Clear Creek EMS

PROCEDURES

Ultrasound - PEA

Description

This protocol will outline the procedure and considerations for assessing the cardiac arrest patient in PEA.

Indications

- Cardiac Arrest with PEA

Procedures

- **Assessing for Cardiac Wall Motion**
    - The ultrasound should be placed in the cardiac pre-set. During a compression cycle the transducer should be placed inferior to the xiphoid, with the indicator towards the patients right, and angled lightly towards the patient R shoulder. The probe should be angled almost parallel with the floor and pointed towards the patient's heart. Be sure to provide adequate depth and pressure to obtain a cardiac view.
    - Once a view is obtained the operator should begin to record the ultrasound in preparation for a pulse check. The objective is to assess for cardiac wall motion.
- **Cardiac Wall Motion Without a Palpable Pulse**
    - If cardiac wall motion is observed causes of shock should be evaluated and treated. CPR should be continued. Consider options for rapid transport to include air-medical services.
    - If cardiogenic shock without hypovolemia or obstruction is suspected administer 40 IU Vasopressin IV/IO push.
    - If pulses are regained refer to vasopressor protocols within DMEMSD protocols for continued treatment.
- **Termination of Resuscitation**
    - If termination of resuscitation is being considered per standard protocol and the patient is in PEA a final evaluation of cardiac wall motion should be done after compressions have been stopped. If motion is found refer to "Cardiac Wall Motion Without a Palpable Pulse" for treatment options.

Considerations

- CPR pauses should never exceed 10 seconds, if the operator is unsure of what they visualized they may watch the recording or reassess at the next pulse check.
- Cardiac leaflet motion is expected during CPR and may still occur during CPR pauses. This should not be mistaken for cardiac wall motion.

- End-Tidal capnography and SPO2 waveform can help provide additional confirmation of cardiac activity.

- After administration of 3mg epinephrine and 40 IU vasopressin consider epinephrine infusion at 20mcg/min while enroute to the receiving facility if no pulses are present.

Special Considerations

- If cardiac wall motion with out pulses is recognized, note that this state will not be prolonged, anticipate rapid degradation of the cardiac rhythm to a ventricular arrythmia or asystole with the need to resume CPR if treatments do not provide palpable pulses.