**Cardiac Arrest: Post-Resuscitation Care**

### History
- Respiratory arrest
- Cardiac arrest

### Signs/Symptoms
- Return of pulse

### Differential
- Continue to address specific differentials associated with the original dysrhythmia

#### Repeat Primary Assessment

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<th>B</th>
<th>Optimize Ventilation and Oxygenation</th>
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<tr>
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<td>• Maintain SpO2 ≥ 93%</td>
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<td>• Maintain i-gel/ETT airway, <em>if indicated</em></td>
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<td>• Resp Rate 6 – 12 per min</td>
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<td>(EtCO2 35-45)</td>
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<td>• <strong>DO NOT HYPERVENTILATE</strong></td>
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#### IV Procedure
- Cardiac Monitor

#### IO Procedure
- Monitor Vital Signs / Reassess

### Normal Saline Bolus 500 mL IV / IO
- May repeat as needed if lungs clear
- Maximum 2 L

### Dopamine 10-20 mcg/kg/min IV/IO
- *Titrate pressor to SBP ≥ 90*

### Cardiac: Bradycardia Protocol

- **YES**

### Hypotension
- Systolic BP < 90
- **YES**

### STEMI on 12 Lead ECG

- **NO**

### Symptomatic Bradycardia

- **NO**

### ROSC with Antiarrhythmic given

- **YES**

### Consider Sedation if needed
- Use only with i-gel or ETT in place
- **P**

### Midazolam 2.5-5 mg IV/IO
- May repeat x 1 in 5 minutes if needed
- (Hold for BP < 100 mmHg)

### Notify STEMI Receiving Center of 12 Lead EKG Finding

### Arrhythmias are common and usually self-limiting after ROSC. They may not need further meds or drips.

- If Arrhythmia persists, follow Rhythm Appropriate Protocol

### Contact Medical Control for questions or additional guidance
Post ROSC Cardiac Arrest Checklist

- FINGER on pulse; maintain for 5 minutes. DO NOT MOVE the patient during this time!
- ASSESS CO2 (should be >20 with good waveform)
- Continuous visualization of cardiac monitor rhythm
- Check O2 supply and Pulse Ox, Maintain SpO2 ≥ 93%
- Do not try to obtain a “normal” EtCO2 by increasing respiratory rate
- Obtain 12 lead EKG; if STEMI evident, make STEMI notification to the hospital
- Assess for & TREAT bradycardias, HR < 60 bpm
- Obtain Blood Pressure -- Pressor agent indicated for SBP < 90
- Evaluate for post-resuscitation airway placement (e.g. i-gel or ETT), if needed.
- When patient is moved, perform CONTINUOUS PULSE CHECK and continuous monitoring of cardiac rhythm
- Have Mask available for BVM in case i-gel or ETT fails
- Once in ambulance, confirm pulse, breath sounds, SaO2, EtCO2, and cardiac rhythm
- Appropriate personnel present in the back of the ambulance for transport

Pearls

- Continue to search for potential cause of cardiac arrest during post-resuscitation care.
- Hyperventilation is a significant cause of hypotension and recurrence of cardiac arrest in the post resuscitation phase and should be avoided at all costs.
- Initial End tidal CO2 may be elevated immediately post-resuscitation but will usually normalize. While goal is 35 – 45 mm Hg, avoid hyperventilation.
- Most patients immediately post resuscitation will require ventilatory assistance.
- The condition of post-resuscitation patients fluctuates rapidly and continuously, they require close monitoring. Appropriate post-resuscitation management may require consultation with medical control.
- Common causes of post-resuscitation hypotension include hyperventilation, hypovolemia, pneumothorax, and medication reaction to ALS drugs.
- Titrate Dopamine to maintain SBP ≥ 90. Ensure adequate fluid resuscitation is ongoing.
- Patients with a STEMI or suspicion of a STEMI must be routed to a STEMI Receiving Center!