



Columbia-Richland Fire Department

Standard Operating Guideline OPS – 3.02

Emergency Medical Technician (EMT)

Effective: 2/6/2012

Issued by: Aubrey D. Jenkins, Fire Chief

*Columbia-Richland
Fire Department
EMT Guidelines
(Standing Orders)
September 2011*



Columbia-Richland Fire Department Emergency Medical Technician Guidelines

The intent of these guidelines is to equip providers with a rapid and readily available resource to better enable excellent patient care. These protocols are in no way designed to encompass every clinical encounter. Rather, it should be viewed as a resource that outlines the most common clinical presentations and fosters sound clinical decision making. The order of treatment is not rigid and allows for the flexibility of prioritizing treatment as dictated by the patient condition.

As Medical Control Physician for the Columbia – Richland Fire Department, I approve the use of the following protocols by the Columbia-Richland Fire Department.

A handwritten signature in blue ink, which appears to read "W.C. Gerard MD", is written over a horizontal line.

William C. Gerard, MD



Universal Care Protocol

Scene Safety/Personal Protective Equipment
Primary Survey Initial Interventions as needed
Supplemental O2
Obtain and Document: Vital Signs SAMPLE History Pain assessment OPQRST (medical) DCAP BTLS (trauma)
Appropriate Protocol



General guidelines for the assessment of all patients

- I. Scene Size-Up / Assessment.
 - A. Body substance isolation.
 - B. Scene Safety.
 - C. Mechanism of Injury / Nature of Illness.
 - D. Number of Patients (Call for help as needed).
 - E. The safety of EMS personnel.

- II. Initial Patient Assessment.
 - A. Evaluate the patient's chief complaint and general impression to determine the presence of any life threatening injuries.
 - B. Central nervous system evaluation to include:
 1. Level of consciousness and mental status.
 2. Sensory response.
 3. Motor response.
 - C. Airway / breathing evaluation to include:
 1. Presence or absence of breathing efforts.
 2. Rate of respirations.
 3. Depth of respirations.
 4. Regularity of respirations.
 5. Auscultation of breath sounds.
 - D. Circulatory evaluation to include:
 1. Presence or absence of pulse.
 2. Rate of pulse.
 3. Strength of pulse.
 4. Regularity of pulse.
 - E. Rapid initial assessment to identify life threatening medical or traumatic emergencies.

- III. Patient Assessment.
 - A. Reassess the chief complaint
 - B. Perform a detailed physical exam or a focused physical exam as indicated by the patient's condition. A detailed physical exam is a complete head to toe survey.
 - C. Assess vital signs.
 1. Respirations (rate, quality, rhythm).
 2. Pulse (rate, quality, rhythm).
 3. Blood pressure and/or capillary refill.
 4. All patients evaluated by CFD EMS personnel shall have a minimum of one set of vital signs recorded as time and patient condition allows (it is the intent of this protocol that a set of vitals signs be obtained on all patients). Any seriously injured or ill patient shall have vital signs recorded at 5-10 minute intervals.
 - D. Obtain SAMPLE History.



- IV. Additional Assessment
- A. Additional assessment may be indicated by the patient's condition and/or outlined in specific protocols.
 - B. Refer to Adult & Pediatric GCS table and RTS calculator when appropriate (pp. 7-7)
 - C. Oxygen Therapy
 - *Administer oxygen, if clinically indicated, via NC (2-6 L/min) or 100% O₂ via NRB depending on assessment of the patient's condition.

Results of all assessments to be documented in the patient report.



Glasgow Coma Score: Adult		
<i>Condition</i>	<i>Variable</i>	<i>Score</i>
Eye Opening	Spontaneous	4
	To Voice	3
	To Pain	2
	No Response	1
Best Verbal Response	Oriented	5
	Confused	4
	Inappropriate Words	3
	Incomprehensible Words	2
	No Response	1
Best Motor Response	Obeys Commands	6
	Localizes Pain	5
	Withdrawal	4
	Flexion (Decorticate Rigidity)	3
	Extension (Decerebrate Rigidity)	2
	No Response	1
Revised Trauma Score: Adult		
<i>Condition</i>	<i>Variable</i>	<i>Score</i>
Respiratory Rate (Breaths/min)	10 - 24	4
	23 - 35	3
	=> 36	2
	1-9	1
	0	0
Systolic BP	> 89	4
	70 - 89	3
	50 - 69	2
	1 - 49	1
	0	0
Glasgow Coma Scale Score Conversion	13 - 15	4
	9 - 12	3
	6 - 8	2
	4 - 5	1
	< 4	0



Glasgow Coma Score: Pediatric				
<i>Condition</i>	<i>Variable Age >1</i>	<i>Variable Age <1</i>	<i>Score</i>	
Eye Opening	Spontaneous	Spontaneous	4	
	To Voice	To Voice	3	
	To Pain	To Pain	2	
	No Response	No Response	1	
Motor Response				
Motor Response	Obeys Commands	Obeys Commands	6	
	Localizes Pain	Localizes Pain	5	
	Withdrawal	Withdrawal	4	
	Flexion (Decorticate Rigidity)	Flexion (Decorticate Rigidity)	3	
	Extension (Decerebrate Rigidity)	Extension (Decerebrate Rigidity)	2	
	No Response	No Response	1	
<i>Condition</i>	<i>Age >5 years</i>	<i>Age 2 - 5 years</i>	<i>Age 0 - 23 months</i>	<i>Score</i>
Verbal Response	Oriented	Appropriate Words and Phrases	Smiles, Coos, Cries Appropriately	5
	Confused	Inappropriate Words	Cries	4
	Inappropriate Words	Cries and/or Screams	Inappropriate Crying and/or Screaming	3
	Incomprehensible Words	Grunts	Grunts	2
	No Response	No Response	No Response	1
Pediatric Trauma Score				
<i>Assessment</i>	<i>Score</i>			
	+ 2	+ 1	- 1	
Weight	> 44 lb (> 20 kg)	22 - 44 lb (10-20 kg)	< 22 lb (< 10 kg)	
Airway	Normal	Oral Airway Nasal Airway	Intubated Tracheostomy Invasive	
Blood Pressure	Pulse at Wrist > 90 mmHg	Carotid or Femoral Pulse 50 - 90 mmHg	No Palpable Pulse < 50 mmHg	
Level of Consciousness	Completely Awake	Obtunded or any Decreased level of consciousness	Comatose	
Open Wound	None	Minor	Major or Penetrating	
Fractures	None	Closed Fracture	Open or Multiple Fractures	



Cardiac Arrest: General Management

History	Physical
<ul style="list-style-type: none">• Events leading to arrest• Estimated down time• Past medical history• Medications• Terminal illness• Signs of rigor/lividity• DNR (SC DHEC EMS)	<ul style="list-style-type: none">• Unresponsive• Apneic• Pulseless

Universal Care Protocol
Criteria for Death / No Resuscitation
CPR
Interrupt compressions only as per AED prompt or every 2 minutes (5 cycles of CPR)
AED is applied while CPR is initiated

If a patient is in complete cardiopulmonary arrest (clinically dead) and meets one or more of the criteria below, CPR need not be initiated.

- Body decomposition
- Rigor Mortis
- Dependent lividity
- Injury not compatible with life (i.e. decapitation, burned beyond recognition, massive open or penetrating trauma to the head or chest with obvious organ destruction)



Orthopedic Injury

All first responder personnel.

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.
5. Determine presence of life threatening injuries involving the head, chest and abdomen.
6. Control hemorrhage with direct pressure.
7. Immobilize fractures in accordance with standard practice.
8. Splint joint injuries in position found.
9. Splint fractures in position found.
10. Cover all open fractures with sterile dressings.
11. Assess distal pulse, motor, and sensory functions before and after splinting.

Head/Spinal Injury

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. Consider using BVM if respirations are less than 8 or greater than 32.
5. Complete Patient Assessment.
6. Reassure and calm the patient.
7. Be prepared to suction.
8. Determine presence of life threatening injuries involving the head, chest and abdomen.
9. Control hemorrhage.

Notes:

Continuous observation of the patient is essential when treating the neurological trauma patient. Early recognition of subtle changes in the neurologic status or vital signs may indicate the need for additional intervention.



Multi System Trauma

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. Consider using BVM if respirations are less than 8 or greater than 32.
5. Complete Patient Assessment.
6. Reassure and calm the patient.
7. Be prepared to suction .
8. Determine presence of life threatening injuries involving the head, chest and abdomen.
9. Control hemorrhage.
10. Immobilize fractures only if grossly angulated, involve pelvis or femur, or are open (compound fractures).

Burns

1. Stop the burning process and remove the patient from the source of injury.
2. Scene, Secure, Complete Initial Patient Assessment.
3. Establish and maintain airway.
4. Administer oxygen as clinically indicated.
5. Consider using BVM if respirations are less than 8 or greater than 32.
6. Complete Patient Assessment.
7. Reassure and calm the patient.
8. Determine presence of life threatening injuries involving the head, chest and abdomen.
9. Look for and attend to associated injuries.
10. Use "Rule of Nine's" or "Rule of Palms" to determine percent and depth of area burned.
11. If less than 10% BSA, cover burn areas with cool sterile saline dressing. Remove if patient begins to chill.
12. If greater than 10% BSA, use sterile dry dressing.
13. Cover patient with sterile burn sheet.



Respiratory Distress Tension & Spontaneous Pneumothorax

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. If the patient is unconscious, placement of an oral airway and ventilating the patient using a BVM device with supplemental oxygen at 15 LPM.
5. Complete Patient Assessment.
6. Look for the signs of a tension pneumothorax:
 - a. Unilateral diminished or absent breath sounds on the affected side.
 - b. The affected side is hyperresonant to percussion.
 - c. Shock.
 - d. Tracheal deviation, away from the side of injury: late sign.
 - e. Jugular Vein Distention.
 - f. Possible subcutaneous emphysema.
 - g. Dyspnea / tachypnea.
7. Place the patient in sitting position, if no indication of spinal injury.
8. Spinal immobilization of the patient, if indicated.
9. Reassure and calm the patient.
10. Treat other injuries as indicated.

Acute GI Hemorrhage

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.

Amputation

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.
5. Preserve amputated parts:
 - a. Irrigate part with Normal Saline or clean water to remove dirt and debris and wrap part in sterile dressing, preserving all amputated material.
 - b. Moisten with sterile saline.



Ocular Trauma

1. Scene, Secure, Complete Initial Patient Assessment.
2. Reassure and Calm the patient.
3. Treat other severe injuries as indicated.
4. Treat ocular injuries as indicated below.

PENETRATING TRAUMA: Penetrating foreign body, lacerated globe, or disrupted globe.

- a. Patch both eyes and treat ocular injuries as indicated below.
- b. Stabilize penetrating foreign bodies.

SUPERFICIAL EMBEDDED FOREIGN BODY:

- a. Patch both eyes.

SMALL NON-EMBEDDED FOREIGN BODY: Sand, sawdust, metal particles, dirt, etc.

- a. Irrigate with sterile water or normal saline .
- b. Repeat as needed.

LARGER, NON-EMBEDDED FOREIGN BODY: Eyelash, contact lens, wood or metal chips.

ULTRAVIOLET RADIATION BURNS: "Welder's" burn or from tanning booth.

- a. Patch affected eye(s).

CORNEAL ABRASIONS OR FOREIGN BODY SENSATION WITHOUT FOREIGN BODY.

- a. Patch affected eye(s).

CHEMICAL BURNS: Acid, alkali, solvents, gasoline, detergents, etc.

- a. Flush with NS or tap water for at least 5 minutes.

Drowning

1. Scene, Secure, Maintain C-Spine, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Suction as needed.
4. Reassure and calm the patient.
5. Treat injuries as indicated.

Notes:

1. Stabilize neck and spine prior to removal from water.
2. All cold water drowning shall be actively resuscitated unless obvious signs of death. (i.e. rigor mortis, severe lividity, etc.).



Crush Injury

1. Scene, Secure, Maintain C-Spine, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Reassure and calm the patient.
4. Determine presence of life threatening injuries involving the head, chest and abdomen.
5. Control hemorrhage with direct pressure.
6. Splint fractures in position found
7. Assess distal pulse, motor, and sensory functions before and after splinting.

Snake Bites

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Reassure and calm the patient, minimize activity of patient.
4. Splint limb and place in a dependent position below the level of the heart.
5. Assess distal pulse, motor, and sensory functions before and after splinting.

Chest Pain: Suspected Cardiac Ischemia

1. Scene Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Reassure and calm the patient.
4. Place patient in a semi-sitting position or position of comfort.
5. If the patient is having chest pain and the blood pressure is greater than 100 systolic, personnel may assist patient with prescribed Nitrostat 0.4 mg sublingual **ONCE**
6. Advise patient to take one plain 325 mg aspirin by mouth or advise the patient chew and swallow the tablet.
7. Contraindications to the use of Aspirin include:
 - a. Bleeding disorders.
 - b. Active gastric or peptic ulcer disease.
 - c. History of allergy to Aspirin.



Respiratory Distress: Acute CHF/Pulmonary Edema

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. If ventilations are less than 8 or greater than 32 consider assisting ventilations using BVM with supplemental oxygen.
5. Reassure and calm the patient.
6. Loosen any tight restrictive clothing.
7. Place patient in a semi-sitting position or position of comfort.
8. If patient is wheezing with moderate to severe dyspnea, may assist patient with unit dose of prescribed Albuterol by mask or hand held nebulizer **ONCE**
9. May assist patient with prescribed Nitroglycerin 0.4 mg SL, if systolic blood pressure greater than 100 mm Hg. **ONCE**

Hypotensive - Cardiac Related

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Reassure and calm the patient.
4. Loosen any tight restrictive clothing.
5. Place patient in a semi-sitting position or position of comfort.
6. Treat for shock with consideration for patient position of comfort.

Hypertension

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.
5. Loosen any tight restrictive clothing.
6. Place patient in a semi-sitting position or position of comfort.
7. If patient has Chest Pain or Pulmonary Edema, may assist patient with prescribed Nitrostat SL 0.4 mg **ONCE**



Cerebrovascular Accident (CVA)

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.
5. Loosen any tight restrictive clothing.
6. Place patient in a semi-sitting position or position of comfort.
7. Suction patient as needed.
8. Continually monitor blood pressure.

Dehydration

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Determine severity of dehydration.
5. Reassure and calm the patient.

Respiratory Distress

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. If ventilations are less than 8 or greater than 32 consider assisting ventilations using BVM with supplemental oxygen.
5. Perform auscultation of lungs.
6. Place the patient in sitting position.
7. Reassure and calm the patient.
8. If patient is wheezing with moderate to severe dyspnea, may assist patient with prescribed unit dose of Albuterol by mask or hand held nebulizer at 8 LPM. **ONCE**



Asthma

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. If ventilations are less than 8 or greater than 32 consider assisting ventilations using BVM with supplemental oxygen.
5. Perform auscultation of lungs.
6. Place the patient in sitting position.
7. Reassure and calm the patient.
8. May assist patient with prescribed unit dose of Albuterol by mask or hand held nebulizer 8 LPM

Allergic Reaction

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen as clinically indicated.
4. If ventilations are less than 8 or greater than 32 consider assisting ventilations using BVM with supplemental oxygen.
5. Perform auscultation of lungs.
6. Place the patient in sitting position.
7. With hives or a localized reaction:
Monitor patient closely for deterioration.
8. With localized reaction and dyspnea:
May assist patient with prescribed EpiPen.

Seizures

1. Scene, Secure, Maintain C-Spine, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Determine type and duration of seizure.
4. Protect patient from injury to self and others.
5. Complete Patient Assessment.
6. Reassure and calm the patient.



Diabetic Emergency

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.

Unconscious/Altered Mental Status

1. Scene, Secure, Maintain C-Spine, Complete Initial Patient Assessment.
2. Control and maintain airway.
3. Administer oxygen as clinically indicated.
4. Complete Patient Assessment.
5. Reassure and calm the patient.

Substance Abuse or Overdose

1. Scene, Secure, Complete Initial Patient Assessment.
2. Control and maintain airway.
3. Administer oxygen as clinically indicated.
4. Complete Patient Assessment.
5. Reassure and calm the patient.

Poisoning

1. Scene, Secure, Protect rescuer from contamination.
2. Remove patient from continued exposure.
3. Complete Initial Patient Assessment.
4. Control and maintain airway.
5. Administer oxygen as clinically indicated.
6. Complete Patient Assessment.
7. Reassure and calm the patient.
8. Determine agent involved in poisoning.

Notes:

1. If the poison agent is unknown, attempt to collect the agent in an appropriate container and place with the patient for transport to the hospital for analysis, if it can be done safely.



Hyperthermic Emergency

1. Scene, Secure, Complete Initial Patient Assessment.
2. Control and maintain airway.
3. Administer oxygen as clinically indicated.
4. Complete Patient Assessment.
5. Reassure and calm the patient.
6. If patient is exhibiting signs of altered level of consciousness, cool patient. Apply ice or cold packs to groin, axilla, wrists and neck.

Hypothermic Emergency

CRITERIA:

1. Oral or rectal Temperature 90 degrees (32 degrees C) or less. If equipment available.
 2. Altered mental status.
 3. Uncoordinated physical activities and no shivering.
-
1. Scene, Secure, Maintain C-Spine, Complete Initial Patient Assessment.
 2. Control and maintain airway.
 3. Administer oxygen as clinically indicated.
 4. If ventilations are less than 8 or over 32 consider assisting ventilations using BVM with supplemental oxygen.
 5. Complete Patient Assessment.
 6. Reassure and calm the patient.
 7. External warming.

Notes:

1. Limit secondary survey to what is necessary in assessing injuries or complaint. Avoid vigorous handling of the patient as this could promote cardiac arrhythmias in the hypothermic patient.

General Illness

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.



Abdominal Pain

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.

Obstetrical Emergencies

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Reassure and calm the patient.
5. Obtain obstetrical history including:
 - a. Patients age
 - b. Due date
 - c. Prenatal care
 - d. Number of prior pregnancies.
 - e. Problems with past pregnancies
 - f. Presence, length and timing of contractions
 - g. Has "Water broken" - Note color of fluid
 - h. Felt the need to push?
6. Determine presence of complications. Respecting the patient's privacy as much as possible, examine perineum for:
 - a. Vaginal bleeding or fluid
 - b. Abnormal presentation
 - c. Crowning
 - d. Prolapsed cord
7. If delivery is not imminent or no complications are present, position mother on left side.

Vaginal Hemorrhage

1. Scene, Secure, Complete Initial Patient Assessment.
2. Administer oxygen as clinically indicated.
3. Complete Patient Assessment.
4. Determine the severity of hemorrhage, pain associated with the bleeding, passage of clots or tissue and vital signs.
5. Reassure and calm the patient.
6. Apply bulky dressing over perineum.



Post Delivery Care of Newborn

1. Scene, Secure, Complete Initial Patient Assessment.
2. Establish and maintain airway.
3. Administer oxygen via “blow-by”.
4. Complete Patient Assessment.
5. Reassure and calm the patient.
6. Suction and dry the patient.
7. APGAR at 1 and 5 minutes post birth.
8. Wrap in a clean, warm towel.