Cardiac Preambles

I. CARDIAC ARREST

Operational Considerations

Scene Time: All medical patients in cardiac arrest should be treated on scene and where they are found, time worked is dependent on Initial Rhythm unless deemed otherwise per situation / protocol.

- Ventricular Fibrillation / Pulseless Ventricular Tach - work for no less than 30 minutes

- Asystole / PEA - ALS Provider May STOP CPR after 20 minutes if in ASYSTOLE on initial rhythm and ETCO2 is < 20 if CODE is unwitnessed and has remained ASYSTOLE throughout

The most important therapy is effective and minimally interrupted chest compressions. Chest compressions are less effective when moving toward an ambulance or while in a moving vehicle.

Scene Safety: Law enforcement should immediately be requested when patient care cannot be delivered effectively on-scene. Patients should only be moved if the conditions remain unsafe or do not operationally allow for resuscitation. If the patient is unable to be removed without compromising the safety of the crew, additional resources should be called immediately. In this case the patient may be left until additional resources arrive and scene safety is secured.

Sprint Unit Support: When supervisor units or any other single paramedic response vehicle arrives on the scene of a cardiac arrest, their single responsibility is BLS CPR. This course of treatment shall continue until knowledgeable bystanders are able and willing to help or additional paramedics/EMTs arrive.

Minimally Interrupted CPR

Manual compressions should be started immediately during cardiac arrest as there is virtually no set-up time. (Even basic airway equipment requires some set-up time for sizing and deployment.) The goal for compressions is 100-120 compressions per minute. Push hard and fast allowing for complete chest recoil (2 inches for the average adult). Higher chest compression fraction rates are associated with better rates of survival to hospital discharge. Agencies should aim to achieve a chest compression fraction rate (the percentage of total resuscitation time that compressions are performed) of 80%.

Quantitative end-tidal CO_2 should be used to monitor effectiveness of chest compressions and should be established as soon as possible- ideally as soon as BVM ventilations are initiated. If $ETCO_2$ is less than 10 mmHg during the initial phases of resuscitation, attempt to improve chest compression quality.

Mechanical chest compression devices are a reasonable alternative to conventional CPR. Application time for mechanical devices should be kept to a minimum and training should reflect this. The goal is to maximize compression fraction ratio.