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 Executive Director  
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 Medical Director

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**SYMPTOMATIC BRADYCARDIA**

- 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 EMT-Is and Paramedics within their scope of practice.
- III. PROTOCOL: Bradycardia may be secondary to sinus node disease, increased parasympathetic tone or drug effects (e.g. digitalis, beta-blockers, or calcium antagonists). Heart rate is below 50 beats per minute, with associated signs/symptoms of low cardiac output. Never treat any bradycardia if the patient does not have serious symptoms.

**STANDING ORDERS**

<b>ASSESS</b>	CAB
<b>SECURE AIRWAY</b>	Using the simplest effective method. A BLS airway with objective evidence of good ventilation and oxygenation is adequate and acceptable. Consider intubation/perilaryngeal airway. Refer to General Procedures Protocol 554.00.
<b>OXYGEN</b>	Oxygen delivery as appropriate
<b>IV/IO ACCESS</b>	TKO
<b>CONSIDER ATROPINE</b>	0.5 - 1.0 mg IV push. Repeat every 3 minutes for a maximum total dose of 3 mg IV Use as low a dose as possible to reverse symptoms, especially in patients with suspected heart disease.
<b>MIDAZOLAM</b>	2.0 mg IV push. Do not delay TCP for IV access or sedation if the patient is unconscious.
<b>CONSIDER TRANSCUTANEOUS PACING</b>	For systolic BP less than 90 related to bradycardic rhythms (HR less than 50) AND with serious signs and symptoms related to heart rate (severe chest pain, shortness of breath, decreased level of consciousness or congestive heart failure). If decreased rate and rhythm are present, and serious signs and symptoms are exhibited proceed to intervention sequence.
<b>RE-ASSESS</b>	Observe for hemodynamic changes. Monitor patient. If pacer stops, do not make changes - patient's heart rate might be above the pacer rate. Maintain current rate. If heart rate drops, the pacer will restart.
<b>CONSIDER TREATABLE CAUSES</b>	Poisoning or overdose - refer to Poisoning/Overdose Protocol 554.51
<b>BASE PHYSICIAN ORDERS</b>	
<b>DOPAMINE</b>	Drip at 10mcg/kg/minute for systolic BP less than 90. Titrate to systolic BP 90-100