Subject: CARDIOPULMONARY ARREST

General

A. Verify cardiopulmonary arrest.

B. Initiate CPR & ventilate per pocket mask or BVM, with supplemental O_2 @ 10-15 lpm. For witnessed arrest, defibrillate as soon as possible. For unwitnessed arrest, provide 5 cycles/2 min. CPR.

C. CPR should be interrupted as little as possible.

D. Establish cardiac monitor/defibrillator. One shock attempt every 5 cycles/2 min. of CPR.

E. Place an endotracheal tube and continue ventilations with bag-valve device (or demand valve) with supplemental O_2 @ 10-15 lpm.

1. If unsuccessful after three attempts at tracheal intubation, place an Esophageal Tracheal Combitube (ETC) or King diposable LTD's.

2. If unable to place ETC, continue ventilations with BVM.

E. Establish peripheral IV access with 0.9% NaCl @ TKO.

1. If unsuccessful at peripheral venipuncture, including external jugular, establish Intraosseous , or establish central venous access route.

F. Medications administered via peripheral IV, should be followed by a 20 ml bolus of IV fluid.

Ventricular Fibrillation (or Pulseless Ventricular Tachycardia)

A. If witnessed arrest—

1. Check carotid pulse.

2. If no pulse, attempt defibrillation 1x followed by 5 cycles/2 min. of CPR

B. If unwitnessed arrest – Perform 5 cycles/2 min. of CPR before one attempt to defibrillate (IV and ETI may be completed before defibrillation).

1. Check carotid pulse after 2 sets of 5 cycles/2 min. of CPR.

2. If no pulse, attempt debribrillation 1x followed by 5 cycles/2 min. of CPR.

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C. Administer **Vasopressin** 40 units IV push. If ET tube is established before IV is established, administer **Epinephrine 1:1000** 2 mg via ET tube with 8 ml NaCl. If unable to establish IV/IO, administervia ET tube.

1. If Epinephrine was administered via ET tube, 3-5 minutes later when an IV is established, administer Vasopressin 40 unit IV push.

2. **Epinephrine 1:10,000** 1 mg IV push q 3-5 minutes.

D. Defibrillate 1x. If delay in medication administration, continue 5 cycles/2 min. CPR.

E. Administer **Amiodarone,** 300 mg IV push.

F. Defibrillate 1x.

G. If long arrest interval and transport time, consider administration of **Sodium Bicarbonate** 1 mEq/kg, IV bolus.

H. Maintain continuous CPR with a pattern of CPR-Shock-CPR-Vassopressor.

I. Check rhythm after each shock. If VF recurs after transiently converting, provide 5 cycles/2 min. CPR then defibrillate 1x.

Asystole (or Pulseless Idioventricular)

A. Administer **Vasopressin** 40 units IV push. If ET Tube is established before IV is established**,** administer **Epinephrine 1:1000** 2 mg via ET tube with 8 ml NaCl. If unable to establish IV/IO, administer via ET tube.

1. If **Epinephrine** was administered via ET tube, 3-5 minutes later when an IV is established, administer **Vasopressin** 40 units IV push.

2. **Epinephrine 1:10,000** 1 mg IV push every 3-5 minutes.

B.. If unresponsive to medications and other ALS treatment modalities, consider discontinuing resuscitation efforts after discussion with on-line medical control.

Pulseless Electrical Activity (PEA)

Subject: CARDIOPULMONARY ARREST

A. Administer **Vasopressin** 40 units IV push. If ET Tube is established before IV is established, administer **Epinephrine 1:1000** 2 mg via ET tube with 8 ml NaCl. If unable to establish IV/IO, administer via ET tube.

1. If Epinephrine was administered via ET tube, 3-5 minutes later when an IV is established, administer **Vasopressin** 40 units IV push.

2. **Epinephrine 1:10,000** 1 mg IV push every 3-5 minutes.

B. Administer 500 cc fluid IV bolus in all patients that do not respond to **Epinephrine**.

C. If long arrest interval and transport time, and/or drug overdose of tricyclic antidepressant, consider administration of **Sodium Bicarbonate** 1 mEq/kg, IV bolus.

D. If known, correct underlying cause (e.g., hypovolemia, cardiac tamponade, tension pneumothorax, acidosis, or hypoxemia).

E. If unresponsive to medications and other ALS treatment modalities, consider discontinuing resuscitation efforts after discussion with on-line medical control.

General Considerations

A. If an automated external defibrillator (AED) has been established by BLS or ILS providers prior to arrival of ALS, allow them to complete defibrillation attempt, as indicated, prior to disconnecting their device.

B. If an ETC has been placed in the *tracheal position* prior to arrival of ALS, consider leaving in place unless there will be an extended transport.

C. If an ETC has been placed in the *esophageal position*, consider replacing with an endotracheal tube.

D. Defibrillation

1. Manual biphasic: device specific (typically 120 J to 200 J)

2. AED: device specific

3. Monophasic: 360 J

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