

# CENTRAL CALIFORNIA EMERGENCY MEDICAL SERVICES

A Division of the Fresno County Department of Public Health

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 530.36
Subject	Paramedic Treatment Protocols <b>PEDIATRIC BRADYCARDIA</b>	Page 1 of 2
References	Title 22, Division 9, Chapter 4 of the California Code of Regulations	Effective Fresno County: 01/15/82 Kings County: 04/10/89 Madera County: 06/15/85 Tulare County: 04/19/05

Heart Rate: Less than 80 beats per minute in infants (less than 1 year of age); Less than 60 beats per minute in children (1 year to 12 years of age).

STANDING ORDERS	
1. Airway	Protect with position, pharyngeal airway, assist respirations, suction as needed.
2. Oxygen	100% by non-rebreather mask, blow-by or BVM for 30 seconds. If bradycardia continues, step 3.
3. CPR	If heart rate is less than 80/minute in infant or less than 60/minute in child and unconscious.
4. IV/IO Access	LR TKO/Pediatric tubing with Volutrol.
5. Assess	For signs of poor perfusion or respiratory distress, patient must demonstrate one or more of the following: delayed capillary refill diminished distal pulses, cool extremities, altered level of consciousness.
6. Transport	
7. Epinephrine	<b>IV/IO</b> 0.01mg/kg 1:10,000 Repeat every 3-5 minutes
8. Atropine	<b>IV/IO</b> 0.02 mg/kg  Minimum dose of 0.1 mg. Maximum single dose of 0.5 mg. May repeat once.
9. Fluid Challenge	20 ml/kg Bolus of LR, if no response to medications.
10. Contact Hospital	Per EMS Policy #530.02.

## BASE HOSPITAL ORDERS NEXT PAGE

Approved By	Revision
EMS Director <b>Daniel J. Lynch</b> (Signature on File at EMS Agency)	<b>06/01/2018</b>
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Subject Paramedic Treatment Protocols – Pediatric Bradycardia	Policy Number 530.36
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#### BASE HOSPITAL ORDERS

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| <b>*1. TCP</b>       | <b>PER EMS POLICY #530.02</b>  |
| <b>*2. FENTANYL</b>  | <b>CONSIDER 1 MCG/KG/DOSE IN/IV/IM PUSH. MAY REPEAT <u>ONCE</u> AFTER 5 MINUTES IF NEEDED.</b> |
| <b>*3. MIDAZOLAM</b> | <b>IF SEDATION IS NEEDED, 0.1 MG/KG SLOW IV PUSH. MAY REPEAT IN 5 MINUTES.</b>                 |

#### SPECIAL CONSIDERATIONS AND PRIORITIES

1. Most bradycardia in children is due to hypoxia. Maintain airway and apply 100% oxygen by non-rebreather or bag-valve-mask.
2. Intraosseous lines are the preferred method for rapid vascular access in infants if patient is 3 years of age or less and has symptomatic bradycardia.
3. Refer to Broselow Tape for specific pediatric doses.
4. TCP should be initiated after treatment with atropine has failed to return and maintain a hemodynamically stable rhythm.
5. If there is difficulty/delay in establishing an IV for atropine dosage, proceed to pacing (Base Hospital contact required) while IV is being established. Pacing may be continued simultaneously with atropine dosing once the IV is established.
6. Since pediatric bradycardia is usually secondary to hypoxia, TCP in children may be used only by order of a Base Hospital Physician.