Protocol #641 Division: Emergency Medical Services Agency Effective Date: 06/01/2024 CARDIAC ARREST (ATRAUMATIC) **ADULT** PEDIATRIC (≤34 KG) **BLS Procedures** Universal Algorithm #601 Same as Adult (except for neonate) High Performance CPR (HPCPR) (10:1) per Neonate (<1 month) follow AHA guidelines Procedure #712 CPR compression to ventilation ratio • Continuous compressions with 1 short Newborn - CPR 3:1 breath every 10 compressions 1 day to 1 month - CPR 15:2 AED application (if shock advised, administer 30 • >1 month - HPCPR 10:1 compressions prior to shocking) AED – pediatric patient >1 year **Pulse Oximetry** Use Broselow tape or equivalent if available • O2 administration per Airway Management Protocol #602 **ALS Procedures** Rhythm analysis and shocks **Emphasize resuscitation and HPCPR rather** At 200 compressions begin charging the than immediate transport defibrillator while continuing CPR Once fully charged, stop CPR for rhythm Rhythm analysis and shocks Coordinate compressions and charging same analysis as adult **Defibrillate V-Fib/Pulseless V-tach – Shock at** 120J and immediately resume CPR **Defibrillate V-Fib/Pulseless V-Tach** – shock at • Subsequent shock, after 2 mins of CPR: 2 J/kg and immediately resume CPR 150J, then 200J • Subsequent shock, after 2 mins of CPR: Recurrent V-fib/Pulseless V-tach use last 4J/kg successful shock level Recurrent V-Fib/Pulseless V-tach use last successful shock level No shock indicated – dump the charge and immediately resume CPR No shock indicated – dump the charge and immediately resume CPR V-Fib/Pulseless V-Tach and Non-shockable Rhythms V-Fib/Pulseless V-Tach Epinephrine 1:10,000 1mg IV/IO repeat every and Non-shockable Rhythms 3-5 min **Epinephrine 1:10,000** 0.01 mg/kg (0.1 ml/kg)

Do not give epinephrine during first cycle of

V-Fib/Pulseless V-Tach

Lidocaine 1.5mg/kg IV/IO repeat once in 3-5 min (max total dose 3 mg/kg)

- IV/IO not to exceed 0.3mg, repeat every 3-5 min
 - Do not give epinephrine during first cycle of CPR

V-Fib/Pulseless V-Tach

Lidocaine 1 mg/kg IV/IO repeat every 5 min (max total dose 3 mg/kg)

Base Hospital Orders Only

ROSC with Persistent Hypotension

Push-Dose Epinephrine 10 mcg/ml 1ml IV/IO every 1-3 min

Contact closest Base Hospital for additional orders

ROSC with Persistent Hypotension for Age

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- Repeat as needed titrated to SBP >90mmHg
- See notes for mixing instructions

OR

- Epinephrine Drip start at 10 mcg/min IV/IO infusion
 - Consider for extended transport
 - See formulary for mixing instructions

Contact STEMI Receiving Center (French Hospital)

- Refractory V-Fib or V-Tach not responsive to treatment
- Request for a change in destination if patient rearrests en route
- Termination orders when unresponsive to resuscitative measures
- As needed

Contact appropriate Base Station per Base Station Report Policy #121 – Atraumatic cardiac arrests due to non-cardiac origin (OD), drowning, etc.) Push-Dose Epinephrine 10 mcg/ml 1 ml IV/IO (0.1 ml/kg if <10kg) every 1-3 min

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- Repeat as needed titrated to age appropriate SBP
- See notes for mixing instructions

OR

- Epinephrine Drip start at 1 mcg/min, up to max of 10 mcg/min IV/IO infusion
 - Consider for extended transport
 - See formulary for mixing instructions
- As needed

Notes

- Mixing Push-Dose Epinephrine 10 mcg/ml (1:100,000): Mix 9 ml of Normal Saline with 1 ml of Epinephrine 1:10,000, mix well.
- Use manufacturer recommended energy settings if different from listed.
- Assess for reversible causes: tension PTX, hypoxia, hypovolemia, hypothermia, hyporhermia, hypoglycemia, overdose.
- Vascular access IV preferred over IO continue vascular access attempts even if IO access established).
- Consider Oral Intubation or Supraglottic Airways (Adults), provider discretion.
- If the provider cannot accomplish an ALS airway, they should document in the PCR why an ALS airway wasn't accomplished.
- Once an SGA has been placed, it should not be removed for an ETI.
- <u>Stay on scene</u> to establish vascular access, provide for airway management, and administer the first dose of epinephrine followed by 2 min of HPCPR.
- Adult ROSC that is maintained:
- Obtain 12-lead ECG and vital signs.
- Transport to the nearest STEMI Receiving Center regardless of 12-lead ECG reading.
- Maintain O2 Sat greater than or equal to 94%.
- Monitor ETCO2
- With BP < 100 mmHg, contact SRC (French Hospital) for fluid, or pressors.
- Termination for patients > 34 kg Contact SRC (French Hospital) for termination orders.
- If the patient remains pulseless and apneic following 20 minutes of resuscitative measures.

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• Persistent ETCO2 values < 10 mmHg, consider termination of resuscitation.

- Documentation shall include the patient's failure to respond to treatment and of a non-viable cardiac rhythm (copy of rhythm strip).
- Pediatric patients less than or equal to 34 kg.
- Evaluate and treat for respiratory causes.
- Use Broselow tape if available.
- Contact and transport to the nearest Base Hospital.
- Receiving Hospital shall provide medical direction/termination for pediatric patients.