Symptomatic Bradycardia with Pulses

**Treatment Protocol**

- **BLS Patient Management**
  - **Establish, maintain, and ensure:**
    - A. A patent and easily managed airway. Use manual maneuvers (head-tilt / chin-lift or jaw thrust), oropharyngeal suction and/or airway adjuncts (OPA / NPAs) as clinically indicated
    - B. Adequate respirations and tidal volume. Use a mouth-to-mask device or bag valve mask (BVM), when clinically indicated. Rescue ventilations via a BVM require the use of a manometer. Waveform / digital capnography is required when paramedics are present
    - C. Controlled bleeding. Use direct pressure and/or pressure dressing(s) and/or tourniquet(s) and/or hemostatic dressing(s), as clinically indicated
  - **Oxygen**
    - As clinically indicated. Titrate to maintain, or increase, SpO₂ to a minimum of 94%. A range of 88-92% is acceptable for patients with a history of COPD
  - Position the patient as clinically indicated for safety, comfort, and to meet physiologic requirements
  - Attach ECG leads to the patient when a paramedic is present. May assist with placement of the 12-lead cables

- **ALS Patient Management**
  - **Establish, maintain, and ensure peripheral IV and/or IO access for emergency stabilization, and/or as clinically indicated, in adult and pediatric patients**
  - Consider the need for additional sites as clinically indicated
  - **Interpret and continuously monitor ECG and vital signs**
    - Perform, interpret, and transmit 12-lead ECG(s), as clinically indicated, when:
      - A STEMI is suspected
      - A STEMI is ECG-monitor identified or
      - The patient’s cardiac rhythm is atypical or difficult to interpret
  - **For symptomatic bradycardia with pulses**
    - **Adults:** Atropine 1 mg (10 mL) IV/IO. **MAY REPEAT EVERY 3-5 MINUTES TO A MAX OF 3 MG (30 mL).**
      - **INITIAL AND REPEAT PEDIATRIC ADMINISTRATION REQUIRES A BASE HOSPITAL ORDER (BHO).**
      - Pediatrics: Atropine 0.02 mg / kg IV/IO. **MAX SINGLE DOSE IS 0.5 MG.** For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.
  - **For amnesic effect prior to Transcutaneous Cardiac Pacing (TCP)**
    - **Adults:** Midazolam 2.5 mg (0.5 mL) slow IV/IO push. **MAY REPEAT ONCE. ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**
      - ****OR**
        - Midazolam 5 mg (1 mL) IM/IN. **MAY REPEAT ONCE. ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**
        - **INITIAL AND REPEAT PEDIATRIC ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**
        - Pediatrics: Midazolam 0.1 mg / kg slow IV/IO push. For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.
**OR**

Midazolam 0.2 mg / kg IM/IN. For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.

- **Transcutaneous Pacing (TCP)**
  Begin at 20 mA and 70 bpm. Titrate in 5 mA increments to find the minimum current required to maintain electrical and mechanical capture. Increase in 10 bpm increments, up to 100 bpm maximum, to gain adequate cardiac output and tissue perfusion.

  **TRANSCUTANEOUS CARDIAC PACING OF PEDIATRIC PATIENTS REQUIRES A BASE HOSPITAL ORDER (BHO).**

  - **For discomfort associated with TCP**
    - **Adults:** Fentanyl 50 mcg (1 mL) slow IV/IO push or IM/IN. Patient’s systolic BP must be greater than or equal to 90 mmHg at the time of administration. **MAY REPEAT ONCE, IN 5-10 MINUTES, DEPENDENT ON PAIN SEVERITY, TO A MAX OF 100 MCG. ADDITIONAL ADMINISTRATIONS AFTER 100 MCG REQUIRE A BASE HOSPITAL ORDER (BHO).**
    - **INITIAL AND REPEAT PEDIATRIC ADMINISTRATION REQUIRES A BASE HOSPITAL ORDER (BHO).**
      Pediatrics: Fentanyl 1 mcg / kg slow IV/IO push or IM/IN. For assistance with accurate dosing, refer to the REMSA PMDR or REMSA app.

**Patient Disposition**

- CONTACT A SINGLE BASE HOSPITAL FOR ALL PEDIATRIC PATIENTS EXPERIENCING SYMPTOMATIC BRADYCARDIA