These protocols have been reviewed and endorsed by the Medical Program Directors and the Department of Health, Licensing and Certification Advisory Committee.

For questions or comments, contact:

Licensing and Certification Section
Office of Emergency Medical and Trauma Prevention
P.O. Box 47853
Olympia, Washington 98504-7853
(800) 458-5281 Extension 1 or (360) 705-6711

These First Responder Field Protocols are State Protocols that establish the standard for field performance. EMS County Medical Program Directors may NOT have protocols that vary from these without specific written approval from the Department of Health. Any deviation from these protocols must be identified to and approved in writing by the Department of Health.

THESE FIELD PROTOCOLS WERE DEVELOPED AND WRITTEN WITH THE ASSISTANCE OF THE FOLLOWING INDIVIDUALS:

WASHINGTON STATE EM/TP PROTOCOL WORK GROUP

Nina Conn    Patty Courson    Kenny Karnes    Dane Kessler    Richard Kness
Marc Muhr    Jim Palmer    Terry Patton    Jack Pinza    Lynn Wittwer, MD
Introduction

These protocols were developed by the Washington State Protocol Work Group and represent the consolidation of recommendations for emergency pre-hospital patient care from many local and national sources. The assessment information in the First Responder General Orders is intended to be considered with all protocols.

These protocols are intended to:

1. Provide a guide to the appropriate emergency medical care procedures to be employed by EMS personnel while working under the direction of the County Medical Program Director;

2. Assist in the standardization of pre-hospital care in Washington State;

3. Provide base hospital physicians and nurses with an understanding of what aspects of patient care have been stressed to EMS personnel and what their treatment capabilities may be;

4. Provide EMS personnel with a framework for pre-hospital care and an anticipation of supportive orders from Medical Control;

5. Provide the basic framework on which Medical Control can conduct quality improvement programs.

They are not intended to:

1. Be a statement of the standards of care required in any particular situation, but rather guidelines with sufficient flexibility to meet the needs of complex emergency medical or trauma situations;

2. Be a teaching manual for EMS personnel; it is assumed that EMS personnel are appropriately trained and that each person will continue to meet the state’s continuing education requirements for recertification. It is further assumed that the County Medical Program Director will provide continuing education based on the results of patient care audit and review;

3. Interfere with the wishes of the patient or family, or the wishes of the patient’s personal physician;

4. Dictate details of care to advising physicians;

5. Supersede pre-hospital patient care protocols developed and approved by the County Medical Program Director.
# TABLE OF CONTENTS

**FIRST RESPONDER GENERAL ORDERS**  
Page 7  

## AIRWAY, CIRCULATORY AND ILLNESS

- **ALTERED MENTAL STATUS** ................................................................. 10  
- **BEHAVIORAL EMERGENCIES** .......................................................... 11  
- **CARDIAC COMPROMISE** .................................................................. 12  
- **HEAT EXPOSURE** ........................................................................... 13  
- **HYPOTHERMIA** ................................................................................ 13  
- **LOCAL COLD** .................................................................................. 14  
- **RESPIRATORY EMERGENCIES** ......................................................... 15  
- **SEIZURES** ....................................................................................... 15

## INJURY

- **BLEEDING (EXTERNAL AND INTERNAL)** ............................................ 16  
- **BONE AND JOINT INJURY** ............................................................... 17  
- **BURN** ............................................................................................. 18  
- **HEAD INJURY** .................................................................................. 19  
- **SHOCK (HYPOPERFUSION)** ............................................................. 20  
- **SPECIFIC INJURIES** ........................................................................ 21  
- **SPINE INJURY** ................................................................................ 22

## CHILDBIRTH/CHILDREN/GERIATRICS

- **DELIVERY** .......................................................................................... 24  
- **INFANT AND CHILD ASSESSMENT** ..................................................... 26  
- **COMMON PROBLEMS IN INFANTS AND CHILDREN** ......................... 27  
- **GERIATRIC EMERGENCIES** ............................................................. 29  
- **PHYSICAL ABUSE AND NEGLECT** .................................................... 30

## APPENDIX

- **CHARTING** ......................................................................................... 34  
- **CORE BODY TEMPERATURE** ............................................................. 34  
- **DEAD ON ARRIVAL – Updated 9/05** .................................................. 35  
- **DO NOT RESUSCITATE (DNR) ORDERS – Added 9/05** ..................... 36  
- **HELMET REMOVAL** ......................................................................... 38  
- **OXYGEN DELIVERY** ......................................................................... 39  
- **PULSE, BLOOD PRESSURE, AND RESPIRATION - RANGES** .............. 40  
- **REPORTING ABUSE** ....................................................................... 41  
- **RULE OF NINES** ............................................................................. 44  
- **START TRIAGE** ................................................................................ 45  
- **TRAUMA TRIAGE PROCEDURES** ..................................................... 46  
- **MEDICAL ABBREVIATIONS** .............................................................. 48  
- **GLOSSARY** ...................................................................................... 49
FIRST RESPONDER GENERAL ORDERS

I. Complete the First Responder Assessment
   A. Scene size-up/assessment
      1. Body substance isolation per agency exposure control program
      2. Scene Safety
   B. Initial patient assessment
      1. Alert, responds to Verbal stimulus, responds to Painful stimulus, Unresponsive
      2. Airway - Breathing - Circulation (follow national standards for CPR, FBAO and AED)
         a) If DNR order, follow DNR protocol (see page 35)
      3. Consider ALS response and support as identified in the regional patient care plan
   C. First Responder physical exam
      1. Patient and injury specific
      2. Perform physical examination using DOTS
         a) Deformity, Open Injury, Tenderness, Swelling
      3. Protect the patient’s modesty
   D. History
      1. SAMPLE
         a) Signs and Symptoms, Allergies, Medications, Past pertinent medical history, Last oral intake, Events leading to Illness or Injury
   E. Ongoing assessment
      1. Repeat and record initial patient assessment, including time
      2. Reassess mental status
      3. Maintain open airway and monitor breathing for rate and quality
      4. Reassess pulse for rate and quality
      5. Monitor skin color and temperature
      6. Re-establish patient priorities
      7. Reassess and record vital signs, include time
      8. Repeat first responder physical exam pertaining to patient complaint or injuries
      9. Check interventions
      10. Comfort calm and reassure the patient

II. Communications
   A. Radio report to next level of care
      1. Identify EMS service
      2. Patient's age, sex, and primary complaint or problem
      3. Physical assessment findings including, vital signs and level of consciousness
      4. Pertinent history as needed to clarify problem (medications, illnesses, allergy, mechanism of injury)
      5. Treatment given and patient's response
      6. Estimated time of arrival
   B. Verbal and written report (see page 33)
      1. Verbal report to next level of care
      2. Written Report
   C. Consider critical incident stress debriefing as necessary

III. Transportation
   A. Arrange and assist with transportation as necessary
   B. Continue ongoing assessment and patient care

IV. Clean, Service and Restock Vehicle and Equipment
ALTERED MENTAL STATUS

I. General Orders (see page 5)

II. Signs and Symptoms
   A. Use AVPU Mnemonic To Determine Level Of Responsiveness
      1. Alert and oriented
      2. Responsiveness to verbal stimuli
      3. Responsiveness to painful stimuli
      4. Unresponsiveness
   B. Attempt To Determine Cause Of Altered Mental Status, If Possible, E.G., Overdose, Medical Condition By SAMPLE History Or Trauma Assessment
      1. Signs and symptoms
      2. Allergies
      3. Medications
      4. Pertinent past history
      5. Last oral intake
      6. Events leading to the injury or illness

III. Role of First Responder/Emergency Medical Care
   A. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. Do not leave unattended

IV. Pediatric Considerations
   A. Attempt to determine cause; i.e., hypoglycemia, poisoning, post seizure, infection, head trauma, hypoperfusion
   B. See above for emergency medical care
BEHAVIORAL EMERGENCY

CAUTION: Be alert, patient behavior may change rapidly and the scene may become unsafe.

I. General Orders (see page 5)
II. Causes, Signs and Symptoms
   A. Situational stresses, mind altering substances - alcohol and drugs, psychiatric problems, psychological crises, bizarre thinking and behavior, danger to self, danger to others

III. Role of First Responder/Emergency Medical Care
   A. Identify yourself and let the person know you are there to help
   B. Inform person of what you are doing
   C. Ask questions in a calm, reassuring voice
   D. Maintain a comfortable safe distance
   E. Encourage the patient to state what is troubling him/her
   F. Do not make quick moves
   G. Respond honestly to patient's questions
   H. Do not threaten, challenge, or argue with disturbed patients
   I. Tell the truth; Do not lie to the patient
   J. Do not "play along" with visual or auditory disturbances of the patient
   K. Involve trusted family members or friends
   L. Be prepared to stay at scene for a long time, always remain with the patient
   M. Avoid unnecessary physical contact, call additional help if needed
   N. Use good eye contact
   O. Restraining patients
      1. Restraint should be avoided unless patient is a danger to self and others
      2. When using restraints, have police present, if possible, and get approval from medical control and avoid unreasonable force
I. General Orders (see page 5)

II. Signs, and Symptoms
   A. Squeezing, dull pressure, chest pain often radiating down the arms or to the jaw
   B. Sudden onset of sweating (diaphoresis)(this in and of itself is a significant finding)
   C. Difficulty breathing (dyspnea), shortness of breath
   D. Anxiety, irritability
   E. Feeling of impending doom
   F. Abnormal pulse rate (may be irregular)
   G. Abnormal blood pressure
   H. Epigastric pain
   I. Nausea/vomiting
   J. Change in skin color

Note: It is possible to have heart failure with no chest pain.

III. Role of the First Responder/Emergency Medical Care
   A. Circulation - pulse absent
      1. CPR (follow national standards for CPR and AED)
         a) less than 12 years old or less than 90 lbs. - CPR
         b) DNR order, follow DNR protocol (see page 35)
      2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. Responsive patient with a known history - cardiac
      1. Place patient in position of comfort
      2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
      3. Assess O-P-Q-R-S-T
         a) Onset, Provocation, Quality, Radiation, Severity, Time

Note: Unresponsive patient with a pulse present, refer to the Altered Mental Status protocol (see page 5)
HEAT EXPOSURE

I. General Orders (see page 5)
II. Signs, and Symptoms
   A. Muscular cramps
   B. Weakness or exhaustion
   C. Dizziness or faintness
   D. Rapid heart rate
   E. Altered mental status (see page 5)
III. Role of the First Responder/Emergency Medical Care
   A. Cool patient by fanning, but may be ineffective in high humidity
   B. Place in recovery position

HYPOTHERMIA

I. General Orders (see page 5)
II. Signs, and Symptoms
   A. Obvious exposure
   B. Subtle exposure
      1. Underlying illness
      2. Overdose/poisoning/Alcohol/Drugs
      3. Ambient temperature decreased (e.g., cool home of elderly patient)
   C. Cool/cold skin temperature
   D. Shivering
   E. Decreasing mental status or motor function - correlates with the degree of hypothermia
      1. Poor coordination/Dizziness
      2. Memory disturbances/confusion
      3. Reduced or loss of touch sensation
      4. Mood changes
      5. Less communicative and speech difficult
   F. Stiff or rigid posture and muscular rigidity
   G. Poor judgment - patient may actually remove clothing
   H. Complaints of joint/muscle stiffness
III. Role of the First Responder/Emergency Medical Care
   A. Assess pulses for 30-45 seconds
      1. If no pulse, start CPR (follow national standards for CPR and AED)
   B. Remove the patient from the cold environment
   C. Protect the patient from further heat loss
      1. Cover the patient with a blanket
      2. Remove any wet clothing
      3. Protect the patient's modesty and ask bystanders to leave the area
   D. Handle the patient gently
   E. Do not allow the patients to walk or exert themselves
   F. Do not put anything in the patient's mouth, except as necessary to assure patency of airway
      1. Do not allow the patient to eat or drink stimulants or smoke
   G. Do not massage extremities
I. General Orders (see page 5)

II. Signs, and Symptoms

A. Early or superficial injury
   1. Blanching of the skin - palpation of the skin in which normal color does not return
   2. Loss of feeling and sensation in the injured area
   3. Skin remains soft
   4. If rewarmed, tingling sensation

B. Late or deep injury
   1. White, waxy skin
   2. Firm to frozen feeling upon palpation
   3. Swelling may be present
   4. Blisters may be present
   5. If thawed or partially thawed, the skin may appear flushed with areas of purple and blanching or may be mottled and cyanotic

III. Role of the First Responder/Emergency Medical Care

A. Remove the patient from the environment
B. Protect the cold - injured extremity from further injury
C. Remove wet or restrictive clothing and jewelry
D. If early or superficial injury
   1. Manually stabilize the extremity
   2. Cover the extremity
   3. Do not rub or massage
   4. Do not re-expose to the cold
E. If late or deep cold injury
   1. Cover with dry clothing or dressings
   2. Do not:
      a) Break blisters
      b) Rub or massage area
      c) Apply heat
      d) Rewarm
      e) Allow the patient to walk on the affected extremity
RESPIRATORY EMERGENCIES

I. General Orders (see page 5)

II. Signs, and Symptoms
   A. Anxious/restless
   B. Decreased breathing rate/Shortness of Breath (SOB) or increased breathing rate (gasping, grunting)
   C. Skin color changes (cyanotic, pale/clammy, redness/flushing)
   D. Abnormal airway noises (stridor, ineffective cough, wheezing, gurgling, snoring)
   E. Increased breathing effort (gasping, grunting)
   F. Inadequate chest wall motion
   G. Slow heart rate associated with slow respirations

III. Role of First Responder/Emergency Medical Care
   A. Patient c/o SOB/inadequate respirations
      1. Remove obstruction if any (see Airway Obstruction, page 31)
      2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment, (See Oxygen Delivery, page 36)
      3. Allow patient to achieve position of comfort (POC)
         a) Consider parent's lap for pediatric patient
   B. Pediatric Considerations
      1. Airway obstruction (see Airway Obstruction, page 31)
         a) Use infant/child foreign body airway procedures if complete obstruction
         b) If incomplete obstruction:
            (1) Do not agitate patient
            (2) allow patient position of comfort
         c) Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment, (see Oxygen Delivery, page 36)
         d) Allow patient to achieve position of comfort (parents lap prn, except during transport)

Note: Do not attempt to visualize oropharynx

SEIZURES

I. General Orders (see page 5)

II. Signs, and Symptoms
   Chronic medical conditions, fever, infections, poisoning including drugs and alcohol, low blood sugar, head injury, decreased levels of oxygen, brain tumors, complications of pregnancy, precardiac arrest, and unknown causes

Note: Support the patient; Do not worry about determining the cause of the seizure

III. Role of the First Responder/Emergency Medical Care
   A. Protect the patient from the environment
   B. Protect modesty - ask bystanders to leave the area
   C. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)
   D. After the seizure place patient in the recovery position if no possibility of spine trauma
   E. Never restrain the patient
   F. Do not put anything in the patient's mouth, except as necessary to assure patency of airway
   G. Have suction available, suction as necessary
   H. Describe the seizure activity to the next level of care

Note: Refer to pediatric seizures (see page 25)
EXTERNAL BLEEDING

I. General Orders (see page 5)

II. Signs, and Symptoms
    A. Arterial
        1. The blood spurts from the wound
        2. Bright, red, oxygen rich blood
    B. Venous
        1. The blood flows as a steady stream
        2. Dark, oxygen poor blood
    C. Capillary
        1. The blood oozes from a capillary and is dark red in color
        2. The bleeding often clots spontaneously

III. Role of the First Responder/Emergency Medical Care
    A. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)
    B. Control Bleeding
        1. Direct pressure
        2. Pressure point pressure
        3. Pressure dressing and bandage
        4. Elevate

INTERNAL BLEEDING

I. General Orders (see page 5)

II. Signs, and Symptoms
    A. Discolored, tender swollen or hard tissue
    B. Increased respiratory and pulse rates
    C. Pale, cool skin
    D. Nausea and vomiting
    E. Thirst
    F. Mental status changes

III. Role of the First Responder/Emergency Medical Care
    A. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)
    B. Manage external bleeding, if present
    C. Position of comfort
    D. Treat for shock (see Shock, page 17)
BONE OR JOINT INJURIES

I. General Orders (see page 5)

II. Signs, and Symptoms
   A. Deformity or angulation
   B. Pain and tenderness
   C. Grating
   D. Swelling
   E. Bruising (discoloration)
   F. Exposed bone ends
   G. Joint locked into position

III. Role of First Responder/Emergency Medical Care
   A. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. After life threats have been controlled, splint injuries in preparation for transport
   C. Application of cold pack to area of painful, swollen, deformed extremity to reduce swelling
   D. Elevate the extremity, after splinting
I. General Orders (see page 5)

II. Classification
A. Superficial involves only the outer layer of the skin
B. Partial thickness involves the outer and middle layer of the skin
C. Full thickness extends through all layers of the skin

III. Role of the First Responder/Emergency Medical Care
A. Stop the burning process initially with water or saline
B. Remove smoldering clothing and jewelry
   1. Be aware that some clothing may have melted to the skin
   2. If resistance is met when removing the clothing, it should be left in place
   3. Protect modesty - ask bystanders to leave the area
C. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36). Continuously monitor the airway for closure or difficulty breathing.
D. Cover the burned area with a dry sterile dressing
E. Do not use any type of ointment, lotion, or antiseptic
F. Do not break blisters
G. Monitor continuously for shock and treat as necessary (see Shock page)
H. Special Considerations
   1. Chemical burns
      a) Scene safety
      b) Gloves and eye protection
      c) Brush off dry powder
      d) Flush with copious amounts of water
      e) Consider eye burns if splash injury
   2. Electrical burns
      a) Scene safety
      b) Often more severe than external indications
      c) Monitor the patient closely for respiratory or cardiac arrest
   3. Infant and child considerations
      a) Greater surface area in relation to the total body size results in greater fluid and heat loss

Note: If patient needs to be transported, follow local burn center protocols as directed by medical control and regional patient care procedures.
HEAD INJURIES

I. General Orders (see page 5)

II. Signs and Symptoms
   A. Open injuries may present with bleeding
   B. Closed injury may present
      1. Swelling
      2. Depression of skull bones
      3. Increased brain pressure (see Altered Mental Status, page 7)
      4. Scalp may bleed excessively because of the large number of blood
         vessels in the scalp
   C. Injury to the brain - injury of brain tissue or bleeding inside the skull may
      increase pressure on the brain

III. Role of the First Responder/Emergency Medical Care
   A. Initial assessment with cervical and spinal immobilization should be done on
      scene with a complete detailed physical exam enroute
   B. Provide supplemental oxygen and/or ventilatory assistance as necessary, if
      not done during the Initial Patient Assessment (see Oxygen Delivery, page
      36)
   C. Closely monitor the airway, breathing, pulse, and mental status for
      deterioration
   D. Control bleeding (see External Bleeding, page 13)
      1. Do not apply pressure to an open or depressed skull injury
      2. Dress and bandage open wound as indicated in the treatment of soft
         tissue injuries
   E. If a medical injury or non-traumatic injury exist, place patient on the left side
SHOCK (HYPOPERFUSION)

I. General Orders (see page 5)

II. Signs, and Symptoms
   A. Extreme thirst
   B. Restlessness, anxiety
   C. Rapid, weak pulse
   D. Rapid, shallow respirations
   E. Mental status changes
   F. Pale, cool, moist skin

III. Role of the First Responder/Emergency Medical Care
   A. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. Prevent further blood loss
   C. Keep patient calm, in position of comfort
   D. Protect the patient from heat loss
      1. Remove wet clothing, if any
         a) Protect modesty - ask bystanders to leave the area
      2. Cover with blanket
   E. Do not give food or drink
   F. Provide care for specific injuries
   G. Elevate lower extremities if no possibility of spinal trauma
SPECIFIC TRAUMATIC INJURIES

I. General Orders (see page 5)

II. Types
   A. Abrasion
   B. Laceration
   C. Penetration/puncture

III. Role of the First Responder/Emergency Treatment
   A. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. Management of open soft tissue injuries
      1. Expose the wound
      2. Control the bleeding
      3. Prevent further contamination
      4. Apply sterile dressing to the wound and bandage securely in place
   C. Special Treatment Considerations
      1. Chest injuries -
         a) An occlusive dressing should be applied to open wounds and sealed on three sides
         b) Position of comfort if no spinal injury suspected
      2. Impaled objects
         a) Do not remove the impaled object unless it is through the cheek or it would interfere with airway management or chest compressions
         b) Manually secure the object
         c) Expose the wound area
         d) Control bleeding
         e) Utilize a bulky dressing to help stabilize the object
      3. Eviscerations
         a) Open injury with protruding organs
         b) Do not attempt to replace protruding organs
         c) Cover with thick moist dressing
      4. Amputations
         a) Involves the extremities and other body parts
         b) Massive bleeding may be present or bleeding may be limited
         c) Locate and preserve the amputated part
            (1) Wrap severed part in a dry sterile dressing
            (2) Place the part in a plastic bag
            (3) Keep cool
               (a) Place the plastic bag containing the part in a larger bag or container with ice and water
               (b) Do not use ice alone
               (c) Do not use dry ice

IV. Transport

Note: Refer to the trauma triage guidelines (see page 43)
SPINE INJURIES

I. General Orders (see page 5)

II. Signs, and Symptoms

**Note:** Ability to walk, move extremities or feel sensation; or lack of pain to spinal column does not rule out the possibility of spinal column or cord damage

A. Tenderness in the area of injury
B. Pain associated with moving
C. Tell the patient not to move while asking questions
D. Pain independent of movement or palpation
   1. Along spinal column
   2. Lower legs
   3. May be intermittent
E. Obvious deformity of the spine upon palpation
F. Soft tissue injuries associated with trauma
   1. Head and neck to cervical spine
   2. Shoulders, back or abdomen - thoracic, lumbar
   3. Lower extremities - lumbar, sacral
G. Numbness, weakness or tingling in the extremities
H. Loss of sensation or paralysis below the suspected level of injury
I. Loss of sensation or paralysis in the upper or lower extremities
J. Incontinence

III. Role of First Responder/Emergency Medical Care

A. Establish and maintain in-line immobilization
B. Perform initial assessment
   1. Assess pulse, motor and sensation in all extremities
   2. Assess the cervical region and neck
C. Apply a rigid cervical immobilization device
D. Immobilize the patient to a long spine board

IV. Transport

**Note:** Refer to the trauma triage guidelines (see page 43)
I. General Orders (see page 5)

II. If Crowning Is Present, Prepare For Delivery

III. First Responder Responsibilities/Emergency Medical Care
   A. Use body substance isolation
   B. **Do not** touch vaginal areas except during delivery and when your partner is present
   C. **Do not** let the mother go to bathroom
   D. **Do not** hold mother's legs together
   E. If the head is not the presenting part this may be a complicated delivery
      1. Tell the mother not to push
      2. Update responding EMS resources
      3. Calm and reassure the mother
   F. Delivery procedures
      1. Have mother lie on her back with knees drawn up and legs spread apart
      2. Place absorbent, clean materials (sheets, towels, etc.) under the patient's buttocks
      3. Elevate buttocks with blankets or pillow
      4. When the infant's head appears, place the palm of your hand on top of the delivering baby's head and exert very gentle pressure to prevent explosive delivery
      5. If the amniotic sac does not break or has not broken, tear it with your fingers and push it away from the infant's head and mouth
      6. As the infant's head is being born, determine if the umbilical cord is around the infant's neck
         a) Attempt to slip the cord over the baby's head
         b) If unsuccessful, attempt to alleviate pressure on the cord
      7. After the infant's head is born, support the head
      8. Suction the mouth and then the nostrils two or three times with the bulb syringe
         a) Use caution to avoid contact with the back of the baby's mouth
         b) If a bulb syringe is not available, wipe the baby's mouth and then the nose with gauze
      9. As the torso and full body are born, support the infant with both hands
     10. **Do not** pull on the infant
      11. As the feet are delivered, grasp the feet
          a) Keep the infant level with the vagina
          b) You may place the infant on the mothers abdomen for warmth
      12. When the umbilical cord stops pulsating, it should be tied with gauze between the mother and the newborn and the infant may be placed on the mother's abdomen
      13. Wipe blood and mucus from the baby's mouth and nose with sterile gauze; suction mouth, then the nose again
      14. Dry the infant
      15. Rub the baby's back or flick the soles of its feet to stimulate breathing
      16. Wrap the infant in a warm blanket and place the infant on its side, head slightly lower than trunk
      17. There is no need to cut the cord in a normal delivery. Keep the infant warm and wait for additional EMS resources who will have the proper equipment to clamp and cut the cord
     18. Record time of delivery
     19. If there is a chance of multiple births, prepare for second delivery
20. Observe for delivery of placenta. This may take up to 30 minutes.

21. If the placenta is delivered, wrap it in a towel with 3/4 of the umbilical cord and place in a plastic bag, and keep the bag at the level of the infant.

22. Place sterile pad over vaginal opening, lower mother's legs, help her hold them together.

23. Post delivery care of the mother:
   a) Keep contact with the mother throughout the process.
   b) Monitor respirations and pulse.
   c) Keep in mind that delivery is an exhausting procedure.
   d) Replace any blood soaked sheets and blankets while awaiting transport.

G. Vaginal bleeding following delivery:
   1. Up to 300 - 500 ml blood loss is well tolerated by the mother following delivery but with continued blood loss, massage the uterus:
      a) Use hand with your fingers fully extended.
      b) Place the palm of your hand on lower abdomen above the pubis.
      c) Massage (knead) over area.
   2. If bleeding continues, check massage technique.

IV. Initial Care Of The Newborn

A. Assessment of infant
B. Position, dry, keep warm, and stimulate the newborn to breathe.
C. Wrap newborn in blanket and cover its head.
D. Repeat suctioning if necessary.
E. Continue to stimulate newborn if not breathing:
   1. Flick soles of feet.
   2. Rub infant's back.
F. If newborn does not begin to breathe or continues to have breathing difficulty after one minute, the First Responder must consider the need for additional measures.
G. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36):
   1. Ventilate at a rate of 40 breaths per minute.
   2. Reassess after one minute. If heart rate is less than 80 beats per minute, a second rescuer should perform chest compressions.
ASSESSMENT OF INFANTS AND CHILDREN

I. General Orders (see page 5)

II. Assess ABC
   A. Airway - Do not hyperextend or hyperflex child’s neck
   B. Breathing - Check for obstructions
   C. Circulation - Check capillary refill

Note: Consider Possible Domestic Violence Or Abuse By Adults

III. Anatomical and Physiological Concerns
   A. Small airways are easily blocked by secretions and airway swelling
   B. Tongue is large relative to small mandible and can block airway in an unresponsive infant or child
   C. Positioning the airway is different in infants and children, Do not hyperextend the neck
   D. Infants are nose breathers, so suctioning a secretion-filled nasopharynx can improve breathing problems in an infant
   E. Children can compensate well for short periods of time for respiratory problems and shock
      1. Compensate by increasing breathing rate and increasing effort of breathing
      2. Compensation is followed rapidly by decompensation due to rapid respiratory muscle fatigue and general fatigue
   F. Risk of hypothermia; keep them warm
COMMON PROBLEMS IN INFANTS AND CHILDREN

PARTIAL AIRWAY OBSTRUCTION

I. General Orders (see page 5)

II. Signs, and Symptoms
   A. Infant or child who is alert and sitting
   B. Stridor (high pitched inspiratory sound), crowing, or noisy
   C. Retractions on inspiration
   D. Pink
   E. Good peripheral perfusion
   F. Still alert, not unresponsive

III. First Responder Responsibilities/Emergency medical care
   A. Allow position of comfort; assist younger child to sit up; Do not lay down, may sit on parent's lap
   B. Clear airway and Refer to Foreign Body Airway Obstruction Appendix (See Airway Obstruction, page 31)
   C. Do not agitate child

COMPLETE OBSTRUCTION

I. General Orders (see page 5)

II. Signs, and Symptoms
   A. No crying or speaking and cyanosis
   B. Child's cough becomes ineffective
   C. Increased respiratory difficulty accompanied by stridor (high pitched inspiratory sound)
   D. Patient loses responsiveness
   E. Altered mental status

III. First Responder Responsibilities/Emergency Medical Care
   A. Clear airway and Refer to Foreign Body Airway Obstruction Appendix (See Airway Obstruction, page 31)
   B. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)

RESPIRATORY EMERGENCIES

I. General Orders (see page 5)

II. Signs, and Symptoms of Respiratory Distress
   A. Precedes respiratory failure and is indicated by any of the following:
   B. Respiratory rate greater than 60 in infants (See Newborn, page 37)
   C. Respiratory rate greater than 30/40 in children
   D. Nasal flaring
   E. Intercostal retraction (between the ribs), supraclavicular (neck muscles), subcostal retractions (below the margin of the rib)
   F. Stridor (high pitched inspiratory sound)
   G. Cyanosis
   H. Altered mental status (combative, decreased mental status, unresponsive)
   I. Grunting

III. Causes, Signs, and Symptoms of Respiratory Failure/Arrest
   A. Breathing rate less than 10 per minute in a child
   B. Breathing rate of less than 20 per minute in an infant
   C. Limp muscle tone
   D. Unresponsive
   E. Slower, absent heart rate
F. Weak or absent distal pulses
G. Cyanosis and a slow heart rate

IV. Role of the First Responder/Emergency Medical Care
   A. Provide mouth-to-mask or barrier device ventilations
   B. Observe heart rate
   C. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)

CIRCULATORY FAILURE
I. General Orders (see page 5)
II. Signs, and Symptoms of circulatory failure
   A. Increased heart rate
   B. Unequal central and distal pulses
   C. Poor skin perfusion
   D. Mental status changes
   E. Role of the First Responder
   F. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)
   G. Observe for signs of cardiac arrest
   H. Begin CPR if not provided during Initial Patient Assessment (follow national standards for CPR). DNR order, follow DNR protocol (See page 35)

SEIZURES
Note: Seizures, including seizures caused by fever (febrile), should be considered potentially life-threatening.
I. General Orders (see page 5)
II. Role of the First Responder/Emergency Medical Care
   A. Protect the patient from the environment
   B. Ask bystanders (except parents) to leave the area
   C. Place patient in the recovery position if no possibility of spine trauma
   D. Never restrain the patient
   E. Do not put anything in the patient's mouth, except as necessary to assure patency of airway
   F. Have suction available, suction as necessary
   G. Report assessment findings to additional EMS responses
   H. Patients who are actively seizing, bluish, and breathing inadequately should be ventilated. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during the Initial Patient Assessment (see Oxygen Delivery, page 36)

Note: Seizures (see page 12)

ALTERED MENTAL STATUS
I. General Orders (see page 5)
II. Role of the First Responder/Emergency Medical Care
   A. Provide oxygen and ventilatory assistance as necessary, if not done during Initial Patient Assessment (see Oxygen Delivery, page 36)
   B. Have suction available, suction as necessary
   C. Place in recovery position
GERIATRIC EMERGENCIES

I. Observe For
   A. General cleanliness of the environment
   B. Availability of food and water
   C. Hazards in the home
   D. Observe for signs of physical abuse/neglect (see page 27)
   E. If many medications, take them or a list of them to the hospital

II. Role of First Responder/Emergency Medical Care
   A. Determine
      1. Establish quick and effective rapport with patient and family
      2. Level of function with his/her own function prior to problem
      3. Past medical history to assess present condition and anticipate effect of one disease on another
      4. If in long-term care, determine reason for their being there and present condition requiring EMS
   B. Emergency Medical Care
      1. Medical
         a) Altered Mental Status (see page 7)
         b) Behavioral Emergencies (see page 8)
         c) Cardiac Compromise (see page 9)
         d) Heat and cold emergencies (see pages 10 and 11)
      2. Trauma
         a) Cause of trauma may be medical
         b) Age > 60 at higher risk for mortality and morbidity
         c) Treat according to trauma treatment protocols for specific injury (see pages 13 to 19)
ABUSE AND NEGLECT

I. General Orders (see page 5)

II. Signs, and Symptoms of Abuse
   A. Multiple bruises in various stages of healing
   B. Injury inconsistent with mechanism described
   C. Patterns of injury
      1. Cigarette burns
      2. Whip marks
      3. Hand prints
   D. Repeated calls to the same address
   E. Fresh burns
      1. Not just any burns
         a) Scalding
         b) Glove, dip pattern
      2. Burns inconsistent with the history presented
      3. Untreated burns
   F. Caregiver seem inappropriately unconcerned
   G. Conflicting stories
   H. Fear discussing how the injury occurred
   I. CNS injuries - shaken baby syndrome
      1. Unresponsive/seizure
      2. Severe internal injuries
      3. No evidence of external injuries

III. Causes, Signs, and Symptoms of Neglect
   A. Lack of supervision
   B. Malnourished appearance
   C. Unsafe living environment
   D. Untreated chronic illness; e. g., asthmatic with no medications
   E. Untreated soft tissue injuries

IV. Role of First Responder/Emergency Medical Care
   A. Do not accuse in the field
      1. Accusation and confrontation delays transportation
      2. Report objective information to the transporting unit
   B. Reporting required by state law
      1. Local regulations
      2. Remain objective
         a) Report what you see and what you hear
         b) Do not comment on what you think

V. Need for First Responder Debriefing
   A. Especially in cases of abuse/neglect
   B. Serious injury/death of a child
   C. Principles for assessing behavioral emergency patients
APPENDIX
CHARTING

1. S.O.A.P.
   * Subjective - What is reported by the patient and others.
   * Objective - What is observable, objective, measurable, or verifiable
   * Assessment - What is your appraisal of the patient’s condition, based on the subjective and objective findings
   * Plan - What was done for the patient while in your care

2. C.H.A.R.T.
   * Chief Complaint - The major problem with the patient
   * History - Subjective information told to you by patient, family, etc. Follow the S.A.M.P.L.E.D. guideline
     - Symptoms
     - Allergies
     - Medication
     - Past medical history
     - Last Food\Beverage
     - Events prior
     - Description of patient
   * Assessment - Physical findings, including vital signs
   * Rendered Treatment - What you did for the patient and it’s effect
   * Transport/Transfer - How, where, who, transported. Changes during transport

CORE BODY TEMPERATURE

Note: Use A Hypothermia Thermometer.

<table>
<thead>
<tr>
<th>CORE BODY TEMPERATURE</th>
<th>SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>99 F-96 F 37.0 C-35.5 C</td>
<td>Shivering</td>
</tr>
<tr>
<td>95 F-91 F 35.5 C-32.7 C</td>
<td>Intense shivering. If conscious patient has difficulty speaking.</td>
</tr>
<tr>
<td>90 F-86 F 32.0 C-30.0 C</td>
<td>Shivering decreases. Strong muscular rigidity. Thinking is less clear, general comprehension is dulled, possible total amnesia. Muscle coordination erratic and jerky. Patient generally able to maintain the appearance of psychological contact with surroundings.</td>
</tr>
<tr>
<td>85 F-81 F 29.4 C-27.2 C</td>
<td>Irrational. Loses contact with environment drifts into a stuporous state. Muscular rigidity continues. Pulse and respirations are slow and cardiac arrhythmias may develop.</td>
</tr>
<tr>
<td>80 F-78 F 26.6 C-20.5 C</td>
<td>Patient loses consciousness and does not respond to spoken words. Most reflexes cease to function. Heart-beat becomes erratic.</td>
</tr>
</tbody>
</table>
DEAD ON ARRIVAL (DOA) – Updated 9/05

I. EMS personnel shall not initiate resuscitation measures when a patient is determined to be:
   A. The “obviously dead” are victims who, in addition to absence of respiration and cardiac activity, have suffered one or more of the following:
      1. Decapitation
      2. Evisceration of the heart or brain
      3. Incineration
      4. Rigor Mortis
      5. Decomposition
   B. Do Not Resuscitate orders and no pulse or respirations
      1. DOA victims will be reported to the appropriate authorities based on local procedures.
      2. DO NOT leave body unattended
      3. Consider critical incident stress debriefing for EMS personnel when involved with sudden, unexpected, accidental, traumatic and/or unexplained deaths, particularly if children are involved.
I. Scene Size-Up/Initial Patient Assessment
II. Focused History and Detailed Physical Exam
   A. Determine the patient is in a Do Not Resuscitate status in one of the following ways:
      1. The patient has an original, valid POLST Form at the bedside, on the medicine cabinet, on the back of the bedroom door, or on the refrigerator, OR
      2. The patient has an EMS-No CPR bracelet that is intact and not defaced. The bracelet can be located on either wrist, either ankle, or on a necklace or neck chain, and worn by the patient, OR
      3. The patient has an original EMS-No CPR Form at the bedside, on the medicine cabinet, on the back of the bedroom door, or on the refrigerator.
      4. The patient has other DNR Orders: We encourage medical facilities to use the POLST Form.
         a) Sometimes health care facilities prefer to use their own health care DNR orders. When encountering other DNR orders, perform the following:
            (1) Verify that the order has a physician signature requesting “Do Not Resuscitate.”
            (2) Verify the presence of the patient's name on the order.
         b) Contact on-line medical control for further consultation. In most cases, on-line medical control will advise to withhold CPR following verification of a valid physician-signed DNR order.
      5. In extended or intermediate care facilities, look for the DNR form in the patient's chart.

III. Management
   A. Begin resuscitation when it is determined:
      1. No valid DNR order exists.
      2. In your medical judgment, your patient has attempted suicide or is a victim of a violence
   B. Do Not initiate resuscitation measures when:
      1. The patient is determined to be "obviously dead".
         a) The "obviously dead" are victims who, in addition to absence of respiration and cardiac activity, have suffered one or more of the following:
            (1) Decapitation
            (2) Evisceration of heart or brain
            (3) Incineration
            (4) Rigor Mortis
            (5) Decomposition
   C. When the patient has an existing, valid DNR order:
      1. POLST:
         a) Provide resuscitation based on patient’s wishes identified on the form
         b) Provide medical interventions identified on the form
         c) Always provide comfort care
      2. EMS-No CPR:
         a) Do not begin resuscitation measures
         b) Provide comfort care
         c) Contact patient's physician or on-line medical control if directed by local protocols or if questions or problems arise.
      3. Other DNR orders:
         a) Follow specific orders contained in the DNR order based on the standard of care allowed by your level of certification/licensure and communications with on-line medical control.
      4. Remember – Do Not Resuscitate does not mean Do Not provide comfort care when necessary.
   D. If resuscitative efforts have been started before learning of a valid DNR order, STOP these treatment measures unless continuation is requested by the DNR order and provide comfort care:
      1. Basic CPR
      2. Intubation (leave the endotracheal tube in place, but stop any positive pressure ventilations).
      3. Cardiac monitoring and defibrillation.
      4. Administration of resuscitation medications.
      5. Any positive pressure ventilation (through bag valve masks, pocket face masks, endotracheal tubes).
   E. Revoking the DNR order. The following people can inform the EMS system that the
DNR order has been revoked:
1. The patient (by destroying the order, drawing a diagonal line or the word VOID across the front of the form, or by verbally revoking the order).
2. The physician expressing the patient's revocation of the directive.
3. The legal surrogate for the patient expressing the patient's revocation of the directive. (The surrogate cannot verbally revoke a patient executed directive).

F. Documentation
1. Complete the Medical Incident Report (MIR) form approved by your Medical Program Director.
2. State in writing in the upper left hand corner of the narrative summary:
   b) "Patient identified as DNR by POLST, EMS-No CPR, or Other directive."
3. Record the name of the patient's physician, and state whether you contacted the physician.
4. Record the reason why the EMS system was activated.
5. Comfort the family and bystanders when patients have expired
6. Follow your local Medical Program Director's protocols for patients who have expired. Actions may include contact of the local coroner's office, the local law enforcement agency, the local chaplain service, or funeral home. The MIR form must still be completed.

G. Comfort Care Measures - Providing comfort care is an important responsibility and service you provide to patients and their families at a crucial moment in their lives.
1. Comfort care measures for the dying patient may include:
   a) Manually open the airway (do not provide positive pressure ventilation with a bag valve mask, pocket mask or endotracheal tube).
   b) Clear the airway (including stoma) of secretions with appropriate suction device.
   c) Provide oxygen per nasal cannula at 2-4 l/min.
   d) Positioning for comfort.
   e) Splinting.
   f) Controlling bleeding.
   g) Providing pain medications pertinent to the level of certification/licensure.
   h) Providing emotional support.
   i) Provide emotional support to the family.
2. Contact patient's physician or on-line medical control if directed by local protocols or if questions or problems arise.

H. Special situation:
1. The patient's wishes in regard to resuscitation should always be respected. Sometimes, however, the family may vigorously and persistently insist on CPR even if a valid DNR order is located. These verbal requests are not consistent with the patient's directive. However, in such circumstances:
   a) Attempt to convince family to honor the patient's decision to withhold CPR/treatment. If family persists, then
   b) Initiate resuscitation efforts until relieved by paramedics (for First Responders and EMTs).
   c) Advanced life support personnel should continue treatment and consult medical control.

I. Remember: - Once a death has occurred, the family and relatives become your patients.

IV. Ongoing Assessment as appropriate

V. Transport if necessary
HELMET REMOVAL

1. One rescuer applies in-line traction by placing his or her hands on each side of the helmet with the fingers on the victim's mandible. This position prevents slippage if the strap loosens.

2. The rescuer cuts or loosens the straps or the D-rings while maintaining in-line tension.

3. A second rescuer places one hand on the mandible, at the angle, with the thumbs on one side and the long and index fingers on the other. With the other hand, the second rescuer also applies pressure from the occipital region. This maneuver transfers the in-line traction responsibility to the second rescuer.

4. The rescuer at the top removes the helmet, considering these three factors: A. The helmet is egg shaped and must be expanded laterally to clear the ears; B. Glasses must be removed prior to helmet removal; C. If the helmet provides full facial coverage, it must be raised over the nose and moved backwards.

5. The second rescuer must maintain in-line traction from below in order to prevent head tilt.

6. After the helmet is removed the rescuer at the top places his or her hands on either side of the victim's head with the palms over the ears.

7. In-line traction is maintained from above until a backboard and cervical collar are securely in place.
## OXYGEN DELIVERY

### OXYGEN ADMINISTRATION REFERENCE CHART

<table>
<thead>
<tr>
<th>Method</th>
<th>Flow Rate (in liters per minute)</th>
<th>% Oxygen Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Air</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Nasal Cannula (prongs)</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>Face Mask (simple)</td>
<td>6</td>
<td>35-40</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>40-50</td>
</tr>
<tr>
<td>Nonrebreather Face Mask *(1)</td>
<td>12</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>90</td>
</tr>
<tr>
<td>Face Mask with Oxygen Reservoir Bag</td>
<td>10-12</td>
<td>90</td>
</tr>
<tr>
<td>Pocket Mask</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>100 *(2)</td>
</tr>
<tr>
<td>Bag Valve Mask (demand valve) *(4)</td>
<td>Room Air</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>40 - 90 *(3)</td>
</tr>
<tr>
<td>Positive Pressure Device</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*(1) Delivery system of choice for patients with inadequate breathing and patients who are cyanotic, cool clammy, short of breath, or suffering chest pain, suffering severe injuries, or displaying an altered mental status, or being transported.

*(2) This is accomplished by occluding breathing port with thumb.

*(3) Depends on brand of bag valve mask and provisions for occluding room air inlet.

*(4) Should not be used on children under 12 years old.

### NOTES:

1. Administration rates by nasal cannulae of over 4 L/min. are uncomfortable.
2. Use humidified oxygen, when possible, on infants, children, suspected respiratory tract burns, and transports exceeding one hour duration.
3. Bag Valve mask is not recommended for use in patients in transport situations.
4. Most hypoxic patients will feel better with an increase in delivered oxygen from 21% to 24%.
5. Pressure cycled ventilators are NOT acceptable alternatives to oxygen therapy.
6. Percentages of delivered oxygen listed above are based on optimal conditions. Altitude, equipment, etc. may decrease percentages of delivered oxygen.

### OXYGEN BOTTLE VOLUME AND FLOW

<table>
<thead>
<tr>
<th>Bottle Size</th>
<th>Volume in Liters</th>
<th>Time @ 5 L/min.</th>
<th>Time @ 10 L/min.</th>
<th>Time @ 15 L/min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>360</td>
<td>1 hr. 12 min.</td>
<td>36 min.</td>
<td>24 min.</td>
</tr>
<tr>
<td>E</td>
<td>625</td>
<td>2 hrs. 5 min.</td>
<td>1 hr. 3 min.</td>
<td>42 min.</td>
</tr>
<tr>
<td>M</td>
<td>3,200</td>
<td>10 hrs.</td>
<td>5 hrs.</td>
<td>3 hrs. 20 min.</td>
</tr>
<tr>
<td>G</td>
<td>5,300</td>
<td>17 hrs. 40 min.</td>
<td>8 hrs. 50 min.</td>
<td>5 hrs. 53 min.</td>
</tr>
<tr>
<td>H</td>
<td>6,900</td>
<td>23 hrs.</td>
<td>11 hrs. 30 min.</td>
<td>7 hrs. 40 min.</td>
</tr>
</tbody>
</table>

1. The above values are based on full bottle (2,000 to 2,200 p.s.i.) @ 70 degrees F.
2. Allow for pressure drop of 5 p.s.i. for every 1 degree drop in temperature below 70 degrees F.
# PULSE, BLOOD PRESSURE, AND RESPIRATION - RANGES

## NORMAL RANGES OF ARTERIAL BLOOD PRESSURES (mm/Hg)

<table>
<thead>
<tr>
<th>Age</th>
<th>Systolic</th>
<th>Diastolic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>80 / 46</td>
<td>8-9 Years</td>
<td>106 / 58</td>
</tr>
<tr>
<td>6-12 Months</td>
<td>89 / 60</td>
<td>9-10 Years</td>
<td>108 / 58</td>
</tr>
<tr>
<td>1 Year</td>
<td>96 / 66</td>
<td>10-11 Years</td>
<td>112 / 58</td>
</tr>
<tr>
<td>2 Years</td>
<td>98 / 64</td>
<td>11-12 Years</td>
<td>114 / 60</td>
</tr>
<tr>
<td>3 Years</td>
<td>100 / 68</td>
<td>12-13 Years</td>
<td>116 / 60</td>
</tr>
<tr>
<td>4 Years</td>
<td>98 / 66</td>
<td>13-14 Years</td>
<td>118 / 60</td>
</tr>
<tr>
<td>5 Years</td>
<td>94 / 56</td>
<td>Male Adult</td>
<td>Systolic: Patient’s Age + 100 (Up to 150 mmHg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diastolic: 60 to 90 mmHg</td>
</tr>
<tr>
<td>6-7 Years</td>
<td>100 / 56</td>
<td>Adult Female</td>
<td>Systolic: Patients Age + 90 (Up to 140 mmHg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diastolic: 50 to 80 mmHg</td>
</tr>
</tbody>
</table>

Note:

The systolic values given above may vary up or down from the mean significantly and still remain in the normal range as follows:

- Newborn: + or - 16
- 6 Mos-4 Years: + or - 25
- 4 Years-10 Years: + or - 16
- 10 Years-14 Years: + or - 18

The diastolic values given above (for Newborn through 14 Years old) may vary up to + or - 24 mm/Hg from the mean and still remain in the normal range.

## NORMAL PULSE RATES (HEART BEATS PER MINUTE)

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>110 - 150</td>
<td>6 Years</td>
</tr>
<tr>
<td>11 Months</td>
<td>100 - 140</td>
<td>8 Years</td>
</tr>
<tr>
<td>2 Years</td>
<td>90 - 110</td>
<td>10 Years</td>
</tr>
<tr>
<td>4 Years</td>
<td>80 - 120</td>
<td>Adult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60 - 100</td>
</tr>
</tbody>
</table>

## NORMAL RESPIRATORY RATES (RESPIRATIONS PER MINUTE)

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonate</td>
<td>30 - 50</td>
<td>10 Years</td>
</tr>
<tr>
<td>2 Years</td>
<td>20 - 30</td>
<td>Adolescent and Adult</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 - 20</td>
</tr>
</tbody>
</table>
REPORTING CHILD AND DEPENDENT ADULT ABUSE

26.44.030 Reports--Duty and authority to make--Duty of receiving agency--Duty to notify--Case planning and consultation--Penalty for unauthorized exchange of information--Filing dependency petitions--Interviews of children--Records--Risk assessment process--Reports to legislature.

(1)(a) When any practitioner, professional school personnel, registered or licensed nurse, social service counselor, psychologist, pharmacist, licensed or certified child care providers or their employees, employee of the department, or juvenile probation officer has reasonable cause to believe that a child or adult dependent or developmentally disabled person, has suffered abuse or neglect, he or she shall report such incident, or cause a report to be made, to the proper law enforcement agency or to the department as provided in RCW 26.44.040.

(b) The reporting requirement shall also apply to any adult who has reasonable cause to believe that a child or adult dependent or developmentally disabled person, who resides with them, has suffered severe abuse, and is able or capable of making a report. For the purposes of this subsection, “severe abuse” means any of the following: Any single act of abuse that causes physical trauma of sufficient severity that, if left untreated, could cause death; any single act of sexual abuse that causes significant bleeding, deep bruising, or significant external or internal swelling; or more than one act of physical abuse, each of which causes bleeding, deep bruising, significant external or internal swelling, bone fracture, or unconsciousness.

(c) The report shall be made at the first opportunity, but; and in no case longer than forty-eight hours after there is reasonable cause to believe that the child or adult has suffered abuse or neglect. The report shall include the identity of the accused if known.

(2) The reporting requirement of subsection (1) of this section does not apply to the discovery of abuse or neglect that occurred during childhood if it is discovered after the child has become an adult. However, if there is reasonable cause to believe other children, dependent adults, or developmentally disabled persons are or may be at risk of abuse or neglect by the accused, the reporting requirement of subsection (1) of this section shall apply.

(3) Any other person who has reasonable cause to believe that a child or adult dependent or developmentally disabled person has suffered abuse or neglect may report such incident to the proper law enforcement agency or to the department of social and health services as provided in RCW 26.44.040.

(4) The department, upon receiving a report of an incident of abuse or neglect pursuant to this chapter, involving a child or adult dependent or developmentally disabled person who has died or has had physical injury or injuries inflicted upon him or her other than by accidental means or who has been subjected to sexual abuse, shall report such incident to the proper law enforcement agency. In emergency cases, where the child, adult dependent, or developmentally disabled person’s welfare is endangered, the department shall notify the proper law enforcement agency within twenty-four hours after a report is received by the department. In all other cases, the department shall notify the law enforcement agency within seventy-two hours after a report is received by the department. If the department makes an oral report,
a written report shall also be made to the proper law enforcement agency within five days thereafter.

(5) Any law enforcement agency receiving a report of an incident of abuse or neglect pursuant to this chapter involving a child or adult dependent or developmentally disabled person who has died or has had physical injury or injuries inflicted upon him or her other than by accidental means, or who has been subjected to sexual abuse shall report such incident in writing as provided in RCW 26.44.040 to the proper county prosecutor or city attorney for appropriate action whenever the law enforcement agency’s investigation reveals that a crime may have been committed. The law enforcement agency shall also notify the department of all reports received and the law enforcement agency’s disposition of them. In emergency cases, where the child, adult dependent, or developmentally disabled person’s welfare is endangered, the law enforcement agency shall notify the department within twenty-four hours. In all cases, the law enforcement agency shall notify the department within seventy-two hours after a report is received by the law enforcement agency.

(6) Any county prosecutor or city attorney receiving a report under subsection (5) of this section shall notify the victim, any persons the victim requests, and the local office of the department of the decision to charge or decline to charge a crime within five days of making the decision.

(7) The department may conduct ongoing case planning and consultation with those persons or agencies required to report under this section with consultants designated by the department, and with designated representatives of Washington Indian tribes if the client information exchanged is pertinent to cases currently receiving child protective services or department case services for the developmentally disabled. Upon request, the department shall conduct such planning and consultation with those persons required to report under this section of the department determines it is in the best interests of the child or developmentally disabled person. Information considered privileged by statute and not directly related to reports required by this section shall not be divulged without a valid written waiver of the privilege.

(8) Any case referred to the department by a physician licensed under chapter 18.57 or 18.71 RCW on the basis of an expert medical opinion that child abuse, neglect, or sexual assault has occurred and that the child’s safety will be seriously endangered if returned home, the department shall file a dependency petition unless a second licensed physician of the parents’ choice believes that such expert medical opinion is incorrect. If the parents fail to designate a second physician, the department may make the selection. If a physician finds that a child has suffered abuse or neglect does not constitute imminent danger to the child’s health or safety, and the department agrees with the physician’s assessment, the child may be left in the parents’ home while the department proceeds with reasonable efforts to remedy parenting deficiencies.

(9) Persons or agencies exchanging information under subsection (7) of this section shall not further disseminate or release the information except as authorized by state or federal statute. Violation of this subsection is a misdemeanor.

(10) Upon receiving reports of abuse or neglect, the department or law enforcement agency may interview children. The interviews may be conducted on school premises, at day care facilities, at the child’s home, or other suitable locations outside the presence of parents. Parental notification
of the interview shall occur at the earliest possible point in the investigation
that will not jeopardize the safety or protection of the child or the course of the
investigation. Prior to commencing the interview the department or law
enforcement agency shall determine whether the child wishes a third party to
be present for the interview and, of so, shall make reasonable efforts to
accommodate the child’s wishes. Unless the child objects, the department or
law enforcement agency shall make reasonable efforts to include a third party
in any interview so long as the presence of the third party will not jeopardize
the course of the investigation.

(11) Upon receiving a report of child abuse and neglect, the department of
investigating law enforcement agency shall have access to all relevant
records of the child in the possession of mandated reports and their
employees.

(12) The department shall maintain investigation records and conduct
timely and periodic reviews of all cases constituting abuse and neglect. The
department shall maintain a log of screened-out nonabusive cases.

(13) The department shall use a risk assessment process when
investigating child abuse and neglect referrals. The department shall present
the risk factors at hearings in which the placement of a dependent child in an
issue. The department shall, within funds appropriated for this purpose, offer
enhanced community-based services to persons who are determined not to
require further state intervention.

The department shall provide annual reports to the legislature on the
effectiveness of the risk assessment process.

(14) Upon receipt of a report of abuse or neglect the law enforcement
agency may arrange to interview the person making the report and any
collateral sources to determine if any malice is involved in the reporting.

The children of the state of Washington are the state’s greatest
resource and the greatest source of wealth to the State of Washington.
Children of all ages must be protected from child abuse. Governmental
authorities must give the prevention, treatment, and punishment of
child abuse the highest priority, and all instances of child abuse must
be reported to the proper authorities who should diligently and
expeditiously take appropriate action, and child abusers must be held
accountable to the people of the state for their actions.

The legislature recognized the current heavy caseload of government
authorities responsible for the prevention, treatment, and punishment of
child abuse. The information obtained by child abuse reporting
requirements, in addition to it’s use as a law enforcement tool, will be
used to determine the need for additional funding to ensure that
resources for appropriate governmental response to child abuse are
available.
RULE OF NINES - ESTIMATING BURNS

Adult

Infant

18 back

18 front

18 back

18 front

9

9

18

18

18

18

14

14

14
Simple Triage And Rapid Treatment

1. RPM method of identifying immediate patients; Respiration’s, Perfusion, Mental status

2. Triage Criteria

   **A. Immediate (Red)**
   - Respiration’s >30 per minute or absent until head repositioned, or
   - Radial pulse absent or capillary refill > 2 seconds, or
   - Can not follow simple commands

   **B. Delayed (Yellow)**
   - Respiration’s present and < 30 per minute, and
   - Radial pulse present, and can follow simple commands
     - The saying is 30 - 2 - can do, represents a delayed patient.

   **C. Minor (Green)**
   - Anyone that can get up and walk when you instruct them to do so.

   **D. Deceased (Black)**
   - Anyone not breathing after you open the airway

3. This system is limited to use in the incident where needs exceed resources immediately available

4. Frequently reassess patients and perform a more in-depth triage as more rescuers become available
Purpose
The purpose of the Triage Procedure is to ensure that major trauma patients are transported to the most appropriate hospital facility. This procedure has been developed by the Prehospital Technical Advisory Committee (TAC), endorsed by the Governor's EMS and Trauma Care Steering Committee, and in accordance with RCW 70.168 and WAC 246-976 adopted by the Department of Health (DOH).

The procedure is described in the schematic with narrative. Its purpose is to provide the prehospital provider with quick identification of a major trauma victim. If the patient is a major trauma patient, that patient or patients must be taken to the highest level trauma facility within 30 minutes transport time, by either ground or air. To determine whether an injury is major trauma, the prehospital provider shall conduct the patient assessment process according to the trauma triage procedures.

Explanation of Process
A. Any certified EMS and Trauma person can identify a major trauma patient and activate the trauma system. This may include requesting more advanced prehospital services or aero-medical evacuation.

B. The first step (1) is to assess the vital signs and level of consciousness. The words "Altered mental status" mean anyone with an altered neurologic exam ranging from completely unconscious, to someone who responds to painful stimuli only, or a verbal response which is confused, or an abnormal motor response.

C. The "and/or" conditions in Step 1 mean that any one of the entities listed in Step 1 can activate the trauma system.

D. Also, the asterisk (*) means that if the airway is in jeopardy and the on-scene person cannot effectively manage the airway, the patient should be taken to the nearest medical facility or consider meeting up with an ALS unit. These factors are true regardless of the assessment of other vital signs and level of consciousness.

E. The second step (2) is to assess the anatomy of injury. The specific injuries noted require activation of the trauma system. Even in the assessment of normal vital signs or normal levels of consciousness, the presence of any of the specific anatomical injuries does require activation of the trauma system.

F. Please note that steps 1 and 2 also require notifying Medical Control.

G. The third step (3) for the prehospital provider is to assess the biomechanics of the injury and address other risk factors. The conditions identified are reasons for the provider to contact, and consult with, Medical Control regarding the need to activate the system. They do not automatically require system activation by the prehospital provider.

H. Other risk factors, coupled with a "gut feeling" of severe injury, means that Medical Control should be consulted and consideration given to transporting the patient to the nearest trauma facility.

I. Please note that certain burn patients (in addition to those listed in Step 2) should be considered for immediate transport or referral to a burn center/unit.

Patient Care Procedures
To the right of the attached schematic you will find the words "according to DOH-approved regional patient care procedures." These procedures are developed by the regional EMS and Trauma council in conjunction with local councils. They are intended to further define how the system is to operate. They identify the level of medical care personnel who participate in the system, their roles in the system, and participation of hospital facilities in the system. They also address the issue of inter-hospital transfer, by transfer agreements for identification, and transfer of critical care patients.

In summary, the Prehospital Trauma Triage Procedure and the Regional Patient Care Procedures are intended to work in a "hand in glove" fashion to effectively address EMS and Trauma patient care needs. By functioning in this manner, these two instruments can effectively reduce morbidity and mortality.

If you have any questions on the use of either instrument, you should bring them to the attention of your local or regional EMS and Trauma council or contact 1-800-458-5281.
**STATE OF WASHINGTON**
**PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES**

- Prehospital triage is based on the following 3 steps: Steps 1 and 2 require prehospital EMS personnel to notify medical control and activate the Trauma System. Activation of the Trauma System in Step 3 is determined by medical control**

---

**STEP 1**
**ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS**
- Systolic BP <90*
- HR >120*
  - for pediatric (<15y) pts. use BP <90 or capillary refill >2 sec.
  - for pediatric (<15y) pts. use HR <60 or >120

Any of the above vital signs associated with signs and symptoms of shock and/or
- Respiratory Rate <10 >29 associated with evidence of distress and/or
- Altered mental status

**YES**
1. Take patient to the highest level trauma center within 30 minutes transport time via ground or air transport according to DOH approved regional patient care procedures.

**NO**

---

**STEP 2**
**ASSESS ANATOMY OF INJURY**
- Penetrating injury of head, neck, torso, groin; OR
- Combination of burns > 20% or involving face or airway; OR
- Amputation above wrist or ankle; OR
- Spinal cord injury; OR
- Flail chest; OR
- Two or more obvious proximal long bone fractures.

**YES**
2. Apply "Trauma ID Band" to patient.

**NO**

---

**STEP 3**
**ASSESS BIOMECHANICS OF INJURY AND OTHER RISK FACTORS**
- Death of same car occupant; OR
- Ejection of patient from enclosed vehicle; OR
- Falls > 20 feet; OR
- Pedestrian hit at > 20 mph or thrown 15 feet
- High energy transfer situation
  - Rollover
  - Motorcycle, ATV, bicycle accident
  - Extrication time of > 20 minutes
- Extremes of age <15 >60
- Hostile environment (extremes of heat or cold)
- Medical illness (such as COPD, CHF, renal failure etc.)
- Second/third trimester pregnancy
- Gut feeling of medic

**YES**
CONTACT MEDICAL CONTROL FOR DESTINATION DECISION

**NO**

---

**TRANSPORT PATIENT PER REGIONAL PATIENT CARE PROCEDURES**
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1°</td>
<td>Primary, first degree</td>
</tr>
<tr>
<td>2°</td>
<td>Secondary, second degree</td>
</tr>
<tr>
<td>3°</td>
<td>Tertiary, third degree</td>
</tr>
<tr>
<td>&lt;</td>
<td>Less than</td>
</tr>
<tr>
<td>≤</td>
<td>Less than or equal to</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than</td>
</tr>
<tr>
<td>≥</td>
<td>Greater than or equal to</td>
</tr>
<tr>
<td>=</td>
<td>Approximately equal to</td>
</tr>
<tr>
<td>α</td>
<td>Alpha</td>
</tr>
<tr>
<td>a</td>
<td>Before</td>
</tr>
<tr>
<td>abd</td>
<td>Abdomen</td>
</tr>
<tr>
<td>ASA</td>
<td>Aspirin</td>
</tr>
<tr>
<td>á</td>
<td>With</td>
</tr>
<tr>
<td>c/o</td>
<td>Complaining of</td>
</tr>
<tr>
<td>CA</td>
<td>Cancer</td>
</tr>
<tr>
<td>CAO</td>
<td>Conscious, alert, orientated</td>
</tr>
<tr>
<td>CHF</td>
<td>Congestive heart failure</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>cx</td>
<td>Chest</td>
</tr>
<tr>
<td>Dx</td>
<td>Diagnosis</td>
</tr>
<tr>
<td>♂</td>
<td>Female</td>
</tr>
<tr>
<td>Fx</td>
<td>Fracture</td>
</tr>
<tr>
<td>g,gm</td>
<td>Gram</td>
</tr>
<tr>
<td>Ga.</td>
<td>Gauge</td>
</tr>
<tr>
<td>GI</td>
<td>Gastrointestinal</td>
</tr>
<tr>
<td>gr</td>
<td>Grain</td>
</tr>
<tr>
<td>gtt</td>
<td>Drop</td>
</tr>
<tr>
<td>HA</td>
<td>Headache</td>
</tr>
<tr>
<td>HTN</td>
<td>Hypertension</td>
</tr>
<tr>
<td>Hx</td>
<td>History</td>
</tr>
<tr>
<td>LOC</td>
<td>Level of consciousness</td>
</tr>
<tr>
<td>☄</td>
<td>Male</td>
</tr>
<tr>
<td>MI</td>
<td>Myocardial infarction</td>
</tr>
<tr>
<td>min</td>
<td>Minute</td>
</tr>
<tr>
<td>N&amp;V</td>
<td>Nausea, vomiting</td>
</tr>
<tr>
<td>NTG</td>
<td>Nitroglycerin</td>
</tr>
<tr>
<td>p</td>
<td>After</td>
</tr>
<tr>
<td>po</td>
<td>By mouth, orally</td>
</tr>
<tr>
<td>p.r.n.</td>
<td>As needed</td>
</tr>
<tr>
<td>ěr</td>
<td>Every</td>
</tr>
<tr>
<td>Rx</td>
<td>Prescribed for</td>
</tr>
<tr>
<td>s</td>
<td>Without</td>
</tr>
<tr>
<td>Sz</td>
<td>Seizure</td>
</tr>
<tr>
<td>↓</td>
<td>Decreased</td>
</tr>
<tr>
<td>↑</td>
<td>Increased</td>
</tr>
<tr>
<td>Δ</td>
<td>Change</td>
</tr>
<tr>
<td>∅</td>
<td>No, none</td>
</tr>
</tbody>
</table>
GLOSSARY

ABC
Assess for and treat as necessary life threatening Airway, Breathing, and Circulatory problems during the Initial Patient Assessment.

ABORTION
The premature expulsion from the uterus of the embryo or a nonviable fetus.

ADENOPATHY
Swelling and morbid change in lymph nodes; glandular disease.

ALS
Advance Life Support.

AMBULATE
To walk about.

ANCILLARY
Subordinate or dependent muscles, breathing without usual chest wall movement.

APHASIA
A defect in speaking or comprehending in the normal fashion, caused by injury or disease in the brain centers regulating speech.

APNEA
Absence of breathing.

ASPHYXIA
Suffocation.

AUSCULTATION
The technique of listening for and interpreting sounds that occur within the body, usually with a stethoscope.

AVPU
Alert, responds to Verbal stimulus, responds to Painful stimulus, Unresponsive.

BCLS
Basic Cardiac Life Support

BILATERAL
Pertaining to both sides.

BLANCHING
Palpation of the skin following which the normal skin color does not return.

BLS
Basic Life Support.

BM
Bowel Movement.

BSI
Body Substance Isolation precautions (universal precautions).

BRACHIAL
Pertaining to the arm.

BRADYCARDIA
An abnormal condition in which the heart contracts steadily but at a rate of less than 60 beats per minute.

BRADYPNEA
An abnormally slow rate of breathing.

BREECH BIRTH
A delivery in which the presenting part is the buttocks or foot.

BRONCHITIS
Inflammation of the bronchi.
<table>
<thead>
<tr>
<th><strong>BURN</strong></th>
<th>An injury caused by extremes of temperature, electric current, or certain chemicals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>Superficial</strong> - A burn affecting only the outer skin layers</td>
<td></td>
</tr>
<tr>
<td>- <strong>Partial Thickness</strong> - A partial thickness burn penetrating beneath the superficial skin layers, producing edema and blistering</td>
<td></td>
</tr>
<tr>
<td>- <strong>Full Thickness</strong> - A full thickness burn, involving all layers of the skin and underlying tissues as well, having a charred or white, leathery appearance</td>
<td></td>
</tr>
</tbody>
</table>

| **CAROTID** | One of the main arteries of the neck supplying blood to the head. |
| **CENTRAL NERVOUS SYSTEM (CNS)** | The brain and spinal cord. |
| **CEREBROSPINAL FLUID (CSF)** | The fluid that bathes the brain and spinal cord. |
| **CEREBROVASCULAR ACCIDENT (CVA)** | The sudden cessation of circulation to the region of the brain, caused by thrombus, embolism or hemorrhage. It is sometimes called a stroke. |
| **CHEYNE-STOKES RESPIRATION** | An abnormal breathing pattern characterized by rhythmic waxing and waning of the depth of respiration, with regularly occurring periods of apnea. It is seen in association with central nervous system dysfunction. |
| **CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)** | A term comprising chronic bronchitis, emphysema, and sometimes asthma-illnesses that cause obstructive problems in the lower airways. |
| **COMA** | A state of unconsciousness from which the patient cannot be aroused, even by powerful stimulation. |
| **COMA POSITION** | A body position which allows the unconscious patient (non-traumatic) to breathe without obstruction from oral bleeding or drainage. |
| **CONTRAINICATION** | Any condition which renders a particular line of treatment improper or undesirable. |
| **CONVULSION** | A violent, involuntary contraction or series of contractions of the voluntary muscles; a "fit," a seizure. |
| **CPR** | Cardio-Pulmonary Resuscitation. |
| **Crepitus** | A grating sound heard and a sensation felt when the fractured ends of a bone rub together. |
| **CROWNING** | The stage of birth when the presenting part of the baby is visible at the vaginal orifice. |
| **CYANOSIS** | Bluish color to the skin, associated with hypoxia. |
| **DCAP-BTLS** | Acronym for Deformities, Contusions, Abrasions, Punctures or penetrations, Burns, Tenderness, Laceration, and Swelling. |
DECEREBRATE POSTURE  
A posture assumed by patients with severe brain dysfunction characterized by extension and rotation of the arms and extension of the legs.

DECORTICATE POSTURE  
A posture assumed by patients with severe brain dysfunction characterized by extension of the legs and flexion of the arms.

DETAILED PHYSICAL EXAM  
A head to toe examination at a slower pace than the rapid assessment or Initial Patient Assessment and only performed on low priority patients or in the transport mode with high priority patients.

DIABETES MELLITUS  
A systemic disease affecting many organs, including the pancreas, whose failure to secrete insulin causes an inability to metabolize carbohydrate and consequent elevations in blood sugar.

DIAPHORESIS  
Profuse perspiration.

DOA  
Dead On Arrival.

DOT  
Department Of Transportation.

DOTS  
Assessment of Deformities, Open injuries, Tenderness, Swelling

DYSPNEA  
Difficulty in breathing, with resultant rapid, shallow respirations.

EDEMA  
The condition in which excess fluid accumulates in body tissue, manifested by swelling.

EGOPHONY  
A nasal sound somewhat like the bleat of a goat, heard in auscultation, when the patient speaks in a normal tone.

EMBOLISM  
A mass (embolus, singular; emboli, plural) of solid, liquid or gaseous material that is carried in the circulation and may lead to occlusion of blood vessels, with resultant infarction and necrosis of tissue supplied by those vessels.

EMPHYSEMA  
Infiltration of any tissue by air or gas; a chronic pulmonary disease caused by dissension of the alveoli and destructive changes in the lung.

EMS  
Emergency Medical Services.

EMS-MPD  
Emergency Medical Services-Medical Program Director.

EMERGENCY MEDICAL TECHNICIAN (EMT)  
A person certified to provide emergency care per RCW 18.73.081

EPIGASTRIUM  
The upper central portion of the abdomen within the sternal angle.

ERYTHEMATOUS  
A spot or colored area showing diffused redness of the skin.

ETA  
Estimated Time of Arrival.

ETIOLOGY  
The causative agent of a disease.
EVISCERATE  To remove the intestines; to disembowel.

EXSANGUINATE To bleed to death.

EXTENTION A movement allowed by certain joints of the skeleton that increases the angle between two adjoining bones. For example, extending the leg increases the angle between the thigh and the calf. Compare flexion.

EXTRAVASATION Leakage of intravenous fluid into surrounding tissues.

FEBRILE Characterized by fever.

FIRST RESPONDER A person certified to provide emergency care per RCW 18.73.081.

FLAIL CHEST The condition in which several ribs are broken, each in at least two places, or in which there is sternal fracture or separation of the ribs from the sternum, producing a free or floating segment of the chest wall that moves paradoxically on respiration.

FLEXION The act of bending.

HEAT CRAMPS Painful muscle cramps resulting from excessive loss of salt and water through sweating.

FOCUSED PHYSICAL EXAM The step of patient assessment that follows the Initial Patient Assessment of the medical patient.

GLASGOW COMA SCALE A measurement tool used to accurately record the patient's level of consciousness at regular intervals.

GRAND MAL SEIZURE A generalized motor seizure.

HEAT EXHAUSTION Prostration caused by excessive loss of water and salt through sweating, characterized by cold, clammy skin and a weak, rapid pulse.

HEAT STROKE A life-threatening condition caused by a disturbance in the temperature regulating mechanism, characterized by extreme fever, hot and dry skin, bounding pulse, and delirium or coma.

HYPERGLYCEMIA Abnormally increased concentration of sugar in the blood.

HYPERTHERMIA Abnormally increased body temperature.

HYPERVENTILATION An increased rate and/or depth of respiration.

HYPOGLYCEMIA Abnormally diminished concentration of sugar in the blood.

HYPO-PERFUSION Decreased perfusion to the body's tissue, also called shock.

HYPOTHERMIA Having a body temperature below normal.

HYPOVENTILATION A reduced rate or depth of breathing, often resulting in an abnormal rise of carbon dioxide.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPOVOLEMA</td>
<td>Abnormally decreased amount of blood and fluids in the body.</td>
</tr>
<tr>
<td>HYPOXIA</td>
<td>Reduction of oxygen in body tissues below normal levels.</td>
</tr>
<tr>
<td>INFARCTION</td>
<td>Death (necrosis) of a localized area of tissue caused by the cutting off of its blood supply.</td>
</tr>
<tr>
<td>INITIAL PATIENT ASSESSMENT</td>
<td>A step to quickly determine if the patient is suffering from any life threatening injuries or illnesses.</td>
</tr>
<tr>
<td>INSUFFICIENCY</td>
<td>The condition of being inadequate to normal performance.</td>
</tr>
<tr>
<td>INSULIN SHOCK</td>
<td>Severe hypoglycemia caused by excessive insulin dosage with respect to sugar intake. It may be characterized by bizarre behavior, sweating, tachycardia, or coma.</td>
</tr>
<tr>
<td>INTERMEDIATE LIFE SUPPORT TECHNICIAN (ILST)</td>
<td>A person who has been certified to practice as an intermediate Life Support Technician per RCW 18.71.200.</td>
</tr>
<tr>
<td>JVD</td>
<td>Jugular Vein Distention</td>
</tr>
<tr>
<td>KILOGRAM</td>
<td>A measure of weight equaling 2.2 pounds.</td>
</tr>
<tr>
<td>LATERALIZING SIGNS</td>
<td>The appearance of signs on the opposite side of the body from the affected part, i.e., a stroke occurs on the right side of the brain, and show signs of paralysis on the left side of the body.</td>
</tr>
<tr>
<td>LAVAGE</td>
<td>To wash out, or irrigate.</td>
</tr>
<tr>
<td>LETHARGY</td>
<td>A condition of drowsiness or indifference.</td>
</tr>
<tr>
<td>MEDICAL PROGRAM DIRECTOR (MPD)</td>
<td>The physician in each county certified by the Department of Health to carry out the duties of the MPD.</td>
</tr>
<tr>
<td>MENSTRUATION</td>
<td>The process by which the uterine lining is shed each month by women between the ages of puberty and menopause.</td>
</tr>
<tr>
<td>MIR</td>
<td>Medical Incident Report form.</td>
</tr>
<tr>
<td>MOI</td>
<td>Mechanism Of Injury</td>
</tr>
<tr>
<td>MISCARRIAGE</td>
<td>A layman's term for an abortion, or the premature expulsion of a nonliving fetus from the uterus.</td>
</tr>
<tr>
<td>NECROSIS</td>
<td>The death of tissue, usually caused by a cessation of its blood supply.</td>
</tr>
<tr>
<td>NEUROLOGICAL FLOW SHEET</td>
<td>A written record of vital signs and level of consciousness used for patients with altered levels of consciousness.</td>
</tr>
<tr>
<td>N.H.T.S.A.</td>
<td>National Highway Traffic Safety Administration</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>NOI</td>
<td>Nature Of Illness</td>
</tr>
<tr>
<td>NORMAL SALINE</td>
<td>A solution containing 0.9% sodium chloride.</td>
</tr>
<tr>
<td>OCCLUSIVE DRESSING</td>
<td>A watertight covering for a wound.</td>
</tr>
<tr>
<td>O-P-Q-R-S-T</td>
<td>Mnemonic device used to assess the patient’s chief complaint or major symptoms, Onset, Provocation, Quality, Radiation, Severity, Time.</td>
</tr>
<tr>
<td>O₂</td>
<td>Oxygen</td>
</tr>
<tr>
<td>PARADOXICAL RESPIRATION</td>
<td>The situation in which attempts to inhale cause collapse of a portion of the chest wall instead of expansion. It is seen in flail chest.</td>
</tr>
<tr>
<td>PARAMEDIC</td>
<td>A person certified to engage in paramedic practices per RCW 18.71.200.</td>
</tr>
<tr>
<td>P.A.S.G.</td>
<td>Pneumatic Anti-Shock Garment (See M.A.S.T.)</td>
</tr>
<tr>
<td>PATIENT CARE PROCEDURES (PCPs)</td>
<td>Written operating guidelines adopted by the regional EMS/TC council per WAC 246-976-010.</td>
</tr>
<tr>
<td>PERINEUM</td>
<td>That area of the anatomy bounded anteriorly by the pubic symphysis and posteriorly by the coccyx.</td>
</tr>
<tr>
<td>PERIORAL</td>
<td>Around the mouth.</td>
</tr>
<tr>
<td>PERIORBITAL</td>
<td>Around the eye.</td>
</tr>
<tr>
<td>PETIT MAL SEIZURE</td>
<td>A type of epileptic attack seen especially in children, characterized by momentary loss of awareness without loss of motor tone.</td>
</tr>
<tr>
<td>PLACENTA</td>
<td>A vascular organ attached to the uterine wall, supplying oxygen and nutrients to the fetus; also called the afterbirth.</td>
</tr>
<tr>
<td>PMS</td>
<td>Pulse, Movement, Sensation.</td>
</tr>
<tr>
<td>PNEUMOTHORAX</td>
<td>Air in the pleural cavity.</td>
</tr>
<tr>
<td>POC</td>
<td>Position Of Comfort.</td>
</tr>
<tr>
<td>POSTICTAL</td>
<td>Referring to the period after the convulsive state of a seizure.</td>
</tr>
<tr>
<td>POSTPARTUM</td>
<td>Occurring after childbirth, with reference to the mother.</td>
</tr>
<tr>
<td>p.r.n.</td>
<td>As circumstances may require, as necessary.</td>
</tr>
<tr>
<td>PROLAPSED CORD</td>
<td>A delivery in which the umbilical cord appears at the vaginal orifice before the head of the infant.</td>
</tr>
<tr>
<td>PRONE</td>
<td>Lying flat with the face downward.</td>
</tr>
<tr>
<td>PROPHYLAXIS</td>
<td>Taking measures to prevent the occurrence of a given disease or abnormal state.</td>
</tr>
<tr>
<td>PROTOCOL</td>
<td>Written procedures adopted by the MPD that direct the out-of-hospital emergency care per WAC 246-976-010.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PSDE</td>
<td>Painful, Swollen, Deformed, Extremity, formerly referred to as a fracture.</td>
</tr>
<tr>
<td>PSYCHOSIS</td>
<td>A mental disorder causing disintegration of personality and loss of contact with reality.</td>
</tr>
<tr>
<td>PULMONARY EDEMA</td>
<td>Congestion of the pulmonary air spaces with exudate and foam.</td>
</tr>
<tr>
<td>RAPID ASSESSMENT</td>
<td>The step of patient assessment that follows the Initial Patient Assessment of the high priority trauma patient. A rapid assessment of the head, neck, chest, abdomen, pelvis, extremities and posterior of the body to detect Causes, Signs, and Symptoms of injury.</td>
</tr>
<tr>
<td>RCW</td>
<td>Revised Code of Washington</td>
</tr>
<tr>
<td>RECOVERY POSITION</td>
<td>The patient positioned on his/her left side, used to help maintain an open airway by preventing the tongue from occluding the posterior aspect of the mouth and allowing gravity to assist in draining secretions.</td>
</tr>
<tr>
<td>RESPIRATORY INSUFFICIENCY</td>
<td>A condition which results in inadequate oxygen and carbon dioxide exchange in the lungs and tissues, due to disease or injury.</td>
</tr>
<tr>
<td>S.A.M.P.L.E.</td>
<td>History, acronym for Signs and symptoms, Allergies, Medications, Past pertinent medical history, Last oral intake, Events leading to illness or injury</td>
</tr>
<tr>
<td>SHOCK</td>
<td>A state of inadequate tissue perfusion (hypoperfusion), which may be caused by pump failure (cardiogenic shock), volume loss (hypovolemic shock), vasodilatation (neurogenic shock), or any combination of these.</td>
</tr>
<tr>
<td>SOB</td>
<td>Shortness Of Breath</td>
</tr>
<tr>
<td>STATUS EPILEPTICUS</td>
<td>The occurrence of two or more seizures without a period of complete consciousness between them.</td>
</tr>
<tr>
<td>SUBCUTANEOUS EMPHYSEMA</td>
<td>A condition in which trauma to the lung or airway results in the escape of air into the tissues of the body, especially the chest wall, neck, and face, causing a crackling sensation on palpation of the skin.</td>
</tr>
<tr>
<td>SUPERVISING PHYSICIAN</td>
<td>A physician designated by the EMS MPD to be responsible for the supervision of medical treatment procedures for BLS and ALS technicians.</td>
</tr>
<tr>
<td>SUPINE</td>
<td>Lying flat with the face upward.</td>
</tr>
<tr>
<td>TACHYCARDIA</td>
<td>A rapid heart rate, over 100 per minute.</td>
</tr>
<tr>
<td>TACHYPNEA</td>
<td>An abnormally rapid rate of breathing</td>
</tr>
<tr>
<td>TENSION PNEUMOTHORAX</td>
<td>The situation in which air enters the pleural space through a one-way valve defect in the lung, causing progressive increase in intrapleural pressure, with lung collapse and impairment of circulation.</td>
</tr>
<tr>
<td>THROMBUS</td>
<td>A fixed clot that forms inside a blood vessel.</td>
</tr>
<tr>
<td>TOXIN</td>
<td>A poison manufactured by bacteria or other forms of</td>
</tr>
</tbody>
</table>
animal or vegetable life.

TINNITUS  Tinkling or ringing heard in one or both ears. It may be a sign of hearing injury.

TRACHEAL DEVIATION  A lateral shift in the position of the trachea so it no longer appears in the midline of the neck.

TRACHEAL DEVIATION  A lateral shift in the position of the trachea so it no longer appears in the midline of the neck.

TRAINING PHYSICIAN  A physician designated by the EMS-MPD to be responsible for BLS and ALS training programs.

TRENDELENBURG POSITION  The position in which a patient is placed on his back with legs raised and head lowered.

TRIAGE  A system used for categorizing and sorting patients according to the severity of their problems.

VENTRICULAR FIBRILLATION (VF or V-Fib)  A disorganized series of electrical stimulations which disrupts the heart’s pumping and cuts off the cardiac output.

VITAL SIGNS  Pulse, blood pressure, respiration, skin color, and pupil size.

WAC  Washington Administrative Code
These protocols may be obtained in the following manner:

1. 81/2 in. X 11 in - available on the OEMSTS web site at  
http://www.doh.wa.gov/hsq/trauma/publications.htm


3. To obtain an order form, contact:

   Office of Emergency Medical Services and Trauma System
   PO Box 47853
   Olympia, WA  98504-7853

   (360) 236-2828

To request this publication in an alternative format call Consumer Assistance at 1-800 525-0127