



# Treatment Protocol

# 4405

Effective <b>April 1, 2018</b>	Expires <b>March 31, 2019</b>
Approval: Medical Director <b>Reza Vaezazizi, MD</b>	Signed 
Approval: REMSA Director <b>Bruce Barton</b>	Signed 

Policy:  
**Symptomatic Bradycardia with Pulses**

Applies To:  
**PSP, EMT, AEMT, PM, MICN, BHP, EMS System**

**Enter from the Universal Patient Treatment Protocol**  
For specific Emergency Stabilization or Patient Management of **Symptomatic Bradycardia with Pulses**

P	E	A	P
S	M	E	M
P	T	T	M

## Pertinent Findings

<b>Environment</b> Drowning Cold Exposure Overdose Insulin	<b>History</b> OPQRST SAMPLE history Medications Heart surgery Heart transplant Pacemaker, ICD, or VAD	<b>Physical</b> Syncope Slow heart rate Hypotension Ischemic chest discomfort Signs of acute heart failure Respiratory distress	<b>Differential</b> Respiratory etiology, especially in pediatrics AMI (acute myocardial infarction) Congenital heart defect Myocarditis Beta blockers/Calcium channel blockers/Electrolytes Hypothermia Hypoglycemia
--	--	---	--

## Emergency Stabilization or Patient Management

*First, ensure adequate ventilation and oxygenation*

Contact a single REMSA authorized base hospital (BH) in all pediatric, symptomatic bradycardia with pulses

Atropine IV/IO push  
For symptomatic bradycardia with pulses  
See the REMSA Calculation Chart for concentration, and patient specific dosage and volume  
May repeat up to five times at 3 - 5 minute intervals in adults  
Pediatric administration and/or repetition requires a base hospital order (BHO)

Midazolam slow IV/IO push or IM/IN  
(may substitute Lorazepam slow IV/IO push or IM/IN, or Diazepam slow IV/IO push or IM)  
For amnesic effects prior to transcutaneous pacing (TCP)  
See the REMSA Calculation Chart for concentration, and patient specific dosage and volume  
May repeat once  
Further repetition requires a base hospital order (BHO)  
Pediatric administration requires a base hospital order (BHO)  
Administration of more than one benzodiazepine requires a base hospital physician order (BHPO)

Transcutaneous Pacing (TCP)  
For symptomatic bradycardia with pulses  
Begin at 20 mA and 70 bpm  
Titrate in 5 mA increments to find the minimum current required to maintain capture  
Increase in 10 bpm increments, up to 100 bpm maximum, to gain adequate cardiac output and tissue perfusion  
Pediatric application requires a base hospital order (BHO)

P  
M

B

B

Emergency Stabilization or Patient Management <i>(continued)</i>				
<p>Morphine Sulfate slow IV/IO push or IM (may substitute Fentanyl slow IV/IO push or IM/IN) For discomfort during transcutaneous pacing (TCP) While systolic BP remains greater than 90 mmHg See the REMSA Calculation Chart for concentration, and patient specific dosage and volume May repeat once <u>Further repetition requires a base hospital order (BHO)</u> <u>Pediatric administration and/or repetition requires a base hospital order (BHO)</u> <u>Administration of more than one opioid requires a base hospital physician order (BHPO)</u></p> <p>Contact a single REMSA authorized base hospital (BH) in all symptomatic bradycardia with pulses</p>				P M

Return to Universal Patient Treatment Protocol	P S P	E M T	A E M T	P M
<p><i>For continuing Scene Management, Emergency Stabilization, Patient Disposition, or Patient Management</i></p>				

***** Base Hospital Orders *****				
<p>Initiate, repeat, or modify standing orders within scope of practice As ordered For symptomatic bradycardia with pulses</p>		E M T	A E M T	P M
<p>Atropine As ordered For symptomatic bradycardia with pulses in pediatrics</p> <p>Epinephrine As ordered For symptomatic bradycardia with pulses in pediatrics</p> <p>Midazolam (may substitute Lorazepam or Diazepam) As ordered For amnesic effects related to transcutaneous pacing (TCP) in pediatrics</p> <p>Morphine (may substitute Fentanyl) As ordered For discomfort during transcutaneous pacing (TCP) in pediatrics</p> <p>Transcutaneous Pacing (TCP) As ordered For symptomatic bradycardia with pulses in pediatrics</p>				P M
<p>Assess, clarify, monitor, treat within scope of practice, and determine or change disposition and/or destination As ordered Mode of transport is an operational decision</p>		E M T	A E M T	P M