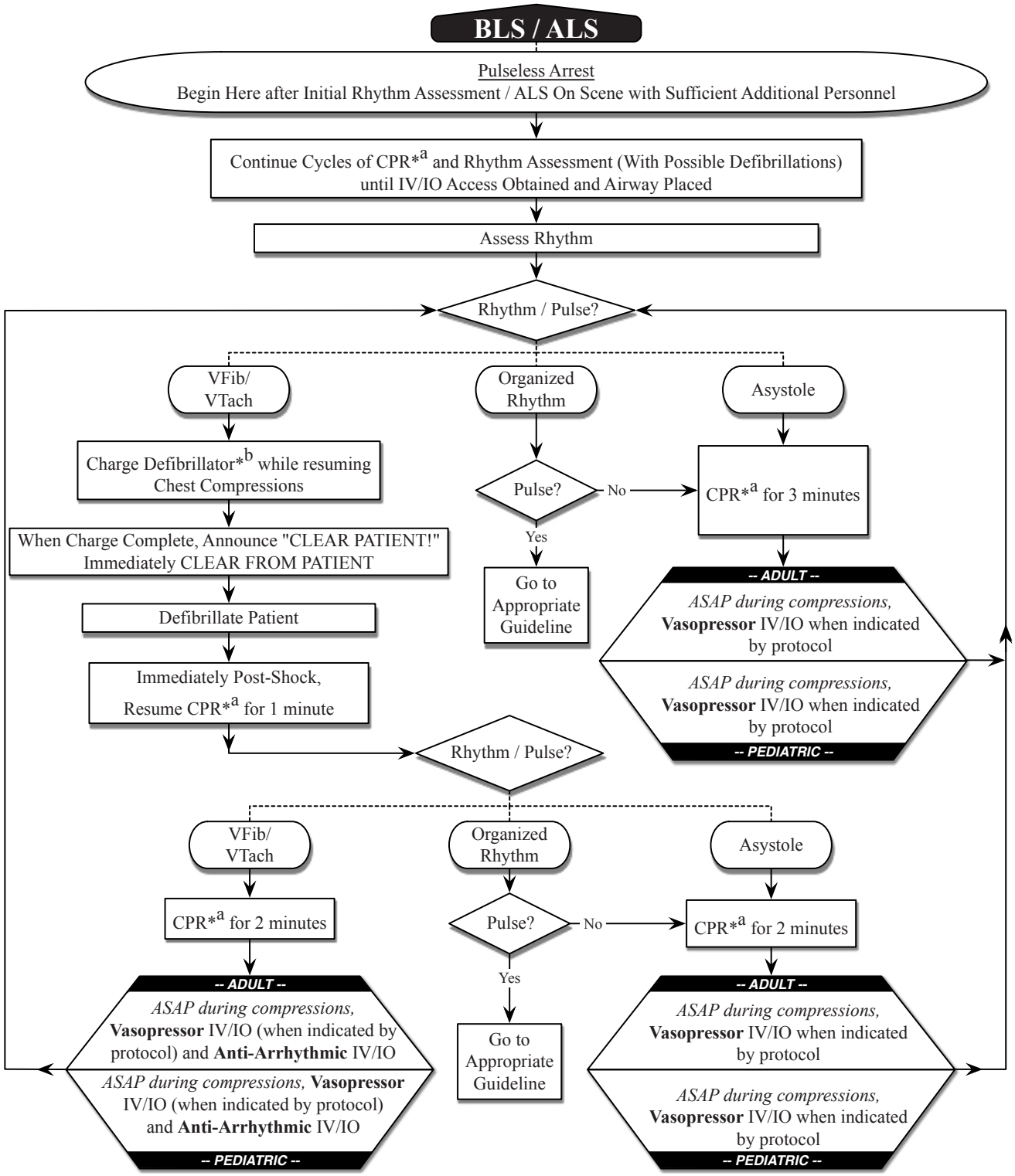
8.02 E. Cardiac Arrest Resuscitation



*a Refer to *7.05 Cardiopulmonary Resuscitation* for proper CPR guideline.
**Once an advanced airway is placed (Supraglottic Airway or ET Tube), begin continuous chest compressions with a ventilation rate appropriate for the patient's age (*Ref. Table 8-2*). Ventilate on the up-stroke of the chest compression.

*b **Defibrillation Joule Settings**
- Adult : 360 Joules each defibrillation
- Pediatric : Defibrillate according to Pediatric Dosing Guidelines.

8.02 E. Cardiac Arrest Resuscitation : Notes

A. This contains the guidelines for all cardiac arrest resuscitations regardless of the rhythm. This guideline should only be begun once ALS is on scene with sufficient additional unit(s) to provide enough individuals for uninterrupted chest compressions and to allow paramedics to establish IV/IO access. Medication, when indicated, shall be given at the soonest possible rhythm check.

B. If the AED is being utilized upon ALS arrival, ALS personnel shall allow the AED to complete the upcoming analysis including a shock if required. Immediately after this, the patient shall be switched over to the ALS monitor. For adolescents/adults, detach the AED pads from the AED and connect to the ALS monitor. For neonates/infants/children, remove the AED Infant/Child pads and attach the Pediatric pads to the ALS monitor and the patient.

C. IV/IO Access : Please see 8.03 A.3.d. for the preferred method of medication delivery. After 2 failed attempts (or 2 minutes) for a peripheral IV, proceed to IO placement with the EZ-IO® device as described in 7.03 C.

D. ADULT Medication Delivery:
   1. As detailed in the guidelines, there are two classes of medications; Vasopressors and Anti-Arrhythmics. Medications, when indicated, shall be given after the earliest possible rhythm/pulse check.
   2. Vasopressors will be given EVERY OTHER Rhythm/Pulse check, roughly every 6 minutes.All other medications shall be given at each appropriate Rhythm/Pulse check, occuring every 3 minutes.

Adult Vasopressors	Adult Anti-Arrhythmics
1st: **Epinephrine** (1:10,000) 1 mg IVP	1st: **Amiodarone** 300 mg IVP
2nd - 8th dose: **Epinephrine** (1:1000) 1 mg IVP	2nd: **Amiodarone** 150 mg IVP
**** No more than 8 doses of Epi given during arrest***	Consult on-line medical control for further orders

Pre-Approved Medications for Specific Indications

-If at any point in the arrest (the earlier the better), there is a known or suspected condition which would indicate one these following medications, administer the medication as soon as possible. Medical Control must be contacted for repeat dosing.

Medication	Indication
Calcium Chloride 1 gram IVP	Incomplete or Missed Dialysis, Presumed Hyperkalemia, Ca+ Channel Blocker OD
Magnesium Sulfate 2 gram slow IVP	Torsade De Pointes
Sodium Bicarbonate 1 mEq/Kg IVP	Incomplete or Missed Dialysis, Presumed Hyperkalemia, Tricyclic Overdose, Cocaine Associated Arrest

E. PEDIATRIC Medication Delivery:
   1. As detailed in the guidelines, there are two classes of medications; Vasopressors and Anti-Arrhythmics. Medications, when indicated, shall be given after the earliest possible rhythm/pulse check.
   2. Vasopressors will be given EVERY OTHER Rhythm/Pulse check, roughly every 6 minutes.All other

medications shall be given at each appropriate Rhythm/Pulse check, occuring every 3 minutes.

Pediatric Vasopressors	Pediatric Anti-Arrhythmics
1st and subsequent dosing: **Epinephrine**(1:10,000) IV per Pedi Dosing guideline	1st: **Amiodarone** IVP per Pedi Dosing guideline Consult on-line medical control for further dosing
**** No more than 8 doses of Epi given during arrest***	

F. All pulse checks shall be less than 10 seconds. If there is not a definitive pulse, resume chest compressions. Upon regaining pulses, quickly assess relative blood pressure by noting presence or absence of carotid, femoral and radial pulses.

G. For organized electrical activity without a pulse (PEA), consider the causes (5 H's & 5 T's)

Hypovolemia	Hypoxia	Tension Pneumothorax	Tamponade (Cardiac)
Hyperkalemia/Hypokalemia		Tamponade (Cardiac)	Thrombosis (Acute Coronary)
Hydrogen Ions (Acidosis)		Thrombosis (Pulmonary)	Toxins / Tablets
Hypothermia			

H. Airway Management [ALS]
- •Adults: BVM then supraglottic airway (if available). ET Tube as per 8.02 A.1.d.
- •Pediatrics: BVM then supraglottic airway (if available). ET Tube ONLY if unable to ventilate.

I. Place patient on pulse oximetry during the resuscitation and monitor pulse oximetry post-arrest, especially during intubation.

K. Proper documentation of cardiac arrest incidents shall include:
- •What, if anything, did the patient complain of prior to requiring CPR?
- •Was the arrest unwitnessed or witnessed? If witnessed, by whom?
- •Was bystander CPR administered? Only chest compressions or ventilations as well?
- •Was an AED used, what AED, who operated it and how many times did it defibrillate?