



SYMPTOMATIC BRADYCARDIA – ADULT / ADOLESCENT

ALS STANDING ORDERS:

1. Monitor cardiac rhythm and document with rhythm strip.
2. Pulse oximetry; if room air oxygen saturation less than 95%:
 - ▶ *Administer High-flow oxygen by mask or nasal cannula at 6 l/min flow rate as tolerated.*
3. If immediate transcutaneous pacing NOT required:
 - ▶ Obtain 12-lead ECG; if “Acute MI” indicated or a STEMI is suspected based on paramedic interpretation of 12-lead ECG, make Base Hospital contact for CVRC destination with an open cardiac catheterization lab.
4. If symptomatic (see Guidelines below) bradycardia:
 - ▶ *Place transcutaneous pacemaker and initiate pacing (see Procedure Guideline # PR-110).*
 - If paced by pacemaker, contact Base Hospital for potential CVRC destination.
 - If paced by pacemaker, blood pressure less than 90 systolic and lungs clear to auscultation, contact Base Hospital for potential CVRC destination and:
 - ▶ *Establish IV access*
 - ▶ *Normal Saline, infuse 250 mL IV, repeat up to maximum 1 liter to maintain adequate perfusion*
 - If transcutaneous pacing causes anxiety and extreme discomfort and blood pressure greater than 90 systolic, *establish IV access and administer:*
 - ▶ *Midazolam (Versed®) up to 5 mg IV slowly titrated to attain sedation (Assist ventilation and maintain airway if respiratory depression develops)*
 - If IV access cannot be established and blood pressure greater than 90 systolic:
 - ▶ *Midazolam (Versed®) 5 mg IN divided between each nostril, may repeat once after approximately 3 minutes (Assist ventilation and maintain airway if respiratory depression develops)*
5. If transcutaneous pacer fails to capture and pace heart, stop pacing function of monitor and administer:
 - ▶ *Atropine: 0.5 mg IV / IM approximately every 3 minutes as needed to correct bradycardia to a maximum total dose of 3 mg.*
6. For systolic blood pressure less than 90 (paced or if non-capture) or no response to atropine; and lungs clear to auscultation:
 - ▶ *Establish IV access*
 - ▶ *Normal Saline, infuse 250 mL, may repeat 3 times (total 1 liter) to maintain perfusion.*
7. ALS escort with Base Hospital contact for CVRC destination.

Approved:

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TREATMENT GUIDELINES:

- Symptomatic bradycardia is defined as heart rate less than or equal to 60 bpm and:
 - Signs of poor perfusion (hypotension, poor skin signs, altered level of consciousness)
 - Chest pain
 - Shortness of breath, signs of pulmonary edema

- If patient has an implanted pacemaker and is bradycardic with heart rate less than 60 bpm, treat in same manner as described in ALS Standing Orders above.

- Cardiac pacing, when immediately required to stabilize a patient, should be deployed without waiting for IV access.

- Consider an acute MI is indicated for the following 12-lead monitor interpretations:
 1. ***ACUTE MI***
 2. ***STEMI***
 3. Acute ST Elevation Infarct
 4. Probable Acute ST Elevation Infarct
 5. Acute Infarction
 6. Infarct, Probably Acute
 7. Infarct, Possible Acute

Approved:

A handwritten signature in blue ink, appearing to read "S. Snathoms".

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