tachycardia with Pulses

EFFECTIVE: 07/01/2024  
REVIEW: 07/2027  
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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## PEDIATRIC TACHYCARDIA with PULSES

- I. AUTHORITY  
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9
- II. PURPOSE  
To serve as a patient treatment standard for EMRs, EMTs, and Paramedics within their scope of practice.
- III. PROTOCOL

**Provider Key: F = First Responder/EMR      E = EMT      O = EMT Local Optional SOP**  
**P = Paramedic                                      D = Base Hospital Physician Order Required**

	F	E	O	P	D
<b>ASSESSMENT:</b> look for signs of poor perfusion or respiratory distress (delayed capillary refill, diminished distal pulses, cool extremities, ALOC).	X	X	X	X	
<b>OXYGEN:</b> 100% by non-rebreather mask or blow-by.	X	X	X	X	
<b>BLS AIRWAY:</b> okay if airway patent. Support ventilations with appropriate airway adjuncts.	X	X	X	X	
<b>SUPRAGLOTTIC AIRWAY:</b> if GCS is < 8 and not rapidly improving.				X	
<b>PULSE OXIMETRY:</b> apply and monitor.		X	X	X	
<b>CAPNOGRAPHY:</b> apply and monitor if SGA has been placed.				X	
<b>ECG MONITOR:</b> lead placement may be delegated. Treat as indicated.				X	
<b>VASCULAR ACCESS:</b> IV/IO, rate as indicated.				X	
<b>Sinus Tachycardia</b> (QRS < 0.10 seconds) Heart Rate > 220 in infants or >180 in children					
<b>FLUID BOLUS:</b> NS 20 mL/kg as indicated. Reassess after each bolus.				X	
<b>COOLING MEASURES:</b> if temperature > 100.4°F (38°C). Remove clothing. Consider 555.44 PEDIATRIC SEPSIS.	X	X	X	X	

	F	E	O	P	D
<b>Supraventricular Tachycardia (SVT)</b> (QRS < 0.10 seconds) Heart Rate > 220 for ages < 2 or Heart Rate > 180 for ages > 2. Absent or abnormal P waves					
<b>VAGAL MANEUVERS:</b> Consider if child has normal perfusion. <ul style="list-style-type: none"> <li>Infants and young children: ice water to face</li> <li>Older children: Valsalva</li> </ul>				X	
<b>ADENOSINE:</b> 0.1 mg/kg rapid IV/IO, up to 6 mg, if poor distal perfusion but is responsive. If no change, repeat at 0.2 mg/kg IV/IO, up to 12 mg. Maximum total dose 18 mg.				X	
<b>SYNCHRONIZED CARDIOVERSION:</b> 0.5 J/kg. If no response, repeat at 1 J/kg, repeat at 2 J/kg, then repeat at 4 J/kg.				X	
<b>Wide Complex Tachycardia with Pulses</b> (QRS ≥ 0.09 seconds) and Heart Rate > 150					
<b>ADENOSINE:</b> 0.1 mg/kg rapid IV/IO, up to 6 mg, if poor distal perfusion but is responsive. If no change, repeat at 0.2 mg/kg IV/IO, up to 12 mg. Maximum total dose 18 mg.				X	
<b>MIDAZOLAM:</b> 0.1 mg/kg IM/IN or slow IV/IO, maximum single dose 2 mg. <ul style="list-style-type: none"> <li>IV/IO: repeat every 5 minutes</li> <li>IM/IN: repeat every 10 minutes</li> <li>Repeat doses up to a maximum total of 5 mg</li> </ul>				X	
IF THE PATIENT IS OBESE, DOSAGES SHOULD BE CALCULATED ON THE PATIENTS' IDEAL WEIGHT.					
<b>SYNCHRONIZED CARDIOVERSION:</b> 1 J/kg. If no response, repeat at 2 J/kg.				X	
<b>ANTIARRHYTHMIC:</b> choose <b>ONE</b> <ul style="list-style-type: none"> <li><b>LIDOCAINE:</b> 1 mg/kg IV/IO, may be followed by 20-50 mcg/kg per minute. Repeat bolus if infusion delay is &gt;15 minutes after the initial dose.</li> <li><b>AMIODARONE:</b> 5 mg/kg in 100 mL NS infused IV/IO over 20 minutes.</li> </ul>				X	
<b>SYNCHRONIZED CARDIOVERSION:</b> 2 J/kg.				X	
<b>BASE CONTACT:</b> if rhythm unchanged.					X

**NOTE:**

1. Use standard size pediatric pads for cardioversion for children <10 kg. These should be placed on the anterior chest in a sternal-apical location. If pediatric paddles/pads are not available, use adult pads placed anterior posterior on the chest wall.
2. If the defibrillator is not able to deliver the indicated energy level, use the lowest setting available.