

HIGH PERFORMANCE CPR (HPCPR)	
ADULT	PEDIATRIC (≤ 34 kg)
BLS	
<ul style="list-style-type: none"> ● Pulse Oximetry – O₂ administered per Airway Management – Protocol #602 ● <u>Position 1 (P1) – Initial Team Leader</u> (At side of the patient) <ul style="list-style-type: none"> ○ Initiate compressions at 110/min (100-120/min) ○ Alternate with P2 at 200 compressions ○ Coordinate and verbalize compression rate with P2 ● <u>Position 2 (P2) – (Opposite side of patient)</u> <ul style="list-style-type: none"> ○ Activate Metronome ○ Apply and operate AED or ALS Monitor with minimal interruption of compressions - until P3 arrives ○ At 200 compressions (or 2 min cycle with AED) <ul style="list-style-type: none"> ■ BLS AED – if analysis states “shock advised” provide 30 additional compressions prior to shocking ■ ALS monitor – pre-charge while continuing compressions. Once fully charged stop compressions to analyze – shock if indicated or dump charge (pulse check with organized rhythm if indicated) ■ Alternate with P1 at 200 compressions or the AED analysis ○ Provide for Passive Oxygenation Insufflation (POI) ○ When P3 arrives and can maintain two-hand mask seal, ventilate with BVM every 10 compressions (10-12/min) on up-stroke ○ Coordinate and verbalize compression rate with P1 ● <u>Position 3 (P3) BLS – (At patient’s head)</u> <ul style="list-style-type: none"> ○ Becomes Team Leader ○ Manage airway/suction as needed ○ Maintain two-hand mask seal on BVM allowing P2 to ventilate (10:1) ○ Operates AED with minimal interruption of compressions 	<ul style="list-style-type: none"> ● Pulse Oximetry – O₂ administered per Airway Management – Protocol #602 ● Same as Adult (except for neonate) ● Neonate (< 1 month) follow AHA guidelines ● CPR compression to ventilation ratio <ul style="list-style-type: none"> ○ Newborn – CPR 3:1 ○ 1 day to 1 month – CPR 15:2 ○ > 1 month – HPCPR 10:1 ● AED – pediatric patient > 1 year ● Use Broselow tape or equivalent if available

ALS Standing Orders	
<ul style="list-style-type: none"> • <u>Position 3 (P3) ALS – At patient's head</u> <p>Assumes Team Leader</p> <ul style="list-style-type: none"> ○ Directs CPR quality based on monitor feedback (rate and depth) ○ Maintain two-hand mask seal on BVM ○ Apply capnography ○ Charge the defibrillator and analyze for shockable rhythm every 200 compressions (continue compressions while monitor charges) ○ Consider endotracheal intubation only if airway not compliant or with maintained ROSC • <u>Positon 4 (P4) ALS – position outside of the CPR Triangle (May assume Team Leader Role)</u> <ul style="list-style-type: none"> ○ Obtain report from P3 ○ Establish vascular access IV or IO (IV preferred) ○ Administer medications per Pulseless Cardiac Arrest Protocol #641 ○ Interacts with family • <u>Position 5 (P5) if available</u> <ul style="list-style-type: none"> ○ Assists where needed ○ May become point person to communicate with family 	<ul style="list-style-type: none"> • Same as Adult
Base Hospital Orders Only	
• As needed	• As needed
Notes	
<ul style="list-style-type: none"> • HPCPR Performance Points <ul style="list-style-type: none"> ○ Minimize interruptions of compressions to < 5-10 sec ○ Compression rate 100-120/min (goal of 110/min) ○ Provide for full chest recoil ○ Passive Oxygen Insufflation (POI)/O₂ via non-rebreather mask – may be utilized during first 8 minutes (4 cycles) of resuscitation by placing an oropharyngeal airway (OPA) and high-flow O₂ via non-rebreather mask ○ Do not hyperventilate – small volume on the upstroke of the 10th compression ○ Perform uninterrupted CPR between rhythm analysis ○ Pre-charge the monitor at the 200th compression, continue compressions until the monitor is fully charged ○ Pulse check (if indicated) is done with rhythm analysis after monitor is charged ○ Immediately resume chest compressions after shock without checking for pulses ○ Utilize ETCO₂ numeric value and/or capnography wave form ○ In-line or side stream ETCO₂ monitoring utilized with BLS airway management (BVM) 	

- Each team member coaches other team members in quality CPR. **Use CPR feedback on monitor when available**
- **Specific to Adult patients**
 - Compression Depth is 2-2.5 inches
 - Ventilation Volume is 200-400 ml
 - Indications for pulse check - organized rhythm > 40 BPM
 - With organized rhythm ≤ 40 continue HPCPR for an additional 2 mins, then assess for ROSC
- **Specific to Pediatric patients (≤ 34 kg)**
 - Consider respiratory causes
 - Compression depth 1/3 the depth of the chest
 - Do not hyperventilate - just enough to make the chest rise
 - Indications for pulse check - organized rhythm > than 60 BPM
 - With organized rhythm ≤ 60 continue HPCPR for an additional 2 mins, then assess for ROSC