Region V
AEMT Prehospital

Standing orders and guidance for Intravenous Therapy and Combitube

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The AEMT inserting or attempting to insert the IV will accompany the patient in the patient compartment of the ambulance; exceptions include the transfer of care to a paramedic, and mass casualty incidents. Intravenous therapy may be initiated on standing orders by medically authorized Advanced EMTs in the presence of life threatening situations under the following guidelines and circumstances. Paramedic intercept should be considered whenever an IV line is being established.

Vital Signs will be assessed prior to Intravenous Therapy, BLS Care will be provided prior to Intravenous Therapy.

Do not delay transport for IV attempts

A paramedic intercept should be requested for all patients requiring IV therapy

1. The patient with 2nd and/or 3rd degree **burns** covering more than 20% of their total Body Surface Area (Please see Rule of Nines in the appendix).

2. The patient in **Respiratory and/or Cardiac Arrest**, insure adequate CPR and additional providers and performing quality CPR.

3. The patient experiencing **Chest Pain** believed to be cardiac in nature. This will be determined based on the patient's history and complete patient assessment.

4. The **Diabetic** patient with altered mental status.

5. The patient experiencing **Dyspnea** and meeting the following criteria

   a.) Dyspnea with moderate to severe distress with wheezing and/or hypotension believed to be related to **Anaphylaxis**.
   b.) Dyspnea with moderate to severe distress with crackles and/or wheezing, diaphoresis and/or hypertension believed to be related to **Pulmonary Edema**.

6. The patient that has experienced some type of **Trauma** and meets the following criteria:

   a.) The patient experiencing **Dyspnea**.
   b.) The **tachycardic** patient.
   c.) The **Hypotensive** patient.
   d.) The patient with a **Rigid Abdomen**.
   e.) The patient with **Significant Blood Loss**.

7.) The **Unresponsive** Patient.

8.) The patient displaying signs & symptoms of **Shock**, tachycardia, increased respiratory rate, signs of poor perfusion, including altered level on consciousness, and heat related emergency.

9.) Establish On-Line Medical Oversight if unsure.

Intravenous access may be initiated by standing order or after consultation with Medical Control using the following guidelines:

- Whether on standing order or direct medical control, an Intravenous will be started only after a complete examination, including lung sounds.
- Intravenous fluid shall be Normal Saline (0.9% Sodium Chloride).
- Whenever possible, the Intravenous shall be started while enroute to the Emergency Department or paramedic intercept point.
- The Intermediate will not attempt IV access on any patient less than 12 years old.
- Only one attempt will be made on scene. If the patient is in critical condition, one more attempt may be made by the AEMT while enroute to the hospital or paramedic intercept point.

- Trauma patients require rapid transport to the ED; therefore, IV access shall only be initiated while enroute to the hospital or paramedic intercept point unless the patient is entrapped.

- The Intravenous will be run to keep the Vein Open unless fluid replacement is required per protocol.

- All patients requiring IV access, but not fluid resuscitation shall have an IV established through an 20 gauge catheter or smaller (except in cases of "diabetic emergency", use 18 gauge if possible).

- Any patients requiring fluid resuscitation shall have an IV established with an 18 gauge catheter or larger whenever possible.

- Lung sounds must be assessed prior to and after fluid resuscitation

- Fluid resuscitation maybe initiated with a systolic pressure of 90 mmHg or less

- Establish an IV of **Normal Saline** titrate to a systolic BP > 90 mmHg and or if the patient experiences shortness of breath or abnormal breath sounds are ausculated.

- Patients without a cardiac and/or respiratory history, with clear lung sounds may be given an initial bolus of 250ml (Normal Saline). Contact Medical control if additional fluid is needed.

- Patients with a cardiac and/or respiratory history, with clear lung sounds may be given and initial bolus of 100ml (Normal Saline). Contact Medical control if additional fluid is needed.

- If the patient's lungs are not clear, contact Medical Control regardless of patient history.

- Use of the Anticubital fossa (AC) shall be reserved for those patients in critical condition, or when previous attempts distal to the AC have failed.

- Establish medical control to manage IV fluid

Esophageal – Tracheal Combitube

A BLS Airway, OPA, NPO with adequate chest expansion is acceptable

The AEMT inserting or attempting to insert the Combitube will accompany the patient in the patient compartment of the ambulance; exceptions include the transfer of care to a paramedic, and mass casualty incidents.

		Blue #1	White #2
Size:	Regular Adult 41 French	100 ml	15 ml
	Short Adult (S/A)	85 ml	12 ml

Indication: Apneic patient without a gag reflex

Contraindications:

1. Patient under the age of 16 years.
2. Patient under 5'0'' or over 6'6" in height. (for patients under 5'0" there is a Short Adult (SA) tube)
3. Ingestion of a caustic substance.
4. Severe oral facial trauma.
5. Esophageal disease
6. Patient with a stoma.

Procedure:

1. Use basic precautions including gloves and goggles.
2. Hyperoxygenate patient before attempting placement.
3. Test equipment while patient is being oxygenated.
4. If basic airway is in place remove it; keep head in neutral or slightly flexed position.
5. With one hand, grab tongue/mandible and lift towards ceiling.
6. With the other hand place the Combitube so that it follows the natural curve of the pharynx.
7. Insert to the tip of the mouth and advance gently until the printed ring is aligned with the teeth.

8. Do Not Force. If the Combitube does not advance easily withdraw and reinsert.

9. Inflate the blue tube balloon with 85/100 ml of air. Inflate the white tube balloon with 12/15cc of air. #1 Blue - will inflate the posterior pharyngeal balloon. #2 White - will inflate the distal balloon.

10. Begin ventilation through the longer blue connecting tube. If auscultation of breath sounds is positive and auscultation of gastric insufflation is negative, continue ventilations.

11. IF NECESSARY, if auscultation of breath sounds is negative, and gastric insufflation Is positive, immediately begin ventilation through the shorter connecting clear tube. Confirm tracheal ventilation by auscultation of breath sounds and absence of gastric insufflation.

12. Removal of Combitube:
    a. Reassure patient
    b. Have suction ready and roll patient on their side.
    c. Remove 85/100ml of air from #1 (Blue line).
    d. Remove 12/15ml of air from #2 (White line).
    e. Gently withdraw Combitube, suction patient as necessary.

13. Documentation:

    a. Indications for Combitube use.
    b. Number of attempts to insert combitube
    c. Size of Combitube 41 French or 37 French (Combitube SA)
    d. Which connecting tube was used for ventilation (#1 Blue or # 2 white)
    e. Steps taken to verify tube placement.
    f. Repeat assessment and vital signs every five minutes.
    g. Changes from baseline that may have occurred, if any.

Notes:

A BLS Airway, OPA, NPO with adequate chest expansion is acceptable.

Caution:

Inserting the Combitube at a depth that is excessive, may cause an obstruction of the patient's airway and the patient may not be ventilated from either lumen.
*****The large proximal pharyngeal cuff may cause an obstruction of the glottis opening. *****