PRE-HOSPITAL CARE PROCEDURES AND PATIENT CARE PROTOCOLS

EMERGENCY MEDICAL TECHNICIAN

WALLA WALLA COUNTY EMS

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

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The protocols have been reviewed and endorsed by the Medical Program Director and the DOH, Licensing and Certification Committee
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.

There are two versions of these protocols, unabridged and abridged. The unabridged version contains additional information, including signs and symptoms, medical symbols, a glossary, and more appendices.

The assessment information in the General Orders is intended to be considered with all protocols. In addition, the General Medical Assessment should be considered with all medical protocols, the General Trauma Assessment should be considered with all trauma protocols, and the Pediatric Assessment should be considered with all pediatric 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.
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HOSPITAL DESTINATION

In general, patients with non-life threatening injuries or disease states will be delivered to the hospital of their or their family’s choice, or the hospital indicated by the private physician.

If the patient does not have a hospital preference, Medical Control will be contacted to obtain destination instructions. If the patient has a hospital preference, Medical Control can change the destination based on prehospital assessment, trauma triage criteria and availability of resources (i.e. status of ED, ICU, OR, CT, etc.) at the destination hospital. If Medical Control defers patient acceptance to another facility, the ED physician acting as Medical Control shall contact, by landline, their counterpart at the other facility to confirm patient acceptance.

If a hospital selected by a patient denies that patient access (for whatever reason), the responsible physician must contact another appropriate facility to arrange acceptance. The purpose of this provision is that there be physician-to-physician contact and consensus amongst facilities whenever there is a deviation from the norm.

Any head and/or spinal cord injured patient who has significant deterioration in level of consciousness, or localizing neurologic signs thought to be the result of neurologic trauma (including those with a Glasgow Coma Score of less than 13) should be directed to St. Mary Medical Center, unless redirected (as in the case of a Mass Casualty Incident).

Under RCW 70.168.015(23), and Walla Walla County EMS Prehospital Trauma Triage Procedures, patients meeting Trauma Triage Criteria Step 1, Step 2 and 2A will be transported to St. Mary Medical Center. Patients meeting Trauma Triage Criteria Step 3, destination will be determined by contacting Trauma Control at St. Mary Medical Center, or Medical Control, if at Walla Walla General Hospital, or the hospital of the patient’s choice.

St. Mary Medical Center is Medical Control for Oregon Trauma patients. Units will contact SMMC when responding to an Oregon trauma scene. Those patients meeting Trauma Triage Criteria will be transported to SMMC.
EMS PROVIDERS AND AMBULANCE DISPATCH

I. **GOAL:** This protocol is to assure the most rapid availability of appropriate EMS personnel and ambulance service to ill and injured individuals in Walla Walla County, as mandated in Washington Administrative Code for EMS and Trauma Systems (WAC 246-976).

II. **DISPATCH:** The City of Walla Walla (E911) is the Dispatch Center that initiates EMS response. All 911 calls go to Walla Walla dispatch, wherein they will dispatch the appropriate EMS agency to respond. Waitsburg Ambulance Service and Walla Walla County Fire Protection District #2 are dispatched from Columbia County Dispatch Center.

Selection of the first responding unit shall be based upon declared need (emergency vs. nonemergent), jurisdiction, geographic and response time factors. All responses declared emergent and fulfilling the "Two-Tiered Response" criteria require the nearest available ALS ambulance be dispatched simultaneously with the respective district's EMT's (excepting District #5, which relies on other verified agencies outside Walla Walla County for ALS support). Upon dispatch to an accident scene at which serious injuries and/or fatalities are reported, the first responding EMS unit shall notify Medical Control.

III. **ON SCENE MEDICAL COMMAND:** When a two-tiered response is initiated, the first EMS provider on scene will be responsible to determine the need for ALS. If their initial assessment is that the patient does not require transport or in the Waitsburg and Burbank areas requires only BLS transport, they will have the option to notify the responding ALS unit or Walla Walla dispatch directly and cancel ALS (see page 16). If ALS is canceled, the EMS responder responsible for making the decision should identify himself/herself and communicate why ALS is no longer needed. If the first EMS provider determines that ALS support is necessary and they have not been dispatched, contact the dispatch center immediately to have them dispatched. If both BLS and ALS units are at the scene, the senior paramedic shall assume or clearly delegate medical command. If more than one provider agency responds to an emergency, the first EMT to arrive will be in charge until an EMS provider with a higher certification level arrives, or until the EMT in charge transfers control to a later arriving EMT. It is extremely important that someone assumes command of patient care (i.e., medical command) and the responsibilities that implies.
CRITERIA FOR ALS TRANSPORT

NOTE: The paramedic in charge of patient care will determine whether the ALS patient in their care will be transported in the BLS vehicle or the ALS vehicle after patient exam or patient condition communications with the BLS crew

I. ABNORMAL VITAL SIGNS (ADULTS)

Patients with abnormal vital signs may require ALS. ALS is to be requested if abnormal vital signs are associated with related symptoms.

A. Hypertension
   1. Systolic BP >200 mm Hg
   2. Diastolic BP >120 mm Hg and/or
   3. Associated symptoms: chest pain, headache, shortness of breath, stroke (paralysis), severe abdominal or back pain, acute altered level of consciousness

B. Hypotension
   1. Systolic BP 90 mm Hg and/or
   2. Associated symptoms: chest pain, shortness of breath, syncope (fainting), trauma GI bleed, anaphylaxis (allergic reaction), severe abdominal or back pain, acute altered level of consciousness

C. Bradycardia
   1. Heart rate < 50 per minute with
   2. Associated symptoms: chest pain, shortness of breath, syncope, hypotension, acute altered level of consciousness

D. Tachycardia
   1. Heart rate: 100-120 per minute (mild); >120 per minute (significant) and/or
   2. Associated symptoms: chest pain, shortness of breath, syncope, hypotension, trauma

E. Respiration
   1. Respiratory rate < 10 or > 30 per minute and/or
   2. Associated symptoms: chest pain, shortness of breath, hypotension, trauma, cyanosis, stridor, wheezing, choking, low oxygen saturation (by oximeter)

F. Pulse Oximetry (blood oxygen saturation or SaO₂)
   1. Unreliable when patient not perfusing well or extremely tachycardic
   2. SaO₂ < 94% in patient without underlying pulmonary disease;
   3. SaO₂ < 90% in patient with emphysema or other chronic lung disease;
4. Readings are to be without supplemental oxygen
5. Associated symptoms: altered respiratory rate, chest pain, shortness of breath, hypotension, trauma, cyanosis, stridor, wheezing, choking
II. ORGAN SYSTEM INVOLVEMENT

A. Neurologic Disease
1. Acute altered level of consciousness
2. Acute stroke symptoms (i.e., TIA or CVA) with altered level of consciousness or abnormal vital signs
3. Recurrent or ongoing seizure activity
4. Spinal cord injury (i.e., paralysis)

B. Cardiac Disease
1. Cardiac arrest (patient is unconscious and without a pulse)
2. Chest pain, especially that described as “pressure, squeezing, tightness, constricting, or heaviness”, and associated with:
   a. Radiation of pain to shoulder(s), arm(s), jaw, neck, or back;
   b. Nausea or emesis
   c. Shortness of breath
   d. Diaphoresis

C. Respiratory Disease
1. Respiratory arrest (patient is not breathing)
2. Symptomatic asthma or emphysema
3. Choking or difficulty breathing

D. Gastrointestinal Disease
1. Significant vomiting of blood (especially if associated with faintness or weakness)
2. Significant rectal bleeding (especially if associated with faintness or weakness)
3. Severe abdominal pain

E. Obstetrics
1. Active labor - Regular uterine contractions with increasing dilation of the cervix and descent of the presenting part.
2. History of complicated deliveries
3. Abnormal presentation
4. Post-delivery complication (i.e., heavy vaginal bleeding)
5. Newborn complications
III. TRAUMA

A. Any patient involved in a traumatic incident should be evaluated using WALLA WALLA COUNTY PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES

STEP 1- ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS
  • Systolic BP <90
  • HR >120
  • For pediatrics (<15 yrs) patients, use BP <90 or capillary refill >2 seconds
  • Any of the above associated with signs and symptoms of shock and/or
  • Respiratory rate <10 or >29 associated with evidence of distress and/or
  • Altered Mental Status - GCS <13

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

STEP 2a- ASSESS CERTAIN MECHANISMS OF INJURY
  • Death of same car occupant; or
  • Ejection of patient from enclosed vehicle;
  • Extrication time >20 minutes (Heavy equipment required to extricate patient from enclosed space)

STEP 3- ASSESS BIOMECHANICS OF INJURY AND OTHER RISK FACTORS
  • Significant impact/intrusion; or
  • Falls >20 feet; or
  • Pedestrian hit at >20 MPH or thrown 15 feet; or
  • High energy transfer; rollover, motorcycle, bicycle, ATV
  • Extremes of age (<15 >60)
  • Hostile environment (Extremes of heat or cold)
  • Medical illness (Such as COPD, CHF, renal failure, etc.)
  • Second or third trimester pregnancy
  • Presence of intoxicants
  • Gut feeling of medic
IV. PEDIATRICS--

NOTE: ALL PATIENTS UNDER THE AGE OF 16 REQUIRE CAREFUL HISTORY AND PHYSICAL EXAM

A. Neurological system criteria
   1. Acute altered level of consciousness
   2. Recurrent or ongoing seizure activity
   3. Spinal cord injury (i.e., paralysis)

B. Respiratory difficulty
   1. Respiratory arrest (patient is not breathing)
   2. Symptomatic asthma
   3. Choking or difficulty breathing
   4. Increased or decreased respiratory rate

C. See chart for abnormal vital signs (see page 95)
D. Trauma Criteria as above
E. “Gut feeling” of the responder
TWO-TIERED RESPONSE DISPATCH CRITERIA FOR EMS PERSONNEL

THESE ARE MINIMUM GUIDELINES:

On all calls, THE DESIGNATED AGENCY FOR THE AREA WILL BE DISPATCHED ALONG WITH THE DESIGNATED ALS AGENCY.

These GUIDELINES call for the simultaneous (“two-tiered”) dispatch of BLS and ALS providers when certain criteria described henceforth are met. The decision to utilize ALS must be based on the patient’s illness or injury. Initial information from an incident scene or from the patient call for help is often vague. Dispatchers are trained in drawing more specific information from the caller to determine the appropriate level of EMS response. The following list of signs and symptoms of illness/injury is to be used as a tool by dispatchers and EMS personnel in determining which patients benefit most from early ALS contact. THIS LIST IS NOT ALL INCLUSIVE. IT IS A “GENERAL GUIDELINE” OF THE TYPE OF PATIENT PROBLEMS AND SITUATIONS IN WHICH ALS CARE IS MOST BENEFICIAL. ALL PATIENTS MEETING THE WALLA WALLA COUNTY EMS PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES ARE ALS.

If a call does not meet any of the following criteria, but “Gut Feeling” tells you the patient may benefit from early ALS involvement, initiate the two-tiered response. When it involves the health and welfare of the people we serve, it is better to err on the side of too vigorous a response as opposed to providing too little help too late. After assessment on scene by a Walla Walla County EMS provider, First Responder, EMT, or law enforcement personnel, ALS can be slowed down or canceled according to the CANCELLATION/SLOWDOWN GUIDELINE, (page 16), as appropriate. On-scene medical personnel will notify dispatch as soon as the decision is made. Additionally, EMS personnel may consult Medical Control by HEAR radio or phone for assistance in triage decisions. Patients assessed as stable, (i.e., those not meeting the following criteria) may be transported by BLS.

THE FOLLOWING REQUIRE ALS BE DISPATCHED IMMEDIATELY

I. ANAPHYLAXIS
   A. Hymenoptera stings/bites
   B. Allergic reactions
      1. Food
      2. Medications
      3. Environmental Allergens

II. CARDIAC
   A. Cardiac Arrest
   B. Chest Pain
   C. American Heart Association Signs and Symptoms
1.  Chest pain, pressure, squeezing, tightness, constricting, oppressive or heaviness
2.  Pain in center of chest, spreading to one or both shoulders, arms, neck, jaw or back
3.  Sweating
4.  Nausea
5.  Shortness of breath

III.  G. I. SYSTEM

A.  Vomiting blood
B.  Rectal bleeding
C.  Severe abdominal pain

IV.  NEUROLOGIC

A.  Unconsciousness
B.  Coma
C.  Seizures
D.  Head and spinal cord injuries
E.  Confusion/Disorientation

V.  RESPIRATORY

A.  Respiratory problems
B.  Asthma/emphysema/COPD
C.  Choking
D.  Difficulty breathing/Shortness of breath
VI. TRAUMA
USE WALLA WALLA COUNTY EMS PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES

STEP 1- ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS
- Systolic BP <90
- HR >120
  For pediatrics (<15 yrs) patients, use BP <90 or capillary refill >2 seconds
- Any of the above associated with signs and symptoms of shock
  and/or
- Respiratory rate <10 or >29 associated with evidence of distress
  and/or
- Altered Mental Status - GCS <13

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

STEP 2a- ASSESS CERTAIN MECHANISMS OF INJURY
- Death of same car occupant; or
- Ejection of patient from enclosed vehicle; or
- Extrication time >20 minutes
  (Heavy equipment required to extricate patient from enclosed space)

STEP 3- ASSESS BIOMECHANICS OF INJURY AND OTHER RISK FACTORS
- Significant impact/intrusion; or
- Falls >20 feet; or
- Pedestrian hit at >20 MPH or thrown 15 feet; or
- High energy transfer; rollover, motorcycle, bicycle, ATV
- Extremes of age (<15 >60)
- Hostile environment (extremes of heat or cold)
- Medical illness (such as COPD, CHF, renal failure, etc.)
- Second or third trimester pregnancy
- Presence of intoxicants
- Gut feeling of medic
VII. OBSTETRICS AND GYNECOLOGY

A. Active labor - Regular uterine contractions with increasing dilation of the cervix and descent of the presenting part.
B. Vaginal bleeding
C. History of complications
D. Any abnormal presentations
E. Newborn in distress
F. Post delivery bleeding or other complications

VIII. PEDIATRICS--PATIENTS 16 AND UNDER
CANCELLATION/SLOWDOWN

Once a call is received by ALS transport unit from dispatch, ALS transport unit will respond as rapidly as possible and make contact with the requesting party or patient and determine the level of care or treatment required and administer emergency medical care as needed.

I. Canceling of Response

Under the following circumstances, ALS transport unit may cancel their response after being dispatched.

A. Dispatch reports back that the original caller has canceled the request for service. Upon such request, the paramedic will make the decision to cancel or continue the call based on information from dispatch.

B. A first-in responding unit reports that no patient is present.

C. A first-in responding unit with a First Responder, EMT, Paramedic, or EMS provider reports to the ALS unit that the patient does not want or need contact by ALS unit.

1. This denial can be due to no need for medical treatment or that only minor care is needed and can be administered by the first-in units.

2. If the request for cancellation is based on a desire by the patient for private vehicle transport, this should be conveyed to transport unit. If the first-in unit feels that the ALS transport paramedic should continue in for evaluation, this should be conveyed to responding medic unit.

3. In cases #1 and #2 above, it shall be the discretion of the paramedic on the responding medic unit whether to continue to the scene.

4. In the event the ALS transport unit does not respond based on #1 and #2 above, the first-in unit canceling the paramedic shall obtain a "Refusal For Treatment or Transport" form signed by the patient or other responsible person stating that based on his/her own initiative or advice from first-in unit, they do not desire transport.

5. It is the responsibility of EMS personnel to inform patients of the need for ALS or for potential risk using an approved form.
II. Slowdown

A. Transport units may be slowed to a lesser response code by first-in units when that EMS unit, staffed by a First Responder, EMT or Paramedic, has evaluated the patient and has made the determination that a slower response is appropriate.

B. Rather than slow the responding medic unit, it may be more appropriate for the first-in unit to convey the patient assessment information to the medic unit and let that responding paramedic decide if a slower response is appropriate.

III. Diversion

An ALS transport unit may be diverted to another call when:

A. It is obvious the second call is a life-threatening emergency and first-in units report that first call can await a second ambulance.

B. A second ambulance is dispatched to first call.

C. The first ambulance is decidedly closer to the second call and the response by it to the second call might conceivably be vital to the patient's outcome.
COMBATIVE PATIENT

PHYSICAL RESTRAINTS

I. PURPOSE

A. To prevent harm to patient and/or others

II. INDICATIONS

A. Patient restraints should be utilized only when necessary and only in situations where the patient is exhibiting behavior that EMS personnel believe present a danger to patient or others.
B. This procedure is not to be used on lucid patients who are refusing treatment unless they are placed under a police hold.
C. This procedure does apply to patients treated under implied consent.

III. PROCEDURE

A. Physical restraint procedure:
   1. Ensure sufficient personnel are present to control the patient while restraining him/her. USE POLICE ASSISTANCE WHENEVER AVAILABLE.
   2. Position patient for safe transport
      a. Backboard method. (Be prepared to logroll immediately for vomiting.)
         i. Place patient face up on long backboard if at all possible.
         ii. Secure all extremities to backboard (4-point restraint.)
         iii. If necessary, utilize cervical-spine precautions (tape, foam blocks, or CID, etc.) to control violent head or body movements.
         iv. Place padding under patient’s head and wherever else needed to prevent patient from further harm to self or restricting circulation.
         v. Secure backboard onto gurney for transport, using additional straps, if necessary, and be prepared at all times to logroll, suction, and maintain airway.
      b. Alternate methods without backboard. (Monitor respiratory status very closely with these alternate methods.)
         i. Prone on stretcher
   3. Monitor and document reasons for applying restraints. Monitor airway status, vital signs and neurocirculatory status distal to restraints. Document every 15 minutes or beginning and end if less than 15 minute transport.
   4. BLS shall not transport chemically restrained patients.
IV. ADDITIONAL INFORMATION

A. Physical-restraint guidelines:
   1. Use the minimum restraint necessary to accomplish patient care and ensure safe transportation.
   2. If law-enforcement or additional personnel are needed, call prior to attempting restraint.
   3. Patients from Washington State Penitentiary will be cared for using WSP procedures.
   4. In situations where the patient is under arrest and handcuffs are applied by law-enforcement officers:
      a. The patient will not beuffed to the stretcher
      b. A law-enforcement officer shall accompany the patient in the ambulance if the handcuffs are to remain applied
      c. A law-enforcement officer may elect to follow the ambulance in the patrol car if the patient has been restrained with restraints other than handcuffs
   5. Avoid placing restraints in such a way as to preclude evaluation of the patient’s medical status (airway, breathing, circulation).
   6. Consider whether placement of restraints will interfere with necessary patient-care activities or cause further harm
**BLS/ILS AMBULANCE RENDEZVOUS WITH ALS AMBULANCE**

In service areas with BLS/ILS ambulances, a “rendezvous” with an ALS ambulance will be “attempted” for all patients who would benefit from ALS intervention. These criteria will be required for all patients meeting **ALS DISPATCH REQUIREMENTS** and **CRITERIA FOR ALS TRANSPORT**.

I. The BLS/ILS ambulance may determine the need for ALS ambulance rendezvous at any time.

II. Based on updated information, BLS/ILS personnel, either while in route or on scene, may determine that ALS intervention is not needed. The responding ALS ambulance may be notified and given the option to cancel.

III. Prior to a BLS/ILS ambulance transporting a patient from the scene, the ETA of ALS shall be determined. If ETA is ≤ 5 minutes and transport time is ≥ 10 minutes the BLS/ILS Ambulance will remain at the scene until ALS arrives. The only exception would be for a major trauma victim or patient without a patent airway. **Note:** Justification is that it would only be 2½ minutes until rendezvous.

IV. Upon rendezvous, the ALS provider will determine the method of transport (BLS/ILS unit vs ALS unit) based on the best interest of the patient’s care in accordance with RCW 18.71.210.

V. Deviation from this procedure shall be reviewed by the responding agencies and the MPD.

VI. Definitions:
   A. ALS - Advanced Life Support as defined in WAC 246-976-010.
   B. Attempted - after identification of the need for ALS intervention, every effort will be made to arrange a BLS/ILS ambulance with ALS ambulance rendezvous.
   C. BLS - Basic Life Support as defined in WAC 246-976-010.
   D. ILS - Intermediate Life Support as defined in WAC 246-976-010
   E. Rendezvous - a pre-arranged agreed upon meeting either on scene, in route from or another specified location.
TIME ON THE SCENE

I. Any time a First Responder or EMT cannot provide a patent airway to a patient within 2 minutes after initial patient encounter and initiating emergency medical care, the licensed transporting unit is required to transport the patient immediately, unless there are extenuating circumstances. ALS is to be notified of the situation immediately (see page 20).

II. Medical - Scene times should be less than 30 minutes after initial encounter. Document extenuating circumstances. Medical Control may be contacted for advice. If at any time the EMT has been or predicts he/she will be on the scene for more than 30 minutes after initial encounter, he/she will contact Medical Control for advice on whether the patient should be transported immediately or have further care rendered.

III. Trauma - scene time should be 10 minutes or less once extrication has been accomplished and the patient can be removed from the site.

   In cases of two or more patients, each with varying extrication times, additional transport vehicles should be called in to effect early transport of patients as they are extricated.

IV. Code 606 - Cardiopulmonary Arrest. Scene time should be based on arrival of ALS.

V. Document extenuating circumstances.
INTERHOSPITAL/INTERFACILITY TRANSFER

Interhospital patient transfers on an emergency basis are initiated when definitive diagnostic or therapeutic needs of a patient are beyond the capacity of one hospital.

Interfacility patient transfers may be initiated when patients need to be moved from longterm care facilities, physicians’ offices, or hospital to hospital; for evaluation, diagnosis or further care.

The patient may be stable or unstable.

Medical treatment is continued and may possibly even be initiated enroute.

Written guidelines permit orderly transfer of patients with appropriate continuity of care.

Cobra has mandated policies established by each hospital.

A. All patients should be stabilized, as much as possible, before transfer.

B. Paramedics or EMT’s must have an adequate summary of the patient’s condition, current treatment, possible complications, and other pertinent medical information.

C. Treatment orders should be obtained by the transporting personnel. Orders should be in writing. Orders given by direct verbal order from the physician initiating the transfer must be recorded immediately and signed prior to transport.

D. All patients for emergency transfer must have at least one IV in place prior to transfer. IV site may have saline/heparin lock in place. Orders for IV solutions composition and rate should be provided.

E. Transfer papers (summary, lab work, X-rays, etc.) shall accompany the patient.

F. Inquire if receiving physician has been contacted by the transferring physician prior to transfer.

G. Inquire if receiving hospital, physician and personnel have been notified prior to initiation of transfer to assure adequate space and ability to care for patient.

H. Personnel and equipment used to transfer patient shall be appropriate to the treatment needed or anticipated during transfer. In specialized fields not ordinarily handled by paramedics, (e.g. high risk obstetrics, high risk neonates), appropriately trained personnel shall accompany the patient. Written orders for medications not covered by County Patient Care Procedures shall accompany the patient.
I. While enroute, the patient shall be monitored carefully and vital signs taken and recorded at a minimum of every 30 minutes. Persons with restraints shall be checked every 15 minutes.

1. **EXCEPTION:** Stable, sedated mental health patients will be monitored closely and will not be awakened for taking vital signs. Visual observations (monitor, respirations, etc.), will be recorded as above.

2. All Interfacility transfer patients will have vital signs taken at beginning of transfer and ending of transfer.
DOCUMENTATION

An approved EMS Medical Incident Report Form (MIR) must be appropriately completed and filed for any call for EMS assistance resulting in patient contact within Walla Walla County, regardless of patient transport. This will apply to both basic and advanced life support units and includes public assist calls. Non-transporting agencies may use a County or State approved form.
PATIENT TREATMENT RIGHTS

These protocols are intended for use with a conscious, consenting patient, or an unconscious (implied consent) patient.

If a conscious patient who is rational (having the capacity or ability to make reasoned decisions) refuses treatment, the EMT should be sure patient is informed of potential consequences of decision (informed consent) and refusal documented. Refusal should include patient or guardian’s signature.

If a conscious patient who is irrational (or impaired by alcohol or drugs) or may harm himself/herself refuses treatment, the EMT should contact Medical Control and Dispatch for police and Crisis Response Team health professional, if necessary.

If a patient's family, patient's physician, or nursing home refuses treatment for a patient, protocols are contained herein to deal with those situations.

When possible, patient’s preference of hospital will be taken into consideration. See Hospital Destination (page 7).

When in doubt concerning patient’s rights, contact Medical Control and fully document all your actions.

If a patient is a minor (under age 18) and no consenting adult is available and the minor refuses treatment, the EMT should contact Medical Control (and police, etc.). Similarly, if a minor requests transport and a medical emergency; condition; or situation does not exist which warrants the use of such resources, contact Medical Control (or the hospital designated by the patient) for guidance. When possible, contact parents.

A minor shall not be released without notifying parent, guardian or other adult responsible for notifying parent or guardian. Document person notified.
NON-TRANSPORT OF PATIENTS

The decision to seek Emergency Medical Services usually resides with the patient, family, legal custodian, or in certain instances, friends. Similarly, the decision to transport or not transport should reside with the same individuals. The most common reasons for not transporting a patient include:

A. The patient, family member, or legal custodian change their mind and are no longer requesting transport (a "Refusal to Transport" form shall be completed and signed by the responsible person)

B. The patient has expired (as evidenced by rigor mortis, decapitation, incineration or evisceration)

C. The patient, as assessed by the paramedic/EMT is stable and their condition is suitable for private vehicle transport (and the patient, family member, etc., makes the request)

D. The patient is uncooperative but medically stable as assessed by the paramedic/EMT and suitable for law enforcement transport

E. Extenuating circumstances exist and after consultation with the destination hospital or MC, it is determined that the patient does not require transport

For any patient for whom there is contact, pertinent information regarding that individual shall be obtained and an MIR form completed, even when transport is not carried out. If the patient refuses transport contrary to the advice of the paramedic/EMT, a "Refusal to Transport" form should be signed by the responsible person (i.e. patient, family member, etc.). If the patient or responsible party will not sign a "Refusal to Transport" form, document the refusal and circumstances thoroughly on the MIR.

It is incumbent on the EMS provider to provide enough information to the patient, family, etc. so that an informed decision to be transported or not can be made.
LEVEL OF CARE DURING TRANSPORT

*EMT-P AND EMT ON CAR*

Attendance of the patient during transport will be appropriate to the degree of illness as determined by the judgment of the paramedic. All ALS transports will be attended by an emergency medical technician qualified and certified by WAC 246-976-280 to provide or maintain the appropriate ALS procedures (i.e., paramedic). The only exception may occur during mass casualty incidents.

Inappropriate assignment of medical attendants may be grounds for suspension of standing orders for EMT-P and EMT by the Medical Program Director.

MEDICATION AND ALLERGIES

All medications in these guidelines are to be administered only after ascertaining that the patient is not allergic to them. In critical situations when the patient is obtunded, personnel are reminded to question family, friends, and to look for Medic-Alert identification and/or "File of Life" folders on refrigerator doors.

MEDICAL PROFESSIONALS AT THE SCENE

Medical professionals at the scene of an emergency may provide assistance to EMS personnel and should be treated with professional courtesy. Medical professionals who offer their assistance should identify themselves. Physicians should provide proof of their identity if they wish to assume or retain responsibility for the care given the patient after the arrival of the EMS personnel. A handout may be given to a physician at the scene. (See page 28.)
THANK YOU FOR YOUR OFFER OF ASSISTANCE

(FRONT OF CARD)

This Emergency Medical Services team is operating under Washington State Law and EMS policy approved by the Medical Society of Walla Walla County and the Walla Walla County Emergency Medical Services Council. The EMS team is functioning under standing orders from the Medical Program Director of Walla Walla County and is in direct radio contact with an authorized Emergency Department Physician. If you wish to assist, please see the other side for options.

G.THOMAS UNDERHILL, M.D.
MEDICAL PROGRAM DIRECTOR
WALLA WALLA COUNTY EMS

(BACK OF CARD)

In general, the physician who has the most expertise in management of the emergency should take control. This is usually the base hospital physician.

You may:

A. Request to talk directly to the base hospital physician to offer your advice and assistance;
B. Offer your assistance to the EMS team with another pair of eyes, hands, or suggestions, but allow the EMS team to remain under Medical Control of the base hospital physician;
C. If you have an area of special expertise for the patient’s problem, you may take total responsibility, if delegated by the base hospital physician, and accompany the patient to the hospital.
RELATIONSHIP BETWEEN EMS TEAM AND PRIVATE PHYSICIAN

When the patient’s private physician is in attendance and has identified himself/herself upon the arrival of the EMS team, the EMS team will comply with the private physician’s instructions for the patient. Base hospital will be contacted for reporting and estimated time of arrival. If orders are given which are inconsistent with established protocols, clearance must be obtained through the Medical Control Physician.

The physician at the scene may:

A. Request to talk directly to the destination hospital physician or Medical Control physician to offer advice and assistance;

B. Offer assistance to the EMS team with another pair of eyes, hands, or suggestions, leaving the EMS team to follow established protocols;

C. Take total responsibility for the patient with the concurrence of the destination hospital physician or Medical Control physician.

If during transport, the patient's condition should warrant treatment other than that requested by the private physician, Medical Control will be contacted via the "H.E.A.R." system, or cellular phone, for information and concurrence with any treatment, except in cases of cardiopulmonary arrest (in which case the protocols commencing on page 30 should be immediately instituted). The above "Physician at the Scene" will also apply to cases where a physician may happen upon the scene of a medical emergency and interacts with the EMS team.
GENERAL ORDERS

I. Scene Size-up/Assessment
   A. Body substance isolation per agency exposure control program
   B. Scene Safety

II. Initial Patient Assessment
   A. Airway - Breathing - Circulation
      1. If there is a written DNR/No CPR order, follow protocol for DNR
   B. Consider ALS response and support as identified in the Regional Patient Care Plan and/or Patient Care Procedures

III. Focused History and Physical Exam - Medical Patients

IV. Focused History and Physical Exam - Trauma Patients

V. Detailed Physical Exam
   A. Patient and injury specific
   B. Perform a detailed physical examination for additional information

VI. Ongoing Assessment
   A. Repeat and record initial patient assessment, including time
   B. Reassess mental status
   C. Maintain open airway and monitor breathing for rate and quality
   D. Reassess pulse for rate and quality
   E. Monitor skin color and temperature
   F. Re-establish patient priorities
   G. Reassess and record vital signs, including time
   H. Repeat focused assessment of patient complaint or injuries
   I. Check interventions
   J. Monitoring of IV fluids by trained and authorized personnel

VII. Communications
   A. Radio information protocol during transport:
      1. Identify ambulance 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

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B. Verbal and written report to emergency department nurse or physician
C. Consider critical incident stress debriefing as necessary

VIII. Transportation

A. Advise emergency department of changes in patient’s condition during transportation
B. Continue ongoing assessment and patient care

IX. Clean, Service and Restock Vehicle
GENERAL MEDICAL ASSESSMENT

I. Scene Size-Up

II. Initial Patient Assessment

III. Focused History and Physical Exam

A. Assess complaints and signs and symptoms, responsive patient
   1. O-P-Q-R-S-T assessment guidelines
   2. Obtain SAMPLE history
   3. Obtain vital signs
   4. Conduct AVPU mental status exam as needed
   5. Intervention

IV. Perform Ongoing and/or Detailed Assessment as Needed

V. Transport
ANAPHYLAXIS/ALLERGIC REACTION - Revised 6/10

**Note:** Life threatening airway/respiratory compromise may develop as the reaction progresses.

I. Scene Size-Up/Initial Patient Assessment

II. Focused History and Detailed Physical Exam
   A. Signs and symptoms - .
      1. Not all signs and symptoms are present in every case
      2. History - Previous exposure; previous experience to exposure; Onset of symptoms; Dyspnea ,
      3. Level of Consciousness - Unable to speak; Restless; Decreased level of Consciousness; Unresponsive .
      4. Upper Airway - Hoarseness; Stridor; Pharyngeal edema / spasm
      5. Lower Airway - Tachypnea; Hypoventilation; Labored-Accessory muscle use; Abnormal retractions; prolonged expirations; Wheezes; Diminished lung sounds
      6. Skin - Redness; Rashes; Edema; Moisture; Itching; Urticaria; Pallor; Cyanotic
      7. Vital Signs - Tachycardia; Hypotension
      8. Gastrointestinal- Abnormal cramping; Nausea/vomiting; Diarrhea

**Note:** When a paramedic system exists, ALS rendezvous shall be arranged as soon as possible as directed by local or regional patient care procedures or when directed by medical direction/control.

III. Management
   A. Remove offending agent (Le. Stinger)
   B. Clear the airway, provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment.
   C. Anaphylaxis/Allergic Reaction with Severe Respiratory Distress
      1. Airway, Breathing, Circulation
      2. Administer Epinephrine 1:1000 by an Epi Auto-Injector or draw up appropriate dose from vial.
         a) Dosage:
            (1) Adult: (30 kg or 66 lbs and higher)--one adult auto-injector or -
            (2) Draw up from vial and administer 0.3 mg IM Epinephrine
            (3) Infant and child: (Under 30 kg or 66 lbs)--one pediatric auto-injector or -
            (4) Draw up from vial and administer 0.15 mg IM Epinephrine

IV. On-going Assessment
   A. Monitor closely
      1. Record time of injection and reassess patient in two minutes
      2. Update ALS and or Medical Control with any changes in patient’s status

V. Transport

Washington State EMT-Basic Field Protocols - Rev 6/10
ALTERED MENTAL STATUS

I. Use AVPU Mnemonic to Determine Level of Responsiveness

A. Alert and oriented
B. Responsiveness to verbal stimuli
C. Responsiveness to painful stimuli
D. Unresponsiveness

II. Attempt to Determine Cause of Altered Mental Status, if Possible; e.g., Hypo/hyperglycemia, OVERDOSE, Medical Condition by SAMPLE History or Trauma Assessment

A. Signs and symptoms
B. Allergies
C. Medications
D. Pertinent past history
E. Last oral intake
F. Events leading to the injury or illness

III. Emergency Medical Care

A. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
B. Perform blood glucose testing
C. 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 EMERGENCIES

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

I. If Scene is not Secure

A. Guarantee your own safety
B. Call the police
C. Locate the patient
D. Assess and treat life-threatening problems
E. If show of force is necessary to render care, contact law enforcement and medical control

II. If Scene Seems Secure

A. Scan for signs of items contributing to crisis

III. Signs and Symptoms

A. Psychological Crisis
   1. Panic
   2. Agitation
   3. Bizarre behavior
   4. Danger to self or others
B. Suicide Risk
   1. Depression
   2. Suicidal gestures
   3. Mental Status Examination

IV. Emergency Medical Care

A. One EMT to assume control of situation
B. Speak in a calm quiet voice, maintain eye contact and move slowly
C. Answer questions honestly
D. Do not leave the patient alone or turn your back
E. Restrain only if necessary for your protection or that of the patient

V. Transport

A. If patient consents, follow general medical assessment guidelines
B. If patient refuses, obtain consent according to local protocol
Cardiopulmonary Resuscitation
AHA 2010 Standard

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Adult</th>
<th>Children</th>
<th>Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recognition</strong></td>
<td>Unresponsive (for all ages)</td>
<td>No breathing or no normal breathing (i.e. only gasping)</td>
<td></td>
</tr>
<tr>
<td><strong>CPR sequence</strong></td>
<td>C-A-B (Compression – Airway – Breathing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compression rate</strong></td>
<td>At least 100/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compression Depth</strong></td>
<td>At least 2”</td>
<td>About 2”</td>
<td>About 1½”</td>
</tr>
<tr>
<td><strong>Chest wall recoil</strong></td>
<td>Allow complete recoil between compressions</td>
<td>HCPs rotate compressors every 2 minutes</td>
<td></td>
</tr>
<tr>
<td><strong>Compression interruptions</strong></td>
<td>Minimize interruptions in chest compressions</td>
<td>Attempt to limit interruptions to &lt;10 seconds</td>
<td></td>
</tr>
<tr>
<td><strong>Airway</strong></td>
<td>Head tilt-chin lift (HCP suspected trauma; jaw thrust)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>One-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>30:2</td>
<td>30:2</td>
</tr>
<tr>
<td><strong>Two-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>15:2</td>
<td>15:2</td>
</tr>
<tr>
<td><strong>Ventilations with advanced airway</strong></td>
<td>1 breath every 6-8 seconds (8-10 breaths/min)</td>
<td>Not synchronized with chest compressions</td>
<td>About 1 second per breath</td>
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<td></td>
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<td>Visible chest rise</td>
</tr>
<tr>
<td><strong>Defibrillation</strong></td>
<td>Attach &amp; use AED as soon as available. Minimize interruptions in chest compressions before and after shock; resume CPR beginning with compressions immediately after each shock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cardiopulmonary Protocols

CARDIAC ARREST

I. General orders
   A. Assess patient for responsiveness
   B. Notify ALS

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 is 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. Start CPR, beginning with compressions.
      2. Turn on and attach AED
      3. Complete 30 compressions
      4. Ventilate with 100% oxygen by BVM
      5. Analyze if shock indicated
         a) Deliver single shock
         b) Immediately perform 2 minutes of uninterrupted CPR
         c) After 2 minutes of CPR, analyze rhythm and shock if indicated
      6. If available Intubate patient (per King Airway) as soon as possible
      7. Analyze in NO shock indicated
         a) Immediately begin chest compression for 2 minutes
         b) Re-analyze if no shock is indicated check pulse, if pulse is present, check BP, airway & breathing
         c) If no pulse perform 2 minutes of Uninterrupted CPR

   B. Patient regains consciousness
      1. Place patient in position of comfort
      2. Provide supplemental oxygen and/or ventilatory assistance, as necessary,

Note: Unresponsive patient with a pulse present, refer to the Altered Mental Status Protocol

Walla Walla County Patient Care Procedures
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Cardiopulmonary Emergencies - Revised 1/11

I. Scene size-up & initial patient assessment

II. Focused history and physical exam
   A. Onset / Provocation / Quality / Radiation / Severity / Time
   B. Signs and Symptoms
      1. Chest pain
      2. Difficulty breathing
      3. Skin changes (pale, sweaty, and cyanotic)
      4. Anxiety / irritability (feeling of impending doom)
      5. Circulatory (irregular pulse/BP, shock, pulse less)
      6. Nausea / vomiting
   C. Allergies / Medications / Previous Hx / Last Intake / Events Prior

III. MANAGEMENT
   A. Patient Responsive, c/o Chest Pain / Pressure / SOB / Sweating
      1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      2. Patient’s own, physician prescribed Nitroglycerin not available or appropriate;
         a) Continue oxygen
         b) Aspirin
      3. If patients own, physician prescribed Nitroglycerin not available or appropriate;
         a) Continue oxygen
         b) Allow patient to achieve safe position of comfort
   B. Patient Unresponsive
      1. If patient becomes unresponsive, no pulse, no respirations, initiate Cardiac Arrest Protocol
Cardiopulmonary Resuscitation Protocol
Death In The Field (DIF) Protocol

I. Except as detailed below, patient resuscitation (including CPR if necessary) should be initiated immediately by the first on-scene EMS personnel, and advanced life support carried out per county protocols.

II. EMT’s may withhold resuscitation of patients only if:

A. The patient is in cardio/respiratory arrest and there is a written DNR/POLST order signed by a physician
B. There is an obvious sign of death, e.g., rigor mortis, decomposition, decapitation, dependent lividity, evisceration, or incineration
C. The patient is a pulseless, apneic victim of a multiple casualty incident where resources of the EMS system are required for stabilization of other patients
D. A victim of trauma should be determined dead and should not be transported if:

   NOTE: Determine if medical condition may have occurred prior to traumatic event
   1. The patient is a victim of blunt trauma or penetrating trauma to the head and has no vital signs in the field (pulseless, apneic, fixed and dilated pupils); or
   2. In instances prior to transport and where scene time combined with transport time will exceed six minutes, and the patient declines to the point that no vital signs (i.e. pulse/respiration) are present; the patient should be declared DIF unless the paramedic elects to resuscitate the patient

III. The patient experiencing a medical (non-traumatic) cardiac arrest should be determined to be dead in the field (DIF) and should not be transported if:

A. Patient is pulseless, apneic, and has a DNR/POLST
B. Patient is pulseless, apneic and patient has been that way for an extended period of time
C. Other obvious signs of death are present

IV. DOCUMENTATION

A. All patient encounters will be recorded on an MIR with time and procedures documented
B. All non-resuscitation and termination of resuscitation will have an AED available and will have an ECG strip documenting cardiac rhythm with time and date recorded on the strip. (Exception: traumatic arrest when monitor not used). Attach ECG strips to original, agency and hospital MIR forms
C. All conversations with Medical Control to be documented, to include time, physician’s name, nurse’s name, and instructions
V. PRECAUTIONS

A. All hypothermic patients, possible drug overdoses, patients of electrocution, lightning, and drowning victims - should have resuscitative efforts begun and transported to the hospital (unless contraindicated by “obvious sign of death” as in II. B above)

B. If questions exist about the appropriateness of resuscitation - initiate, and when possible, contact Medical Control for consultation

C. If the family insists on resuscitation despite the presence of a DNR/POLST order - begin CPR, initiate transport of the patient, and consult the destination hospital or Medical Control for guidance

D. Consider the needs of survivors when discontinuing a code:
   1. Clearly communicate with them that the patient is dead
   2. Arrange for someone to be with the family—offer to call a neighbor, or other family member, clergyman, chaplain
   3. Leave clear information about follow-up contacts for the family when you have gone (i.e., chaplain, counselor, social worker, etc.)
   4. Cover the body with a sheet or blanket. Do not remove ET tube or I.V. lines unless authorized to do so by coroner. Treat the deceased body with respect.
   5. Notify dispatch of "Code C" and have them relay information to coroner
   6. If suspicious circumstances exist, have dispatch notify law enforcement
   7. Make certain law enforcement or EMS is available until the Coroner arrives
**DIABETIC EMERGENCIES**

I. Signs and Symptoms

A. Hypoglycemia (develops rapidly)
   1. Dizziness and headache
   2. Abnormal, hostile or aggressive behavior
   3. Fainting, convulsions
   4. Full rapid pulse
   5. Skin pale, cold and clammy
   6. Copious saliva, drooling

B. Hyperglycemia (develops slowly)
   1. Dry mouth and intense thirst
   2. Abdominal pain and vomiting
   3. Restlessness
   4. Weak rapid pulse
   5. Dry, red, warm skin

II. Emergency Medical Care

A. Perform blood glucose testing
   1. Take BSI precautions
   2. Assemble equipment (use glucometer according to manufacturer’s instructions)
   3. Select and cleanse area to be tested
   4. Using a lancet, obtain an adequate specimen
   5. Appropriately dispose of sharps
   6. Apply direct pressure to the site if needed, and cover site with band aid or sterile dressing.
   7. Relay results to incoming ALS providers (normal blood glucose range is 80-120 mg/dL)
   8. If signs and symptoms of hypoglycemia and/or glucometer readings indicate a hypoglycemic range, move to step 2. When in doubt (glucometer malfunction/inadequate specimen), give oral glucose in accordance with protocols. (Document glucose reading in mg/dL; i.e., 60 mg/dL)

B. If patient is able to swallow, administer oral glucose, or substance high in simple sugar; i.e., honey, orange juice with 2-3 tsp. of sugar, after consulting on or off line medical control

C. Be prepared for patient to vomit

D. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment

E. Maintain body temperature

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III. Transport

A. Place patient in position of comfort, preferably lying on their side, and be prepared for patient to vomit.
B. If patient regains full consciousness and refuses transport, consult with medical control.
**STROKE /CVA – Updated 2011**

I. Scene Size-Up/Initial Patient Assessment

II. Focused History and Physical Exam
   A. Onset/Provocation/Quality /Radiation/Severity/ Time
   B. Signs and symptoms
      1. Paralysis or weakness on one side of the body
      2. Facial droop on one side
      3. Altered level of consciousness
      4. Change in personality or mood
      5. Headache or dizziness
      6. Impaired speech
      7. Blurred vision
      8. Poor coordination
   C. Perform a basic stroke exam using the FAST Assessment.
      1. Assess for Facial droop: have the patient show teeth or smile
      2. Assess for Arm drift: have the patient close eyes and hold both arms straight out for 10 seconds
      3. Assess for abnormal Speech
      4. Time last normal

   **NOTE:** If one or more component is abnormal, high probability of stroke. Refer to stroke destination triage tool. Time from last normal will determine destination.

III. Management
   A. Protect patient’s airway suction as needed
      1. Maintain oxygen saturation at a minimum of 95% or if there are signs of hypoxia.
      2. Obtain blood glucose level.
      • Treat if < than 60 mg/dl
      • If patient is able to swallow, administer oral glucose, or substance high in simple sugar; i.e., honey, orange juice with 2-3 tsp. of sugar
   B. Check and record vital signs and GCS every 5 minutes

IV. Transport
   A. Do not delay transport, limit time on scene to ≤10 minutes
   B. Contact Medical Control about where to transport patient.
GYNECOLOGICAL EMERGENCIES

I. Excessive Vaginal Bleeding

A. Emergency Care
   1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   2. Treat for shock
   3. If bleeding due to trauma to external genitalia, place appropriate external dressings to any wounds

II. Sexual Assault

   Note: Protect potential crime scene and any evidence as much as possible.

   A. Emergency Care
      1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      2. Follow treatment protocols for victims of trauma
      3. Advise patient not to wash, douche, urinate or defecate prior to physician exam
      4. Do not examine genitalia unless obvious bleeding requires the application of a dressing
      5. Provide non-judgmental emotional support
OBSTETRICAL EMERGENCIES

Emergency Delivery

I. Determine

A. Date of expected birth
B. Onset of contractions/pain
C. Any bleeding or discharge
D. Number or pregnancies/births
E. Duration and frequency of contractions

II. Signs and Symptoms of Imminent Delivery

A. Perineum bulging or baby crowning
B. Contractions < 2 minutes apart
C. Mother expresses the need to "push" or "bear down"

III. Emergency Medical Care

A. Have mother lie supine with knees drawn up and spread apart
B. Prepare OB kit
C. When the infant's head appears during crowning, place fingers on bony part of skull and exert very gentle pressure to prevent explosive delivery
D. When head is delivered, suction infant's nose and mouth with bulb syringe
E. Assist delivery of shoulders and body—do not pull on infant
F. When baby is delivered:
   1. Wipe blood and mucus from mouth and nose, suction mouth and nose again
   2. Assure patient airway, stimulate cry by tapping soles of feet
   3. Do APGAR assessment on infant one minute after delivery—appearance, pulse, grimace, activity, respiratory effort
   4. Wrap infant in warm blanket and place on its side, head slightly lower than trunk
   5. Keep infant level with vagina until the cord is cut
   6. As pulsations cease; double clamp, tie and cut cord between two clamps
G. Let placenta deliver normally
   Note: Do not pull on cord.
   1. Place in plastic bag and transport with mother
   2. Massage mother's lower abdomen until firm
   3. Place sterile pad over vaginal opening
H. Estimate blood loss, treat for shock as necessary
I. Record time of delivery
COMPLICATIONS OF DELIVERIES

I. Miscarriage - Spontaneous Abortion
   A. Signs and Symptoms
      1. Cramp-like lower abdominal pain similar to labor
      2. Moderate to severe vaginal bleeding, which may be bright or dark red
      3. Passage of tissue or blood clots
   B. Emergency Medical Care
      1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      2. Treat for shock
      3. Place sterile pad over vaginal opening
      4. Bring fetal tissues to the hospital

II. Prolapsed Cord
    A. Signs and Symptoms
       1. Cord presents through the birth canal before delivery
       2. Normally occurs early in labor
    B. Emergency Medical Care
       1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
       2. Position mother in knee chest position or extreme Trendelenburg
       3. Insert sterile gloved hand into vagina pushing the presenting part of the fetus away from the pulsating cord
       4. Keep pressure on presenting part and monitor pulsations in the cord
       5. Continue monitoring pulsations until relieved at the hospital

III. Breech Birth and/or Limb Presentation
    A. Signs and Symptoms
       1. Buttocks or extremities present first during the delivery process
    B. Emergency Medical Care
       1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
       2. Allow delivery to progress spontaneously
       3. Support infant's body as it is delivered
       4. If head delivers spontaneously, proceed as with normal delivery. If head does not deliver within 4-6 minutes, insert gloved hand into vagina, create an airway for the baby.
       5. Place mother in head down position with pelvis elevated
       6. Do not remove hand from inside vagina until relieved by hospital staff
IV. Meconium Stain

A. Signs and Symptoms
   1. Greenish or brownish-yellow amniotic fluid rather than clear
   2. Discoloration/staining on infant’s face
   3. Often indicates possible fetal distress during labor

B. Emergency Medical Care
   1. Do not stimulate infant to breath prior to suctioning
   2. Suction oropharynx and nasopharynx
   3. Maintain infant’s airway

V. Pre-delivery Seizures

A. Signs and Symptoms
   1. Mild pre-eclampsia
      a. Hypertension (moderate, above 140 and below 160)
      b. Edema
      c. Rapid weight gain
   2. Moderate to severe
      a. Hypertension above 160 systolic
      b. Headache
      c. Changes in behavior
      d. Visual disturbances
      e. Dyspnea
      f. Cyanosis
   3. Eclampsia (any of the above plus)
      a. Seizure
      b. Postictal

B. Emergency Care
   1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   2. Take seizure precautions
   3. Transport patient preferably lying on left side
POISONING/OVERDOSE

CAUTION: Do not expose yourself to toxic atmospheres or substances without proper training, PPE and other equipment. If care giver or patient is exposed consider primary HAZMAT decontamination.

Note: Life threatening airway/respiratory compromise or shock may develop as the reaction progresses, consider ALS.

I. Ingested Substances

A. Signs and symptoms: history of ingestion, nausea, vomiting, diarrhea, altered mental status, abdominal pain, chemical burns around the mouth, different breath odors

B. Emergency medical care
   1. Remove pills, tablets or fragments from patient’s mouth
   2. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   3. Consult medical control
      a. Consult poison control as directed
      b. Activated Charcoal - 1 gram per kilogram of body weight, OR;
      c. Syrup of Ipecac - 2 tablespoons and 2, 8 oz. glasses of any safe liquid (water, milk, soda pop, etc.) for adults and children. Repeat in thirty minutes if the patient does not vomit.
      d. Contraindications for either medication include altered mental status ingestion of acids/alkalis, inability to swallow

II. Inhaled Substances

A. Signs and symptoms: history of inhalation of toxic substance, difficulty breathing, chest pain, cough, hoarseness, dizziness, headache, confusion, seizures, altered mental status

B. Emergency medical care
   1. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment

III. Toxic Injection (see Bites and Stings, page 54)

A. Signs and symptoms: weakness, dizziness, chills, fever, nausea, vomiting

B. Emergency medical care

   1. Provide oxygen and/or ventilatory assistance as necessary, if not
done during Initial Patient Assessment

2. Treat open wounds

IV. Absorbed Substances

A. Signs and symptoms: history of exposure, liquid or powder on patient’s skin, burns, itching, irritation, redness

B. Emergency medical care
   1. Skin - remove contaminated clothing while protecting self from contamination
      a. If powder present, brush off patient, then irrigate as with liquid in b below
      b. Irrigate with water for at least 20 minutes, continuing enroute to the hospital, if possible
   2. Eye - irrigate with clean water away from unaffected eye for at least 20 minutes, continuing enroute to the hospital if possible

V. Be prepared for vomiting, seizures, or further deterioration of the patient

VI. Bring all containers, bottles, labels, etc. of poison agents to receiving facility
RESPIRATORY EMERGENCIES

I. Assess Onset/Provocation/Quality/Radiation/Severity/Time (OPQRST)

II. Signs and Symptoms
   A. Anxious/restless
   B. Shortness of breath (air hunger, increased/decreased/absent respirations)
   C. Skin color changes (cyanotic, pale/clammy, redness/flushing)
   D. Abnormal airway noises (wheezing, stridor, gurgling, snoring)
   E. Mechanics of respiration (fatigue due to breathing effort, diaphragmatic breathing, retractions, irregular breathing pattern)
   F. Patient position (upright, feet dependent; tripod)
   G. Drooling, difficulty swallowing, seal bark cough

III. Allergies/Medications/PM Hx/Last Oral Intake/Events Prior

IV. Emergency Medical Care
   A. Patient c/o SOB/inadequate respirations
      1. Remove obstruction if any
      2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      3. Allow patient to achieve position of comfort (POC)
      4. Prepare to manage/assist respirations as necessary
         a. Patient not breathing
         b. Patient unable to maintain adequate breathing on their own
   B. Patient c/o SOB with wheezing
      1. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      2. Assist with self administration of inhaler
         a. If available and prescribed for patient
         b. Consult with medical control

V. Pediatric Considerations
   A. Airway obstruction
      1. Use infant/child foreign body airway procedures if complete obstruction
      2. If incomplete obstruction
         a. Do not agitate patient
         b. Allow patient position of comfort
         c. Oxygen/limited exam
B. Patient drooling, with difficulty swallowing, or seal bark cough

Note: Do not attempt to visualize oropharynx.

1. Assist ventilations p.r.n.
2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
3. Allow patient to achieve position of comfort (parent’s lap p.r.n., except during transport)

VI. Be Prepared to Provide Positive Pressure Ventilation Should Patient Deteriorate

VII. Monitor Patient and Vital Signs Closely
ESOPHAGEAL TRACHEAL COMBITUBE (ETC)

I. Indications

A. Use of the ETC is indicated in the following situations:
   1. Cardiopulmonary Arrest
   2. Respiratory Arrest

II. Contraindications

A. An intact gag reflex
B. Patients under 5 ft. in height
C. Cases of known or suspected caustic poisoning
D. Known esophageal disease

III. Basic Life Support

A. Verify cardiac and/or respiratory arrest
B. Initiate CPR, ventilate via BVM with supplemental O₂ @ 100%
C. Ventilate 1-2 minutes prior to ETC intubation attempt
D. If patient is in cardiac arrest, and an automatic defibrillator is immediately available, proceed with defibrillation as per protocol
E. Placement of ETC may be done at a point where a shock is not indicated or where rhythm analysis is not being done
F. Continue ventilation while preparing the ETC
G. Suction hypopharynx as needed
H. Place head in neutral position
I. Insert ETC into mouth and advance gently until the teeth are aligned between the two black rings on the tube
J. Using the large syringe, inflate line #1 with 100 ml of air
K. Using the small syringe, inflate line #2 with 15 ml of air
L. Attach a BVM to tube #1 and ventilate
M. Auscultate lung fields and epigastrium
N. If lung sounds are absent, remove BVM from tube #1 and connect to tube #2 and ventilate

IV. Removal of Tube

A. Airway may be removed if patient regains consciousness and/or begins to fight tube
   1. Turn patient on their side
   2. Deflate both cuffs
   3. Remove ETC from airway
   4. Be prepared for patient to vomit
   5. Assist ventilation PRN
   6. Administer O₂ @ 15 lpm by non-rebreather mask
I. Indications

A. Use of the King® airway is indicated in the following situations:
   1. Cardiopulmonary Arrest
   2. Respiratory Arrest

II. Contraindications

A. An intact gag reflex
B. Cases of known or suspected caustic poisoning
C. Known esophageal disease

III. Basic Life Support

A. Verify cardiac and/or respiratory arrest
B. Initiate CPR, ventilate via BVM with supplemental O₂ @ 100%
C. Ventilate 1-2 minutes prior to King Airway intubation attempt
D. If patient is in cardiac arrest, and an automatic defibrillator is immediately available, proceed with defibrillation as per protocol
E. Placement of King Airway may be done at a point where a shock is not indicated or where rhythm analysis is not being done
F. Continue ventilation while preparing the King Airway

IV. King Airway Insertion

A. Choose the appropriate size tube for patient
   1. #3 for Patient 4-5 ft. (yellow)
   2. #4 for Patient 5-6 ft. (red)
   3. #5 for Patient > 6 ft. (purple)
B. Test cuff inflation system
C. Apply lubricant to posterior distal tip
D. Pre-oxygenate and ensure gag reflex is not intact
E. Apply chin lift & introduce King Airway into the corner of the mouth
F. Advance tip under the base of the tongue, while rotating tube back to midline
G. Without exerting excessive force, advance tube until base of connector is aligned with the teeth or gums.
H. Inflate cuff - #3 – 50ml, #4 – 70ml, #5 – 80ml
I. Attach BVM, slowly withdraw tube until ventilation is easy and free flowing. Mark the depth at the teeth.
J. Secure with a commercial holder or tape
SEIZURES

I. Signs and Symptoms
   A. May experience sensory changes
      1. Aura
      2. Abnormal twitch
      3. Anxiety
      4. Dizziness
      5. Smell, vision, taste
   B. Sudden unresponsiveness
   C. Convulsions
   D. Loss of bowel and bladder control
   E. Postictal (recovery phase)
      1. Confusion, disoriented and possibly combative
      2. Exhausted and weak

II. Emergency Medical Care
    A. Maintain airway
    B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
    C. Suction as needed
    D. Prevent injury to the patient

III. Pediatric Considerations - Febrile Seizure
    A. Signs and symptoms
       1. Oral or rectal temperature > 100°
       2. Convulsions
    B. Emergency Medical Care
       1. Remove heavy or swaddling clothes, keep lightly dressed
       2. Maintain airway
       3. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
       4. Suction as needed

IV. Transport Patient On Their Side

NOTE: Conditions that may cause seizures:
☆ Epilepsy ☆ Fever ☆ Infections ☆ Poisoning ☆ Hypoglycemia (low blood sugar) ☆ Stroke
☆ Head trauma ☆ Hypoxia (oxygen starvation) ☆ Dysrhythmia (abnormal heart rhythms),
☆ Pre-delivery seizure, usually related to severe high blood pressure (eclampsia)
BITES AND STINGS - VENOMOUS

I. Signs and Symptoms
   A. History of bite (spider, snake) or sting (insect, scorpion or marine animal)
   B. Pain
   C. Redness and/or swelling
   D. Weakness and/or dizziness
   E. Chills or fever
   F. Nausea and vomiting
   G. Bite marks or stinger

II. Emergency Medical Care
   A. If stinger is present, scrape the sting site to remove the stinger
      **Note:** Do not attempt to pull the stinger
   B. Wash area gently
   C. Remove jewelry from the affected limb before swelling begins, if possible
   D. Keep limb immobilized and below the level of the heart and keep patient at rest
   E. Do not apply cold to a snake bite
   F. Consult medical direction regarding constricting band for snakebite
   G. Observe for development of signs and symptoms of an allergic reaction
DROWNING AND NEAR DROWNING - WATER RELATED EMERGENCIES

CAUTION: Assure the safety of the rescue personnel.

I. Signs and Symptoms
   A. Consider length of time in cold water drowning. Any pulseless, non-breathing patient who has been submerged in cold water should have resuscitation efforts initiated
   B. Suspect spinal injury

II. Emergency Medical Care
   A. All drowning and near-drowning patients
      1. In-line immobilization and removal from water with a backboard if spine injury is suspected or the patient is unresponsive
      2. If there is no suspected spinal injury, place patient on left side to allow water, vomitus and secretions to drain from the upper airway
      3. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      4. If gastric distention interferes with artificial ventilation
         a. Place patient on their left side, while continuing to protect the c-spine
         b. Suction immediately available
         c. Place hand over the epigastric area of the abdomen
         d. Apply firm pressure to relieve the distention
            Note: This procedure should only be done if the gastric distention interferes with the ability to artificially ventilate the patient effectively.
   B. For pulseless and non-breathing drowning patients, follow the Cardiovascular Emergencies protocol
      1. For pulseless and apneic drowning patients, consult medical control
HEAT EMERGENCIES

I. Signs and Symptoms

A. Muscular cramps
B. Weakness or exhaustion
C. Dizziness or faintness
D. Skin
   1. Moist, pale, normal to cool temperature
   2. Hot, dry or moist (extreme emergency)
E. Rapid heart rate
F. Altered mental status or unresponsive

II. Emergency Medical Care

A. Patient with moist, normal to cool temperature skin
   1. Remove patient from the hot environment and place patient in a cool environment (back of an air conditioned ambulance)
   2. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   3. Loosen or remove clothing
   4. Cool patient by fanning
   5. Place patient in supine position with legs elevated
   6. If patient is responsive and not nauseated, have patient drink water
   7. If the patient is unresponsive or is vomiting, transport to hospital with patient on left side

B. Patient hot with dry or moist skin
   1. Remove patient from the hot environment and place patient in a cool environment (back of an air conditioned ambulance with air conditioner running on high)
   2. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   3. Remove clothing
   4. Apply cool packs to neck, groin and armpits
   5. Keep skin wet by applying water by sponge or wet towels
   6. Fan aggressively
   7. Transport to hospital immediately
HYPOTHERMIA

I. Signs and Symptoms

A. Environmental conditions of cold exposure
B. Cool to cold skin temperature
C. Decreased mental and/or motor status
D. Stiff or rigid posture or muscles
E. Shivering may be present or absent
F. Abnormal breathing
   1. Early/rapid
   2. Late/slow or absent
G. Low to absent blood pressure
H. Slowly responding pupils
I. Inappropriate judgment
J. Complaints of joint or muscle stiffness
K. Skin may be red (early), pale, cyanotic, and/or stiff/hard

II. Emergency Medical Care

A. Obtain temperature using hypothermia thermometer, if not available, estimate temperature using the Core Body Temperature chart
B. Remove patient from the cold environment and protect the patient from further heat loss
C. Remove patient’s wet clothing and wrap the patient in blankets
D. Handle with extreme care (rough handling may cause ventricular fibrillation)
E. Care for shock and provide oxygen (warm and humidify the oxygen, if possible)
F. Assess pulses for 30 to 45 seconds before starting CPR
   1. If no pulse, begin CPR
   2. Place AED
   3. Continue efforts to rewarms
   4. If pulseless and directed by the machine, defibrillate (defibrillation may be successful after warming)
   5. If pulseless, continue CPR and warming throughout transport
   6. Although patients suffering from hypothermia should be evaluated on an individual basis, in general, patients should be warmed to normal temperatures before stopping resuscitation
G. If the patient is alert and responding appropriately, actively rewarms
   1. Warm blankets
   2. Heat packs or hot water bottles to groin, axillary and cervical regions
   3. Turn up heat high in the patient compartment of the ambulance
   4. Do not allow patient to have any stimulants (caffeine, chocolate, etc.)
   5. Do not allow the patient to walk or exert themselves
H. If the patient is unresponsive or not responding appropriately, rewarm passively
   1. Warm blankets
   2. Turn up heat high in the patient compartment of the ambulance
I. Do not massage extremities
J. Do not allow patient to remain in, or return to, a cold environment
K. Do not permit the patient to become colder, don’t leave them exposed

III. Check and Record Pulse and Vitals, Including Temperature

IV. Transport all but the Very Mildest Cases

V. Handle Patient Gently (Ventricular Fibrillation May Result from Rough Handling)
LOCAL COLD INJURIES

I. Signs and Symptoms

A. Local injury with clear demarcation
B. Early or superficial injury
   1. Blanching of the skin
   2. Loss of feeling and sensation in the injured area and the skin remains soft
   3. If rewarmed, tingling sensation
C. Late or deep injury
   1. White, waxy skin which feels firm to frozen on palpation
   2. Swelling and/or blisters may be present
   3. Blisters may be present
   4. If thawed or partially thawed, the skin may appear flushed with areas of purple and blanching or mottled and cyanotic

II. Emergency Medical Care

A. Remove patient from the cold environment and protect the patient from further heat loss
B. Protect the cold injured part from further injury
C. Remove wet or restrictive clothing
D. If early or superficial
   1. If the injury is to an extremity, splint and cover the extremity
   2. Do not rub, massage, or re-expose to the cold
E. If the injury is late or a deep cold
   1. Remove jewelry
   2. Cover with dry clothing or dressings
   3. Do not rub, massage, apply heat, or rewarmed
   4. Do not allow the patient to walk on the affected extremity
F. Do not allow patient to remain in or return to a cold environment
G. When an extremely long or delayed transport is inevitable, then active rapid rewarming should be done as follows:
   1. Obtain medical direction prior to initiating rewarming
   2. Use warm water (100°F - 105°F)
   3. Fill container with water. Remove clothing, jewelry, bands, or straps from the injured extremity
   4. Fully immerse the injured part
   5. Continuously stir the water
   6. When water cools to below 100°F, remove limb and add more warm water
   7. When extremity is rewarmed (it is soft and the color and sensation has returned)
      a. Gently dry affected area and apply a dry sterile dressing
      b. Be sure fingers and toes are separated by sterile dressings
H. Keep area warm and do not put any pressure on the site
I. Keep patient at rest and protect the part from refreezing
J. Expect the patient to complain of severe pain
GENERAL TRAUMA ASSESSMENT

I. Scene Size-Up

A. Assess for number of multiple trauma patients
B. Activate local emergency system as necessary following regional patient care procedures

II. Initial Patient Assessment

A. A.B.C.
B. Establish patient care priorities as soon as possible
   1. Triage multiple patients
      a. Notify receiving facility
   2. Follow the Trauma Triage Procedures
      a. Notify the trauma center as soon as possible

III. Rapid or Focused History and Physical Exam (Trauma)

A. Deformities, Contusions, Abrasions, Punctures - Burns, Tenderness, Lacerations, and Swelling (DCAP-BTLS)
B. Pulse, Movement, Sensation (PMS)
C. Vital signs
D. SAMPLE history
E. Glasgow Coma Scale (GCS)

IV. Ongoing Assessment

A. Re-evaluate Initial Patient Assessment items
   1. Unstable patient a maximum of every 5 minutes
   2. Stable patient every 15 minutes

V. Transport

A. Mode of transportation and destination based on regional patient care procedures
B. Prioritize patient transport
ABDOMINAL INJURY

I. Signs and Symptoms
   A. Tender, rigid or distended abdomen
   B. Position (guarding)
   C. Signs and symptoms of shock
   D. Consider abdominal spinal injury
   E. Wounds (entrance/exit), bruising
   F. Consider pregnancy

II. Emergency Medical Care
   A. Assure patent airway
   B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   C. Do not touch or try to replace exposed organs
      1. Cover exposed organs with sterile/moist dressing
   D. Control bleeding
   E. Treat for shock
   F. Pregnancy
   G. Consider use of the MAST/PASG
   H. Mechanical head and spine immobilization as necessary
   I. Give nothing by mouth
   J. Position supine with flexed knees, if no contraindications

Walla Walla County Patient Care Procedures
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**BURN INJURY**

**CAUTION:** Identify source of burning and take appropriate safety precautions.

**Note:** Stop the burning process.

**Note:** For burns involving chemicals, refer to the Poisoning/Overdose protocol

**Note:** Burns may be more severe than they first appear.

I. **Signs and Symptoms**
   A. Evaluate depth and area by using Rule of Nines appendix
   B. Carefully evaluate respiratory tract for involvement
   C. Shock

II. **Emergency Medical Care**
   A. Assure patent airway
   B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      1. Continuously reassess respiratory status
   C. Remove jewelry and non-adhered clothing as necessary
   D. Cover burns with dry sterile dressing
   E. Control bleeding
   F. Treat for shock
      1. Consider use of the MAST/PASG

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

I. Signs and Symptoms
   A. Changes in respiratory rate/quality
   B. Breath sounds diminished, unequal, or absent
   C. Flail chest
   D. Use of accessory muscles
   E. Distended neck veins (JVD)
   F. Consider thoracic spinal injury
   G. Shock
   H. Wounds (entrance/exit), bruising
   I. Complains of pain with inspiration or expiration

II. Emergency Medical Care
   A. Assure patent airway
   B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
      1. Continuously reassess respiratory status
   C. Pneumothorax
      1. Cover immediately
      2. When time allows, place an occlusive dressing
   D. Flail Chest
      1. Strapping, if pain is significant
   E. Control bleeding
   F. Treat for shock
   G. Mechanical head and spine immobilization as necessary
EXTERNAL BLEEDING AND AMPUTATIONS

I. Signs and Symptoms

A. Spurting/steady flowing or oozing blood
B. Bright red or dark blood
C. Separated or displacement of body part or tissue
D. Shock

II. Emergency Medical Care

A. Assure patent airway
B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
C. Control bleeding
   1. Direct pressure/pressure point
   2. Elevation
   3. Splints
   4. MAST/PASG
   5. Tourniquet
   6. Apply dressing and bandage
D. Do not remove impaled objects
   1. Unless impaled in cheek and airway is compromised by the object
   2. Secure in place
E. Treat for shock
F. Amputations
   1. Wrap severed body part in dry sterile dressing
   2. Wrap or bag amputated part in plastic and keep cool (do not allow to freeze)
   3. Transport severed part with patient, if possible
   4. Treat for shock

Note: Do not complete partial amputations.
EXTREMITY INJURY

I. Signs and Symptoms
   
   A. Exposed bone ends
   B. Joints locked in position
   C. Loss of feeling or movement
   D. Loss of distal pulse
   E. Bruising/swelling
   F. Pain
   G. Shock
   H. Multiple long bone fracture

II. Emergency Medical Care
   
   A. Assure patent airway
   B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   C. Consider alignment with gentle traction if pulses absent or gross deformity noted
   D. Mechanical immobilization
      1. Reassess distal PMS after applying splint
      2. Consider application of cold pack to painful or swollen area
      3. Consider elevation of extremity
   E. Control bleeding
   F. Treat for shock
   G. Consider use of the MAST/PASG
HEAD AND SPINE INJURY

I. Signs and Symptoms

A. Cerebrospinal fluid or blood from nose, ears, mouth  
B. Glasgow coma scale score  
C. Bruising around eyes, or behind ears  
D. Altered mental status  
E. Irregular breathing  
F. Changes in pulse rate  
G. Changes in blood pressure  
H. Neurologic disability  
I. Loss of bowel or bladder control  
J. Unequal pupils with altered mental status  
K. Seizures

II. Emergency Medical Care

A. Immediate manual head and C-spine immobilization  
B. Assure patent airway  
C. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment  
D. Control bleeding  
E. Treat for shock  
F. Mechanical head and spine immobilization
MULTI-SYSTEM/TIME CRITICAL TRAUMA

I. Begin extrication (if necessary) and treatment simultaneously, if possible
   A. Immediate manual head and C-spine immobilization

II. Treat life threatening injuries as they are found

III. On-scene time should be limited to 10 minutes, barring extrication or rescue

IV. Notify the trauma center as soon as possible

V. Assess for other signs and symptoms
   A. Provide rapid survey of head, chest, abdomen

VI. Provide emergency medical care as necessary
   A. Provide any urgent treatment required

VII. If life threatening problems are controlled
   A. Assess response to treatment provided
   B. Immobilize patient
SHOCK

I. Signs and Symptoms

A. Altered mental status
B. Shallow/rapid breathing
C. Restlessness/anxiety
D. Cyanosis or pale skin color
E. Cool/clammy skin
F. Weak rapid pulse
G. Decreasing blood pressure
H. Nausea/vomiting
I. Dilated pupils
J. Thirst

II. Emergency Medical Care

A. Assure patent airway
B. Provide oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment
   1. Continuously reassess respiratory status
C. Control bleeding
D. Consider use of the MAST/PASG
E. Give nothing by mouth
F. Elevate lower extremities, if no contraindications
G. Splint fractures
H. Prevent heat loss
IV MAINTENANCE PROTOCOLS

IV Maintenance personnel shall have received training in the maintenance of IV according to the Washington State Department of Health approved curriculum.

I. Prepare for Intravenous Therapy
   A. Check solution and container for outdates, matter, etc.
   B. Turn off roller clamp
   C. Attach administration set (tubing) to IV bag using sterile technique
   D. Squeeze drip chamber until fluid fills chamber half full
   E. Prime tubing with solution and remove air bubbles
   F. Gloves for IV insertion assistance and for removal

II. Stabilization of IV
   A. Tape catheter and tubing securely with ½ and 1" tape
   B. Loop tubing and avoid kinks
   C. Secure armboard to extremity, if necessary
   D. Observe for complications (see #V below for complications)
   E. Be sure to remove tourniquet

III. Monitoring of IV
   A. Check for patency
   B. Adjust to prescribed flow or drip rate and monitor enroute
   C. Observe insertion site for infiltration or occlusion
   D. Maintain proper IV bag height
   E. Replace IV bag when 50 ml's remain

IV. Discontinue IV
   A. Turn infusion off at roller clamp
   B. Gently and systematically remove tape
   C. Remove catheter and quickly cover site with sterile 2”x2” gauze square
   D. Observe catheter for completeness of removal (length, etc.)
   E. Hold pressure over site until bleeding stops
   F. Tape 2x2 gauze in place or use band-aid
   G. Discard used items--appropriate and safe disposal very important
V. Complications

A. Catheter Embolism--apply contracting band well above IV site
   1. Keep limb in dependent position
   2. Keep catheter for hospital to look at
   3. Seek medical assistance immediately
B. Air Embolism--place patient on left side in Trendelenberg Position and notify hospital
C. Positional IV site--untape catheter and tubing and gently withdraw catheter back 1/8"--retape
D. Clot Embolism--discontinue IV
E. Infiltration--discontinue IV
F. Excessive air in tubing
   1. Cleanse port site-pinch tubing distal to port site
   2. Insert needle
   3. Drain air and fluid out
   4. Remove needle
   5. Check flow rate

VI. Patient Assessment

A. Assess breath sounds and cardiovascular status
B. Document all actions, intake, output and problems on MIR
PNEUMATIC ANTI-SHOCK GARMENT (PASG)

I. General Considerations

PASG MAY BE A USEFUL ADJUNCT TO STANDARD MEASURES FOR CONTROL OF SHOCK. PASG TO BE PLACED UNDER SELECTED PATIENTS Whose CLINICAL PRESENTATION SUGGESTS A POSSIBILITY OF DEVELOPING SHOCK.

II. Prehospital Management

A. Indications
   1. Tamponade of external or internal hemorrhage of the legs and/or abdomen
   2. Fracture splinting of the pelvis, hip, or femur
   3. Shock---Systolic blood pressure below 90 mm Hg with estimated transport time in excess of 30 minutes. Contact Medical Control prior to placing on patient.

B. Absolute Contraindications
   1. Pulmonary edema-cardiopulmonary insufficiency
   2. Major intrathoracic trauma or bleeding--blunt or penetrating

C. Relative Contraindications
   1. Evisceration of abdominal organs
   2. Third-trimester pregnancy
   3. Impaled objects
   4. Application over open fractures with exposed bone ends

D. Potential Complications
   1. Abdominal section inflation may:
      a) Increase the risk of emesis and airway compromise
      b) Increase work of ventilation
   2. Overwork the heart, causing dysrhythmias or enlarging area of infarction
   3. Aggravate pulmonary edema
   4. Increase intracranial pressure
   5. Increase bleeding above the level of the garment

E. Special Notes
   1. Record time garment was inflated
   2. Deflation should not be attempted in the field unless inflation has clearly aggravated ventilatory difficulty or appearance of rales
MAST/PASG INFLATION STEPS

1. Unfold the MAST and lay them flat (if stretcher is to be used lay MAST on it). Attach foot pump and open stopcock valves.

2. Put the patient on the MAST face up (supine) so that the top of the garment will be just below the lowest rib.

3. The left leg of the garment is wrapped around the patient's left leg and secured with Velcro strips.

4. The right leg of the garment is wrapped around the patient's right leg and secured with Velcro strips.

5. The material corresponding to the abdominal area is then put into place and secured with Velcro strips. Using the foot pump or your mouth, inflate the trousers until air exhausts through the relief valves and/or the patient's vital signs become stable. Close the stopcock valves.
I. Scene Size-up and Initial Patient Assessment

A. Assess ABC
   1. Airway - Do not hyperextend or hyper-flex child’s neck
   2. Breathing - Check for obstructions
   3. Circulation - Check capillary refill

B. Consider possible domestic violence or abuse by adults

II. Focused Assessment and Physical Examination

A. Consider the patient’s developmental stage when assessing signs and symptoms
B. Physical exam may be better tolerated if conducted from trunk to head
C. Be alert for signs of child abuse and neglect

III. Ongoing Assessment

IV. Transport

A. Utilize Regional PCPs, local guidelines, and protocols regarding pediatric trauma destinations
FEVER

**CAUTION:** Consider full body substance isolation procedures.

I. **Signs and Symptoms**
   
   A. Flushed, warm dry skin  
   B. Restless  
   C. May have rash or stiff neck  
   D. Seizures  
   E. Dehydration, decreased urine output

II. **Emergency Medical Care**
   
   A. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment  
   B. If prolonged transport is necessary  
      1. Undress child to the underwear  
      2. Use tepid water to cool patient
GERIATRIC EMERGENCIES

I. Scene Size-up and Initial Patient Assessment

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
E. If many medications, take them or a list of them to the hospital

II. Focused Assessment

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
      b. Behavioral Emergencies
      c. Cardiovascular Emergencies
      d. Diabetic Emergencies
      e. Environmental Emergencies
      f. Gynecological Emergencies
   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 trauma
PHYSICAL ABUSE AND NEGLECT

I. Signs and Symptoms of Suspected Abuse and Neglect

A. Multiple bruises in various stages of healing
B. Injury inconsistent with mechanism described
C. Repeated calls to the same address
D. Fresh burns
E. Parents or care giver seem inappropriately unconcerned
F. Conflicting stories
G. Fear on the part of the patient to discuss how the injury occurred
H. Lack of adult supervision
I. Malnourished appearance
J. Unsafe living environment
K. Untreated chronic illness

II. Medical Treatment

Follow appropriate treatment protocol
AIRWAY OBSTRUCTION - FOREIGN BODY

<table>
<thead>
<tr>
<th></th>
<th>Adult Adolescent &amp; Older</th>
<th>Child 1 year to adolescent</th>
<th>Infant Under 1 year of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilations</td>
<td>10-12 per/min</td>
<td>12-20 per/min</td>
<td>12-20 per/min</td>
</tr>
</tbody>
</table>

If unable to ventilate, reposition head and reattempt ventilation. If still unsuccessful:

<table>
<thead>
<tr>
<th>Tongue/Jaw lift and Finger Sweep</th>
<th>Adult Adolescent &amp; Older</th>
<th>Child 1 year to adolescent</th>
<th>Infant Under 1 year of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>If unconscious and object is seen</td>
<td>If unconscious and object is seen</td>
<td>If unconscious and object is seen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abdominal Thrusts</th>
<th>Adult Adolescent &amp; Older</th>
<th>Child 1 year to adolescent</th>
<th>Infant Under 1 year of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sets of 5</td>
<td>Sets of 5</td>
<td>Not Used</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chest Thrusts</th>
<th>Adult Adolescent &amp; Older</th>
<th>Child 1 year to adolescent</th>
<th>Infant Under 1 year of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only if victim pregnant or obese</td>
<td>Not Used</td>
<td>Sets of 5 back blows followed by 5 chest thrusts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Back Blows</th>
<th>Adult Adolescent &amp; Older</th>
<th>Child 1 year to adolescent</th>
<th>Infant Under 1 year of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Used</td>
<td>Not Used</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue the above sequence until successful. If patient resumes effective breathing, place in recovery position. If unable to clear airway within one minute, begin transport, continue sequence en route, and consider ALS rendezvous.
### APGAR SCORING

<table>
<thead>
<tr>
<th>Sign</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (Color)</td>
<td>Blue, pale</td>
<td>Body pink, extremities blue</td>
<td>Completely pink</td>
<td></td>
</tr>
<tr>
<td>Pulse Rate (Heart rate)</td>
<td>Not detectable</td>
<td>Slow (below 100)</td>
<td>Over 100</td>
<td></td>
</tr>
<tr>
<td>Grimace (Irritability)</td>
<td>No Response</td>
<td>Grimace</td>
<td>Cry</td>
<td></td>
</tr>
<tr>
<td>Activity (Muscle Tone)</td>
<td>Limp</td>
<td>Some Flexion</td>
<td>Active Motion</td>
<td></td>
</tr>
<tr>
<td>Respirations (Respiratory effort)</td>
<td>Absent</td>
<td>Slow, Irregular</td>
<td>Good, crying</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

### SCORE

<table>
<thead>
<tr>
<th>Point Total</th>
<th>Infant’s Condition</th>
<th>Treatment Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Very Good</td>
<td>Routine</td>
</tr>
<tr>
<td>7-9</td>
<td>Good</td>
<td>Routine</td>
</tr>
<tr>
<td>4-6</td>
<td>Fair</td>
<td>May need stimulation and oxygen</td>
</tr>
<tr>
<td>0-3</td>
<td>Poor</td>
<td>May need oxygen by bag, valve-mask and CPR</td>
</tr>
</tbody>
</table>
# Cardiopulmonary Resuscitation

AHA 2010 Standard

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Adult</th>
<th>Children</th>
<th>Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recognition</strong></td>
<td>Unresponsive (for all ages)</td>
<td>No breathing or no normal breathing (i.e. only gasping)</td>
<td>Check for a pulse – no pulse palpated within 10 sec. – All ages</td>
</tr>
<tr>
<td><strong>CPR sequence</strong></td>
<td>C-A-B (Compression – Airway – Breathing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compression rate</strong></td>
<td>At least 100/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compression Depth</strong></td>
<td>At least 2”</td>
<td>About 2”</td>
<td>About 1½”</td>
</tr>
<tr>
<td><strong>Chest wall recoil</strong></td>
<td>Allow complete recoil between compressions</td>
<td>HCPs rotate compressors every 2 minutes</td>
<td></td>
</tr>
<tr>
<td><strong>Compression interruptions</strong></td>
<td>Minimize interruptions in chest compressions</td>
<td>Attempt to limit interruptions to &lt;10 seconds</td>
<td></td>
</tr>
<tr>
<td><strong>Airway</strong></td>
<td>Head tilt-chin lift (HCP suspected trauma; jaw thrust)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>One-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>30:2</td>
<td>30:2</td>
</tr>
<tr>
<td><strong>Two-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>15:2</td>
<td>15:2</td>
</tr>
<tr>
<td><strong>Ventilations with advanced airway</strong></td>
<td>1 breath every 6-8 seconds (8-10 breaths/min)</td>
<td><strong>Not</strong> synchronized with chest compressions</td>
<td>About 1 second per breath</td>
</tr>
<tr>
<td><strong>Defibrillation</strong></td>
<td>Attach &amp; use AED as soon as available.</td>
<td>Minimize interruptions in chest compressions before and after shock; resume CPR beginning with compressions immediately after each shock.</td>
<td>Reanalyze after 5 cycles of CPR (about 2 minutes) for subsequent shocks</td>
</tr>
</tbody>
</table>
### CARDIOPULMONARY RESUSCITATION

<table>
<thead>
<tr>
<th>Age</th>
<th>Adult</th>
<th>Child</th>
<th>Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration of Each Ventilation</strong></td>
<td>2 breaths at 1 second/breath</td>
<td>2 effective breaths at 1 second/breath</td>
<td>2 effective breaths at 1 second/breath</td>
</tr>
<tr>
<td><strong>Pulse Check Location</strong></td>
<td>carotid artery</td>
<td>carotid artery</td>
<td>brachial artery</td>
</tr>
<tr>
<td><strong>Compression Depth</strong></td>
<td>1 1/2 to 2 inches</td>
<td>Approximately 1/3 to ½ the depth of the chest</td>
<td></td>
</tr>
<tr>
<td><strong>One-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>30:2</td>
<td>30:2</td>
</tr>
<tr>
<td><strong>Two-rescuer CPR compression to ventilation ratio</strong></td>
<td>30:2</td>
<td>15:2</td>
<td>15:2</td>
</tr>
</tbody>
</table>
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 its effect
   - Transport/Transfer - How, where, who, transported; changes during transport
## CORE BODY TEMPERATURE

**Note:** Use a Hypothermia Thermometer.

### CORE BODY TEMPERATURE

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Core Body Temperature</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>99F-96F</td>
<td>37.0C-35.5</td>
<td>Shivering</td>
</tr>
<tr>
<td>95F-91F</td>
<td>35.5C-32.7C</td>
<td>Intense shivering. If patient has difficulty speaking.</td>
</tr>
<tr>
<td>90F-86F</td>
<td>32.0C-30.0C</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>85F-81F</td>
<td>29.4-27.2C</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>80F-78F</td>
<td>26.6C-20.5C</td>
<td>Patient loses consciousness and does not respond to spoken words. Most reflexes cease to function; heartbeat becomes erratic.</td>
</tr>
</tbody>
</table>
## GLASGOW COMA SCALE

### Eye Opening

<table>
<thead>
<tr>
<th>Score</th>
<th>Adult</th>
<th>Pediatric - Greater Than 1 Year</th>
<th>Pediatric - Less Than 1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Spontaneous</td>
<td>Spontaneous</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>3</td>
<td>To Voice</td>
<td>To Voice</td>
<td>To Shout</td>
</tr>
<tr>
<td>2</td>
<td>To Pain</td>
<td>To Pain</td>
<td>To Pain</td>
</tr>
<tr>
<td>1</td>
<td>No Response</td>
<td>No Response</td>
<td>No Response</td>
</tr>
</tbody>
</table>

### Best Motor Response

<table>
<thead>
<tr>
<th>Score</th>
<th>Adult</th>
<th>Pediatric - Greater Than 1 Year</th>
<th>Pediatric - Less Than 1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Obeys Commands</td>
<td>Obeys Commands</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>5</td>
<td>Localizes Pain</td>
<td>Localizes Pain</td>
<td>Localizes Pain</td>
</tr>
<tr>
<td>4</td>
<td>Withdraws To Pain</td>
<td>Withdraws To Pain</td>
<td>Withdraws To Pain</td>
</tr>
<tr>
<td>3</td>
<td>Flexion To Pain</td>
<td>Flexion To Pain</td>
<td>Flexion To Pain</td>
</tr>
<tr>
<td>2</td>
<td>Extension To Pain</td>
<td>Extension To Pain</td>
<td>Extension To Pain</td>
</tr>
<tr>
<td>1</td>
<td>No Response</td>
<td>No Response</td>
<td>No Response</td>
</tr>
</tbody>
</table>

### Best Verbal Response

<table>
<thead>
<tr>
<th>Score</th>
<th>Adult</th>
<th>Pediatric - Greater Than 5 Years</th>
<th>Pediatric 2 to 5 Years</th>
<th>Pediatric 0 to 23 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Oriented</td>
<td>Oriented and Converses</td>
<td>Appropriate Words and Phrases</td>
<td>Smiles, Coos</td>
</tr>
<tr>
<td>4</td>
<td>Confused</td>
<td>Disoriented and Converses</td>
<td>Inappropriate Words</td>
<td>Cries, Consolable</td>
</tr>
<tr>
<td>3</td>
<td>Inappropriate Words</td>
<td>Inappropriate Words</td>
<td>Persistent Cries and/or Screams</td>
<td>Persistent Inappropriate Crying and/or Screaming</td>
</tr>
<tr>
<td>2</td>
<td>Incomprehensible Words</td>
<td>Incomprehensible Sounds</td>
<td>Grunts</td>
<td>Grunts, Agitated/ Restless</td>
</tr>
<tr>
<td>1</td>
<td>No Response</td>
<td>No Response</td>
<td>No Response</td>
<td>No Response</td>
</tr>
</tbody>
</table>

**USE THE BEST PATIENT RESPONSE FOR EACH CATEGORY.**

Note: Lowest possible score = 3  Highest possible score = 15
DEAD ON ARRIVAL (DOA)

I. EMS personnel shall not initiate resuscitation measures in the following circumstances:

   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. A written DNR/No CPR directive and no pulse or respirations

II. DOA victims will be reported to the appropriate authorities based on local procedures.

   A. In Walla Walla County notify Dispatch, they will notify the Coroner.
   B. Remain with the body until relieved by Police, Sheriff or Coroner.

III. Consider critical incident stress debriefing for EMS personnel when involved with sudden, unexpected, accidental, traumatic and/or unexplained deaths, particularly if children are involved.
ATHLETIC TRAINING PROTOCOL FOR
ON THE FIELD CERVICAL SPINE INJURY

1. If in Respiratory Arrest and face down
   a. Immediately activate EM
   b. Stabilize C-Spine
   c. Log Roll,
   d. Follow Face Mask Removal Protocol,
   e. Initiate CPR Protocol.

2. If level of consciousness is compromised,
   a. Immediately activate EMS
   b. Stabilize athlete
   c. Initiate and maintain C-Spine stabilization
   d. Determine where athlete feels pain and scan for secondary injuries
   e. Monitor vitals
   f. Remove facemask if in a position that will allow the removal without
      moving the cervical spine.

3. If athlete shows a reluctance or inability to perform any action
   requested, or any of the following signs are positive
   a. Immediately activate EMS
   b. Stabilize athlete
   c. Initiate and maintain C-Spine stabilization
   d. Determine where athlete feels pain and scan for secondary injuries
   e. Monitor vitals
   f. Remove facemask if in a position that will allow the removal without
      moving the cervical spine
   g. Prepare to transfer athlete to the backboard upon EMS arrival.

4. Positive Signs of Cervical Spine Injury
   a. Cervical spine tender to light touch/palpation or deformities of the
      C-Spine.
   b. Inability to squeeze with both hands evenly
   c. Inability to move both feet
   d. Inability to feel light touch to skin evenly on all four extremities
   e. Inability to move all four extremities through a full range of motion.
   f. Inability to move the cervical spine through full pain free range of
      motion
   g. Inability to sit up on his/her own
   h. Inability to stand and walk on his/her own.

   See Attached Flow Chart
ATHLETIC TRAINING PROTOCOL FOR
FACE MASK REMOVAL AND TRANSFER TO A SPINE BOARD

1. Follow protocol for ON THE FIELD CERVICAL SPINE INJURY

2. Initiate and/or maintain in-line C-Spine Stabilization.

3. If in respiratory arrest and face down, log roll to supine position immediately.
   a. Instruct all individuals involved to the specific procedures and cues.
   b. One person stabilizing the head and directing the process, one person
      stationed at the shoulders, waist and legs and one person to maneuver
      the board if available at time of log roll.
   c. Person at head needs to use cross arm approach to roll prone to supine,
      and maintain neck in most comfortable position if athlete is conscious. If
      unconscious bring to midline if there is no resistance as log roll is
      completed.

4. Remove Face Mask
   a. Cut all four loop straps being sure to cut both inside and outside straps
   b. Lift mask away from helmet avoiding any twisting or pulling on the loop
      straps.

5. Initiate CPR using a jaw thrust maneuver, if necessary.

6. When EMS staff arrive, transfer athlete to spine board using "7-Person Plus"
   lift technique.
   a. With One individual stabilizing the cervical spine and verbally guiding the
      transfer.
   b. One person at each shoulder, hip, and leg (6 people, or 4 for small athlete
      is OK). One person controls spine board
   c. On command, lift athlete 4-6 inches and slide board under athlete from
      feet to head direction.

7. Stabilize Athlete on board using tape, padding or straps available.

8. EMS transports to the emergency department with designated personnel.

This protocol was adopted from the Inter-Association Task Force Recommendations for Appropriate Care of
the Spinal Injured Athlete, Indianapolis, Indiana, May 30-31, 1998, and adopted for Walla Walla County at
the request of St. Mary Medical Center, Level II Trauma Center and Level II Rehabilitation Center, Walla
Walla, WA.
ON THE FIELD MANAGEMENT OF CERVICAL SPINE INJURIES

Athlete goes down with suspected C-spine injury

Initiate and Maintain C-spine Stabilization

Is Athlete Breathing

yes

Do not move the Athlete unless breathing is compromised

no

Activate EMS

Is Athlete Face Down or Sideways

yes

Log Roll Athlete to Supine

no

Remove Face Mask by cutting all four loop stripes (inside and outside portion)

Is Face Mask Too Difficult to Remove

yes

Remove Helmet and Shoulders as a Unit

no

Initiate CPR and continue till relieved by EMS

Is the Level of Consciousness Compromised

yes

Determine where Athlete Feels Pain and scan for Secondary Injuries

no

Is the Cervical Spine Tender to Light Palpation or Is there Obvious Deformity of the Cervical Spine

yes

Can Athlete Squeeze Both Hands with Even Strength

no

Can Athlete Move Both Feet with Even Strength

yes

Does Athlete respond to Light Touch to All Four Extremities Evenly

no

Can Athlete move each extremity through a voluntary range of motion

yes

Further Evaluation should be performed by a Competent Medical Professional before athlete is allowed to return to Play

no

Can the Athlete move the neck through Voluntary Active Range of Motion

yes

Can the Athlete come to a Sitting Position on His Own

no

Can the Athlete Stand and Walk to the Sideline on His Own

yes

Calm Athlete, Keep still, Prepare for Transfer to a Backboard until relieved by EMS

no

Walla W
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### 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</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 *(4)</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 cannula 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.

<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 OXIMETRY

I. Indications
   A. Patients with suspected hypoxemia, i.e., shortness of breath, altered mental status, and trauma patients with injury to chest or upper airway

II. Precautions
   A. Patients with fingernail polish or artificial fingernails disturb color discrimination
   B. Low-flow status, hypothermia, or hypovolemia do not allow adequate pulsation to provide contrast with other tissue
   C. CO-poisoning patients, smokers, and patients on certain drugs—notably nitroglycerin—can produce inaccurate readings
   D. Temperature should be between 60-105° Fahrenheit and humidity between 15-90%

III. Equipment
   A. Approved service-provider specific-pulse oximeter

IV. Interpretation
   A. Use pulse oximetry as an added tool for patient evaluation.
   B. Treat the patient, not the data.
   C. Contact Medical Control for any questions about pulse oximetry or percent of oxygen saturation.
   D. Percent of oxygen saturation is only one aspect of patient evaluation and must be combined with total patient assessment.
   E. In general, normal saturation is 99%
   F. Below 94%—suspect respiratory compromise
   G. 90% and below normally requires aggressive oxygen administration, ventilation via bag-valve mask, and possible intubation
   H. Ear probe or other sensory devices may be used in place of finger probe
# PULSE, BLOOD PRESSURE, AND RESPIRATION - RANGES

<table>
<thead>
<tr>
<th>Age</th>
<th>Systolic Range</th>
<th>Diastolic Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>80 / 46</td>
<td>8-9 Years</td>
</tr>
<tr>
<td>6-12 Months</td>
<td>89 / 60</td>
<td>9-10 Years</td>
</tr>
<tr>
<td>1 Year</td>
<td>96 / 66</td>
<td>10-11 Years</td>
</tr>
<tr>
<td>2 Years</td>
<td>98 / 64</td>
<td>11-12 Years</td>
</tr>
<tr>
<td>3 Years</td>
<td>100 / 68</td>
<td>12-13 Years</td>
</tr>
<tr>
<td>4 Years</td>
<td>98 / 66</td>
<td>13-14 Years</td>
</tr>
<tr>
<td>5 Years</td>
<td>94 / 56</td>
<td>Male Adult</td>
</tr>
<tr>
<td>6-7 Years</td>
<td>100 / 56</td>
<td>Female Adult</td>
</tr>
</tbody>
</table>

**Male Adult Systolic:**
Patient's Age + 100 (Up to 150 mmHg)

**Diastolic:**
60 to 90 mmHg

**Female Adult Systolic:**
Patient's Age + 90 (Up to 140 mmHg)

**Diastolic:**
50 to 80 mmHg

**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></th>
<th>Age</th>
<th>Pulse Rate</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>
</tbody>
</table>

### NORMAL RESPIRATORY RATES (RESPIRATIONS PER MINUTE)

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Rate</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>
</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 non-abusive 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 its 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
GUIDELINES FOR COMMUNICABLE DISEASE PREVENTION

INTRODUCTION

Washington Administrative Code, (WAC) 296-305-02501 requires that Fire Departments shall have a written infection control plan. WAC 246-976-020-085, requires that all EMS personnel shall meet initial training requirements and annual updates in infectious disease prevention with special emphasis on HIV/AIDS and Hepatitis B, to meet the requirements of the Revised Code of Washington (RCW) 70.24.270.

Under these requirements, the providers will receive four hours initial blood born pathogen information and annual updates thereafter.

The Walla Walla County Medical Program Director recommends emergency medical personnel take the following precautions against the transmission of communicable disease.

Treat all patient contacts as potentially infectious.

Handle sharp items with extreme caution -- Needles, scalpel blades and other sharp objects should be treated as potentially infective once they have been used. Place disposable items into puncture-resistant containers located as close as possible to the area of use. Do not recap, bend, or purposefully break needles.

Wear protective gear when in contact with blood, body secretions, and tissue specimens -- As a safeguard, all blood, body secretions and tissue specimens should be treated as if they were contaminated. It is recommended emergency medical personnel wear protective disposable gloves on a routine basis when skin contact with such materials is likely, both during treatment and when cleaning up, and especially if personnel have open cuts or abrasions. Safety glasses are advisable when spattering is likely and disposable masks should be worn when signs of rash and fever indicate a communicable disease that may be spread through oral or respiratory secretions (chicken pox, measles, meningitis, whooping cough, TB).

Wash thoroughly as soon as possible after contact with blood or body secretions -- Use an antiseptic soap and running water and rinse thoroughly, even if gloves were worn. When running water is not available, scrub with germicidal towelette or foam, and follow with a soap and water wash as soon as possible. When practical, wash thoroughly before and between patient contacts. Change clothing soiled with blood or body secretions. Disposable gowns are recommended when spattering likely.

Minimize mouth-to-mouth resuscitation by using disposable pocket mask resuscitation bags, or other ventilation devices -- If a ventilation device is not available, wash hands and face thoroughly with soap and water and change any soiled clothing after performing mouth-to-mouth resuscitation. Resuscitation devices should be disinfected after use.

Personnel suspecting exposure to an infectious disease should inform their supervisor -- If the mouth, eyes, or an unprotected cut are directly exposed to blood or body secretions, or in the event of a needle stick injury, affected personnel should wash thoroughly and inform their supervisor.
HANDWASHING

When to Wash:

In the absence of a true emergency, always wash hands:

a. Before performing invasive procedures;
b. Before caring for newborns and patients who are severely immunocompromised;c. Before and after touching wounds;d. After contact with mucous membranes, blood or body fluids; secretions and excretions (wash all exposed parts);e. After touching objects that are likely to be contaminated;f. After taking care of a patient with a known infection;

When in doubt, wash!

TECHNIQUE:

General Guidelines:

When handwashing is indicated, wash immediately after treating patient. Do not smoke, eat or touch people or objects unnecessarily until hands have been washed.

Wash with an approved soap and, whenever possible, with water. It is recommended aid cars and medic units carry water jugs with spigots for washing, when running water is otherwise unavailable. If no water is available, use waterless cleansers as indicated below.

Because many handwashing agents are drying to the skin, use hand lotion to prevent chapping and dermatitis.

When water is available:

1. Remove disposable gloves slowly and carefully by rolling inside out. Dispose in garbage container lined with plastic bag.
2. Remove rings, (and watch, if necessary) and clean them as you wash and disinfect hands.
3. Use an appropriate agent, such as Hibiclens. Pump dispensers are highly recommended.
4. Rub all surfaces of lathered hand vigorously for at least 15 seconds. Friction helps remove microorganisms.
5. Rinse thoroughly under a stream of water.
6. Turn off water with paper towel.
HANDWASHING (CONTINUED)

Do not re-expose hands by touching contaminated surfaces (see equipment cleaning and guidelines). Pay special attention to radio equipment, vehicle door handles, spotlight handles, flashlights, box handles, pen and pencils, and medical equipment.

When water is not available:

1. Remove disposable gloves slowly and carefully by rolling inside out. Dispose in garbage container lined with plastic bag.

2. Remove rings and watch, and if they have been exposed, clean them as you wash your hands.

3. Use a product that can be used without water; e.g., Hibistat, Alcare, Cal-stat.

4. Rub hands together vigorously for 15 seconds.

5. Wash with appropriate soap and water as soon as possible.

Handwashing Agents:

<table>
<thead>
<tr>
<th>Agent</th>
<th>Product</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorhexidine gluconate</td>
<td>Hibiclens</td>
<td>Kills staph, strep fungus, and viruses</td>
</tr>
<tr>
<td></td>
<td>Hibistat</td>
<td></td>
</tr>
<tr>
<td>Povidone-iodine</td>
<td>Betadine</td>
<td>Kills staph, strep and fungus</td>
</tr>
<tr>
<td></td>
<td>Acu-dyne</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepadyne</td>
<td></td>
</tr>
<tr>
<td>Alcohol foam agents</td>
<td>Alcare</td>
<td>Kills staph, strep and fungus</td>
</tr>
<tr>
<td></td>
<td>Cal-stat</td>
<td></td>
</tr>
<tr>
<td>Antiseptic liquid soap</td>
<td>Safe'n'Sure</td>
<td>Helps remove organisms but doesn't kill them</td>
</tr>
<tr>
<td></td>
<td>Kindness Kare</td>
<td></td>
</tr>
<tr>
<td>Bar soap</td>
<td>Ivory</td>
<td>Helps remove organisms but doesn't kill them</td>
</tr>
<tr>
<td></td>
<td>Dial, etc.</td>
<td></td>
</tr>
</tbody>
</table>
CLEANING EQUIPMENT

Background:

Cleaning is the physical removal of organic material or soil from objects -- usually with water and soap or detergent.

Disinfection is the killing of infectious agents outside the body by pasteurization or chemical means.

Sterilization is the destruction of all forms of microbial life by steam under pressure, liquid or gaseous chemicals, or dry heat.

Equipment should be cleaned, disinfected, or sterilized, depending on its use. The Centers for Disease Control divides equipment into three categories:

I. Critical Items -- Instruments or objects that are introduced directly into the bloodstream or into other normally sterile areas of the body. Examples are:
   - Surgical instruments

   Critical Items should be sterilized.

II: Semicritical Items -- Items that touch intact mucous membranes and have an intermediate risk of causing infection. Examples are:
   - Respiratory therapy equipment including bag mask, suction equipment, laryngoscope, mannequins

   Semicritical Items should be disinfected or disposed of properly. Disposable items are highly recommended.

III: Noncritical Items -- Items that do not ordinarily touch the patient or touch only intact skin. Examples are:
   - Blood pressure cuffs
   - Defibrillator
   - Stretcher
   - Walls and floor of vehicle

Cleaning alone is ordinarily sufficient for noncritical items, except when items have been exposed to known infectious materials or blood or body fluids. Disinfect when exposure is known or likely.
CLEANING EQUIPMENT (CONTINUED)

<table>
<thead>
<tr>
<th>STERILIZE</th>
<th>DISINFECT</th>
<th>CLEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I:</td>
<td>Category II:</td>
<td>Category III**:</td>
</tr>
<tr>
<td>Surgical Instruments</td>
<td>Bag Mask*</td>
<td>Air Splints</td>
</tr>
<tr>
<td>Trach kits</td>
<td>Intubation Equip*</td>
<td>Backboards</td>
</tr>
<tr>
<td></td>
<td>Portable Suction*</td>
<td>C-Collars</td>
</tr>
<tr>
<td></td>
<td>Vehicle suction*</td>
<td>KED Devices</td>
</tr>
<tr>
<td>Blood spills</td>
<td>Splints and straps</td>
<td>MAST Pants</td>
</tr>
<tr>
<td>Catheter tips*</td>
<td>Stethoscope</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stretcher and straps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vacuum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vehicle</td>
<td></td>
</tr>
</tbody>
</table>

* Use high-level disinfection for parts exposed to mucous membranes.
** Category III items that have been exposed to blood or body fluids should be disinfected.

Methods:

Sterilization  Use hospital facilities.

Disinfection  High-level -- Use glutaraldehyde (e.g., Wavicide 101) product. Wear gloves, clean and rinse to remove organic debris preferably with organic germicidal such as TORR, soak for at least 10 minutes in stainless steel soaking tray, rinse thoroughly with hot water, air-dry, bag and store in clean area. Discard solution after use.

Standard  Clean to remove organic debris before disinfecting. Use a 1:10 dilution of household chlorine bleach and water and scrub vigorously with clean cloth material (laundered rags or gauze pads) or use an EPA-registered germicidal/viricidal agent per manufacturer's instructions.

Prepare fresh chlorine solution daily. Note that chlorine will cause clouding on plexiglass and corrosion of metal after prolonged use. Aluminum surfaces should be decontaminated with clean cloth material saturated with 70-90% isopropyl or ethyl alcohol.

Cleaning  Use hospital grade disinfectant-detergent or soap, depending on likelihood of contact with mucous membranes. Follow manufacturer's instructions and scrub vigorously. Allow items to dry thoroughly.
CLEANING EQUIPMENT (CONTINUED)

EQUIPMENT/CLEANING LIST

AIR SPLINTS:
Scrub with hot soapy detergent, rinse with water, and dry before use.

BACKBOARDS AND STRAPS:
Scrub with hot soapy detergent, rinse with water, and dry before use.

BAG MASK:
Wear gloves. Clean and scrub with TORR to remove organic debris. Rinse and rough dry. Soak in glutaraldehyde (Wavicide 101) for 10 minutes in soaking tray. Rinse with water and dry. Store bagged in clean area.

C-COLLARS:
Scrub with hot soapy detergent, rinse with water and dry before use.

DEFIBRILLATOR AND PADDLES:
Clean external plastic surfaces with Formula 409 or equivalent.

INTUBATION EQUIPMENT:
Wear gloves to protect hands.
Clean all parts in TORR to remove organic debris, rinse and rough dry.
Soak laryngoscope blade for 10 minutes in glutaraldehyde (Wavicide 101) in stainless steel soaking tray for high-level disinfection.
Remove from solution, rinse with water and dry.
Store bagged in clean area.
Discard solution after use.
Follow standard disinfection procedures for other parts.

KED DEVICES:
Scrub with hot soapy detergent, rinse with water and dry before use.

MAST PANTS:
Scrub with hot soapy detergent, rinse with water, and dry thoroughly before storing. MAST pant with removable air bladder may be washed in automatic wash machine, dry on low cycle.
CLEANING EQUIPMENT (CONTINUED)

O₂ BOTTLE:
Scrub with hot soapy detergent, rinse with water and dry before use.

SPLINTS-METAL:
Scrub with hot soapy detergent, rinse with water and dry before use.

STETHOSCOPES:
Wipe after use with alcohol swabs.

SUCTION EQUIPMENT:
Catheter tips: Use high-level disinfection after each use (see intubation equipment) or disposable tips.

Units: Suction units should be cleaned after each use. Wear gloves and handle suction secretions with caution.

Disposable: Cap and remove liner, and set aside for hospital incineration. Flush tubing with disinfectant solution and air dry.

Non-disposable: Empty bottle carefully down drain at drain level, wash with germicidal, viricidal agent, and air dry. Flush tubing with disinfectant solution and air dry.

VACUUM SPLINTS:
Scrub with hot soapy detergent, rinse with water, and dry before use.

VEHICLE SURFACES:
Clean with hot soapy water and disinfect work surfaces with a 1:10 chlorine bleach solution. Pay special attention to accessories like radio equipment, spotlight handles, kit handles, etc. that come into contact with the hands. It is good practice to wipe down high-contact work surfaces after every transport and it is essential to do so after blood spills or transport of an infectious patient. Blood spills should be cleaned by gloving up, cleaning with soap and water, and disinfecting with fresh 1:10 bleach solution. Floors and walls do not have to be disinfected. Airing is ineffective as a disinfectant.
Simple Triage and Rapid Treatment

1. RPM method of identifying immediate patients;
   Respirations, Pulse, Mentation

2. Triage Criteria
   A. Immediate (Red)
      Respirations >30 per minute or absent until head repositioned, or
      Radial pulse absent or
      Can not follow simple commands

   B. Delayed (Yellow)
      Respirations present and <30 per minute, and
      Radial pulse present and can follow simple commands

      * The saying 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
“START” TRIAGE (RPM)

REMOVE WALKING WOUNDED ➔ GREEN

RESPIRATION

NO ➔ POSITION AIRWAY

NO ➔ BLACK

YES ➔ RESPIRATION

YES ➔ RED

>30/MIN ➔ >30/MIN

<30/MIN ➔ <30/MIN

ASSESS PERFUSION

PERFUSION

NO RADIAL PULSE ➔ CONTROL BLEEDING

NO ➔ RED

RADIAL PULSE ➔ ASSESS MENTAL STATUS

ASSESS MENTAL STATUS

FAILS TO FOLLOW SIMPLE COMMANDS ➔ RED

FOLLOWS SIMPLE COMMANDS ➔ YELLOW
MULTI-CASUALTY INCIDENTS

INTRODUCTION

Few, if any, single agencies have the resources to adequately respond to multi casualty incidents involving five (5) or more critical patients or ten (10) or more total patients. Therefore, multi casualty incidents involve many different agencies including, police, fire, ambulance, City County Dispatch, DEM, hospitals, etc.

Multi casualty incidents range from a few to many patients. This Protocol is designed to provide guidelines to handle all. The size of the command structure and number of EMS people will vary but the procedure and basic organization remains the same.

These procedures have been prepared to provide a coordinated response to an incident which could overwhelm the day-to-day EMS response. Its purpose is to ensure adequate, coordinated, and organized medical assistance in the event of emergencies resulting in multiple casualties.

This plan can be one part of a major incident with a multi patient component or it could be the single component of a multi casualty incident not involving other aspects of a major incident such as fire, evacuation, etc. Whether dealing just with a MCI or a component of a larger incident, the incident is organized using the "Incident Command System".

The Incident Commander has overall control of the scene at all times. Specialized roles are delegated to personnel who must act in a preplanned and organized fashion. Depending upon the size and magnitude of the incident, one individual may fill several roles.
MULTI-CASUALTY INCIDENT
(MCI)

DEFINITION
A multi casualty incident plan will be put into effect depending upon the resources of the
responsible agencies but generally it should be put into operation when there are:

1. 5 or more critical patients or,
2. 10 or more total patients.

PROTOCOL
In an MCI overall control and coordination is as important as patient care. First arriving
official will assume "Command" and direct the MCI. Command may be passed if needed for
other duties. It is more important to have ALS/BLS trained personnel filling the roles of
actual patient care and therefore ambulance/rescue personnel will not normally function as
IC. (In some larger incidents the IC may establish a Unified Command and request an EMS
person to become part of the Command Team.)

The IC will establish the organizational functions and assign them as needed. The following
pages outline the duties and responsibilities of the various positions that might be assigned to
responding ALS/BLS units.
FIRST UNIT ON SCENE

In the event that an ambulance is the First-in unit and upon recognizing that the MCI plan needs to be put into effect the unit will:

1. Take command/start Action Plan

2. Advise City County Dispatch of the following:
   a. That an MCI is present.
   b. The type of incident, the approximate number of injured and common type of injury.
   c. The number and code of additional ambulances needed.
   d. Additional help and specialized equipment needed.
   e. The exact location of the incident and the best access to the scene.
   f. Any obvious or possible hazardous conditions.
   g. Request or suggest a working frequency.

3. Begin to coordinate patient care. This will normally involve beginning Triage while maintaining radio communications with arriving units to give them assignments until Command is established.

4. Notify Medical Control of the incident.

ADDITIONAL ARRIVING UNITS

All additional arriving units should contact "Command" upon arrival at the incident for instructions. Normally enroute units will be advised of the staging area and units should respond to the staging area for assignments.

Upon arrival at staging area ambulance crew members must stay with their unit unless assigned an on site function in which case their unit will be out of service.

Normally enroute units will be advised of which radio frequency will be used on scene for working frequency.

EMS personnel not responding upon ambulance or aid units must also respond to Staging for directions and assignments.
INCIDENT COMMANDER

In most multi-casualty incidents, not involving some other major complication such as a fire, the Incident Commander is in charge of all EMS operations. In a large incident with multiple components the IC may appoint an EMS OPERATIONS Officer who is then the person in charge of all emergency medical services. For purposes of this procedure the IC duties are the same whether they are being performed by the IC or the EMS Operations Officer. They are referred to here as being done by the IC.

The Incident Commander has the responsibility for overall management of the incident. Command is responsible for scene safety, for both responders and victims.

Command is responsible for the following functions as required by the circumstances of the situation:

1. Establish command; and name command position.
2. Transmit a brief initial radio report unless already done by the first-in unit.
3. Initiate, maintain and control the communications process.
4. Request additional resources as required.
5. Develop and announce the overall plan of attack.
6. Assign units as required.
7. Develop an effective incident scene organization; assign resources; and maintain an effective span of control.
8. Return units to service and terminate command.

Radio Call Sign: "COMMAND"
INCIDENT COMMANDER
(EMS OPERATION LEADER)
SUMMARY OF MAJOR RESPONSIBILITIES

____ Don identification vest, if available on scene.

____ Establish Command Post, announce and identify location.

____ Request City County Dispatch to contact Medical Control and advise them that the MCI plan is in effect. Request they initiate all call.

____ Request an adequate number of medical personnel equipment, and supplies.

____ Request adequate resources from fire, law enforcement, public works, and others as needed by the incident.

____ Establish safety of scene.

____ Appoint and instruct staff as needed.

____ Triage Team leader

____ Treatment Team leader

____ Transportation Team leader

____ Others if needed:

____ Morgue

____ Ambulatory

____ Safety

____ PIO

____ Liaison

____ Extrication

____ Staging

____ Coordinate location of triage, treatment, transportation and other areas with team leaders.

____ Establish coordination with others involved in the incident mitigation.

____ Keep all work areas out of hazard zones.

____ Keep area clear of spectators.

____ Terminate Command when incident is concluded.

____ Maintain record of activities.
TRIAGE

Triage Team Leader

The Triage team leader is responsible for the evaluation and tagging of all victims.

This should be the first position designated after command is established. Victims must be sorted and identified indicating which treatment must be immediate, delayed, or no action taken because of death.

The START system for triage shall be used in an MCI where there are large numbers of patients.

Triage tags will be used in all incidents when the number of patients exceeds the normal ability of EMS personnel to track victims.

Triage personnel should work together as much as possible. The team leader does not need to be a paramedic but it is desirable. ALS personnel when not being used in treatment areas would be best used in the triage area.

Radio Call Sign: "TRIAGE"
TRIAGE TEAM LEADER

SUMMARY OF MAJOR RESPONSIBILITIES

_____ Obtain assignment and instructions from IC.
_____ Don identification vest, if available on scene.
_____ Request and assign staff to assist in Triage function.
_____ Direct evaluation and tagging of victims.
_____ Keep IC informed regarding number and extent of injuries and need for resources.
_____ Ensure proper medical procedures and protocols are followed.
_____ Coordinate with transportation and extrication to insure expeditious movement of victims.
_____ When triage is not done on scene establish the triage area in a safe zone and be sure it is adequately identified.
_____ Obtain triage tags - use START system for triage.
_____ Maintain record of activities and forward reports to appropriate channels.
_____ Secure operations when instructed.
TREATMENT

Treatment Team Leader

Treatment teams are designated to handle victims on a priority basis. The treatment team leader is responsible for establishing the treatment area in a safe location and coordinating the handling of the patients from triage to transportation.

The purpose of establishing a treatment area is to identify a location where manpower and equipment is situated to treat and monitor victims until transported (including the walking wounded). Only immediate life saving treatment is to be done in hazardous areas.

Once the treatment area is identified, patients can progress from extrication/triage to transportation in a smooth efficient manner and avoid confusion and duplication.

Victims brought to the treatment area should be placed with their heads towards the center, so they can be easily monitored with fewer people.

Victims are never left unattended at the treatment area.

The treatment team leader does not need to be a paramedic but the "IMMEDIATE AREA" needs to be staffed by certified EMS personnel.

Radio Call Sign: "TREATMENT"
TREATMENT TEAM LEADER

SUMMARY OF MAJOR RESPONSIBILITIES

_____ Obtain assignment and instructions from IC.
_____ Don identification vest, if available at scene.
_____ Request and assign sufficient EMS personnel to established treatment areas.
_____ Establish a safe location for the transportation area and adequately identify it.
_____ Establish treatment areas as needed:
   _____ Immediate (red tape)
   _____ Delayed (yellow tape)
   _____ Minor (green tape)
   _____ Morgue (black tape)
   _____ Ambulatory
_____ Expedite and control treatment and movement of victims.
_____ Ensure proper medical care procedures and protocols are followed.
_____ Ensure that patients are reassessed regularly for changes in condition.
_____ Evaluate and request resources as needed.
_____ Maintain records of activities and forward to appropriate people.
_____ Secure operations when instructed.
TRANSPORTATION

Transportation is responsible for the expeditious transfer of patients from the treatment area to the receiving hospital/s. Transportation is also responsible for maintaining contact with the resource hospital and directing transport units to appropriate facilities.

When staging and loading areas are separate, the transportation leader should direct units to the loading area as they are available and coordinated with ready patients. The transportation leader will set the priority and destination of patients with the critical patients being transported first.

Transportation shall use the HEAR system or cellular telephone for hospital communication.

A CUMULATIVE RECORD OF ALL PATIENTS TRANSPORTED MUST BE KEPT.

Radio Call Sign: "TRANSPORTATION"
TRANSPORTATION TEAM LEADER

SUMMARY OF MAJOR RESPONSIBILITIES

_____ Obtain assignment and instructions from IC.
_____ Don identification vest, if available at scene.
_____ Establish transport/loading area if different from staging and adequately identify it.
_____ Request and assign litter bearers, communications assistance, etc., as needed.
_____ Design and control traffic patterns (victims and vehicles).
_____ Maintain communications with Medical Control either by HEAR or cellular telephone.
_____ Coordinate ambulance transportation to designated hospital/s.
_____ Maintain records of activities and forward to appropriate people.
_____ Secure operations when instructed.

TRANSPORT UNITS

Upon arrival at staging, personnel must stay with their vehicles until assigned.

If personnel are assigned to other functions at the incident and their unit is out of service, they must notify Transportation of this fact.

Radio Call Sign: "TRANSPORTATION"
TRIAGE TAGGING

Identification and priority tags may be essential for smooth triage at large multi casualty incidents. Color-coded tags help to inform the treatment area which patients need to be treated first and the transportation area which to transport first.

This tag can accompany the patient through the hospital process and additional information can be recorded as necessary.

These tags should be affixed to each patient during the initial triage.

At plane crashes it is desired that the upper left corner on the injury diagram side of the tag be removed and left where the victim was found.

Tagging should be done on the following criteria:

PRIORITY 1 IMMEDIATE (RED)

Immediate life-threatening situation which can be promptly and easily corrected. These victims can be stabilized without constant care and have a high probability of survival. Examples:

a. airway or breathing difficulties
b. sucking chest wound
c. shock (hemorrhagic)
d. massive hemorrhage

PRIORITY 2 DELAYED (YELLOW)

Immediate treatment can be given—life is not immediately threatened. High probability of survival. Patient is able to wait 45-60 minutes. Injuries are serious but not life threatening. Examples:

a. moderate hemorrhage
b. major and/or multiple fractures or dislocations.
c. open injuries to abdomen
d. major burns

PRIORITY 3 MINOR (GREEN)

The walking wounded with minor wounds, minor fractures, etc., All priority 3 injuries require hospital treatment but can wait if necessary up to several hours without serious threat to life because of delay.
PRIORITY 0  DEAD OR CANNOT BE SAVED (BLACK)

The obviously dead should be so tagged so that others doing triage will not waste time checking them again.

The hopelessly wounded, those with catastrophic injuries and a low probability of survival. Note: The identification of those hopelessly injured is difficult. Examples:

a. massive open head wounds
b. fixed dilated pupils
c. agonal respirations
d. cardiac arrest following trauma

If there are limited resources, treatment and/or transportation can be delayed. However, if manpower permits, CPR and other treatment may be started in those cases where the patient deserves the benefit of any doubt.
TRIAGE TAG SAMPLE

This is the tag used in field triage. Front and back sides have space for recording patient identification and treatment. Urgency rating strips at bottom are color coded.
APPENDIX

ORAL GLUCOSE
(Glutose, Insta-glucose, etc.)

I. Indications for use
   A. Patient with an altered mental status and a known history of diabetes

II. Contraindications for use
   A. Unconsciousness
   B. Known diabetic who has not taken insulin and/or oral diabetic medications for days
   C. Unable to swallow

III. Procedure
   A. Assure the signs and symptoms are consistent with an altered mental status associated with a history of diabetes controlled by medication.
   B. Assure that the patient is responsive, and able to swallow the medication and protect his airway. Monitor the patient’s airway closely during the administration to avoid accidental blockage by, or aspiration of, the oral glucose.
   C. There are two ways to administer the medication. One way is to hold back the patient’s cheek and squeeze small portions of the contents of the tube into the mouth between the cheek and gum. The other way is to place small portions of the oral glucose on a tongue depressor, pull back the cheek, and slide the tongue depressor to deposit the medication between the cheek and gum.
   D. Do not squeeze a large amount of glucose into the patient’s mouth at one time.
   E. Dosage is one tube.
   F. ALS evaluation as necessary.
APPENDIX

NITROGLYCERIN
(Nitrostat, Nitrobid, Nitrolingual Spray, etc.)

I. Indications for use
   A. Patient exhibits signs or symptoms of chest pain
   B. Patient has physician-prescribed nitroglycerin

II. Contraindications for use
   A. Patient baseline blood pressure is below 100 mmHg systolic
   B. Patient suspected head injury
   C. Patient is an infant or child (<8 years old)
   D. Three doses (in 15 minutes) have already been taken by the patient
   E. Nitroglycerin is not prescribed for patient

III. Procedure
   A. ALS upgrade and evaluation required unless transport decision follows under
      the criteria of the BLS unit being closer to the hospital than ALS unit is to their
      location.
   B. Assess baseline vital signs to ensure that the systolic blood pressure is greater
      than 100 mmHg.
   C. Check the patient’s medication to ensure that it is nitroglycerin prescribed in the
      patient’s name and to learn the dose and route of administration.
   D. Be sure that the patient is alert and responsive.
   E. Check the expiration date on the nitroglycerin.
   F. Ask the patient when he took his last dose of medication and what its effects
      were. Also, be sure that the patient understands how the medication will be
      administered.
   G. Wear gloves and as the patient lifts his tongue, place or spray the medication
      under the tongue. Alternatively, have the patient place the tablet or spray under
      the tongue himself.
   H. Remind the patient to keep his mouth closed and not to swallow the tablet.

(continued)
I. Give nitroglycerin up to three times with 3-5 minutes between each administration.

J. Perform a reassessment of the patient’s blood pressure in 2 minutes.

K. **Do not leave the patient that has had nitroglycerin alone**

L. Record your actions, including the dosage, the time of administration, and the patient’s response.
ASPIRIN – Per MPD

INDICATION FOR USE IN AN ACUTE CORONARY EVENT
1) Patient exhibits any of the following signs or symptoms:
   a. Uncomfortable pressure, fullness, squeezing or pain in the center of the chest that lasts more than a few minutes, or goes away and comes back.
   b. Pain that spreads to the shoulders, neck or arms.
   c. Chest discomfort with lightheadedness, fainting, sweating, nausea or shortness of breath.

-OR-

2) Patient exhibits any two of the following signs or symptoms, and you think it is of cardiac origin:
   a. Atypical chest pain, stomach or abdominal pain. This may include discomfort that can be localized to a point, which is “sharp” in nature, that is reproducible by palpation, or that is in the “wrong” location (such as the upper abdomen).
   b. Unexplained nausea (without vomiting) or lightheadedness (not vertigo) without chest pain.
   c. Shortness of breath and difficulty breathing (without chest pain).
   d. Unexplained anxiety, weakness or fatigue.
   e. Palpitations, cold sweat or paleness.

CONTRAINDICATIONS FOR USE
1) Patient is allergic to aspirin or ibuprofen (Motrin®, Advil®).
2) If they have just taken aspirin for this event, do not administer aspirin.

PROCEDURE:
1) ALS/ILS upgrade and evaluation required unless ALS/ILS is unavailable.
2) Be sure that the patient is alert and responsive.
3) If the patient has his/her own nitroglycerin and meets the criteria for administration, do not delay in administering nitroglycerin.
4) Have the patient chew two baby aspirin (162mg).
5) Record your actions, including the dosage and the time of administration.
APPENDIX

EPINEPHRINE AUTO-INJECTOR - Updated 9/05

. Medication Name
  . Generic: Epinephrine
  . Trade: Adrenaline, Epi-Pen, Epi-Pen Jr.,
  . Actions
    . Dilates the bronchioles
    . Constricts blood vessels
  . Indications
    . Patient exhibits signs of a severe allergic reaction, including either respiratory distress or shock.
  . Contraindications
    . No contraindications when used in a life-threatening situation
  . Dosage
    . Adult: (30 kg or 66 lbs and higher) - one adult auto-injector (0.3 mg)
    . Infant and child: (Under 30 kg or 66 lbs) - one pediatric auto-injector (0.15 mg)
    . Actions
      . Dilates the bronchioles
      . Constricts blood vessels
  . Side Effects
    . Increased heart rate, chest pain, cardiac arrhythmias, cardiac arrest
    . Pallor
    . Dizziness
    . Chest pain
    . Headache
    . Nausea
    . Vomiting
    . Excitability, anxiety
  . Medication Form
    . Liquid administered via a commercially pre-loaded, measured dose, auto-injectable
syringe system

. Dosage
  . Adult: (30 kg or 66 lbs and higher) - one adult auto-injector (0.3 mg)
  . Infant and child: (Under 30 kg or 66 lbs) - one pediatric auto-injector (0.15 mg)

. Route of Administration
  . 1M

Washington State EMT-Basic Field Protocols - Rev 9/05
APPENDIX

BRONCHODILATOR
METERED DOSE INHALER (MDI)
ADULT PATIENT

I. Indications for use
   A. Patient exhibits signs and symptoms of breathing difficulty
   B. Patient has a physician-prescribed metered dose inhaler

II. Contraindications for use
   A. Patient is not responsive enough to use the MDI
   B. The MDI is not prescribed for the patient
   C. Patient has already taken the maximum allowed dose prior to your arrival
   D. Do not assist patient with his/her MDI if the medication is Serevent (Salmeterol)

III. Procedure
   A. ALS upgrade and evaluation required.
   B. Remove obstruction, if any.
   C. Provide supplemental oxygen and/or ventilatory assistance as necessary.
   D. Allow patient to achieve position of comfort.
   E. Assure that the inhaler is at room temperature or warmer. Shake the canister vigorously for at least 30 seconds.
   F. Remove the non-rebreather mask from the patient. Instruct the patient to take the inhaler in his hand and hold it upright. If the patient is unable to hold the device, place your index finger on top of the metal canister and your thumb on the bottom of the plastic container.
   G. Have the patient exhale fully.
   H. Have the patient open his mouth and place the inhaler 1 to 1.5 inches from the front of the lips, estimated by two finger widths.
   I. Have the patient begin to slowly and deeply inhale over about 5 seconds as he or you depress the canister. Do not depress the canister before the patient begins to inhale.
   J. Remove the inhaler and coach the patient to hold his breath for 10 seconds or as long as comfortable.
   K. Have the patient exhale slowly through pursed lips.
   L. Consult on-line medical control for additional doses.
If using a spacer, follow the same steps with the following exceptions for steps H and I

H. Remove the spacer cap and attach the inhaler to the spacer.

I. Depress the medication canister to fill the spacer with the medication. As soon as the canister is depressed, have the patient place his lips around the mouthpiece and inhale slowly and deeply. If the inhalation is too fast, the spacer may whistle.
**APPENDIX**

**BRONchodilATOR**

**METERED DOSE INHALER (MDI)**

**PEDIATRIC PATIENT (<8 YEARS OLD)**

I. **Indications for use**

A. Patient exhibits signs and symptoms of breathing difficulty
B. Patient has a physician-prescribed metered dose inhaler

II. **Contraindications for use**

A. Patient is not responsive enough to use the MDI
B. The MDI is not prescribed for the patient
C. Patient has already taken the maximum allowed dose prior to your arrival
D. Do not assist patient with his/her MDI if the medication is Serevent (Salmeterol)

III. **Procedure**

A. Contact incoming ALS unit for permission to assist the pediatric patient (<8 years old) with their MDI.
B. Remove obstruction, if any.
C. Provide supplemental oxygen and/or ventilatory assistance as necessary.
D. Do not agitate patient.
E. Allow patient to achieve position of comfort (parents lap prn, except during transport).
F. Assure that the inhaler is at room temperature or warmer. Shake the canister vigorously for at least 30 seconds.
G. Remove the non-rebreather mask from the patient. Instruct the patient to take the inhaler in his hand and hold it upright. If the patient is unable to hold the device, place your index finger on the top of the metal canister and your thumb on the bottom of the plastic container.
H. Have the patient exhale fully.
I. Have the patient open his mouth and place the inhaler 1 to 1.5 inches from the front of the lips, estimated by two finger widths.
J. Have the patient begin to slowly and deeply inhale over about 5 seconds as he or you depress the canister. Do not depress the canister before the patient begins to inhale.

(continued)
K. Remove the inhaler and coach the patient to hold his breath for 10 seconds or as long as comfortable.

L. Have the patient exhale slowly through pursed lips.

M. Consult on-line medical control for additional doses.

*If using a spacer, follow the same steps with the following exceptions for steps I and J*

I. Remove the spacer cap and attach the inhaler to the spacer.

J. Depress the medication canister to fill the spacer with the medication. As soon as the canister is depressed, have the patient place his lips around the mouthpiece and inhale slowly and deeply. If the inhalation is too fast, the spacer may whistle.
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.Actions
. Dilates the bronchioles
. Constricts blood vessels

. Indications
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. Contraindications
. No contraindications when used in a life-threatening situation

. Dosage
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. Infant and child: (Under 30 kg or 66 lbs) - one pediatric auto-injector (0.15 mg)

.Actions
. Dilates the bronchioles
. Constricts blood vessels

. Side Effects
. Increased heart rate, chest pain, cardiac arrhythmias, cardiac arrest
. Pallor
. Dizziness
. Chest pain
. Headache
. Nausea
. Vomiting
. Excitability, anxiety

. Medication Form
. Liquid administered via a commercially pre-loaded, measured dose, auto-injectable syringe system
. Dosage
. Adult: (30 kg or 66 lbs and higher) - one adult auto-injector (0.3 mg)
. Infant and child: (Under 30 kg or 66 lbs) - one pediatric auto-injector (0.15 mg)

. Route of Administration
. 1M

Washington State EMT-Basic Field Protocols - Rev 9/05
WALLA WALLA EMS
PRESHOSPITAL TRAUMA TRIAGE (DESTINATION PROCEDURE)

Purpose

The purpose of the Triage Procedure is to ensure that major trauma patients are identified and 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 is in accordance with RCW 70.168 and WAC 246-976 adopted by the Department of Health (DOH). The only exceptions are Step 2a and the addition of significant impact and presence of intoxicants added to Step 3. These items were added by the Walla Walla EMS and Trauma Care Council to combine the Oregon and Washington Triage Tools into a single Walla Walla County Triage Tool.

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, either by ground or air. To determine whether an injury is a 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 includes requesting advanced prehospital services as per WWCPCG or may include aeromedical evacuation.

B. The first step (1) is to assess the vital signs and level of consciousness. The words “Altered mental status” means anyone with an altered neurological 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.

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

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 meet up with an ALS unit. These factors are true regardless of the assessment of other vital signs and level of consciousness.

C. 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 or normal vital signs or normal levels of consciousness, the presence of any specific anatomical injuries does require activation of the trauma system.

Likewise with second step (2a) activation of the trauma system is required for patients having been subjected to those listed mechanisms of injury. Even in the assessment or normal vital signs or normal levels of consciousness, the presence of any specific anatomical injuries does require activation of the trauma system.

Please note that steps 1, 2, and 2a also require notifying Trauma Control.

D. The third step (3) for the prehospital provider is to assess the biomechanics of the injury and address the other risk factors. The conditions identified are reasons for the provider to contact and consult with Trauma Control, Medical Control or if appropriate, the patient’s hospital of choice regarding the need to activate the system. They do not automatically require system activation by the prehospital provider. Remember the Walla Walla VAMC does not accept trauma patients.
Other risk factors, coupled with “gut feeling” of severe injury, means that Trauma Control should be consulted and consideration given to transporting the patient to the nearest trauma facility.

Please note that certain burn patients (an 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 council patient care procedures”. These procedures are developed by the South Central EMS and Trauma Care Council in conjunction with local EMS 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 the 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 summery, the Prehospital Trauma Triage Procedure and the Regional Patient Care Procedures are intended to work in a “hand in glove” fashion to 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 Care Council or contact 1-800-458-5281.

(Version 7-13-95)
**WALLA WALLA COUNTY EMS**

**PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURES**

Prehospital triage is based on the following 3 steps: Steps 1, 2, and 2a require prehospital EMS personnel to notify Trauma Control and activate the Trauma System. Activation of the Trauma System in Step 3 is determined by Trauma Control, Medical Control, or hospital of patient’s choice.

**STEP 1**

**ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS**

- Systolic BP < 90*
- HR > 120*

*for pediatrics (<15y) pts, use BP < 90 or capillary refill > 2 sec.
*for pediatrics (<15y) pts, use HR < 60 or > 120

If 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 – GCS < 13

**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.

**STEP 2a**

**ASSESS CERTAIN MECHANISMS OF INJURY**

- Death of same car occupant; OR
- Ejection of patient from enclosed vehicle; OR
- Extrication time > 20 minutes.

(heavy equipment required to extricate patient from enclosed space)

**STEP 3**

**ASSESS BIOMECHANICS OF INJURY AND OTHER RISK FACTORS**

- Significant impact/intrusion; OR
- Falls ≥ 20 feet; OR
- Pedestrian hit at ≥ 20 mph or thrown 15 feet; OR
- High energy transfer; rollover, motorcycle, bicycle, ATV accident
- Extremes of age < 15 > 60
- Hostile environment (extremes of heat or cold)
- Medical illness (such as COPD, CHF, renal failure, etc.)
- Second or third trimester pregnancy
- Presence of intoxicants
- Gut feeling of medici

**CONTACT:**

- TRAUMA CONTROL
- MEDICAL CONTROL
- PATIENT CHOICE HOSPITAL
- DESTINATION DECISION

**OREGON:**

- SMMC FOR TRAUMA CONTROL

**TRANSPORT PATIENT PER REGIONAL PATIENT CARE PROCEDURES**

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.

2. Apply “Trauma ID Band” to patient.
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<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tr>
<td>â</td>
<td>before accident</td>
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<td>AA</td>
<td>awake, alert, and oriented</td>
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<td>AAOx</td>
<td>abdomen times</td>
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### COMMON PRESCRIPTION MEDICATIONS

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<tr>
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<tr>
<td>Phenelzine/Nardil</td>
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<tr>
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<tr>
<td>Zantac/Ranitidine</td>
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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

ALS ........................................ Advanced 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

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

BRONCHITIS ............................... Inflammation of the bronchi

BURN ....................................... An injury caused by extremes of temperature, electric current, or certain chemicals

FIRST DEGREE ......................... A burn affecting only the outer skin layers

SECOND DEGREE ....................... A partial thickness burn penetrating beneath the superficial skin layers, producing edema and blistering

THIRD DEGREE ......................... A full thickness burn, involving all layers of the skin and underlying tissues as well, having a charred or white, leathery appearance
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

CONTRAINDICATION ...............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 ..................................Cardiopulmonary 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 .........................An 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 done only 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.

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 dissenion 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 Medical Technician care per RCW 18.17.081.

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

ETA .........................................Estimated Time of Arrival.

ETIOLOGY ...............................The causative agent of a disease.

EVISCERATE .........................To remove the intestines; to disembowel.

EXSANGUINATE .................To bleed to death.

EXTRAVASATION .................Leakage of intravenous fluid into surrounding tissues.
FEBRILE .........................Characterized by fever
FIRST RESPONDER ..............A person certified to provide First Responder 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
FOCUSED ............................The act of bending
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 CRAMPS ..........................Painful muscle cramps resulting from excessive loss of salt and water through sweating
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. It is 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
HYPOVOLEMIA .....................Abnormally decreased amount of blood and fluids in the body
HYPOXIA ............................Reduction of oxygen in body tissues below normal levels
INFARCTION ..........................Death (necrosis) of a localized area of tissue caused by the cutting off of its blood supply
INITIAL PATIENT ASSESSMENT .................A step to quickly determine if the patient is suffering from any life threatening injuries or illnesses
INSUFFICIENCY ..........................The condition of being inadequate to normal performance
INSULIN SHOCK .....................Severe hypoglycemia caused by excessive insulin dosage with respect to sugar intake. It may be characterized by bizarre behavior, sweating, tachycardia, or coma
INTERMEDIATE LIFE SUPPORT

TECHNICIAN (ILST) ..... A person who has been certified to practice as an intermediate Life Support Technician per RCW 18.71.200

JVD ................................... Jugular Vein Distention
KILOGRAM ..................... A measure of weight equaling 2.2 pounds
LAVAGE .......................... To wash out, or irrigate
LETHARGY ...................... A condition of drowsiness or indifference
MAST ............................. Military Anti-Shock Trousers

Medical Program Director (MPD) ...................... The physician in each county certified by the Department of Health to carry out the duties of the MPD

MENSTRUATION ........... The process by which the uterine lining is shed each month by women between the ages of puberty and menopause

MIR .................................. Medical Incident Report form
MOI .................................. Mechanism Of Injury
MISCARRIAGE ............. A layman’s term for an abortion, or the premature expulsion of a nonliving fetus from the uterus

NECROSIS ....................... The death of tissue, usually caused by a cessation of its blood supply

NEUROLOGICAL FLOW SHEET ............. A written record of vital signs and level of consciousness used in patients with altered levels of consciousness

NORMAL SALINE ............ A solution containing 0.9% sodium chloride
OCCLUSIVE DRESSING ..... A watertight covering for a wound

O-P-Q-R-S-T .................. Mnemonic device used to assess the patient’s chief complaint or major symptoms, Onset, Provocation, Quality, Radiation, Severity, Time

O₂ .................................. Oxygen

PARADOXICAL RESPIRATION .......... 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.

PARAMEDIC ..................... A person certified to engage in paramedic practices per RCW 18.71.200

PARENCHYMA ..................... The essential or functional elements of an organ

PATIENT CARE PROCEDURES (P.C.P.s) ... Written operating guidelines adopted by the regional EMS/TC council per WAC 246-976-010

PERINEUM ..................... That area of the anatomy bounded anteriorly by the pubic symphysis and posteriorly by the coccyx
PERIORAL .................Around the mouth
PERIORBITAL...............Around the eye
PETIT MAL SEIZURE .......A type of epileptic attack seen especially in children, characterized by momentary loss of awareness without loss of motor tone
PLACENTA ................A vascular organ attached to the uterine wall, supplying oxygen and nutrients to the fetus; also called the afterbirth
PMS ..........................Pulse, Movement, Sensation
PNEUMOTHORAX...........Air in the pleural cavity
POC ...........................Position Of Comfort
POSTICTAL ................Referring to the period after the convulsive state of a seizure
POSTPARTUM ..............Occurring after childbirth, with reference to the mother
p.r.n. ..........................Abbreviation meaning; as circumstances may require, as necessary
PROLAPSED CORD .........A delivery in which the umbilical cord appears at the vaginal orifice before the head of the infant
PRONE .......................Lying flat with the face downward
PROPHYLAXIS ..............Taking measures to prevent the occurrence of a given disease or abnormal state
PROTOCOL ..................Written procedures adopted by the MPD which direct the out-of-hospital emergency care per WAC 246-976-010
PSDE ........................Painful, Swollen, Deformed, Extremity, formerly referred to as a fracture
PSYCHOSIS .................A mental disorder causing disintegration of personality and loss of contact with reality
PULMONARY EDEMA .......Congestion of the pulmonary air spaces with exudate and foam
RAPID ASSESSMENT ......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.
RCW ..........................Revised Code of Washington
RECOVERY POSITION ......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
RESPIRATORY INSUFFICIENCY .......A condition which results in inadequate oxygen and carbon dioxide exchange in the lungs and tissues, due to disease or injury
SAMPLE..........................History acronym for: Signs and Symptoms, Allergies, Medications, Past pertinent medical history, Last oral intake, Events leading to illness or injury

SHOCK..........................A state of inadequate tissue perfusion (hypoperfusion), which may be caused by pump failure (cardiogenic shock), volume loss (hypovolemic shock), vasodilation (neurogenic shock), or any combination of these

SOB.............................Shortness Of Breath

STATUS EPILEPTICUS......The occurrence of two or more seizures without a period of complete consciousness between them

SUBCUTANEOUS EMPHYSEMA ..................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

SUPERVISING PHYSICIAN ..........A physician designated by the EMS MPD to be responsible for the supervision of medical treatment procedures for BLS and ALS technicians

SUPINE ..................Lying flat with the face upward

TACHYCARDIA.................A rapid heart rate, over 100 per minute

TENSION PNEUMOTHORAX......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

THROMBUS .........................A fixed clot that forms inside a blood vessel

TOXIN .........................A poison manufactured by bacteria or other forms of animal or vegetable life

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