

## PRE/POST CARDIAC ARREST CHECKLIST

### Pre-ROSC Cardiac Arrest Checklist

- Immediately start compressions only CPR. Make room to work!
- Hook up Quick Look Patches (see second pearl). Perform “Quick Look” for shockable rhythm. Administer defibrillation if appropriate. Resume high quality CPR, restarting 2-minute timer. Place NRB or BVM as appropriate.
- O<sub>2</sub> cylinder, with oxygen, is attached to airway adjunct. If BVM is used, 1 modest breath every 8 seconds without interrupting compressions (see third pearl).
- Code Team Leader is verbally identified. In charge of code; follows checklist.
- Defibrillations occurring at 2 minute intervals for shockable rhythms. Team leader gives 15 second warning to change compressors and charge defibrillator.
- One provider is dedicated to operating the AED/Monitor and administering defibrillations as appropriate.
- One provider is assigned to initiate IV/IO access and administer medications as requested by Code Leader.
- Metronome confirmed continuous compressions are ongoing at **100-120** beats/minute, if available.
- ETCO<sub>2</sub> waveform is present and value is being monitored. Oxygen saturation is being monitored
- Underlying causes, including H’s and T’s (see Pearls), have been considered and treated early in arrest.
- Family is receiving care and is proximal to patient.
- Officer or delegate begins collecting patient information.

#### PEARLS:

- Efforts should be directed at high quality and continuous compressions with limited interruptions and early defibrillation when indicated. Consider early IO placement, if available and difficult IV anticipated.
- If no CPR or ineffective CPR is being executed on arrival, begin high quality CPR. Perform “Quick Look.” If high quality CPR is in process on arrival and a shockable rhythm is present, begin defibrillation without delay. Resume high quality CPR, restarting 2-minute timer.
- **DO NOT** hyperventilate: Ventilate 8-10/minute. Do not interrupt compressions for ventilations.
- Do not interrupt compressions to place endotracheal tube. Consider Supra-Glottic Airway (SGA) first, to limit interruptions.
- Success is based on proper planning, execution, and a team based approach. Procedures require space and patient access.
- **H’s and T’s:**

✓ Hypovolemia	✓ Hypo/Hyperthermia	✓ Thrombosis (MI)
✓ Hypoxia	✓ Tablets/Toxins/Tricyclics	✓ Thromboembolism
✓ Hydrogen ions (acidosis)	✓ Tamponade	(Pulmonary Embolism)
✓ Hypo/Hyperkalemia	✓ Tension pneumothorax	✓ Trauma

### POST ROSC CARDIAC ARREST CHECKLIST

- Finger on pulse; maintain for 10 minutes. DO NOT MOVE the patient during this time. Use femoral or brachial/radial artery.
- Obtain VS and 12 lead.
- If STEMI evident. Call cardiac post arrest with “STEMI” ALERT to hospital.
  - SHMC adult charge nurse **474-7145**
  - SHMC Pediatric charge nurse **474-3607**
  - Deaconess charge nurse **473-8350**
- If hypotensive, administer Normal Saline 1-2 L. If rales present, titrate Dopamine to maintain SBP  $\geq$  90.
- Continuous visualization of cardiac monitor rhythm.
- Check O2 supply and pulse Ox to titrate to SpO2 94-96%.
- Assess CO2 (should be  $>$  20 with good waveform).
- Do not try to obtain a normal ETCO2 by increasing respiratory rate.
- Assess for and treat arrhythmias.
- Evaluate for post resuscitation airway placement (e.g. ETT), if not already in place.
- If intubated or SGA, apply C-Collar before moving.
- When patient is moved, perform Continuous Pulse Check and continuous monitoring of cardiac rhythm (use femoral or brachial/radial artery).
- Mask is available for BVM in case advanced airway fails.
- Document patient medications on County MIR.
- Once in ambulance, confirm pulse, breath sounds, SpO2, ETCO2, and cardiac rhythm.

**PEARLS:**

- Recommended Exam: Mental Status, Neck, Skin, Lungs, Heart, Abdomen, Extremities, Neuro
- 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 must be avoided at all costs.
- Initial end tidal CO<sub>2</sub> may be elevated immediately post resuscitation but will usually normalize. While goal is 35-45 mmHG, avoid hyperventilation.
- Transport to facility capable of managing the post arrest patient, including hypothermia therapy, cardiac catheterization and intensive care service: follow the Cardiac Arrest Destination Plan.
- Most patients immediately post resuscitation will require ventilator assistance.
- The condition of post resuscitation patients fluctuates rapidly and continuously, and 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.
- If the patient re-arrests after or during completion of the “Post ROSC Cardiac Arrest Checklist” it does not obligate the EMS responders to a specific additional time frame to remain on-scene rather, it should prompt a reassessment of the patient to ensure that we have done, and are continuing to do, everything that increases the chance of a successful resuscitation.
- If re-arrest occurs during ground ambulance transport the vehicle should be stopped, if safely possible, so as to allow for more effective CPR and provider/ patient safety. If the resuscitation fails and medical control concurs in the termination of resuscitation, all efforts should cease. The ambulance should continue (Code Green) to the receiving hospital for assistance with the deceased patient’s remains and family notification.