



SYMPTOMATIC BRADYCARDIA	
ADULT (HR < 40 BPM)	PEDIATRIC – (14 years and under) (Refer to <a href="#">Appendix A</a> )
BLS Procedures	
<ul style="list-style-type: none"><li>Administer oxygen as indicated<ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-02 Airway Management</a></li></ul></li><li>Shock position (if indicated)</li><li>Assist ventilations (if needed)</li><li>Attach AED &amp; Initiate CPR (if indicated)</li></ul>	<ul style="list-style-type: none"><li>Administer oxygen as indicated<ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-02 Airway Management</a></li></ul></li><li>Shock position (if indicated)</li><li>Assist ventilations (if needed)</li><li>Attach AED &amp; Initiate CPR (if indicated)</li></ul>
Expanded Scope	
Same as BLS	Same as BLS
ALS Prior to Base Hospital Contact	
<ul style="list-style-type: none"><li>Vascular Access</li><li>Cardiac monitoring<ul style="list-style-type: none"><li>Consider early placement of defibrillation pads</li></ul></li><li>Consider performing 12-Lead ECG<ul style="list-style-type: none"><li>Refer to <a href="#">Policy 539: 12-Lead ECG</a></li></ul></li></ul> <p><i>Asymptomatic Bradycardia</i></p> <ul style="list-style-type: none"><li>No treatment is necessary, but be prepared to treat if symptoms develop</li></ul> <p><i>Symptomatic Bradycardia without Signs of Hypoperfusion</i></p> <ul style="list-style-type: none"><li>Apply defibrillation pads (if not done prior)</li></ul> <p><b>Atropine</b></p> <ul style="list-style-type: none"><li>IV/IO – 1mg</li><li>If initial <b>Atropine</b> is transiently effective, or patient remains bradycardic without hemodynamic compromise:<ul style="list-style-type: none"><li>May repeat <b>Atropine</b> 0.5mg IV/IO every 3-5 mins</li><li>Max 0.04mg/kg</li></ul></li><li>If no response to initial <b>atropine</b>, and patient remains symptomatic without hemodynamic compromise:</li></ul> <p><b>Push-Dose Epinephrine</b></p> <ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-10: Push Dose Epinephrine</a></li></ul> <p><i>Symptomatic Bradycardia with Signs of Hypoperfusion</i></p> <ul style="list-style-type: none"><li>Initiate medical and electrical therapy simultaneously</li></ul> <p><b>Atropine</b></p> <ul style="list-style-type: none"><li>IV/IO – 1mg</li></ul> <p>Initiate <b>Transcutaneous Pacing (TCP)</b> per <a href="#">Policy 541 – TCP</a></p> <ul style="list-style-type: none"><li>Prepare <b>Push-Dose Epinephrine</b><ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-10: Push Dose Epinephrine</a></li></ul></li><li>If pain is present during TCP<ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-03: Pain Control</a></li></ul></li></ul> <p><i>Suspected Renal Failure or Suspected Hyperkalemia</i></p> <p><b>Calcium Chloride</b></p> <ul style="list-style-type: none"><li>IV/IO – 1g<ul style="list-style-type: none"><li>Repeat x 1 in 10 min</li></ul></li></ul> <p><b>Sodium Bicarbonate</b></p> <ul style="list-style-type: none"><li>2<sup>nd</sup> vascular access site if available</li><li>IV/IO – 1mEq/kg<ul style="list-style-type: none"><li>Repeat 0.5mEq/kg x 2 every 5 min</li></ul></li></ul>	<ul style="list-style-type: none"><li>Vascular Access</li><li>Cardiac monitoring<ul style="list-style-type: none"><li>Consider early placement of defibrillation pads</li></ul></li><li>Consider performing 12-Lead ECG<ul style="list-style-type: none"><li>Refer to <a href="#">Policy 539: 12-Lead ECG</a></li></ul></li></ul> <p><i>Asymptomatic Bradycardia</i></p> <ul style="list-style-type: none"><li>No treatment necessary, but early Base Hospital Contact encouraged</li></ul> <p><i>Symptomatic Bradycardia without Signs of Hypoperfusion</i></p> <ul style="list-style-type: none"><li>Apply defibrillation pads (if not done prior)</li></ul> <p><b>Atropine</b></p> <ul style="list-style-type: none"><li>IV/IO – 0.02mg/kg<ul style="list-style-type: none"><li>Minimum dose – 0.1mg</li><li>Maximum single dose 0.5mg</li><li>Maximum total dose 0.04mg/kg</li></ul></li></ul> <p>Prepare <b>Push-Dose Epinephrine</b></p> <ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-10: Push Dose Epinephrine</a></li></ul> <p><i>Symptomatic Bradycardia with Signs of Hypoperfusion</i></p> <p><b>Atropine</b></p> <ul style="list-style-type: none"><li>IV/IO – 0.02mg/kg<ul style="list-style-type: none"><li>Minimum dose – 0.1mg</li><li>Maximum single dose 0.5mg</li><li>Maximum total dose 0.04mg/kg</li></ul></li></ul> <p>Prepare <b>Push-Dose Epinephrine</b></p> <ul style="list-style-type: none"><li>Refer to <a href="#">Policy 533-10: Push Dose Epinephrine</a></li><li><b>TCP allowed with Base Hospital Order</b></li></ul>



<p><i>Suspected Beta-Blocker or Calcium Channel Blocker OD</i> <b>Calcium Chloride</b></p> <ul style="list-style-type: none"><li>• IV/IO – 1gm over 1 min</li></ul> <p><b>Glucagon</b></p> <ul style="list-style-type: none"><li>• IV/IO – 2mg (May repeat x 5 if available)<ul style="list-style-type: none"><li>◦ Total Max 10mg</li></ul></li><li>◦ Consider <b>Ondansetron</b> administration (if not in arrest)</li></ul>	
<b>Base Hospital Physician Orders Only</b>	
<p>Consult with ED Physician for further treatment measures.</p>	<p><i>Suspected Renal Failure or Suspected Hyperkalemia</i> <b>Calcium Chloride</b></p> <ul style="list-style-type: none"><li>• IV/IO – 20mg/kg<ul style="list-style-type: none"><li>◦ Repeat x 1 in 10 min</li></ul></li></ul> <p><b>Sodium Bicarbonate</b></p> <ul style="list-style-type: none"><li>• 2<sup>nd</sup> vascular access site if available</li><li>• IV/IO – 1mEq/kg<ul style="list-style-type: none"><li>◦ Repeat 0.5mEq/kg x 2 every 5 min</li></ul></li></ul> <p><i>Suspected Beta-Blocker or Calcium Channel Blocker OD</i> <b>Calcium Chloride</b></p> <ul style="list-style-type: none"><li>• IV/IO – 20mg/kg over 1 min<ul style="list-style-type: none"><li>◦ Max of 1gm</li></ul></li></ul> <p><b>Glucagon</b></p> <ul style="list-style-type: none"><li>• IV/IO – 0.05mg/kg (Max of 5mg per Dose)<ul style="list-style-type: none"><li>◦ If no response within 15 mins:<ul style="list-style-type: none"><li>• May repeat until Max 10mg (if available)</li></ul></li></ul></li><li>◦ Consider <b>Ondansetron</b> administration</li></ul> <p>Consult with ED Physician for further treatment measures</p>
<b>Additional Information</b>	
<p><i>Signs and Symptoms of:</i></p> <ul style="list-style-type: none"><li>• Symptomatic Bradycardia<ul style="list-style-type: none"><li>◦ Chest pain, shortness of breath, dizziness, profound weakness.</li></ul></li><li>• Hypoperfusion:<ul style="list-style-type: none"><li>◦ Hypotension, altered level of consciousness, diaphoresis, altered skin signs (pallor, mottled)</li></ul></li></ul>	<p><i>Signs and Symptoms of:</i></p> <ul style="list-style-type: none"><li>• Symptomatic Bradycardia<ul style="list-style-type: none"><li>◦ Chest pain, shortness of breath, dizziness, profound weakness.</li></ul></li><li>• Hypoperfusion:<ul style="list-style-type: none"><li>◦ Hypotension, altered level of consciousness, diaphoresis, altered skin signs (pallor, mottled)</li></ul></li></ul>