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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 the treatment standard for EMT-Is and EMT-Ps in treating patients.
- 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. Consider Code 2 transport.

STANDING ORDERS	
ABCs	
SECURE AIRWAY	As appropriate. Confirm tube placement, if intubated, with end-tidal CO ₂ detector and esophageal detector device. Monitor intubated patients with continuous waveform capnography if available.
OXYGEN IV ACCESS	TKO
CONSIDER ATROPINE	0.5 - 1.0 mg IV push (or 2.0 mg ET - Flush with 5 ml NS). Repeat every 3 minutes for a maximum total dose of 3 mg IV or 6 mg ET.) Use as low a dose as possible to reverse symptoms, especially in patients with suspected heart disease
MIDAZOLAM	2.0 mg IV push. Do not delay TCP for IV access or sedation if the patient is unconscious
CONSIDER TRANSCUTANEOUS PACING	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.
RE-ASSESS	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.
CONSIDER TREATABLE CAUSES	Poisoning or overdose - refer to Poisoning Section
BASE PHYSICIAN ORDERS	
DOPAMINE	Drip at 10mcg/kg/minute for systolic BP less than 90. Titrate to systolic BP 90-100