

Bradycardia: Adult & Pediatric

<p>Includes: Heart rate < 60 with either symptoms (altered mental status, chest pain, congestive heart failure, seizure, syncope, shock, pallor, diaphoresis) or evidence of hemodynamic instability.</p>	
<p>EMT</p>	
<ul style="list-style-type: none"> Initiate Universal Care. 	<ul style="list-style-type: none"> For age \leq 6 months and heart rate <60 and signs of poor perfusion, initiate chest compressions and refer to Cardiac Arrest (VF/VT/Asystole/PEA). 
<p>AEMT</p>	
<p>EMT-I/Paramedic</p>	
<ul style="list-style-type: none"> Apply cardiac monitor. Perform 12 lead ECG. In cases of impending hemodynamic collapse (shock), proceed directly to transcutaneous pacing.  	
<ul style="list-style-type: none"> If bradycardia and symptoms of hemodynamic instability continue, consider the following: <ul style="list-style-type: none"> Epinephrine: <ul style="list-style-type: none"> Push dose 10-20 mcg boluses (1-2 mL) every 2 minutes (or) Drip 0.02 - 0.2 mcg/kg/min. Titrate to maintain MAP > 65 or SBP > 90 Atropine Sulfate: 1 mg IV/IO every 3-5 min, max total dose 3 mg. 	<ul style="list-style-type: none"> If bradycardia and symptoms or hemodynamic instability continue, consider the following: <ul style="list-style-type: none"> Epinephrine: 0.1 mg/mL: 0.01 mg/kg (0.1 mL/kg) IV/IO every 3 to 5 minutes. Atropine Sulfate: 0.02 mg/kg IV/IO (min dose 0.1 mg), max initial dose 0.5 mg, max total dose 3 mg. 
<p>Push dose epinephrine preparation: mix 1 mL of 0.1 mg/mL epinephrine with 9 mL of NS. This results in 10 mcg/mL concentration.</p>	
<ul style="list-style-type: none"> If bradycardia and symptoms of hemodynamic instability continue, consider transcutaneous pacing. If pacing is performed, consider pharmacological management or pain control per Management of Acute Pain.  Use ETCO2 if available for all patients receiving pharmacological management. 	
<ul style="list-style-type: none"> Pharmacological management (if age > 60 consider reducing dose by half): <ul style="list-style-type: none"> Midazolam: 1 mg IV slowly every 2-3 minutes, max dose 5 mg. Lorazepam: 1 mg IV every 5-10 minutes, max dose 4 mg. Refer to Management of Acute Pain. 	<ul style="list-style-type: none"> Pharmacological management: <ul style="list-style-type: none"> Midazolam: 0.1 mg/kg IV slowly, every 2-3 minutes, max dose 5 mg. Lorazepam: 0.1 mg/kg IV every 10 minutes, max dose 4 mg. Refer to Management of Acute Pain. 