CONWAY COUNTY FIRE DEPARTMENT
MEDICAL PROTOCOL

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GENERAL RULES FOR FOLLOWING PROTOCOL

1. These protocols are designed to outline minimal patient treatment procedures. They have been developed to provide guidelines for initiating emergency patient care.

2. EMS personnel are defined as any member of the Conway County Fire Department who holds a Certificate of completion of an approved medical first responder training course or higher certification and is in good standing with the Conway County Fire Dept and/or the State of Arkansas Health Department and has a current CPR certification

3. The purpose of these protocols is to allow approved EMS personnel to perform patient care under **Standing Orders**. All treatments listed in this document are designated as Standing Orders while being utilized according to the guidelines in the Geographical Area/Duty Status statement. Medical Control authorization is not required to perform any treatments listed in this protocol.

4. Fire chief _____ date 2/27/25

5. Medical Director _____ date 2/27/25

Geographical Area / Duty Status	1.02

Geographical Area:

These orders are designed for members of Conway County Fire Department to use while in the fire district of the Conway County Fire Department only. If a member of Conway County Fire Department is asked to ride in with the transport ambulance to a receiving hospital, they can follow these protocols and the direction of the paramedic on ambulance crew in charge of patient care up to, but not exceed their current Arkansas State Licensure Scope of Practice.

Protocol Deviation/Error 1.03

Protocol Deviation

If the attending EMS personnel deviate from protocol or are unable to perform care as outlined in the specific protocol, documentation should be done in the EMS report.

The documentation shall include:

1. Description of the deviation.
2. Reason for the deviation and/or inability to perform the care.
3. Outcome and effect on the patient.

Errors

In the event an error in patient care occurs, written documentation should be immediately filed through the appropriate chain of command to the individual's Station Chief. The documentation should then be forwarded to the County Fire Chief and/or Administrative Fire Board.

The documentation shall include:

1. Incident number.
2. Patient's name.
3. Personnel involved.
4. Description of the error.
5. Reason for the error.
6. The outcome and effects on the patient.

The documentation will then be forwarded to the Medical Director.

Consent for Treatment 1.04

Informed, legal consent to treatment and/or transportation must be obtained by EMS personnel.

1. For the purpose of this protocol consent, an adult patient is defined as any patient at least 18 years of age.

2. All adult patients who are in possession of their mental faculties (conscious, alert and oriented to person, place and date) must give EMS personnel permission for treatment and transportation (verbal consent is sufficient).

3. Adult patients who are unconscious may be treated under implied consent.

4. Minor patients are unable to give consent except as outlined in Section 6, below. Every effort should be made to obtain legal consent for the treatment of minors from their parent or legal guardian.

    a. Minor patients may be treated under implied consent in circumstances which present serious medical conditions, life threats, or have the potential for permanent disability.

    b. In situations which involve minors not having a life-threatening injury, every reasonable effort to contact the minor's parent or legal guardian should be made to receive consent to treat.

5. If a parent cannot be contacted within a reasonable amount of time, the following individuals may give consent, in this order:

    a. An adult temporary guardian who is present with the child (i.e. babysitter)

    b. A grandparent.

    c. An adult brother or sister.

    d. An adult aunt or uncle.

6. The parent or guardian may leave written authorization for consent to treatment with an educational institution or day care center in which the minor is enrolled. The parent or guardian may also leave written authorization for consent to treatment with an individual.
7. Exceptions may include:

    1) The minor is on active duty with the Armed Services of the USA.

    2) Is 16 years of age or older and resides separate and apart from their parents or guardians (regardless of the duration of such residence) and is managing their own financial affairs (regardless of source of income).

    3) Is unmarried and pregnant and consents to hospital, medical or surgical treatment related to the pregnancy.

    4) If the consent to examination and treatment is for drug addiction, dependency or other condition directly related to drug use.

    5) Consent is to the diagnosis and treatment of an infectious, contagious or communicable disease, which is required by law or regulation to be reported by the licensed physician to a local health officer.

    6) Is unmarried, is the parent of a child, and has actual custody of his or her child and consents to medical, dental, psychological, or surgical treatment for the child.

Patient Refusal	1.05

Any adult patient who may give consent for treatment under Protocol 1.04: Consent for Treatment and who is in possession of his/her mental faculties (conscious, alert and oriented to person, place and date) may refuse treatment and/or transport for him/herself or his/her minor child.

If a patient desires to refuse treatment against medical advice, first responders should document the transfer care to the agency which would be transporting the patient for completion of a "Patient Refusal - Against Medical Advice" per that agency's protocols/standards. Documentation on Conway County Fire Department report by the first responder medical should indicate to which agency patient care was transferred.

If transporting agency for Conway County is not on scene and Conway County Fire Department personnel deem pt to be of sound mental capacity they may at there discretion if they are certified EMR trained or higher perform Pt Refusal Forms and attach to EPCR.

(ANY REFUSAL PERFORMED BY CCFD PERSONNEL SHOULD ONLY BE CONDUCTED WHEN TRANSPORTING EMS AGENCY HAS YET TO MAKE SCENE-ONCE EMS AGENCY IS ON SCENE CARE IS TURNED OVER TO TRANSPORTING EMS AGENCY)

Helicopter Activation 1.06

SEVERITY INDEX:

- ❑ Trauma Score - 10 or less
- ❑ Glasgow Coma Scale – 10 or less
- ❑ Shock Index – 0.9 or greater

MECHANISM OF INJURY:

- ❑ MVA w/the following:
  - >20 min. extrication time
  - Intrusion of patient compartment >1 foot
  - Fatality in same vehicle
  - Ejection from vehicle
  - Pedestrian vs. vehicle
  - Bicycle/motorcycle/ATV accident
- ❑ Falls 15 ft. or > (adults)
- ❑ Falls 10 ft. or > (peds)

ASSESSMENT:

- ❑ Amputation
- ❑ Acutely ill medical patients
- ❑ Head or Chest trauma
- ❑ Critical burns
- ❑ Fracture of 2 or more long bones
- ❑ Spinal cord injury
- ❑ Multi-system trauma
- ❑ To calculate Shock Index provider must take HR and divide by systolic blood pressure (0.5-0.7 normal)

ANY MEMBER OF CCFD MAY ACTIVATE A HELICOPTOR PRIOR TO TRANSPORT EMS AGENCY ARRIVAL BASED ON THESE CRITERIA, BUT HELICOPTOR CANCELATION MAY ONLY BE PERFORMED BY TRANSPORTING AGENCY ONCE THEY HAVE ARRIVED ON SCENE UNLESS OTHER EXTENUTATING KNOWLEDGE IS RELAYED BETWEEN ON SCENE PERSONNEL AND AGENCY.

Treatment/No Transport	1.07

In some cases, it is acceptable for first responders to administer treatment when the patient will not be transported EXCEPT IN CASES WHERE PT REQUIRES INCREASE OR NEW ONSET OF SUPPLEMENTAL OXYGENATION.

In these cases, the first responders should:

1. Perform care as outlined by protocol
2. Complete a patient care report, documenting the treatments performed
3. Explain the necessity of seeking further medical help.
4. Have a signed Release of Liability with Refusal to Transport attached to EPCR.

IMPLEMENTATION PROTOCOL
Revision Effective July 2005
By the Arkansas State Board of Health

DEFINITIONS

The following words and terms, when used in these regulations, shall have the following meaning unless the context clearly indicates otherwise:

"Attending Physician" means the physician who has the primary responsibility for the treatment and care of the patient.

"Cardiac Arrest" means the cessation of a functional heart.

"Cardiopulmonary Resuscitation" means medical procedures including cardiac compression, endotracheal intubation and other advanced airway management, artificial ventilation, defibrillation, administration of cardiac resuscitation medications, and related procedures.

"Emergency Medical Services (EMS)" means the transportation and medical care provided the ill or injured prior to arrival at a medical facility by a certified emergency medical technician (EMT) or other healthcare provider and continuation of the initial emergency care within a medical facility subject to the approval of the medical staff and governing board of that facility.

"Emergency Medical Services Do Not Resuscitate Order ("EMS/DNR Order") means a written physician's order in a form consistent with Section 2.1 of the Arkansas State Board of Health Office of Emergency Medical Services and Trauma Systems Do Not Resuscitate Rules and Regulations for Emergency Medical Services, which authorizes emergency medical services personnel to withhold or withdraw cardiopulmonary resuscitation from a particular patient in the event of cardiac or respiratory arrest.

"Emergency Medical Services Personnel" ("EMS Personnel") means paid or volunteer firefighters, law enforcement officers, first responders, emergency medical technicians, or other emergency personnel acting within the ordinary course of their professions.

"Emergency Medical Services Do Not Resuscitate ("EMS/DNR") Order Implementation Protocol" means a set of instructions developed by the emergency medical service provider to respond to emergency medical needs and approved by the Medical Director of the Emergency Medical Services provider.

"EMS/DNR Order Form" means a document as approved by the Board, or one created or used by a physician that is consistent with these regulations.

Health Care Proxy" is a person eighteen (18) years old or older appointed by the patient as attorney-in-fact to make health care decisions including the withholding or withdrawal of life-sustaining treatment If a qualified patient, In the opinion of the attending physician, Is permanently unconscious, incompetent, of otherwise mentally or physically incapable of communication, as specified in AR Statutes 20-17-201(10).

"No Code or DNR" means an instruction or order to withhold cardiopulmonary resuscitation (cardiac compression, endotracheal intubation and other advanced airway management, artificial ventilation, defibrillation, administration of cardiac resuscitation medications, and related procedures) from the patient in the event of the patient's cardiac or respiratory arrest.

"Respiratory Arrest" means cessation of breathing.

PROTOCOL

The EMS/DNR Order form approved by the Arkansas Department of Health & Human Services executed properly allows emergency medical personnel to withhold or withdraw cardiopulmonary resuscitation from a particular patient in the event of cardiac or respiratory arrest.

1. The form must be:
   A document as approved by the Arkansas Board of Health or one created or used by a physician that is consistent with the current Arkansas EMS DNR Rules and Regulations. The following requirements and provisions shall apply to any EMS Order Form:

   - Content of the Form- A valid EMS/DNR Order Form shall include the words "DNR" or "No Code," or similar language, the physician's signature and the date.
   - Copies of the EMS/DNR Order Form may be given to other providers or persons for information.
   - Revocation of an EMS/DNR Order- An EMS/DNR Order may be revoked at any time or in any manner by the named patient or patient's attending physician or health care proxy.
   - Distribution of EMS/DNR Order Forms- EMS/DNR Forms shall be available to physicians through local Health Department offices, local hospitals, ambulance services, and to private physicians, on request.

2. Emergency personnel should look for this form in following places (but not limited to):
   - The back of the door to the patient's bedroom
   - The nightstand by the patient's bed
   - The door of the refrigerator
   - The patient's wallet

3. In the event of cardiac or respiratory arrest of a patient without a valid EMS/DNR Order, follow the appropriate medical procedures.

4. In order to provide comfort care or alleviate pain for a patient with a valid EMS/DNR Order, the following interventions may be provided, depending on the needs of the particular patient: Airway management (excluding intubation, advanced airway management or artificial ventilation).

    - Suction
    - Oxygen
    - Pain medication
    - Control bleeding
    - Make patient comfortable
    - Be supportive of the family

5. The patient, attending physician, or the healthcare proxy may revoke the EMS/DNR Order at any time.

6. Document the presence of the EMS/DNR Order on the patient care report and include a copy with the patient care report.

7. If there is a misunderstanding with family members or others present at the scene or if there are other concerns about following the EMS/DNR Orders contact the attending physician or medical control for guidance.

8. If there is any question about the validity of the EMS/DNR Order, **Resuscitate**.

9. There are many forms of Advanced Directives. For any type other than the EMS/DNR Order, the paramedic should contact the patient's attending physician or medical control for guidance.

Death on Scene (DOS) 1.09

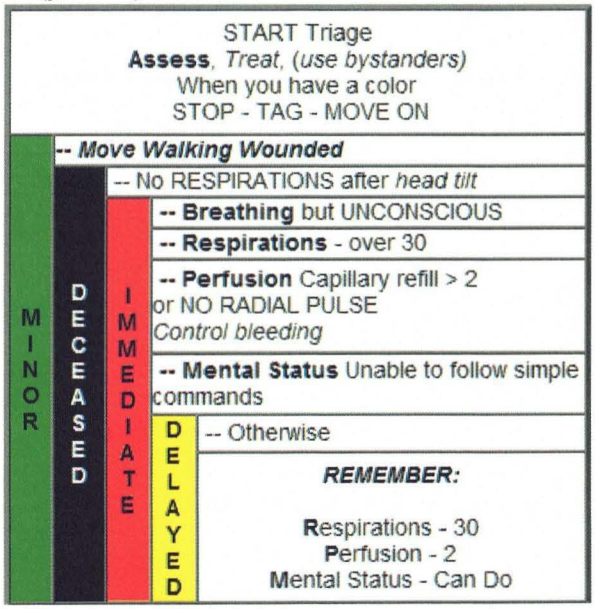
In the case of a clinically dead patient, it is the responsibility of the on-scene EMS personnel to determine whether resuscitative efforts should be started. That determination should be based on the extent of the injury and the length of down time.

1. Definition of clinical death (DOS).
   a. Visible head or chest trauma clearly incompatible with life.
   b. Decapitation.
   c. Rigor mortis.
   d. Dependent lividity.
   e. Decomposition.
   g. Absence of breathing and pulse in a mass casualty incident.
2. Body should not be disturbed or moved without authorization by appropriate agency.
3. Contact dispatch and request law enforcement as soon as possible.
4. The EMS personnel are required to document the absence of vital signs and any evidence of death.
5. If possible, document patient history.
6. Limit the number of personnel in the area until the scene is released to law enforcement.
7. At least one medical person should remain on the scene to relay pertinent information to law enforcement.

Triage Protocol 1.10

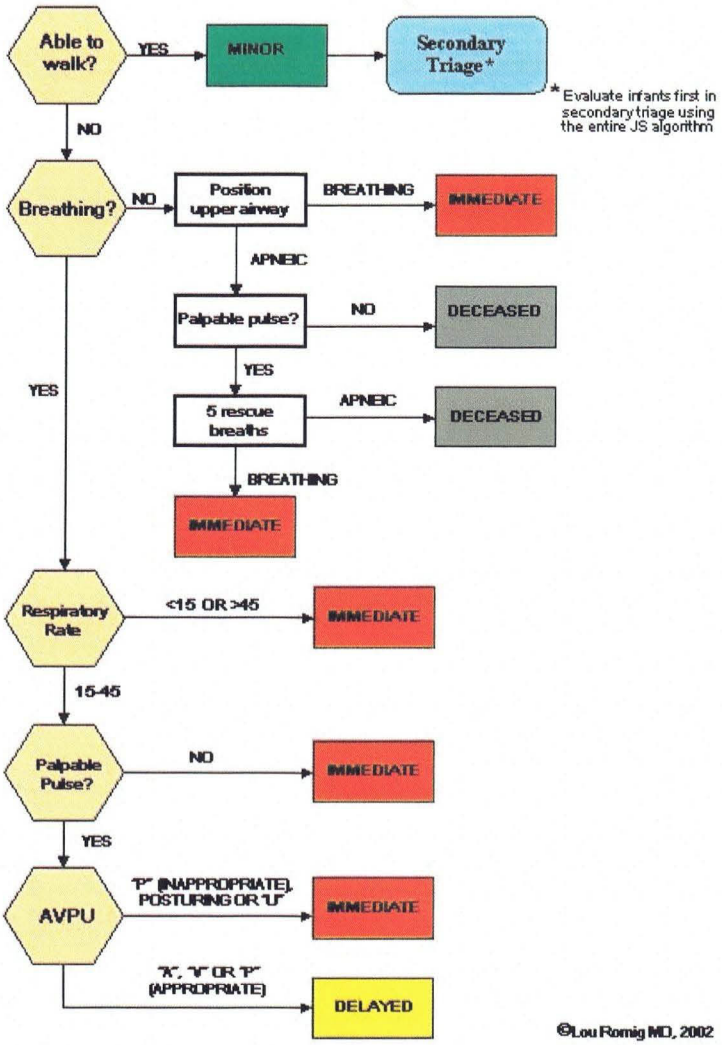
START TRIAGE SYSTEM

- Walking wounded **(green)**
- Respiratory efforts
  - None - **Dead/Nonsalvageable (black)**
  - >30 - **Critical/Immediate (red)**
  - < 30 - **Delayed (yellow)**
- Perfusion
  - No radial pulse - **Critical/Immediate (red)**
  - Pulse present - **Delayed (yellow)**
- Neurological
  - Unconscious - **Critical/Immediate (red)**
  - Altered LOC - **Critical/Immediate (red)**
  - Altered mental processes - **Critical/Immediate (red)**
  - Normal mental processes - **Delayed (yellow)**



Pediatric Triage 1.10

JumpSTART Pediatric MCI Triage®



Non-Credentialed Personnel 1.11

Personnel who are not credentialed under these protocols may be used for assistance with the following guidelines:

1. Conway County Fire Department personnel who are not EMR AND/OR FIRST RESPONDER or higher certification may respond to assist the ambulance crew as manpower for performing CPR, lifting patients, moving patients, and assisting with supplies. Whenever possible, non-certified personnel shall not be the first to arrive on a scene.

2. Any individual on scene identifying him/herself as medically trained who is not personally known to the provider to be medically certified may be utilized to assist with limited patient care as reasonably necessary given scene conditions at the discretion and under the direction of credentialed providers operating under this protocol.

AED Use 2.01

An Automated External Defibrillator (AED) delivers a predetermined energy setting with a pre-determined biphasic shock. To ensure that the electrical therapy (shock) delivered by the AED is optimized, it is important to ensure that a minimum of 2 minutes (3 cycles of compressions/respirations) have been provided prior to defibrillating the patient.

Indications:

Pulseless, apneic patient >8 years of age or 55 lbs. (25kg) when utilizing the adult pads

Pulseless, apneic patient <8 years of age or <55lbs. (25kg) when utilizing the child/infant pads

Contraindications for shock:
Consciousness
Effective breathing
Presence of a pulse

Precautions:

The preferred placement of pediatric pads is the anterior-posterior placement (front and back) for children/Infants with small torsos. (Anterior electrode to the left of the sternum centered as close as possible to the point of maximum cardiac impulse, place the posterior electrode to the left of the spinal column directly behind the anterior electrode.

The adult placement is anterior-anterior, (right anterior chest and the other on the left lower chest wall, lead II configuration), as shown on the package and the pads which are placed on the patient.

Procedure:

1) Confirm airway, breathing and lack of circulation.
2) Attach pads appropriate for the patient (adult or pediatric)
3) Turn on AED by pressing the "ON" button.
4) Provide compressions for two minutes if EMS providers did not witness arrest. If witnessed arrest, proceed to next step WHILE performing compressions.
5) Connect therapy pads and allow the AED to analyze. Do not touch patient during analyze mode.
6) If a shock is indicated by the AED, verbalize "CLEAR" and ensure no one is touching the patient.
7) Press the "SHOCK" button to deliver a shock if indicated.
8) Continue to follow prompts as provided by the AED

Tourniquet Application 2.02

The ability of pre-hospital providers to rapidly stop life-threatening bleeding is one of the keys for survival of the trauma patient. In the event that a provider believes that bleeding is too severe to be controlled by conventional methods (direct pressure, limb elevation, pressure points), providers may utilize a commercially manufactured OR improvised tourniquet device to control bleeding.

If the provider deems it necessary to use a tourniquet, it is NOT necessary to utilize first-line methods to attempt to control hemorrhaging before utilizing a tourniquet.

In the case of an amputation with uncontrolled bleeding, a tourniquet should be applied immediately.

Guidelines:

Combat Application (CAT-T®) Tourniquet

1) Expose the extremity by removing clothing near the injury.
2) Position the device directly over exposed skin, over single-long bone proximal to the injury.
3) Route the self-adhering band around the extremity.
4) Pass the band through the outside slit of the buckle.
5) Pull the self-adhering band tight.
6) Twist the rod until bright red bleeding stops.
7) Check for a pulse distal to the extremity; if a pulse is present, continue to tighten the tourniquet until the pulse disappears.
8) Lock the rod in place with the clip.
9) Record the date/time of application and relay this information to the transporting EMS crew.

Improvised Tourniquet

1) Unwrap a triangle bandage, and roll it lengthwise.
2) Tie the bandage around the affected extremity with a half-hitch.
3) Place a long, thick rod or stick, or the cutting end of a pair of trauma shears on top of the knot; this is known as the "windlass".
4) Tie a second half-hitch on top of the windlass.
5) Twist the windlass until the bright red bleeding stops.
6) Check for a pulse distal to the extremity; if a pulse is present, continue to tighten the tourniquet until the pulse disappears.
7) Tape or tie the windlass in place such that it cannot be accidentally dislodged
8) Record the date/time of application and relay this information to the transporting EMS crew.

Oxygen Administration 2.03

INDICATIONS

- Hypoxia or respiratory distress from any cause.
- Acute chest pain in which Acute Coronary Syndrome.
- Shock (decreased oxygenation of tissues) from any cause.
- Major trauma.
- Carbon monoxide poisoning.

PRECAUTIONS AND SIDE EFFECTS

- If the patient is not breathing adequately, the EMSP must assist their ventilations. Provision of oxygen alone is not enough.
- A small percentage of patients with chronic lung disease, respirations are driven because their hypoxic drive. Administration of oxygen may abolish their respiratory drive. Do not withhold oxygen because of this possibility, however, be prepared to assist ventilations. Monitor oxygen saturation with a pulse oximeter and, if available, monitor ventilations using capnography. Use just enough oxygen to maintain pulse oximeter reading of >94%.
- Restlessness may be an important sign of hypoxia.
- Ensure we maintain Spo2 based on the pt baseline
    - (I.E. if COPD pt has standard of 90% and is currently at 89% only give enough to provide comfort and maintain normal level)

DEVICE	FLOW RATE L/min	% OXYGEN
Nasal cannula	1–6	25–45
Simple face mask	6–8	40–60
Partial Rebreather	8–11	50–75
Non Rebreather	10–15	90 –100

Spinal Motion Restriction 2.04

INDICATION:

- Provider judgement
- Shoulder injury and above
- Unable to recall events
- Intoxicated

TREATMENT:

- ☐ O2 as required by patient
- ☐ Hemorrhage control with direct pressure, as needed
- ☐ Monitor vital signs and neurological status
- ☐ Keep warm

SPECIAL CONSIDERATIONS:

- ☐ Significant spinal cord injury may cause neurogenic shock
- ☐ Be prepared to tilt the entire spine board on the side if patient vomits

Diagnostic Tests 3.01

All diagnostic tests listed below are assessment tools which may be used at the discretion of any provider when the equipment is available.

Blood Pressure Determination

Blood pressure determination should be the primary method of determining perfusion status for most patients. Patients on whom blood pressure is obtained should have at least one set of vital signs including the blood pressure documented during patient contact. Blood pressure should be checked following the administration of all medications. While blood pressure is an excellent tool to evaluate an adult patient's perfusion status, it is less useful in pediatric patients.

Pulse Oximetry

Pulse oximetry is an assessment tool to assess the patient's oxygenation before and after oxygen administration. It should not be used to replace good judgment or determine whether the patient requires oxygen. Regardless of the pulse oximetry reading obtained, oxygen should not be withheld from any patient presenting with signs or symptoms which indicate the need for oxygen, especially patients exhibiting cardiac or respiratory complications or altered mental status. Pulse oximetry readings can be altered by carbon monoxide poisoning, decreased blood pressure, cold extremities, and the inability of the sensor to take an accurate measurement such as when the patient is wearing fingernail polish.

Blood Glucose Determination

Blood glucose determination may be performed on any patient deemed necessary by the provider, with primary emphasis on patients with altered mental status, lightheadedness/dizziness/syncope and those suspected of suffering from hypo/hyperglycemia, seizures, or stroke.

Temperature Determination

Temperature may be obtained on any patient deemed necessary by the provider, with primary emphasis on patients suffering from environmental emergencies, elderly patients with altered mental status, and pediatric seizures. It is preferable to obtain an oral temperature by placing the tip of the thermometer under the patient's tongue, although an axillary temperature may be obtained by placing the tip of the thermometer in the patient's armpit with the patient's arms to his/her side. The method used to obtain the temperature should be documented regardless of which one is used.

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. Personnel safety

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

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 should include is a complete head to toe survey with emphasis on the body system affected by the Chief complaint.

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 Conway County 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 vital signs be obtained on all patients). Any seriously injured or ill patient shall have vital signs recorded at 5–10-minute intervals.

D. Assess SAMPLE History.

IV. Additional Assessment

A. Additional assessments which may be indicated by the patient's condition when equipment is available.

1. Pulse oximetry
2. Blood glucose determination
3. Temperature determination

Glasgow Coma Scale: Adult 3.03

Condition	*Variable*	*Score*
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	3.04

Revised Trauma Score: Adult		
Condition	*Variable*	*Score*
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 Scale: Pediatric 3.05

Glasgow Coma Score: Pediatric			
Condition	*Variable Age >1*	*Variable Age <1*	*Score*
Eye Opening	Spontaneous	Spontaneous	4
	To Voice	To Voice	3
	To Pain	To Pain	2
	No Response	No Response	1
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

Condition	*Age >5 years*	*Age 2 - 5 years*	*Age 0 - 23 months*	*Score*
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

Trauma Score: Pediatric & APGAR Score 3.06

Pediatric Trauma Score			
Assessment	*Score*		
	+ 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

Trauma Score: Pediatric & APGAR Score 3.06

APGAR Score			
Sign	**0**	**1**	**2**
Appearance	Blue, Pale	Body Pink, Extremities Blue	Completely Pink
Pulse Rate	Absent	Below 100	Above 100
Grimace	No Response	Grimaces	Cries
Activity	Limp	Some Flexion	Active Motion
Respiratory	Absent	Slow and Irregular	Strong Cry

Altered Mental Status 4.01

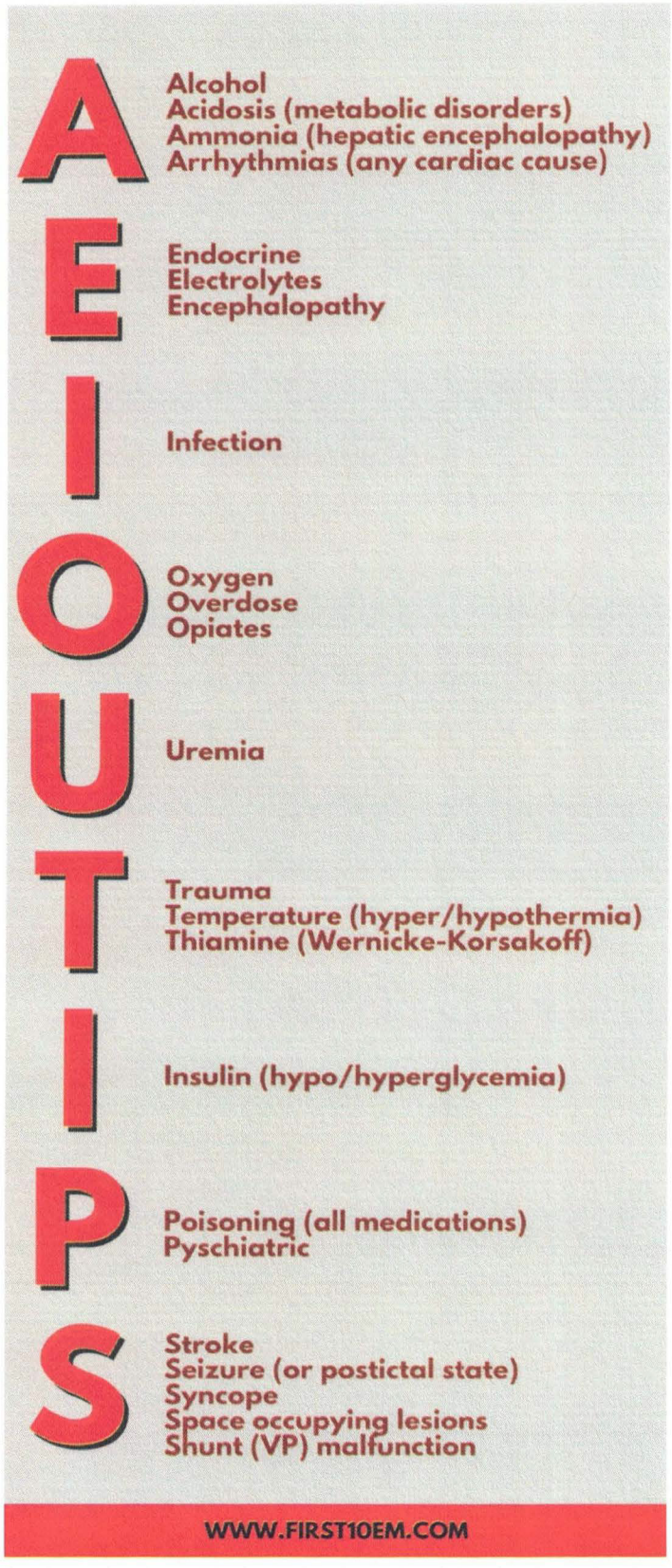
When possible, the provider should attempt to determine the reason for altered mental status. If a reason for the altered mental status can be identified which is covered by another protocol, refer to that protocol for more specific treatments.

Consider spinal immobilization

- Administer oxygen, if indicated
- Assess vital signs
- Blood glucose determination, if available
- If blood glucose <60 mg/dL, refer to **Diabetic Emergency** protocol.
- If patient cannot protect his/her own airway, ventilate with airway adjunct and BVM at a rate of 10-12 breaths per minute
- If patient cannot protect his/her own airway, and gag reflex is not present, consider Blind Insertion Airway Device and follow protocol for blind insertion airway device

ANY AMS PT, CONSIDER CAUSES FROM AEIOU TIPS.

A- ALCOHOL
E- EPILEPSY
I- INSULIN
O- OVERDOSE
U- UREMIA
T- TRAUMA
I- INFECTION
P- PSYCHOSIS
S- SEPSIS/SHOCK


A
Alcohol
Acidosis (metabolic disorders)
Ammonia (hepatic encephalopathy)
Arrhythmias (any cardiac cause)
E
Endocrine
Electrolytes
Encephalopathy
I
Infection
O
Oxygen
Overdose
Opiates
U
Uremia
T
Trauma
Temperature (hyper/hypothermia)
Thiamine (Wernicke-Korsakoff)
I
Insulin (hypo/hyperglycemia)
P
Poisoning (all medications)
Pyschiatric
S
Stroke
Seizure (or postictal state)
Syncope
Space occupying lesions
Shunt (VP) malfunction
WWW.FIRST10EM.COM

Allergic Reaction 4.02

The provider should attempt to determine the cause of the allergic reaction, if possible. If it is possible to remove the patient from the cause of the allergic reaction, the provider should attempt to do so. Common causes of allergic reactions include latex, peanuts, shellfish, and insect bites/stings.

General Care:

- Assess responsiveness, including ABC's
- Administer high-flow oxygen
- If patient's respirations are insufficient, assist ventilations with BVM at a rate of 10-12 breaths per minute
- Assess vital signs
- Place patient in position of comfort
- Pulse oximetry, if available

Cardiac Arrest 4.03

The survival rates of out-of-hospital cardiac arrest are very low. The patient's best chance of survival and returning to a normal life are centered on the performance of high-quality CPR and early defibrillation.

General Care:

- Assess responsiveness, with ABC's
- Initiate or continue CPR, with emphasis on chest compressions
- Place patient is on the ground, a backboard, or other hard surface
- If available, connect an AED and follow instructions of the AED
- Ventilate the patient with airway adjunct and BVM at a rate of 10-12 breaths per minute
- If available, utilize pulse oximetry to evaluate the effectiveness of CPR

Chest Pain 4.04

Providers treating patients experiencing chest pain should operate under the assumption that the patient is experiencing a cardiac event until proven otherwise.

General Care:

- Assess responsiveness, with ABC's
- Place pt in position of comfort
- Administer oxygen PRN to maintain at or above 94%
- Assess vital signs
- Pulse oximetry, if available

Diabetic Emergencies 4.05

Diabetic emergencies can be classified as hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar).
Either can be equally harmful, although in the short term, hypoglycemic patients are easier to identify and treat. The classic signs of low blood sugar include pale skin, sweating, and confusion/altered mental status.

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen, if indicated
- Assess vital signs, including blood glucose if available
- Place patient in position of comfort

Medications:

- If blood glucose is less than 60 mg/dL, **AND** the patient is conscious and able to follow commands, AND able to maintain his/her own airway the provider may administer 1 tube of **Oral Glucose** and then reassess vitals q 5 min.
- In the absence of **Oral Glucose**, the provider may give the patient small sips of juice.

Checking blood glucose and administering oral glucose is to be done only by approved members of CCFD that have been trained and signed off by Fire Chief, or a member of the department approved to sign members off, appointed by Fire Chief.

Environmental Emergencies	4.06

Environmental emergencies may present in either warm or cold weather, and extreme temperatures are NOT necessary to cause an environmental emergency.

When dealing with cold exposure, extended exposure to relatively mild temperatures may result in hypothermia, especially in the very young or very old.

When dealing with heat emergencies, high exertion in moderately warm temperatures with high humidity may result in a heat emergency. The key difference between heat exhaustion and heat stroke is that in heat exhaustion, sweating is still present and the patient has normal mental status, while heat stroke is defined as the presence of altered mental status. Heat stroke must be must be treated rapidly.

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen, if indicated
- Assess vital signs
- Place patient in position of comfort
- If cold exposure:
  - o Remove patient from cool environment/move to a warm environment if possible o If clothing is wet and replacement clothing or blankets are available, remove wet clothing o Cover the patient with blankets to ensure no additional heat is lost

- If heat exposure:
  - Remove patient from warm environment if possible
  - If altered mental status is **not** present, initiate **passive** cooling by removing clothing and cooling the patient with fans, cool mist and/or wet towels
  - If altered mental status is present, initiate **active** cooling by removing clothing, cooling the patient with fans, and applying ice packs to the groin, armpits, and neck

Patients with complaints which are not readily identifiable, or which do not fit under any other protocol may be treated under this protocol.

General Medical 4.07

General Care:

- Assess responsiveness, with ABC's
- Consider spinal precautions if indicated
- Administer oxygen if indicated
- Assess vital signs, including blood glucose if available
- Place patient in position of comfort
- Refer to appropriate protocol if other complaints or symptoms are identified

OB Emergencies	4.08

Any pregnant female with non-traumatic abdominal pain should be evaluated. The following pieces of information are important to obtain: Prenatal care, last menstrual period, due date, any recent illnesses or unusual events, prior pregnancies (if so, how many and if any complications), any sensation to push or move bowels, has water broken (if so, when), any contractions or other pains?

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen, if indicated
- Assess vital signs, including blood glucose if available
- Place patient in position of comfort

Emergency Childbirth

- Prepare mother for delivery by placing her supine with legs elevated and knees separated
- Carefully assist newborn from birth canal in its natural progression.
- Apply gentle pressure to the newborn's head to prevent delivery too rapidly and perineal trauma
- After the head emerges, suction the child's airway – mouth first, then nose
- Gently guide the head downward to assist the upper shoulder to deliver
- Gently guide the head upward to assist the lower shoulder to deliver
- Once newborn is delivered, hold the child at close to the same vertical level as the vagina, clamp the cord at 6" and 8" from the navel and cut the cord between the clamps.

Prolapsed Cord/Limb Presentation

- Do not attempt to push cord back in.
- Insert two gloved fingers into the vagina, raise the presenting part of the fetus off the cord and check for cord pulse.
- Push baby's head away to keep pressure off cord and maintain during transport.
- Place mother in knee-chest position.
- Keep pressure off the cord and keep cord moist with sterile saline.

Breach Birth

- Imminent delivery, assist mother in holding legs in flexed position. As infant delivers, support legs, but do not pull.
- Allow entire body to deliver in this manner. As the head passes the pubis, gentle upward traction until mouth appears over the perineum.
- If the head does not deliver, and spontaneous breathing begins, place a gloved hand in the vagina with the palm toward the infants face. Form a "V" on either side of the infant's nose pushing the vaginal wall away from the infants face.

Post-childbirth care

- Suction mouth first, then the nose.
- Note the time of delivery, dry and wrap the newborn to preserve body temperature.
- Perform an APGAR assessment at 1 and 5 minutes post delivery.
- If the placenta delivers, ensure it is transported to the hospital with the mother and newborn.

Vaginal bleeding

- Pre-delivery bleeding should be documented with the gestation time and the presence or absence of pain.
- Post-delivery bleeding should be controlled with uterine massage or encouraging the baby to breast feed.

APGAR Score

Sign	0	1	2
Appearance	Blue, Pale	Body Pink, Extremities Blue	Completely Pink
Pulse Rate	Absent	Below 100	Above 100
Grimace	No Response	Grimaces	Cries
Activity	Limp	Some Flexion	Active Motion
Respiratory	Absent	Slow and Irregular	Strong Cry

Overdose/Poisoning 4.09

Don't become a victim! Ensure the environment is safe prior to approaching the scene!

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen, if indicated
- If patient cannot protect his/her own airway:
  - Ventilate with airway adjunct and BVM at a rate of 10-12 breaths per minute
- Assess vital signs
- Place patient in position of comfort
- Refer to medication administration for Narcan administration if suspected Opioid Overdose

Specific care:

- If patient is contaminated with dry chemical, brush off
- If patient is contaminated with a liquid chemical, flush with copious amounts of water
- Consider contacting Poison Control (800-222-1222) for specific instructions
- Look for/bring any pill bottles or medications in the vicinity of the patient

Medication: Naloxone (Narcan)

- Administer 4mg intranasal – notify dispatch and responding ambulance of time of administration
- May repeat after 4 minutes
- Max dosage of 8mg
- **GOAL IS TO REVERSE RESPIRATORY DEPRESSION ONLY**
- **NO DISTRICT MAY CARRY NARCAN ON THEIR PERSON OR IN THEIR APPARATUS UNTIL ALL FIRST RESPONDERS IN THAT DISTRICT HAVE COMPLETED A NARCAN TRAINING COURSE APPROVED BY THE MEDICAL DIRECTOR.**

Respiratory Distress 4.10

All patients experiencing respiratory distress should receive supplemental oxygen as appropriate for the amount of distress.

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen prn to maintain pulse ox reading at or above 94%
- Assess vital signs
- Place patient in position of comfort
- Refer to appropriate protocol if other complaints or symptoms are identified
- If respiratory distress is due to an allergic reaction, refer to **Allergic Reaction** protocol
- If respiratory distress is due to suspected cardiac ischemia, refer to **Chest Pain** protocol

Seizures 4.11

All first-time seizures, or seizures associated with a fever must be evaluated by a physician. Active seizure witnessed by EMS and lasting 5 minutes, OR status epileptics (repetitive seizures without regaining consciousness) are considered a life-threatening emergency and should be treated as such.

Assessment of a seizure patient should include the presence of fever, a history of seizures, the duration of seizure, the activity during the seizure (localized or full body), more than one seizure, any medications being taken, recent trauma (particularly to the head), unusual recent stress.

The patient may be post-ictal and may be unresponsive or have disorientation and combativeness for a period of time after a seizure.

General Care:

- Assess responsiveness, with ABC's
- Administer high-flow oxygen
- Assess vital signs, including blood glucose if available o If blood glucose is less than 60 mg/dL, refer to **Diabetic Emergency** protocol
- Place patient in position of comfort
- Do not attempt to restrain the patient unless required for provider safety
- Remove objects from the immediate vicinity of the patient to prevent injury

"Shock" is defined as a reduced blood flow to the tissues of the body, and can be caused by a loss of blood or fluid, anaphylaxis, decreased cardiac output, sepsis, or a neurological disorder. Regardless of the cause, in the BLS pre-hospital environment, the treatment is the same.

Shock can often be identified by low blood pressure, cool/pale/clammy skin, and altered mental status.

Shock: Non-Trauma 4.12

General Care:

- Assess responsiveness, with ABC's
- Administer high-flow oxygen
- Assess vital signs, including blood glucose o If blood glucose is less than 60 mg/dL, refer to **Diabetic Emergency** protocol
- If systolic blood pressure is less than 90 and spinal injury is not suspected, place patient in supine with legs elevated up to 6 inches
- Prevent heat loss by covering the patient
- If evidence of anaphylaxis reaction is present, refer to **Allergic Reaction** protocol

Stroke/CVA 4.13

A stroke is caused by the lack of blood flow to a particular part of the brain and may be caused either by a clot in a blood vessel in the brain, or a blood vessel bleeding into the brain. Either case can be life-threatening, and should be identified as quickly as possible; the earlier a stroke is identified, the better chance the patient has of recovery.

Three of the most common signs of a stroke are facial droop, slurred speech, arm drift.

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen PRN TO MAINTAIN ABOVE 94%
- Assess vital signs, including blood glucose o If blood glucose is less than 60 mg/dL, refer to **Diabetic Emergency** protocol.
- Obtain last known well time
- If ground transport time is expected to exceed 45 minutes, consult with responding ambulance crew and consider air transport.

WHEN IT COMES TO STROKE,

BE FAST CALL 911

Any one of these sudden SIGNS could mean a STROKE

Balance

Watch for sudden loss of balance

Eyes

Check for vision loss

Face

Look for an uneven smile

Arm

Check if one arm is weak

Speech

Listen for slurred speech

Time

Call **911** right away

Learn all 10 SYMPTOMS OF STROKE @ overreact2stroke.com

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ADVANCING EMERGENCY CARE

EMS STRONG

Trauma: General Guidelines 4.14

Administer oxygen as appropriate for patient condition. In the case of a traumatic injury with major bleeding, high-flow oxygen is indicated, but it is not required for minor injuries without associated difficulty breathing.

Apply airway procedures as appropriate for patient condition. In patients with airway and/or breathing compromise, consider managing the airway with an appropriate airway adjunct and BVM. Maintaining circulation and airway are important to the success of patient management.

Spinal motion restriction should be evaluated using the **Spinal Motion Restriction** protocol. If the patient requires immobilization, the provider should provide this with a backboard and cervical collar along with webbing, tape, straps, or other mechanism for securing the patient. A complete patient assessment either focused or a "head to toe" should be performed on all patients as time and situation allows.

For critical patients with entrapment or in a situation where ground transport time is expected to exceed 45 minutes, consider air ambulance activation.

Uncontrolled external bleeding or amputation requires application of a tourniquet. Once applied, do not remove the tourniquet.

ANY PENTRATING TRAUMA TO, "THE BOX", OR CHEST CAVITY SHOULD BE RAPIDLY TREATED FOR CHEST SEAL. AND BREATH SOUNDS MONITORED FOR POSSIBLE PNEUMO/ TENSION-PNEUMO.

Evisceration are to be treated with moist sterile dressing and covered. AT NO POINT SHOULD YOU ATTEMPT TO PUT ANYTHING BACK INSIDE THE BODY. KEEP IT MOIST AND COVERED!

Burns	4.15

Early helicopter activation should be considered for all patients who experience a traumatic amputation or degloving injury to give the patient the best chance at re-attachment of the limb.

- Assess responsiveness, with ABC's
- Administer oxygen as necessary

Early helicopter activation should be considered for all patients with PARTIAL OR FULL THICKNESS burns which meet the following criteria:

- Hands, feet, face, or genitals
- Encircling the chest
- More than 20% of the body

General Care:

- Assess responsiveness, with ABC's
- Administer oxygen as necessary
- Assess vital signs
- Stop the burning process and remove the patient from the source of the injury, if safe to do so.

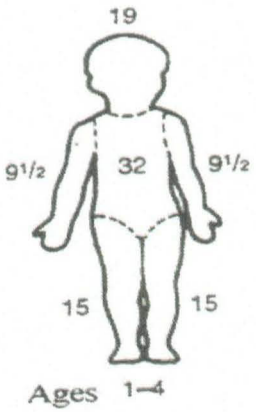
Remove any items that may cut off circulation with swelling. Do not remove items that have bonded with skin; cut from around these areas. Cover the patient to maintain body heat

Electrical burns:

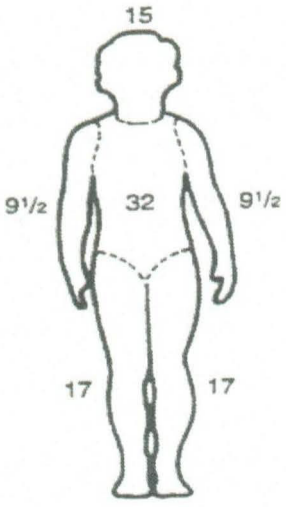
- Identify potential entry and exit wounds

Chemical burns:

- Brush off dry chemical and flush with copious amounts of water
- Flush other chemicals with copious amounts of water
- Eyes should be flushed for a minimum of 20 minutes.



Ages 1–4



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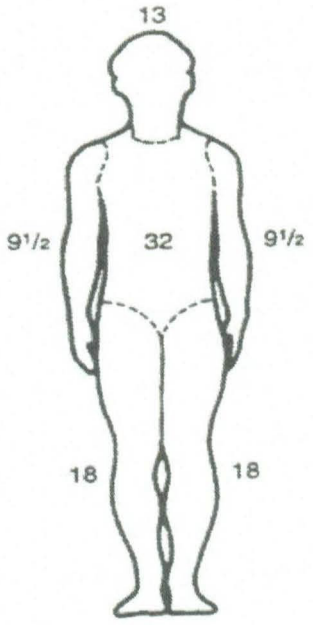

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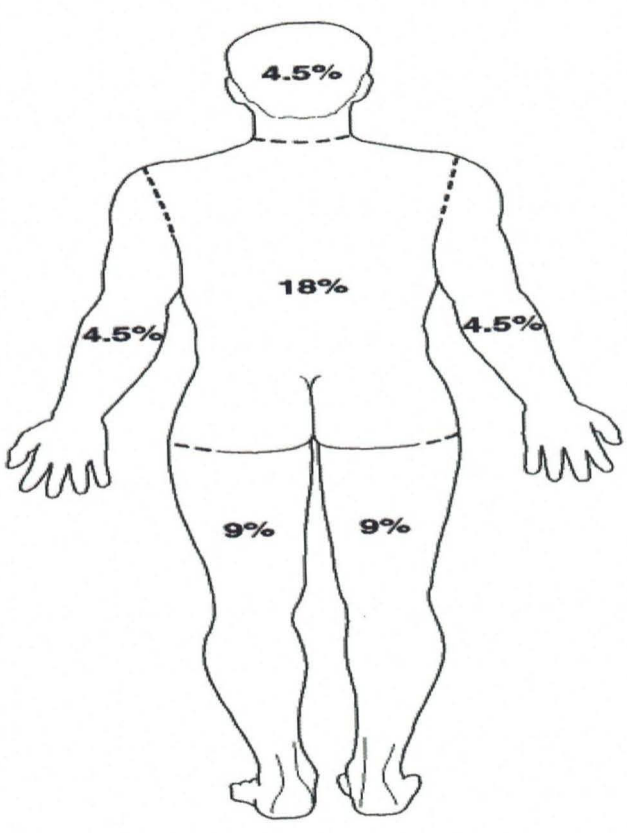

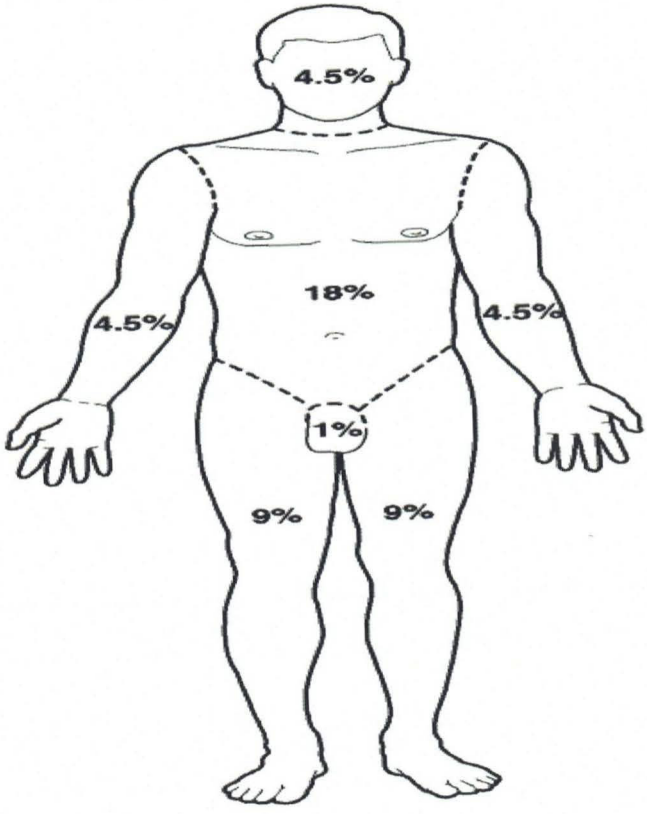

Eye Injuries 4.16

Any injury to the eye, other than burns, should be treated under this protocol.

General Care:

- Assess responsiveness, with ABC's
- Apply oxygen as necessary
- Assess vital signs
- Place patient in position of comfort

Specific Care:

- Open eye injury: cover both eyes
- Chemical burns: flush continuously with water or normal saline
- Impaled object: stabilize object in place and cover both eyes

Musculoskeletal Injuries 4.17

General Care:

- Assess responsiveness, with ABC's
- Apply oxygen as necessary
- Assess vital signs
- Place patient in position of comfort

Specific Care:

- Assess pulse, motor, and sensation distal to the injury
- Do not attempt to reduce dislocations
- Splint injured extremities in the position found or position of comfort
- An ice pack may be applied to reduce swelling

Submersion Injuries/Near Drowning 4.18

Drowning is defined as death secondary to submersion; near drowning is defined as a submersion accident with the recovery of vital signs and survival greater than 24 hours after the incident. Additional factors in drowning or near drowning patient are trauma secondary to surface impacts, spinal cord injuries, orthopedic and tissue injuries, etc. Survival is based on early access and aggressive management of these patients. Helicopter activation should be considered in near-drowning patients.

General Care:

- Assess responsiveness, with ABC's
- Initiate or continue CPR if indicated
- Administer OXYGEN PRN TO MAINTAIN 94%
- Ventilate the patient with airway adjunct and BVM at a rate of 12-15 breaths per minute if indicated
- If available, utilize pulse oximetry to evaluate the effectiveness of CPR