POLICY: 554.04
TITLE: Symptomatic Bradycardia

EFFECTIVE: ~~02/01/26~~DRAFT
REVIEW: ~~02/2028~~DRAFT
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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, AEMT's, and Paramedics within their scope of practice.

III. PROTOCOL
Bradycardia in an adult is characterized by a heart rate < 60. It may be secondary to sinus node disease, increased parasympathetic tone, or drug effects. The rhythm is usually 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 A=Advanced EMT D = Base Hospital Physician Order Required

	F	E	O	A	P	D
ASSESSMENT	X	X	X	X	X	
OXYGEN: if pulse oximetry < 94% or signs of respiratory distress or hypoperfusion.	X	X	X	X	X	
ECG MONITOR: lead placement may be delegated. Treat as indicated.					X	
PULSE OXIMETRY: apply and monitor.		X	X	X	X	
CAPNOGRAPHY: apply and monitor.					X	
VASCULAR ACCESS: P - IV/IO, AEMT - IV only, rate as indicated.				X	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. **AP pad placement. ~~Place pacing pads on the Anterior/ Posterior thorax.~~** 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	A	P	D
PAIN MANAGEMENT: • **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 up to 5 mg IV/IO/IN. If no IV access available, 2–10 mg IM, 10 mg maximum. Hold for SBP of <100.					X	
PUSH DOSE EPINEPHRINE: for hypotension – titrate to SBP ≥ 90 • 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