Bradycardia

This is a protocol for patients with serious symptomatic bradycardia. Serious symptomatic bradycardia may be defined as patients with heart rate less than 50 bpm and hypotension, or shock. Titrate treatments to a heart rate above 50 bpm. If the patient remains hypotensive refer to the **Shock Protocol**.

Pre-Medical Control

MFR/EMT/SPECIALIST/PARAMEDIC

1. Follow the **General Pre-Hospital Care Protocol**.

PARAMEDIC

2. Administer Atropine 0.5 mg IV/IO repeating every 3-5 minutes to a total dose of 3 mg IV/IO, until a heart rate of greater than 50 /minute is reached.
3. Transcutaneous pacing (TCP) when available may be initiated prior to establishment of IV access and/or before Atropine begins to take effect. Pacing is the treatment of choice for high degree A-V block. Follow the **Electrical Therapy Procedure.**
4. Per MCA selection, provide sedation per **Patient Sedation Procedure**.

Post-Medical Control

1. Consider Dopamine Drip 2-10 mcg/kg/min IV/IO. Mix drip by putting Dopamine 400 mg in 250 ml NS.
2. Consider Epinephrine Drip 2-10 mcg/min IV/IO. Mix drip by putting Epinephrine 1:1,000, 1 mg (1 ml) in 250 ml NS.

Notes:

1. Some patients may not tolerate the pacing stimulus to the skin and chest wall that occurs with transcutaneous pacing. In these cases, consider sedation if SBP > 100. (See box)
2. Consider possible etiologies:
   A. Hyper/hypokalemia, other metabolic disorders
   B. Hypothermia
   C. Hypovolemia (including vomiting/diarrhea)
   D. Hypoxia
   E. Toxins/ overdose (e.g. beta-blocker or calcium channel-blocker)
   F. Tamponade
   G. Tension pneumothorax
3. Transcutaneous pacemaker electrode pads may be applied to these patients without initiating pacing so that the pacemaker is ready if patient condition deteriorates.
4. For symptomatic high-degree (second-degree or third-degree) AV block, begin pacing without delay.
5. Atropine 0.5 mg should be administered by rapid IV/IO push and may be repeated every 3-5 minutes, to a maximum dose of 3 mg. Atropine is ineffective and should be avoided in heart transplant patients.

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Follow the **General Pre-Hospital Care Protocol**

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Per MCA selection, provide sedation per **Patient Sedation Procedure.**

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Contact Medical Control

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