Return of Spontaneous Circulation (ROSC)

This protocol should be followed for all cardiac arrests with ROSC. If an arrest is of a known traumatic origin, refer to the **Traumatic Arrest -Treatment Protocol** and MCA Transport Protocol. If it is unknown whether the arrest is traumatic or medical, consider other treatable causes. Initiate ALS response if available. After ROSC, patients should be stabilized on scene prior to transport, for five to ten minutes before moving the patient. Refer to **Crashing Adult /Impending Arrest-Treatment Protocol.**

1. If ventilation assistance is required, ventilate at 10-12 breaths per minute. Do not hyperventilate.
2. Monitor vital sign and reassess patient. If patient becomes pulseless begin CPR and refer to **Adult Cardiac Arrest General-Treatment Protocol**.
3. Check blood glucose (may be MFR skill, see **Blood Glucose Testing-Procedure Protocol**
4. Start an IV/IO **NS** or **LR** KVO if not already in place**.**
5. Treat hypotension (systolic blood pressure less than 90 mm/Hg) with an IV/IO fluid bolus of up to 1 liter.
6. Perform 12- lead ECG (Per MCA selection, may be BLS or Specialist skill per **12 Lead ECG-Procedure Protocol**)
7. Consider Transport to a facility capable of Percutaneous Coronary Intervention (PCI) per MCA protocol if 12 Lead ECG indicates ST Elevation MI.
8. Monitor waveform ETCO2. If ventilation assistance is required, target ETCO2 of 35-45 mm Hg per **End Tidal Carbon Dioxide Monitoring-Procedure Protocol**
9. If hypotension persists after initial IV/IO fluid bolus, prepare push dose **epinephrine** while administering second 1 liter fluid bolus (maximum total fluid 2 liters)
10. Administer **epinephrine** by push dose (dilute boluses).
    a. Prepare (10 mcg/mL) by adding 1mL of 1mg/10mL **epinephrine** in 9mL NS, then:
        i. Administer 10-20 mcg (1-2 mL **epinephrine** 10 mcg/mL)
        ii. Repeat every 3 to 5 minutes
        iii. Titrate to SBP greater than 90 mm/Hg
11. Anticipate airway intolerance and prepare for patient sedation. If patient becomes agitated with advanced airway in place, refer to **Patient Procedural Sedation-Procedure Protocol.**

Notes:

1. If a mechanical ventilator is available or there are spontaneous respirations in the non-intubated patient, titrate inspired oxygen on the basis of monitored SpO2 to maintain a saturation of ≥92% but <98%. Titrate ETCO2 between 35-45 mmHg.
2. Consider removal of airway device only if wide awake, following commands, and unable to tolerate airway device.

<u>Medication Protocols</u>
Epinephrine