

POLICY: 554.04
TITLE: Symptomatic Bradycardia

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

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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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 EMRs, EMTs, and Paramedics within their scope of practice.
- III. PROTOCOL
Bradycardia is characterized by a heart rate < 60. It may be secondary to sinus node disease, increased parasympathetic tone or drug effects (e.g., digitalis, propranolol or Verapamil). The rhythm is regular or slightly irregular with the heart rate < 60 beats per minute.

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
ASSESSMENT	X	X	X	X	
OXYGEN: if pulse oximetry < 94% or signs of respiratory distress or hypoperfusion.	X	X	X	X	
ECG MONITOR: lead placement may be delegated. Treat as indicated.				X	
PULSE OXIMETRY: apply and monitor.		X	X	X	
CAPNOGRAPHY: apply and monitor.				X	
VASCULAR ACCESS: IV/IO, rate as indicated.				X	
12 LEAD ECG				X	
ATROPINE: 1 mg IV/IO push. Repeat every 3-5 minutes for a maximum total dose of 3 mg.				X	
TRANSCUTANEOUS CARDIAC PACING: If patient remains hemodynamically unstable with serious signs & symptoms, DO NOT delay TCP waiting for vascular access or for atropine to take effect. <u>Place pacing pads on the Anterior/ Posterior thorax, if possible.</u> Start current level at 10 milliamps, increase current until electrical capture noted. Start at a rate of 60/minute and increase rate as needed. Check pulses to confirm mechanical capture.				X	

	F	E	O	P	D
PAIN MANAGEMENT: <ul style="list-style-type: none"> • FENTANYL: 1 – 2 mcg/kg IV/IO/IM/IN. If initial dose given IV/IO/IN, may repeat in 5 minutes, or if initial dose given IM may repeat in 10 minutes. Repeat doses at 0.5 mcg/kg. Maximum total 3 mcg/kg. • MIDAZOLAM: 0.5 – 1 mg increments titrated to patient's pain or spasm up to 5 mg IV/IO/IN. If no IV access available, 2 – 10 mg IM, 10 mg maximum 				X	
PUSH DOSE EPINEPHRINE: for hypotension – titrate to SBP ≥ 90 <ul style="list-style-type: none"> • Mix 1 mL of Epi 1:10,000 (0.1 mg/mL) with 9 mL of NS = concentration of 1:100,000 (0.01 mg/mL) • Label syringe “epinephrine 10 mcg/mL” • 0.5 – 1 mL (5-10 mcg) IVP every 1 – 5 minutes If SBP does not stabilize ≥ 90 after two doses, consider epinephrine drip. Refer to 554.88 RX GUIDELINES.				X	

CONSIDER CAUSES

- Hypoxia - provide ventilation. Check for reversible cause of hypoventilation.
- 554.62 HYPOTHERMIA
- 554.51 POISONING
- 554.54 OVERDOSE