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

WASHINGTON STATE EMT PROTOCOL WORK GROUP

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

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), Washington State Prehospital Trauma Triage Procedures, patients meeting Trauma Triage Criteria Step 1, 2 or 3 will be transported to St. Mary Medical Center. Patients meeting Trauma Triage Criteria Step 4, 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 is dispatched from Columbia County Dispatch Center.

Selection of the first responding unit shall be based upon declared need (emergency vs. non-emergent), 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 Criteria for ALS Procedure). 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 \( \text{SaO}_2 \))
   1. Unreliable when patient not perfusing well or extremely tachycardic
   2. \( \text{SaO}_2 < 94\% \) in patient without underlying pulmonary disease;
   3. \( \text{SaO}_2 < 90\% \) 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 which 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, 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 makes contact with the requesting party or patient and determines the level of care or treatment required and administers 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 be cuffed 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 2 ½ 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.

II. Medical - Scene times should be less than 30 minutes after initial encounter. Documentation of extenuating circumstances is. 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 long-term 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

When in doubt concerning patient’s rights, contact Medical Control and fully document all your
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 their 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 may 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 246-976-182 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.

**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. 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. Primary 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. Secondary Assessment
   A. Patient and injury specific
   B. Perform a detailed physical examination for additional information

IV. 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

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

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

VII. Clean, Service and Restock Vehicle
GENERAL MEDICAL ASSESSMENT

I. Scene Size-Up

II. Primary Patient Assessment

III. Secondary Assessment
   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 5/2010)
IM Epi and/or EpiPen

I. Scene Size-Up/Primary Patient Assessment

II. Secondary Assessment
   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. Circulation
      2. Epinephrine 1:1000 by Epi Auto-Injector or draw up appropriate dose from vial and administer via IM route
         a) Dosage:
            (1) Adult : (30 kg or 66 lbs. and higher)– one adult auto-injector (0.3 mg.)
            (2) Infant and child: (Under 30 kg or 66 lbs.) - One pediatric auto-injector (0.15 mg)
      3. If the administration of Epi is refused, do not administer Epi, contact Medical control.
   D. Pulse Oximetry if available
   E. Psychological support

IV. Ongoing Assessment
   A. Monitor closely
   B. Repeat vital signs
   C. Update ALS with any changes in patient’s status

V. Transport
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
CARDIAC COMPROMISE

EMS personnel trained in 12-lead acquisition should run an ECG on patients experiencing cardiac compromise. (See 12-lead acquisition in appendix)

I. General Orders

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

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

III. Role of the First Responder / Emergency Medical Care
   A. Responsive patient with a known history - cardiac
      1. Place patient in position of comfort
      2. Provide supplemental oxygen and/or ventilatory assistance as Necessary, if not done during the Initial Patient Assessment
      3. Assess O-P-Q-R-S-T
         a) Onset, Provocation, Quality, Radiation, Severity, Time

Note: Unresponsive patient with a pulse present, refer to the Altered Mental Status Protocol
I. Scene Size-Up / Primary Patient Assessment

II. Secondary Assessment
   A. Onset/Provocation/Quality/Radiation/Severity/Time
   B. Signs and symptoms
      1. Chest pain
      2. Difficulty breathing
      3. Skin changes (pale, sweaty, cyanotic)
      4. Anxiety/irritability (feeling of impending doom)
      5. Circulatory (irregular pulse/BP, shock, pulseless)
      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 available; assist patient with Self-administration of Nitroglycerin, after consulting on or off line MCC
         a) Nitroglycerin
         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. Check respirations and pulse
      2. Begin CPR if not provided during Initial Patient Assessment (follow current national standards). If Do Not Resuscitate Order, follow protocols on Do Not Resuscitate (DNR)
      3. Provide supplemental oxygen and/or ventilatory assistance as necessary, if not done during Initial Patient Assessment,
      4. Attach Automatic External Defibrillator (AED) if available
      5. Follow current national standards for defibrillation

IV. Ongoing Assessment

V. Transport
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 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
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 / NO CPR 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 is DNR
   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 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 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.
DO NOT RESUSCITATE ORDERS

I. Definitions
A. **A DNR (DO NOT RESUSCITATE OR NO CODE) Order** is an order issued by a physician directing that in the event the patient suffers a cardiopulmonary arrest (i.e., clinical death), resuscitation will not be initiated.
B. **Power of Attorney** is a document which delegates decision making responsibility to an individual for a patient who has been rendered incompetent.
C. **A Living Will** (i.e., Advanced Directive) is not a legal document in the opinion of the State’s Attorney General. It commonly indicates the patient's wishes regarding resuscitation.
D. **A Written DNR/No CPR Order** (i.e., Physician Orders for Life-Sustaining Treatment form – POLST) is a document which delegates decision making the responsibility of the patient and the patient’s physician. It is Washington State specific to EMS, must be signed by patient and physician, and must be available for EMS to see.
E. **Resuscitation** includes attempts to restore failed cardiac and/or ventilatory function by procedures such as endotracheal intubation, mechanical ventilation, closed chest massage, defibrillation, and use of ACLS cardiac medications. It does not include withholding other medical care when patient has a pulse and is breathing.

II. Protocol
A. When the patient's family, friends, or nursing home personnel state that the patient is not to be resuscitated:
   1. Protocols will be followed while attempts to determine if a written DNR / No CPR order from the patient’s physician is in the patient's medical file.
   2. In the absence of a written DNR / No CPR order, initiate full resuscitation.
   3. The EMS personnel must document the DNR/No CPR order in the patient care report.
   4. If a Living Will is present, initiate resuscitation and immediately consult Medical Control for advice.
B. No BLS or ALS procedures should be performed on a patient who is the subject of a confirmed DNR order and who is PULSELESS AND NONBREATHING.

Clinical death exists when a patient is pulse-less and non-breathing. Biological death has occurred when no CNS signs of life exist.
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

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 1/2011)

I. Scene Size-Up/Initial Patient Assessment

II. Secondary Assessment
   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.
EMT-A STROKE Protocol

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
   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

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. Start IV
      3. Obtain blood glucose level to rule out low blood sugar as reason for ALOC
         Treat if < than 60 mg/dl
         Administer Dextrose 50% 25g IV
   B. Check and record vital signs and GCS every 5 minutes

IV. Transport
   A. Do not delay transport
   B. Contact Medical Control about where to transport patient
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**
   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**
SNAKEBITE

Information Needed:
- Type of snake, if known and location found
- Appearance of snake, shape of pupil, presence of stripes or rattle, size of snake
- Time of bite
- Symptoms: local pain or swelling, metallic taste in mouth, hypotension, coma, bleeding

I. Non-Envenomation
   A. Signs and Symptoms: no discoloration around puncture marks and little or no pain after a few minutes
   B. Emergency Medical Care
      1. Remove rings or other jewelry which might constrict circulation later
      2. Observe patient for signs and symptoms of Envenomation

II. Envenomation
   A. Signs and Symptoms
      1. Dark discoloration around punctures within 5 minutes
      2. Marked edema formation
      3. Severe pain
      4. Oozing or hemolyzed blood from punctures, possible formation of fluid blebs on skin
      5. Fasciculation
      6. Hypotension
      7. Marked tachycardia
      8. Definite metallic taste
   B. Emergency Medical Care
      1. Remove rings or other jewelry which might constrict circulation later
      2. Clean wound site
      3. Document distal pulse
      4. Immobilize bitten part with splint
      5. Provide oxygen and/or ventilatory assistance as necessary

Precautions and Comments:
- Do not incise Envenomation
- If possible bring in snake for positive identification
- Do not apply ice directly to bite site it may cause serious tissue damage
- Notify receiving hospital as early as possible.
GENERAL 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
RESPIRATORY EMERGENCIES

CHF, Pulmonary Edema, Asthma, COPD, Pneumonia

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
   C. Any patient who is in respiratory distress with signs and symptoms consistent with asthma, COPD, pulmonary edema, CHF or pneumonia consider CPAP. (See CPAP in Appendix)

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)
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
   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 rewarm
      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 re-warm
      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, re-warm 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 & the skin remains soft
      3. If re-warmed, 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 re-warm
      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 re-warming should be done as follows:
      1. Obtain medical direction prior to initiating re-warming
      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 re-warmed (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. Primary 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
   C. Deformities, Contusions, Abrasions, Punctures - Burns, Tenderness, Lacerations, and Swelling (DCAP-BTLS)
   D. Pulse, Movement, Sensation (PMS)

III. Secondary Assessment
   A. Vital signs
   B. Glasgow Coma Scale
   C. SAMPLE history
   D. Re-evaluate Primary Assessment items
      1. Unstable patient a maximum of every 5 minutes
      2. Stable patient every 15 minutes

IV. 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
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

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 Tourniquet

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. Tourniquet
         a). Life-threatening limb hemorrhage is not controlled with direct pressure or other simple measures, as may occur with a mangled extremity.
         b). Traumatic amputation has occurred.
      5. 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
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
      1. See Spinal Immobilization Clearance in appendix.
   B. Assure patient airway
   C. Provide oxygen and/or ventilator 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
      1. See Spinal Immobilization Clearance in appendix.

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
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. Give nothing by mouth
   E. Elevate lower extremities, if no contraindications
   F. Splint fractures
   G. 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-pinche 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
PEDIATRIC ASSESSMENT

I. Scene Size-up and Primary 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. Secondary 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 Primary 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. Secondary 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
H1N1 Virus (SWINE FLU) PROTOCOL / GUIDELINES
April 30, 2009

I. Triggers
A. Activation of the EMS Viral Respiratory Disease, Pandemic SOPs is made by Incident Command in consultation with the Public Health Officer.
B. Communications
   1. 9-1-1 Operations/Dispatch
      a) Activate “Severe Respiratory Distress (Flu like Symptoms)” protocol and advise emergency responders of positive symptom(s) patients.
   2. Situation Reports
      a) The Incident Command Post (ICP) or Regional Emergency Operations Center (EOC) will provide situation reports to emergency responder agencies to distribute to stations/personnel.
   3. Shift Briefings – All EMS agencies will provide ongoing shift briefings to include:
      a) Status of outbreak including last 24 hour activity
      b) Hospital status
      c) PPE, Infection Control
      d) Status of EMS Pandemic SOP

II. Worker Safety / Infection Control
A. Personal Protective Equipment (PPE):
   1. Enhanced PPE Procedures:
      a) All Patient Contact – standard universal precautions or PPE including: gloves, NIOSH approved mask, and eye protection. http://www.cdc.gov/swineflu/masks.htm
      b) Patients with respiratory/GI symptoms – PPE outlined above, plus: disposable gown/overalls and shoe covers; cover patient with surgical face mask
      c) Change in response configuration to minimize personnel exposure at each call
      d) Every Job regardless of Pt. Contact – PPE including: NIOSH approved mask, eye protection, regular hand washing, and cleaning of work surfaces (minimum prior to each shift/staff change)
B. Vaccination / Antiviral Therapy:
   1. Emergency Responder Points of Distribution (POD) – Agency management in consultation with the County Health Department will consider/coordinate activation of the Emergency Responder PODs for appropriate vaccination/antiviral therapy
   2. Staff Entry Control Process:
      a) All EMS agencies shall establish a decontamination and health care screening site(s) to clear employees prior to entering the work site and start of each shift
C. Decontamination and Cleaning of Equipment/Work Areas
   1. Enhanced Decontamination Procedures:
      a) Clean off all surfaces and equipment (including glasses and stethoscope) using the approved bio spray or alcohol based hand cleaner
b) Dispose of all cleaning supplies in red hazardous waste bag

c) (Driver Prior to Transport/Attending Technician at end of Transport/patient care) Remove disposable gown / overalls, face mask, gloves and disposable BP cuff into hazardous waste bag and secure

d) First Responders: Place all equipment used during the call in a red hazardous waste bag until decontamination prior or enroute to next call

e) Use bio-wipes or alcohol based hand cleaner to clean hands and forearms until soap and water are available

f) (Driver on arrival at receiving facility) Use new suit, gloves, face mask, and eye protection

g) Once patient has been transferred, decontaminate inside of ambulance patient care area and equipment prior to arrival at next call

III. Patient Care and Transport (Respiratory Distress (Flu Like) Symptoms)

A. PPE

B. Assess Patient for Priority Symptoms
   1. Chief Complaint
   2. Vital Signs (including check for orthostatic changes and temperature)
   3. Medical History Travel History

C. Incident Command will advise 9-1-1 and Fire/EMS agencies which of the following Care and Transport options to use:
   1. Care and Transport to ED
      a) Allow patient to achieve position of comfort
      b) Cover patient with surgical face mask, or administer O2 via face mask, to reduce aerosolization of virus
      c) EKG, IV TKO (if patient is dehydrated provide fluid challenge based on shock guidelines)
      d) Proper cooling techniques based on temperature
      e) Provide “Infection Control Guidance for Families”
      f) Use proper patient isolation techniques
         • Close off ambulance driver’s compartment
         • Drape patient / Isolation Pod
      g) Early EMS Report
   2. Care and No Transport
      a) Provide information explaining the demand of limited resources and decision of no transport
      b) Advise to call 9-1-1 should priority symptoms occur
      c) Advise local health department of patient condition and location for in home support and care
<table>
<thead>
<tr>
<th>MANEUVER</th>
<th>ADULT Adolescent &amp; older</th>
<th>CHILD 1 yr. to adolescent</th>
<th>INFANT Under 1 yr. of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECOGNITION</td>
<td>Unresponsive (for all ages)</td>
<td>No breathing or only gasping</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No pulse palpated within 10 seconds for all ages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACTIVATE:</td>
<td>Activate when victim found unresponsive</td>
<td>Perform 5 cycles of CPR</td>
<td>For sudden, witnessed collapse, activate after verifying that victim unresponsive</td>
</tr>
<tr>
<td>(Lone Rescuer)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPR Sequence</td>
<td>C-A-B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compression Rate</td>
<td>At least 100/min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compression Depth</td>
<td>About 2”</td>
<td>About 2”</td>
<td>About 1 ½”</td>
</tr>
<tr>
<td>Chest Wall Recoil</td>
<td>Allow complete recoil between compressions</td>
<td>Rotate compressors every 2 minutes</td>
<td></td>
</tr>
<tr>
<td>Compression Interruptions</td>
<td>Minimize interruptions in chest compression</td>
<td>Attempt to limit interruptions to &lt;10 seconds</td>
<td></td>
</tr>
<tr>
<td>Airway</td>
<td>Head tilt-chin lift – if suspected trauma: jaw thrust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compression-to-ventilation ratio (until adv. Airway placed)</td>
<td>30:2</td>
<td>30:2</td>
<td>30:2</td>
</tr>
<tr>
<td></td>
<td>1 or 2 rescuers</td>
<td></td>
<td>15:2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 rescuers</td>
</tr>
<tr>
<td>Ventilations with adv. Airway in place</td>
<td>1 breath every 6-8 seconds (8-10 breaths/min)</td>
<td>Asynchronous with chest compressions</td>
<td>About 1 second/breath</td>
</tr>
<tr>
<td>Foreign-body airway Obstruction</td>
<td>Responsive: Abdominal thrusts</td>
<td>Responsive; Back slaps &amp; chest thrusts</td>
<td>Unresponsive: CPR with airway check</td>
</tr>
<tr>
<td></td>
<td>Unresponsive: CPR with airway check</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defibrillation</td>
<td>Attach &amp; use AED as soon as available. Minimize interruptions in chest compressions before &amp; after shock; resume CPR beginning with compressions immediately after shock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CARDIAC ARREST IN ADULTS & CHILDREN > 8 YRS OLD

Begin CAB. (Compression – Airway – Breathing) If unconscious/unresponsive, not breathing normally & no pulse immediately perform chest compressions turn on & attach defibrillator. Complete 30 compressions; analyze rhythm. Exception: When the patient goes in VF while monitored or attached to an AED a defibrillatory shock may be administered immediately.

**Shock Indicated (VF or pulseless VT)**
- Deliver Single Shock. Then immediately begin chest compressions
- Perform 2 min. of uninterrupted CPR
- Do Not delay CPR for pre or post-shock rhythm analysis.

**No Shock Indicated**
- Immediately begin chest compressions
- Perform 2 min. of uninterrupted CPR
- Do not delay CPR for pulse

**After 2 minutes of CPR, Analyze rhythm**
- **Do not check pulse before analyzing rhythm**

---

CARDIAC ARREST IN CHILDREN & INFANTS < 8 YRS. OLD

Begin CAB. If unconscious/unresponsive, not breathing normally & no pulse – immediately perform chest compressions turn on & attach defibrillator. If available, use pediatric key or pediatric pads. If not available, use adult pads. Make sure pads are at least 1” apart if placed on chest and side or may be placed on the chest and back. Complete 30 compressions; analyze rhythm.

Continue as indicated in the above adult algorithm.
## 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>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 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>
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.

<table>
<thead>
<tr>
<th>CORE BODY TEMPERATURE</th>
<th>SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>99F-96F  37.0C-35.5</td>
<td>Shivering</td>
</tr>
<tr>
<td>95F-91F  35.5C-32.7C</td>
<td>Intense shivering. If patient has difficulty speaking.</td>
</tr>
<tr>
<td>90F-86F  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  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  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 Shout</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 Sidelying?
      - yes: Log Roll Athlete to Supine
      - no: Remove Face Mask by cutting all four sets of straps
    - Is Face Mask Too Difficult to Remove?
      - yes: Remove Helmet and Shouldepads as a Unit
      - no: Initiate CPR and continue until relieved by EMS
  - Remove Mouthpiece
  - 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?
        - yes: Can the Athlete Move Both Foot with Even Strength?
          - yes: Does Athlete respond to Light Touch to All Four Extremities Evenly?
            - yes: Can the Athlete move each extremity through a voluntary range of motion?
              - yes: Can the Athlete move the neck through Voluntary Active Range of Motion?
                - yes: Can the Athlete come to a Sitting Position on His Own?
                  - yes: Can the Athlete Stand and Walk to the Sideline on His Own?
                    - yes: Further Evaluation should be performed by a Competent Medical Professional before Athlete is allowed to Return to Play
                    - no: Calm Athlete, Keep still, prepare for transfer to a backboard until relieved by EMS
                  - no: Further Evaluation should be performed by a Competent Medical Professional before Athlete is allowed to Return to Play
                    - yes: Calm Athlete, Keep still, prepare for transfer to a backboard until relieved by EMS
# 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</td>
<td>12</td>
<td>80</td>
</tr>
<tr>
<td>Face Mask *(1)</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 *(3)</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.
### OXYGEN BOTTLE VOLUME AND FLOW

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

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

---

### PULSE 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

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

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Systolic</th>
<th>Diastolic</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>

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

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

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

### NORMAL PULSE RATES (HEART BEATS PER MINUTE)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>60 - 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn</td>
<td>110 - 150</td>
</tr>
<tr>
<td>11 Months</td>
<td>100 - 140</td>
</tr>
<tr>
<td>2 Years</td>
<td>90 - 110</td>
</tr>
<tr>
<td>4 Years</td>
<td>80 - 120</td>
</tr>
</tbody>
</table>

### NORMAL RESPIRATORY RATES (RESPIRATIONS PER MINUTE)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonate</td>
<td>30 - 50</td>
</tr>
<tr>
<td>2 Years</td>
<td>20 - 30</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.
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 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 investigation reveals that a crime may have been committed. 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.

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.

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.

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.

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.

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.
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 hand washing 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 hand washing 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.

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.

Hand washing Agents:

Walla Walla County Patient Care Procedures
Page 83
<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, Dial, etc.</td>
<td>Helps remove organisms, but doesn’t kill them</td>
</tr>
</tbody>
</table>

**CLEANING EQUIPMENT**

**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: **Semi critical 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
   Semi critical 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><strong>Category I:</strong></td>
<td><strong>Category II:</strong></td>
<td><strong>Category III:</strong></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></td>
<td>Blood spills</td>
<td>MAST Pants</td>
</tr>
<tr>
<td></td>
<td>Catheter tips*</td>
<td>Splints and straps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stretcher and straps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vacuum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vehicle</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 (launched 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.

### 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.

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.
START TRIAGE APPENDIX

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 
      Cannot 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
MULTI-CASUALTY INCIDENTS (MCI)

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.

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 onsite 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

INCIDENT COMMANDER (EMS OPERATION LEADER)

____ 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

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.

TRIAGE TEAM LEADER

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 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 lifesaving 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.

TREATMENT TEAM LEADER

---

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.
TRANSPORTATION TEAM LEADER

____ 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.

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.
CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)

Continuous Positive Airway Pressure has been shown to rapidly improve vital signs, gas exchange, reduce the work of breathing, decrease the sense of dyspnea, and decrease the need for endotracheal intubation in patients who suffer from shortness of breath from asthma, COPD, pulmonary edema, CHF, and pneumonia. In patients with CHF, CPAP improves hemodynamics by reducing left ventricular preload and afterload.

I. INDICATIONS
   A. Any patient who is in respiratory distress with signs and symptoms consistent with:
      Congestive Heart Failure (CHF); Pulmonary Edema; asthma; COPD; or pneumonia
   B. Other measures to improve oxygenation and decrease the work of breathing have failed
      (i.e., 100% O2 via NRBM)
   C. And who is:
      1. Awake and able to follow commands
      2. Over 12 years old and is able to fit the CPAP mask
      3. Has the ability to maintain an open airway
      4. Exhibits two or more of the following
         a) A respiratory rate greater than 25 breaths per minute
         b) SpO2 of less than 94% at any time
         c) Use of accessory muscles during respirations

II. CONTRAINDICATIONS
   A. Patient is apneic
   B. Patient is suspected of having a pneumothorax
   C. Patient is a trauma patient with injury to the chest
   D. Patient has a tracheostomy
   E. Patient is actively vomiting or has upper GI bleeding

III. PROCEDURE
   A. Explain the procedure to the patient
   B. Ensure adequate oxygen supply to the CPAP device
   C. Place patient on continuous pulse oximetry
   D. Position head of bed at 45 degrees or patient position of comfort
   E. Place CPAP mask over mouth and nose, secure with straps provided
   F. Use 5 cm H2O of PEEP
   G. Check for air leaks
   H. Monitor and document the patient’s respiratory response to treatment
   I. Check and document vital signs every 5 minutes
   J. Assist with appropriate PATIENT PRESCRIBED medication (nitroglycerin tablets for
      CHF, nebulized Albuterol for COPD/Asthma)
   K. Coach patient to keep mask in place, readjust as needed
   L. Contact Medical Control and / or responding ALS unit to advise of CPAP initiation
   M. Request ALS intercept if available
   N. If respiratory status deteriorates, remove device and consider IPPV via BVM
IV. REMOVAL PROCEDURE
   A. CPAP needs to be continuous and should not be removed unless the patient cannot tolerate the mask or experiences respiratory arrest and/or begins to vomit
   B. Intermittent positive pressure ventilation (IPPV) with a BVM should be considered if CPAP is removed
   C. A Laryngo Tracheal Device (King Airway, Combitube, etc.) should be used with a bag valve device if the patient is in respiratory arrest

V. SPECIAL CONSIDERATIONS
   A. Do not remove CPAP until hospital therapy is ready
   B. Watch for gastric distention which can cause vomiting
   C. CPAP may be used with patients who have POLST forms or DNR orders
PRE-HOSPITAL 12-LEAD ACQUISITION

I. Purpose
   A. The purpose of this procedure is to direct use of the 12-lead ECG to identify ST elevation myocardial infarction (STEMI) in the field, with the ultimate goal to reduce the time to open the occluded artery in an appropriate cardiac catheterization lab.
   B. Providers shall complete training for 12-lead ECG acquisition prior to utilizing this protocol and ECG machine.

II. Indications
   A. Chest pain suggestive of cardiac ischemia
      1. Dull central chest pain
      2. Radiation to arms/neck/jaw
      3. Dyspnea
      4. Diaphoresis
      5. Nausea/vomiting
      6. Unexplained syncope or near syncope

III. Contraindications
   A. Do NOT perform ECG on these patients
      1. Trauma
      2. Cardiac Arrest
      3. Respiratory Arrest
      4. Any situation in which a delay would compromise patient care

IV. Procedure
   A. Prepare all the equipment.
   B. Prep the skin
   C. Place the four limb leads in accordance with manufacturer’s recommendations. Limb lead electrodes are typically placed on the deltoid area and the lower leg or thigh. Avoid placing limb leads over bony prominences.
   D. Place the precordial leads (chest or V leads) in accordance with manufacturer’s recommendations. Leads locations are identified as V1 through V6.
      1. Locating the V1 position is critically important because it is the reference point for locating the placement of the remaining V leads. To locate the V1 position
         i. Place your finger at the notch in the top of the sternum
         ii. Move your finger slowly downward about 1.5 inches until you feel a slight horizontal ridge of elevation. This is the Angle of Louis where the manubrium joins the body of the sternum.
         iii. Locate the second intercostal space on the patient’s right side, lateral to and just below the Angle of Louis
         iv. Move your finger down two more intercostal spaces to the fourth intercostal space which is the V1 position
      2. Place V2 by attaching the positive electrode to the left of the sternum at the further intercostal space
      3. Place V4 by attaching the positive electrode at the mid-clavicular line at the fifth intercostal space. NOTE: V4 must be placed prior to V3
4. Place V3 by attaching the positive electrode in the line midway between V2 and V4.
5. Place V5 by attaching the positive electrode at the anterior axillary line as the same level as V4
6. Place V6 by attaching the positive electrode to the mid-axillary line at level as V4
7. Ensure that all leads are attached
8. Turn on machine
9. Record the tracing by following the machine specific acquisition procedure and function
10. Document on the tracing the patients name and the date and the time the tracing was obtained.

V. Certification Requirements
   A. Attend a Walla Walla County approved 12 lead acquisition class.
   B. Pass a written and practical exam
   C. Annual recertification required.
PHARMACOLOGY 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

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.

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.
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
- Route of Administration
  - IM

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.

**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
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.
**STEP 1**

**Measure Vital Signs & Level of Consciousness**
- Glasgow Coma Scale: <13 or
- Systolic Blood Pressure: <90 mmHg
- Respiratory Rate: <10 or >29 per minute or need for ventilation support (<20/min in infant)

**STEP 2**

**ASSESS ANATOMY OF INJURY**
- All penetrating injuries to head, neck, torso, & extremities proximal to elbow or knee
- Chest wall instability or deformity (e.g., flail chest)
- Two or more proximal long bone fractures
- Crushed, DE gloved, mangled, or pulseless extremity
- Amputation proximal to wrist or ankle
- Pelvic fractures
- Open or depressed skull fracture

**STEP 3**

**Assess Mechanism of Injury & Evidence of High-Energy Impact**
- Falls
  - Adults: >20 ft. (1 story = 10 ft.)
  - Children: ≥ 10 ft. or 2-3 times height of child
- High-Risk auto crash
  - Intrusion, including roof>12 inches occupant site; >18 inches any site
  - Ejection (partial or complete) from automobile
  - Death in same passenger compartment
  - Vehicle telemetry data consistent with a high risk injury
- Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
- Motorcycle crash > 20 mph

**STEP 4**

**Assess Special Patient or System Considerations**
- **Older Adults**
  - Risk of injury or death after age 55 years
  - Systolic BP < 110 may represent shock after age 65
  - Low impact mechanisms (e.g. ground level) fall may result in severe injury
- **Children**
  - Should be triaged preferentially to pediatric capable trauma center
- **Anticoagulants and bleeding disorders**
  - Patients with head injury are at high risk for rapid deterioration
- **Burns**
  - Without other trauma mechanism, triage to burn facility
- **Pregnancy > 20 weeks**
- **EMS provider judgment**

**WHEN IN DOUBT, TRANSPORT TO A TRAUMA CENTER!**
<table>
<thead>
<tr>
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<tr>
<td>â</td>
<td>before auto accident</td>
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<tr>
<td>AA</td>
<td>awake, alert, and oriented</td>
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| AAOx_       | times abdo abdomen abortion airway, breathing, circulation Advanced Cardiac Life Support admission Advanced Life Support morning against medical advice ampule(s) anterior odor of alcohol on breath approximately aspirin arteriosclerotic cardiovascular disease arteriosclerotic heart disease assisted/assist asystole Advanced Trauma Life Support anterior and posterior auscultation and percussion approximately at Bundle Branch Block Basic Cardiac Life Support Basic Life Support bilateral bowel movement blood pressure breath sounds bag-valve mask breath sounds equal & clear in high and low fields both anterior and posterior chest with centigrade cancer calcium coronary artery bypass coronary artery disease catheter, catheterization complete blood count cubic centimeter chief complaint coronary care unit congestive heart failure closed head injury circulation centimeter circulation, movement, sensation central nervous system carbon monoxide complaining of carbon dioxide code 2 code 3 COLD chg/Δ CO2D COR-O CS C-spine C-section CSF CSM CVA CVP CPR dc/DC D & C detox DOA DOE DOS Dr drsdg/dsg DT Dx D5W D50 ↓ ea ED ECG/EKG EENT ENT EOM ET ETA etc ETOH exam = q F FB FD fl fx ° GB GC GCS GI gm gr GSW nonemergent emergent chronic obstructive lung disease change chronic obstructive pulmonary disease cardiopulmonary arrest central supply cervical spine Cesarean section cerebrospinal fluid carotid sinus massage cerebral vascular accident central venous pressure cardiopulmonary resuscitation discontinue dilation and curettage detoxification dead on arrival at hospital dyspnea on exertion dead on scene in field doctor dressing delirium tremens diagnosis 5% dextrose in water 50% dextrose in water decrease each Emergency Department electrocardiogram eye, ear, nose, throat ear, nose, throat esophageal obturator airway extracorporeal movement endotracheal estimated time of arrival and so on alcohol examination equal every Fahrenheit foreign body fire department fluid fracture female first degree gallbladder gonococcus or gonorrhea Glasgow Coma Scale gastrointestinal gram grain gunshot wound
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**Abbreviations:**
- PSVT: Paroxysmal supraventricular tachycardia
- psych: Psychiatric
- pt: Patient
- PTA: Premature ventricular contractions
- PVC: Private physical right
- pvt: Right bundle branch block
- Rx: Take, treatment
- s: Sublingual
- SL: Subcutaneous
- SOB: Shortness of breath
- sol: Solution
- sm: Small
- stat: At once
- sub-q: Subcutaneous
- Sx: Sign/symptom
- surg: Surgery
- SVT: Supraventricular tachycardia
- sync: Synchronous
- 2°: Second degree/secondary
- TAB: Therapeutic abortion
- TB: Tuberculosis
- tbsp: Tablespoon
- temp: Temperature
- TIA: Transient ischemic attack
- tid: Three times a day
- TKO: To keep open
- TLC: Tender loving care
- TM: Tenderness
- TPR: Temperature, pulse, respirations
- tsp: Teaspoon
- Tx: Treatment
- ::: Third degree
- UA: Upon arrival
- uncons: Unconscious
- unk: Unknown
- URI: Upper-respiratory infection
- uro: Urology
- UTI: Urinary-tract infection
- vag: Vaginal
- VF: Venereal disease
- vs: Ventricular fibrillation
- via: By way of
- vol: Volume
- VS: Vital signs
- VT: Ventricular tachycardia
- WAP: Wandering atrial pacemaker
- WBC: White blood cell
- wc: Wheelchair
- WNL: Within normal limits
- WPW: Wolfe Parkinson White Syndrome
- wt: Weight
- X: Times
- YO: Year(s)
### COMMON PRESCRIPTION MEDICATIONS

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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 dissection 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 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
HYPOTERMIA...........................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
N.H.T.S.A................................National Highway Traffic Safety Administration
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 attach 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
TOURNIQUET APPLICATION

Indications for tourniquet use: to stop bleeding when

1. Life-threatening limb hemorrhage is not controlled with direct pressure or other simple measures, as may occur with a mangled extremity.
2. Traumatic amputation has occurred.

Application: of tourniquet

A. Placement
   1. Expose the extremity by removing clothing in proximity to the injury.
   2. Place tourniquet directly over exposed skin at least 2” (5 cm) proximal to the injury.
   3. Twist tourniquet ends until bright red bleeding stops.
   4. Secure in place
   5. Record the date/time of application on the patient where it can be seen.

B. Evaluation
   1. The tourniquet is effectively applied when there is cessation of bleeding from the injured extremity, indicating total occlusion of arterial blood flow.
   2. Any preexisting distal pulse should be absent at that time as well.

C. Tourniquet time and removal
   1. Tourniquets should only be removed under conditions where the hemorrhage can be directly controlled.
   2. Tourniquet placement must be communicated in the patient report and given to hospital staff at the time of patient delivery.
   3. Tourniquet time > 6 hours is associated with distal tissue loss.

Training: Appropriate tourniquet use requires initial and annual renewal training with skill demonstration.
SPINAL IMMobilIZATION CLEARANCE

If a trauma patient is unable to communicate or appropriately respond to indications A-G below, perform a complete spinal immobilization.

Indication(s)

This procedure may be performed in any patient with a mechanism of injury that may cause spinal injury.

Assess patient for the presence of the following – ANY positive REQUIRE spinal immobilization:
   A. Evidence of blunt trauma and meets Trauma Field Triage Criteria;
   B. Numbness or weakness on neurological exam;
   C. Any alteration in mental status;
   D. Any evidence of drug and/or alcohol intoxication;
   E. Any painful injury that might distract the patient from the pain of a C-spine injury;
   F. Any point tenderness on palpation of the spine;
   G. Any pain or numbness with cervical spine range of motion.

Contraindication(s):
   - None

Considerations:
   - If A through G, above are ALL NEGATIVE, spinal immobilization is not required.
   - The above steps in the evaluation to determine the necessity of spinal immobilization shall be done in the order listed.