MONTGOMERY COUNTY



EMERGENCY MEDICAL SERVICES FIRST RESPONDER PATIENT CARE PROTOCOLS

MONTGOMERY COUNTY EMERGENCY MEDICAL SERVICE FIRST RESPONDER PATIENT CARE PROTOCOLS

IN ORDER TO EFFECTIVELY OPERATE MONTGOMERY COUNTY EMS' FIRST RESPONDER PROGRAM, THE PATIENT CARE PROTOCOLS CONTAINED HEREIN HAVE BEEN ADOPTED.

IT IS RECOGNIZED THAT FUTURE CHANGES IN MEDICAL CARE PRACTICES, IN STANDARDS, AND OTHER POLICIES MAY NECESSITATE AMENDING OR MODIFYING THESE PROTOCOLS OCCASIONALLY, HOWEVER, EMERGENCY MEDICAL FIRST RESPONDER PERSONNEL SHALL BE NOTIFIED OF SUCH CHANGES IN WRITING OR SUCH CHANGES ARE NOT APPLICABLE.

THEREFORE, ALL MEMBERS OF THE EMERGENCY MEDICAL SERVICES FIRST RESPONDER PROGRAM ARE HEREBY ORDERED AND DIRECTED TO COMPLY FULLY WITH THE PATIENT CARE PROTOCOLS CONTAINED HEREIN. THE CHIEF, DEPUTY CHIEF, COMPLIANCE AND EDUCATION OFFICER AND MEDICAL DIRECTOR IN CHARGE OF SAID MEMBERS ARE HEREBY CHARGED WITH THE RESPONSIBILITY OF ENFORCING COMPLIANCE.

OUR SIGNATURES BELOW INDICATES WE HERBY ADOPT THE PATIENT CARE PROTOCOLS CONTAINED HEREIN. THE MEDICAL DIRECTOR WILL APPROVE BY INITIALING EACH PAGE OF THE PATIENT CARE PROTOCOLS TO VERIFY THAT ALL MEDICAL TREATMENTS LISTED HEREIN ARE APPROVED.

PROTOCOL EFFECTIVE DATE: MARCH 17, 2008

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MEDICAL DIRECTOR APPROVAL_____

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UNIVERSAL PRECAUTIONS - BODY SUBSTANCE ISOLATION (BSI)

EACH AND EVERY PROTOCOL HAS, AS ITS FIRST DIRECTIVE THE UNWRITTEN FOLLOWING WORDS:

"MAINTAIN UNIVERSAL BLOOD AND BODY FLUID PRECAUTIONS". UNIVERSAL PRECAUTIONS ARE WITHIN THE REALM OF THE HOSPITAL ENVIRONMENT. WITHIN THE PRE-HOSPITAL ENVIRONMENT, MOST OF PRE-HOSPITAL EDUCATIONAL DOCTRINE SUGGESTS THAT INDIVIDUALS SHOULD USE "BODY SUBSTANCE ISOLATION" PRECAUTIONS OR A SET OF MUCH MORE STRINGENT PROTECTIVE MEASURES THAN THOSE FOUND IN UNIVERSAL PRECAUTIONS.

THESE INCLUDE: GLOVES, GOWNS, PROTECTIVE EYEWEAR, PROTECTIVE TURNOUT OR EXTRICATION GEAR INCLUDING HELMET, HAZARDOUS MATERIAL SUIT AND MASK WHERE NECESSARY. PERSONNEL SHOULD USE SOUND JUDGMENT AND FOLLOW SOG'S AND PROTOCOLS IN SELECTING THE APPROPRIATE EQUIPMENT.

GENERAL PRINCIPLES

THE FOLLOWING MEASURES SHALL BE APPLIED TO HELP PROMOTE SPEED AND EFFICIENCY WHEN RENDERING EMERGENCY MEDICAL CARE TO THE SICK, ILL, AND INJURED OR INFIRMED. THEY WERE DEVELOPED FOR THE USE OF MONTGOMERY COUNTY EMS PERSONNEL IN THE FIELD.

- 1. THE SAFETY OF EMS' FIRST RESPONDER PERSONNEL IS PARAMOUNT TO QUALITY PATIENT CARE. EACH SCENE SHOULD BE PROPERLY EVALUATED FOR HAZARDOUS MATERIALS, FIRE, VIOLENT PATIENTS, ETC. ALSO, ASSESS THE NEED FOR ADDITIONAL SUPPORT.
- 2. THE FIRST AGENCY ON THE SCENE OF ACCIDENT OR ILLNESS SHALL ESTABLISH COMMAND. RESPONSIBILITY FOR MANAGEMENT OF THE OVERALL SCENE AND MEDICAL COMMAND WILL BE TRANSFERRED TO REPRESENTATIVES OF THE AUTHORITY HAVING JURISDICTION UPON ARRIVAL AS DEFINED BY STATE AND NATIONAL ICS GUIDELINES. FIRE/RESCUE DEPARTMENTS SHALL ROUTINELY MAINTAIN RESPONSIBILITY FOR CONTROLLING ACCIDENT/FIRE/HAZARDOUS MATERIAL SCENES. IT IS THE RESPONSIBILITY OF THE SCENE COMMANDER TO INSURE THE PROPER AND TIMELY UTILIZATION OF RESOURCES TO MEET THE GOALS OF SCENE SAFETY, QUALITY PATIENT CARE, AND RAPID MOVEMENT TO MEDICAL FACILITIES.
- 3. PROPER BSI MUST BE UTILIZED AT ALL TIMES.
- 4. FOR ALL CALLS, BE PREPARED FOR IMMEDIATE INTERVENTIONS UPON INITIAL PATIENT CONTACT AND PATIENT TRANSFER, IF APPROPRIATE.
- 5. DOCUMENT THE "PATIENT CONTACT TIME" FOR ALL CALLS, AND AT THE TIME OF INITIAL DEFIBRILLATION FOR ALL CARDIAC ARREST PATIENTS, AND PATIENT CARE TRANSFER TIME IF APPROPRIATE (E.G. TRANSFER TO EMS CREW, ETC.).
- 6. ALWAYS OBTAIN VERBAL OR OTHER TYPES OF CONSENT PRIOR TO TREATMENT. RESPECT THE PATIENT'S RIGHT TO PRIVACY AND DIGNITY. COURTESY, CONCERN AND COMMON SENSE WILL ASSURE THE PATIENT OF THE BEST POSSIBLE CARE.
- 7. THE INITIAL ASSESSMENT AND INITIAL THERAPY SHOULD BE COMPLETED WITHIN THE FIRST 2 MINUTES AFTER PATIENT CONTACT. EXCEPT FOR EXTENSIVE EXTRICATION, OR OTHER SIGNIFICANTLY ATYPICAL SITUATIONS.
- 8. IN CASES OF OUT OF COUNTY, MUTUAL AID RESPONSE, EMS' FIRST RESPONDER PERSONNEL ARE DIRECTED TO UTILIZE THESE PROTOCOLS IN CONDUCTING PATIENT CARE.

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GENERAL PRINCIPLES CONTINUED

- 9. AN APPROVED EMS FIRST RESPONDER PATIENT CARE REPORT SHALL BE GENERATED BY THE CONCLUSION OF EACH PATIENT ENCOUNTER. THIS REPORT SHALL BE MAINTAINED AND SENT TO EMS FOR APPROPRIATE FILING. NO COPIES OF PATIENT INFORMATION WILL BE GIVEN TO ANYONE OTHER THAN PERSONNEL AUTHORIZED.
- 10. FOR CASES THAT DO NOT FIT EXACTLY INTO A TREATMENT CATEGORY, PERFORM GENERAL ILLNESS PROTOCOL AND CONTACT ON-LINE MEDICAL CONTROL AS NEEDED.
- 11. EMS' FIRST RESPONDER PERSONNEL <u>SHALL OBTAIN</u> INFORMATION PERTINENT TO THE PATIENT'S IDENTIFICATION, PATIENT ASSESSMENT AND CARE PROVIDED TO THE PATIENT FROM ANY BYSTANDERS IF APPROPRIATE.
- 12. THE FOLLOWING INFORMATION SHALL BE INCLUDED IN THE FIRST RESPONDER PATIENT CARE REPORT:
 - SUBJECTIVE THE PATIENT'S CHIEF COMPLAINT(S), AND HISTORY OF PRESENT ILLNESS (INCLUDING HISTORY OF EVENTS SURROUNDING CALL).
 - OBJECTIVE VITAL SIGNS, PHYSICAL FINDINGS PERTINENT TO CHIEF COMPLAINT (E.G. ABDOMINAL EXAM IF ABDOMINAL PAIN, NEUROLOGIC EXAM IF NEUROLOGIC COMPLAINT ETC.).
 - ASSESSMENT WHAT IS THE FIRST RESPONDERS CLINICAL IMPRESSION (WHAT IS THE WORKING DIAGNOSIS? THIS CAN BE THE CHIEF COMPLAINT – CHEST PAIN).
 - PLAN WHAT PROTOCOL(S) IS/ARE FOLLOWED OR TREATMENT IS ADMINISTERED.
 - PREHOSPITAL TREATMENT WHAT ASSESSMENT AND MANAGEMENT WAS PERFORMED AND HOW DID THE PATIENT RESPOND?
 - TIMES ALL TIMES SHALL BE DOCUMENTED TO INCLUDE:
 - ENROUTE TIME ON SCENE TIME PATIENT CONTACT TIME ANY ASSESSMENT(S)/TREATMENT(S) TIMES EMS ARRIVAL TIME AVALIBLE TIME

PATIENT CARE GUIDELINES CONSIDERATIONS

- 1. DETERMINE ACUITY OF THE PATIENT'S CHIEF COMPLAINT, ILLNESS, OR INJURY.
- 2. NO PRE-HOSPITAL CARE PROVIDER IS TO INFLUENCE THE CHOICE OF HOSPITAL IN ANY WAY; NOR IS ANY PRE-HOSPITAL CARE PROVIDER TO ASSUME THAT ANY HOSPITAL CANNOT OFFER ITS USUAL RANGE OF SERVICES AND PREFERENTIALLY DIVERT PATIENTS TO SELECTED FACILITIES.
- 3. THE PARAMEDIC RESERVES THE RIGHT TO DETERMINE WHICH FACILITY IS CLOSEST CONSIDERING MILEAGE, TRANSPORT TIMES, TRAFFIC PATTERNS AND DENSITY, AND ZONE WHERE INCIDENT OCCURRED.

PATIENT CARE GUIDELINES ASSESSMENT

THE PURPOSE OF THE INITIAL ASSESSMENT IS TO DETECT LIFE-THREATENING PROBLEMS. THE PRIMARY SURVEY BEGINS AS YOU APPROACH THE SCENE.

- 1. SURVEY THE SCENE AND LOCATION OF THE PATIENT
 - THE PRIME CONCERN IS THE SAFETY OF ONE'S SELF AND FOR THE PATIENT. LOOK FOR HAZARDOUS CONDITIONS THAT MAY BE PRESENT, I.E., FIRE, ELECTRICAL WIRES, POSSIBILITY OF EXPLOSION, ETC.
 - LOOK FOR SIGNS THAT MAY IDENTIFY THE MECHANISMS OF INJURY AND SUGGEST INJURED AREAS ON THE PATIENT.
 - IDENTIFY YOURSELF AND SEEK PERMISSION TO EXAMINE AND TREAT THE PATIENT.
- 2. SIMULTANEOUSLY SURVEY THE PATIENT
 - DETERMINE PATIENT'S LEVEL OF CONSCIOUSNESS.
 - DETERMINE RISE AND FALL OF PATIENT'S CHEST.
 - LOOK FOR PROFUSE BLEEDING AND (OR) BLOOD SOAKED CLOTHING.
 - LOOK FOR OBVIOUS DEFORMITY OR UNNATURAL ANGULATIONS OF THE EXTREMITIES.

INITIAL ASSESSMENT

ALL PATIENT ENCOUNTERS WILL BE CHARACTERIZED BY USE OF THE INITIAL ASSESSMENT (PRIMARY SURVEY) AND FOCUSED HISTORY AND EXAMINATION (SECONDARY SURVEY).

- 3. INITIAL ASSESSMENT (PRIMARY SURVEY)
 - SCENE SURVEY
 - IDENTIFY PATIENT NUMBERS, PATIENT LOCATIONS, AND ANY HAZARDOUS CONDITIONS ON THE SCENE.
 - IDENTIFY SIGNS THAT MAY CLARIFY MECHANISMS OF INJURY OF ILLNESS.
 - IDENTIFY SELF TO PATIENT AND SEEK PERMISSION FOR CARE.
 - PATIENT ASSESSMENT
 - ESTABLISH STATUS OF AIRWAY AND CERVICAL SPINE
 - A) MAINTAIN AIRWAY AS REQUIRED
 - JAW THRUST MANEUVER
 - ORAL OR NASAL AIRWAYS
 - B) MAINTAIN CERVICAL SPINE INTEGRITY
 - IF CERVICAL INJURY IS SUSPECTED, DO NOT MOVE THE HEAD.
 - CERVICAL SPINE IMMOBILIZATION AND STABILIZATION SHOULD BE PERFORMED IMMEDIATELY. IF PATIENT IS CONSCIOUS, INSTRUCT NOT TO MOVE.
 - C) ESTABLISH PRESENCE, RATE, AND QUALITY OF RESPIRATIONS.

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PATIENT CARE GUIDELINES ASSESSMENT CONTINUED

IF RESPIRATION'S ARE ABSENT, INITIATE VENTILATORY SUPPORT SECURE AIRWAY

- BAG-VALVE-MASK VENTILATION
- ESTABLISH PRESENCE, RATE, AND QUALITY OF RESPIRATIONS

IF RESPIRATIONS ARE PRESENT, ASSESS FOR PRESENCE OF RESPIRATORY DISTRESS

- ADMINISTER OXYGEN AS APPROPRIATE
- NASAL CANNULA
- SIMPLE FACE MASK
- VENTURI MASK
- NON-REBREATHING MASK
- BAG-VALVE VENTILATION
- D) ESTABLISH PRESENCE OF EFFECTIVE CIRCULATION
 - IDENTIFY PRESENCE, RATE, AND QUALITY OF PULSE
 - IF CAROTID PULSE ABSENT, INITIATE CPR
 - IF PULSES PRESENT, ASSESS SYSTOLIC BLOOD PRESSURE
- E) ASSESS CAPILLARY REFILL. IF CAPILLARY REFILL DOES NOT OCCUR WITHIN TWO (2) SECONDS, CIRCULATION MAY BE IMPAIRED.
- F) CONTROL EXTERNAL HEMORRHAGE WITH DIRECT PRESSURE
- G) ASSESS NEUROLOGIC FUNCTION (PULSE, MOTION & SENSATION)
- H) AVPU ASSESSMENT OF RESPONSE (ALERT, VERBAL, PAINFUL OR UNRESPONSIVE)
- I) REQUEST MOTION OF HANDS/FEET
- J) EXPOSE AND EXAMINE AND SITE OF PATIENT INJURY OR COMPLAINT
- K) FORMALLY ASSESS AND RECORD VITAL SIGNS (PULSE, RESPIRATORY RATE, BLOOD PRESSURE)

PATIENT CARE GUIDELINES

THE FOCUSED HISTORY AND EXAM: PROCEDURE

THE OBJECTIVE OF THE FOCUSED HISTORY AND EXAMINATION (SECONDARY SURVEY) IS TO DISCOVER MEDICAL AND INJURY RELATED PROBLEMS THAT DO NOT POSE AN IMMEDIATE THREAT TO PATIENT SURVIVAL, BUT MAY DO SO IF ALLOWED TO GO UNTREATED. THE SECONDARY SURVEY IS COMPOSED OF THE SUBJECTIVE INTERVIEW AND THE OBJECTIVE EXAMINATION. THESE TASKS MAY BE PERFORMED CONCURRENTLY.

- A) SUBJECTIVE INTERVIEW
- B) GAIN ESSENTIAL INFORMATION RELATIVE TO THE PATIENT'S CONDITION, BY QUESTIONING THE PATIENT, IF CONSCIOUS; OR BYSTANDERS AND/OR RELATIVES IF THE PATIENT IS UNCONSCIOUS.
- C) OBJECTIVE EXAMINATION
 - THIS IS A COMPREHENSIVE HANDS-ON HEAD-TO-TOE SURVEY. THE FINDINGS ARE COMBINED AND RELATED TO ALLOW YOU TO MAKE AN ASSESSMENT OF YOUR PATIENT'S CONDITION AND FORM A PLAN OF EMERGENCY CARE.
- D) OBTAIN HISTORY MEDICATONS ALLERGIES
- E) PHYSICAL EXAMINATION
- F) FACE
- G) HEAD
- H) SCALP (TENDERNESS, DEFORMITIES, FOREIGN BODIES, SIGNS OF TRAUMA)
- I) EARS (CSF LEAKAGE, BATTLE SIGN)
- J) EYES (PUPIL EQUALITY, DIAMETER, REACTIVITY, RACCOON EYES)
- K) NOSE (SIGNS OF TRAUMA, CSF LEAK)
- L) MOUTH (FOREIGN BODIES, TRAUMA, BLOOD, ODOR OF BREATH)
- M) NECK
- N) FRONT (TRACHEAL DEVIATION, JVD, STOMAL OPENINGS, WOUNDS, PRESENCE OF MEDIC ALERT TAGS)
- O) REAR (VERTEBRAL TENDERNESS, DEFORMITY, WOUNDS)
- P) TRUNK (SIGNS OF TRAUMA, INSTABILITY, RESPIRATORY EFFORT, RESPIRATORY RATE, LUNG SOUNDS, UNEQUAL CHEST WALL MOTION)
- Q) ABDOMEN (TENDERNESS, MASSES, RIGIDITY, DISTENSION, SIGNS OF TRAUMA)
- R) PELVIS AND HIPS (PELVIC STABILITY, TENDERNESS, SIGNS OF TRAUMA, HIP POSITION AND EXTREMITY ROTATION
- S) BACK AND SPINE (SIGNS OF TRAUMA, TENDERNESS, DEFORMITY, INSTABILITY)
- T) EXTREMITIES (DEFORMITY, EDEMA, TENDERNESS, SIGNS OF TRAUMA, DISTAL PULSE, MOTION AND SENSATION, PRESENCE OF MEDIC ALERT TAGS, CONSTRICTING BANDS OF CLOTHING)
- U) NEUROLOGIC (REVIEW AVPU STATUS, ABILITY TO MOVE EXTREMITIES)
- V) SKIN (COLOR, TEMPERATURE AND MOISTURE)

PATIENT CARE GUIDELINES

SPECIAL NOTES

- ♦ ALL PATIENTS WILL BE ASSESSED BY THE ATTENDING PARAMEDIC
- THE INITIAL ASSESSMENT TAKES PRECEDENCE OVER ALL OTHER PROCEDURES UNLESS HAZARDOUS CONDITIONS ARE PRESENT. THE PRIMARY SURVEY SHOULD TAKE NO MORE THAN 30 SECONDS TO COMPLETE.
- ◆ IF THE PATIENT IS SUFFERING FROM A LIFE-THREATENING CONDITION, TREAT APPROPRIATELY. THE FOCUSED HISTORY AND EXAMINATION MAY BE INITIATED DURING TRANSPORT.
- ALWAYS EXPLAIN TO THE PATIENT WHAT IS TAKING PLACE. REQUEST THE PATIENT INFORM THE PROVIDER OF ANY PAIN AND/OR DISCOMFORT. IN PATIENTS WHO LACK EFFECTIVE MEANS OF VERBAL COMMUNICATION, WATCH THE FACE FOR REACTION TO PAIN.
- ANSWER PATIENT INQUIRES IN A POSITIVE AND REASSURING FASHION. DO NOT FRIGHTEN, INTIMIDATE, OR JUDGE THE PATIENT, HOWEVER DO NOT FALSLY REASSURE PATIENT OR FAMILY/BYSTANDERS
- REMOVE CLOTHING AS REQUIRED FOR COMPLETE ASSESSMENT. DISCRETION IS ENCOURAGED, BUT EXPOSURE WILL ALWAYS BE DICTATED BY CLINICAL NEEDS.
- ANY FOREIGN BODIES SHOULD BE STABILIZED IN PLACE. REMOVAL IS ONLY INDICATED FOR FOREIGN BODIES IN THE AIRWAY.
- PATIENT TRANSPORT MAY NOT BE DELAYED IN ORDER TO ACCOMPLISH THE COMPLETE SECONDARY SURVEY.
- THE ENTIRE PATIENT EXAMINATION SHOULD TAKE FROM ONE (1) TO THREE (3) MINUTES.
- BLOOD PRESSURE SHOULD BE PERFORMED ON ALL PATIENTS GREATER THAN 3 YRS OF AGE.
 EVERY 5 MINUTES FOR CRITICAL PATIENTS, EVERY 15 MINUTES FOR NON CRITICAL.

THIS PROTOCOL IS MEANT TO SERVE AS A GUIDELINE FOR COMPLETE AND COMPREHENSIVE PATIENT ASSESSMENT. THE FIRST RESPONDER WILL CONCENTRATE HIS OR HER EXAMINATION BASED UPON THE COMPLAINT(S) OF THE PATIENT.

PATIENT CARE GUIDELINES SPECIAL NOTES CONTINUED

SAMPLE HISTORY

OPQRST

- S SYMPTOMS A - ALLERGIES M - MEDICATIONS P - PAST MEDICAL HISTORY L- LAST MEAL E - EVENTS JUST PRIOR TO ILLNESS OR INJURY
- O ONSET
- P PROVOKES
- Q QUALITY
- **R RADIATES**
- S SEVERITY
- T TIME

AVPU NEUROLOGIC EXAMINATION: A= ALERT; SPEAKS AND MOVES SPONTANEOUSLY V= RESPONDS TO VERBAL STIMULI P= RESPONDS TO PAINFUL STIMULI U= UNRESPONSIVE

CHECK FOR CEREBROSPINAL FLUID DRAINAGE FROM THE EARS AND NOSE, (INDICATING A BASILAR SKULL FRACTURE). IF PRESENT, DO NOT STOP DRAINAGE. FLUID MAY BE CLEAR OR MIXED WITH BLOOD. CHECK PUPILS BY SHINING LIGHT INTO EACH ONE. CHECK FOR EQUALITY AND LIGHT REACTIVITY.

- GENTLY PALPATE ON UPPER AND LOWER ABDOMEN. CHECK ALL FOUR (4) QUADRANTS. CHECK FOR RIGIDITY, DISTENSION AND (OR) PAIN. CHECK FOR MASSES.
- EXERT LATERAL PRESSURE ON HIPS BY PLACING YOUR HANDS ON THE PATIENT'S HIPS AND GENTLY PRESSING INWARD AND DOWNWARD TOWARD THE MIDLINE FOR PELVIC FRACTURE. IF PAIN AND (OR) DEFORMITY IS PRESENT, SUSPECT AN INJURY. ASSESSMENT SHOULD STOP IF PAINFUL RESPONSE IS RECEIVED.
- TO EXAMINE THE LUMBAR AND THORACIC SPINE, REACH AS FAR UNDER THE PATIENT AS POSSIBLE WITH PALMS UPWARD. CURL FINGERS UPWARD TO EXERT PRESSURE ON THE SPINAL REGION. IF PAIN AND (OR) DEFORMITY IS PRESENT, SUSPECT AN INJURY. ASSESSMENT SHOULD STOP IF PAINFUL RESPONSE IS RECEIVED
- EXAMINE THE EXTREMITIES ONE AT A TIME. USE BOTH HANDS WITH THUMBS TOGETHER TO ENCIRCLE THE LIMB. EXERT FIRM PRESSURE AND FEEL FOR DEFORMITIES AND (OR) PAIN; GRASP UPPER AND LOWER ENDS OF LONG BONES TO FEEL FOR DEFORMITY OR LISTEN FOR COMPLAINTS OF PAIN. . IF PAIN AND (OR) DEFORMITY IS PRESENT, SUSPECT AN INJURY. ASSESSMENT SHOULD STOP IF PAINFUL RESPONSE IS RECEIVED.

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PATIENT CARE GUIDELINES CAPILLARY REFILL

CAPILLARY REFILL SHOULD BE ASSESSED BY PRESSING ON THE NAIL BEDS AND COUNTING THE SECONDS UNTIL RETURN OF COLOR.

CAPILLARY REFILL MAY BE FALSELY IMPAIRED BY THE PRESENCE OF PERIPHERAL VASCULAR DISEASE, COPD, DIABETES, CARBON MONOXIDE INTOXICATION, AND SMOKING; ALSO DARK NAIL POLISH. IT MAY BE FALSELY NORMAL IN PATIENTS WITH FOCAL EXTREMITY VASCULAR CONGESTION.

TREATMENT PRIORITIES

TWO LEVELS OF TREATMENT PRIORITIES ARE IDENTIFIED:

- CRITICAL (LIFE THREATENING) CONDITIONS MUST BE TREATED IMMEDIATELY.
- SERIOUS (POTENTIALLY LIFE-THREATENING OR DISABLING) CONDITIONS MUST BE MANAGED AS SOON AS CRITICAL CONDITIONS ARE STABILIZED.

CRITICAL CONDITIONS OFTEN REQUIRE CARDIOPULMONARY RESUSCITATION TECHNIQUES AND INCLUDE THE FOLLOWING:

- AIRWAY (COMPROMISE OR OBSTRUCTION)
- BREATHING (RESPIRATORY FAILURE OR RESPIRATORY ARREST)
- CIRCULATION (PROBLEMS WITH CARDIAC OUTPUT OR CARDIAC RHYTHM)

• HEMORRHAGE (MASSIVE BLEEDING, EXTERNAL OR INTERNAL)

SERIOUS CONDITIONS INCLUDE THE FOLLOWING:

- DISTURBANCE OF CONSCIOUSNESS (COMA OR SEMI-COMA)
- RESPIRATORY DISTRESS (SHORTNESS OF BREATH)
- SYMPTOMATIC CARDIAC ARHYTHMIAS
- ♦ ACTIVE HEMORRHAGE (BLEEDING)
- ♦ TOXIC DRUG OVERDOSE OR POISONING
- ACTIVE SEIZURES
- DEFORMING INJURIES SUCH AS BURNS, PENETRATING WOUNDS, FRACTURES OR OTHER MAJOR TRAUMA
- CHEST PAIN

THE PREHOSPITAL PROVIDER WILL ATTEMPT TO OBTAIN VERBAL CONSENT FROM THE PATIENT PRIOR TO TREATMENT. THE PATIENT'S RIGHTS TO PRIVACY AND DIGNITY WILL BE CONTINUOUSLY RESPECTED.

MINORS

• MINORS ARE DEFINED IN TENNESSEE AS BEING LESS THAN EIGHTEEN (18) YEARS OLD.

• LAW DOES NOT ALLOW A MINOR ALLOWED TO ACCEPT OR REFUSE TREATMENT.

EXCEPTIONS

A MINOR WHO IS MARRIED
A MINOR NOT LIVING IN THEIR PARENT'S HOME MAY BE LEGALLY CONSIDERED AN "EMANCIPATED MINOR".

DO NOT TRANSPORT/REFUSAL OF SERVICES

PATIENTS WHO ARE CONSCIOUS, COMPETENT, ADULT, AWAKE, ALERT AND ORIENTED HAS THE RIGHT TO REFUSE ANY AND ALL TREATMENT OR TRANSPORT. IF FOR ANY REASON A PATIENT REFUSES SERVICES AND TRANSPORTATION TO A MEDICAL FACILITY, ADVISE THE RESPONDING MEDIC UNIT OF HIS/HER INTENTIONS OF REFUSING CARE AND A RELEASE OF MEDICAL RESPONSIBILITY IS TO BE OBTAINED BY THE RESPONDING MEDIC UNIT. THE RELEASE WILL BE SIGNED BY THE PATIENT AND WITNESSED BY ANOTHER PARTY.

THE FOLLOWING MAY NOT REFUSE TRANSPORT:

- PATIENTS WITH IMPAIRED JUDGMENT.
- PATIENTS THAT HAVE ATTEMPTED SUICIDE.
- PATIENTS THAT ARE ONLY THREATENING MAY BE TRANSPORTED BY A LAW ENFORCEMENT UNIT, AFTER CONTACTING THE SHIFT SUPERVISOR
- MINORS (UNDER 18 YEARS OF AGE AND NOT EMANCIPATED)
- ALL MINORS MUST HAVE REFUSAL FROM PARENT OR GUARDIAN (WHO IS RESPONSIBLE FOR CARE- USE CAUTION IN ALLOWING OLDER SIBLING SIGN FOR PATIENT)
- DO NOT RELÉASE MINORS ON SCENE WITHOUT GUARDIAN CONSENT.

CHEST DISCOMFORT

CONDUCT A BRIEF AND TARGETED EVALUATION OF EVERY PATIENT WHOSE INITIAL COMPLAINT MIGHT SUGGEST POSSIBLE HEART ATTACK

SIGNS AND SYMPTOMS

- CHEST DISCOMFORT (PRESSURE OR TIGHTNESS)
- FULLNESS, SQUEEZING OR PAIN IN THE CENTER OF THE CHEST LASTING SEVERAL MINUTES.
- CHEST DISCOMFORT SPREADING TO THE SHOULDERS, NECK, ONE OR BOTH ARMS OR JAW
- CHEST DISCOMFORT SPREADING INTO THE BACK OR BETWEEN THE SHOULDER BLADES
- UNEXPLAINED SUDDEN SHORTNESS OF BREATH, WHICH MAY OCCUR WITH OR WITHOUT CHEST DISCOMFORT
- NAUSEA AND VOMITING
- DIAPHORESIS (SWEATING)
- ▶ NOT ALL PATIENTS PRESENT WITH TYPICAL CHEST PAIN.

TREATMENT

- > CHECK LEVEL OF CONSCIOUSNESS
- OBTAIN SAMPLE HISTORY
- MONITOR AND SUPPORT ABC'S, IF NO PULSE START CPR AND ATTACH AED. FOLLOW AED'S INSTRUCTIONS
- ➢ CHECK VITAL SIGNS
- ADMINISTER OXYGEN 10-15 LPM VIA NRB OR OXYGEN DEVICE WITH THE HIGHEST CONCENTRATION TOLERATED BY THE PATIENT AS THE CONDITION WARRANTS.
- > PLACE PATIENT IN A POSITION OF COMFORT
- NOTIFY RESPONDING MEDIC UNIT

SAMPLE

- S SIGNS AND SYMPTOMS
- A ALLERGIES
- **M MEDICATIONS**
- P PAST MEDICAL HISTORY
- L LAST TIME PATIENT HAD SOMETHING TO EAT OR DRINK
- E EVENTS LEADING UP TO ILLNESS/INJURY (WHAT WERE YOU DOING WHEN THIS STARTED?)

- > MAINTAIN AN OPEN AIRWAY, ASSIST VENTILATIONS AS NEEDED.
- ADMINISTER HIGH CONCENTRATION OF OXYGEN BY NON-REBREATHER MASK, OR BAG-VALVE-MASK, BASED UPON PATIENT'S CONDITION.
- CONSIDER POTENTIAL NEED FOR FURTHER CPR AND/OR DEFIBRILLATION.
- > MONITOR AND RECORD VITAL SIGNS EVERY 5 MINUTES.
- IF PATIENT'S BLOOD PRESSURE DROPS BELOW 100 SYSTOLIC: TREAT FOR SHOCK.
- CONSIDER TRENDELENBERG
- NOTIFY THE RESPONDING MEDIC UNIT

<u>REMEMBER:</u> THIS IS AN EXTREMELY UNSTABLE PERIOD. THE PATIENT SHOULD BE MONITORED CLOSELY AND FREQUENTLY. RECURRENT DYSRHYTHMIAS, HYPOTENSION AND RE-ARREST ARE NOT UNCOMMON OCCURRENCES.

- OPEN AIRWAY BY APPROPRIATE METHOD (HEAD TILT CHIN LIFT OR JAW THRUST)
- > CHECK BREATHING
 - O IF NOT BREATHING GIVE 2 BREATHS THAT MAKE THE CHEST RISE
 - DO NOT HYPERVENTILATE
 - SUCTION AS NEEDED
- ➢ IF NO RESPONSE CHECK PULSE
 - O DO YOU DEFINITELY FEEL PULSE WITHIN 10 SECONDS?
- > NO PULSE
 - GIVE 5 CYCLES 30 COMPRESSIONS AND 2 BREATHS (UNTIL AED/DEFIBRILLATOR ARRIVES)
 - PUSH HARD AND FAST >100 MIN RELEASE COMPLETELY
 - MINIMIZE INTERRUPTIONS
 - ENSURE FULL CHEST RECOIL
- > AED/DEFIBRILLATOR ARRIVES
- > APPLY AED/DEFIBRILLATOR
- > CHECK RHYTHM **SHOCKABLE RHYTHM**
- ➢ GIVE ONE SHOCK
- ▶ RESUME CPR FOR 5 CYCLES (30-2)
 - O CONTINUE UNTIL MEDIC UNIT ARRIVES OR VICTIM BEGINS TO MOVE
- > CHECK RHYTHM NOT SHOCKABLE
- > CPR IMMEDIATELY 5 CYCLES (30-2)
 - CHECK RHYTHM EVERY 5 CYCLES
 - CONTINUE UNTIL MEDIC UNIT ARRIVES OR VICTIM BEGINS TO MOVE
 - REPEAT SHOCK/CPR CYCLE UNTIL AED ADVISES NO SHOCK ADVISED OR EMS ARRIVES
- PLACE PATIENT (TRAUMA AND NON TRAUMA) ON SPINE BOARD, IF AVAILABLE
- > NOTIFY THE RESPONDING MEDIC UNIT

RESPIRATORY EMERGENCIES ASSESSMENT

THIS ASSESSMENT SEGMENT OF THE RESPIRATORY PROTOCOL SHALL BE USED FOR ALL RESPIRATORY DISTRESS PATIENTS. A COMPLETE AND COMPREHENSIVE ASSESSMENT IS NECESSARY FOR ALL RESPIRATORY DISTRESS PATIENTS AND SHOULD INCLUDE THE FOLLOWING:

- ♦ AIRWAY, BREATHING, AND CIRCULATION.
- ♦ LEVEL OF CONSCIOUSNESS
- ◆ VITAL SIGNS: BLOOD PRESSURE, PULSE RATE, AND RESPIRATORY RATE.
- ◆ SKIN CONDITIONS (TO INCLUDE: COLOR, TEMPERATURE, AND MOISTURE.)
- ♦ PUPILS
- BREATH SOUNDS
- ◆ PRESENCE OR ABSENCE OF DISTAL PULSES, MOVEMENT, & SENSATION.
- ♦ ASSESSMENT OF CAPILLARY REFILL.
- USE OF ACCESSORY MUSCLES TO BREATH AND POSITION TO BREATH
- ◆ PAST MEDICAL HISTORY, CURRENT MEDICATIONS, AND ALLERGIES
- HISTORY OF FEBRILE ILLNESS OR COUGH (PRODUCTIVE OR NON-PRODUCTIVE)
- HISTORY OF ONSET OF SYMPTOMS & ANY TREATMENTS RENDERED PRIOR TO EMS ARRIVAL.
- ♦ NOTE ANY EXCESSIVE EDEMA TO THE EXTREMITIES OR ABDOMEN

SIGNS & SYMPTOMS:

OBVIOUS RESPIRATORY DISTRESS POOR SKIN COLOR DIMINISHED BREATH SOUNDS RAPID RESPIRATIONS ALTERED MENTAL STATUS

RESPORATORY DISTRESS

NASAL FLARING WHEEZING PROLONGED EXPIRATORY PHASE NOISY OR ABSENT BREATH SOUNDS

- LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- > OXYGENATE WITH THE APPROPRIATE FLOW AND DELIVERY DEVICE. ASSISTING VENTILATIONS WITH BVM IF NECESSARY.
- > VITAL SIGNS. (BLOOD PRESSURE, PULSE, RESPIRATIONS)
- OBTAIN A SAMPLE HISTORY
- ➢ NOTIFY RESPONDING MEDIC UNIT OF PATIENT CONDITION

THIS PROTOCOL IS FOR PATIENTS WHO HAVE AN ACUTE EPISODE OF NEUROLOGICAL DEFICIT WITHOUT ANY EVIDENCE OF TRAUMA.

SIGNS AND SYMPTOMS

CONFUSION SPEECH DISTURBANCES LACK OF COORDINATION PARALYSIS OFTEN TO ONE SIDE ASYMMETRICAL SMILE NAUSEA/VOMITING SEVERE HEADACHE VISUAL DISTURBANCES STAGGERED GAIT FACIAL DROOP UNCONSCIOUS AND/OR UNRESPONSIVE FLUSHED SKIN

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- > OXYGEN WITH APPROPRIATE AIRWAY ADJUNCT.
- VITAL SIGNS TO INCLUDE PUPIL RESPONSE
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > SAMPLE HISTORY INCLUDING
 - TIME OF ONSET
- > CINCINNATI PREHOSPITAL STROKE SCALE
- > POSITION OF COMFORT. ATTEMPTING TO KEEP HEAD ELEVATED
- > MAINTAIN BODY HEAT, PROTECT AFFECTED LIMBS FROM INJURY.
- > ANTICIPATE SEIZURES (SEE SEIZURE PROTOCOL)
- CALM AND REASSURE THE PATIENT. EVEN PATIENTS WITH AN ALTERED LOC CAN HEAR AND REMEMBER EVERTHING.
- > CONSIDER OTHER CAUSES OF ALTERED MENTAL STATUS:
 - O HYPOXIA
 - **O HYPOPERFUSION**
 - HYPOGLYCEMIA
 - O TRAUMA
 - OVERDOSE.
- ➢ HAVE SUCTION ACCESSIBLE
- > NOTIFY RESPONDING EMS UNIT OF PATIENT CONDITION

SIGNS AND SYMPTOMS

ALTERED LEVEL OF CONSCIOUSNESS THREADY PULSE DEEP AND RAPID RESPIRATIONS DRY MUCOUS MEMBRANES KETONE ODOR ON BREATH (FRUITY ODOR) EXCESSIVE URINATION/THIRST TACHYCARDIA HYPOTENSION VOMITING ABDOMINAL PAIN NAUSEA

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- SUCTION AS NEEDED
- > OXYGEN WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- ➢ GLUCOSE CHECK, IF AVALIBLE
- SAMPLE HISTORY INCLUDING OPQRST
- > CHECK FOR UNDERLYING CAUSES
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

SIGNS AND SYMPTOMS

FLACCID MUSCLE TONE FECAL, URINARY INCONTINENCE ALTERED MENTAL STATUS COMBATIVENESS POSSIBLE GLUCOSE CHECK <70MG/DL SEIZURES NAUSEA/VOMITING DIFFICULTY SPEAKING SYNCOPE/UNRESPONSIVNESS COMBATIVENESS POSSIBLE

- LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- ➢ SUCTION AS NEEDED
- OXYGEN WITH APPROPRIATE AIRWAY ADJUNCT
- VITAL SIGNS
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > ORAL GLUCOSE IF CONSCIOUS AND CAN SWALLOW ADEQUATELY
- > SAMPLE HISTORY INCLUDING OPQRST
- CHECK FOR UNDERLYING CAUSES
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

(WITH OR WITHOUT CHEST PAIN)

SPECIFIC INFORMATION NEEDED:

HISTORY OF HYPERTENSION AND CURRENT MEDICATIONS NEW SYMPTOMS: DIZZINESS, NAUSEA, CONFUSION, VISUAL IMPAIRMENT, WEAKNESS DRUG USE: AMPHETAMINES, COCAINE OTHER SYMPTOMS: CHEST PAIN, DIFFICULTY BREATHING, ABDOMINAL/BACK

PAIN, SEVERE HEADACHE SIGNS AND SYMPTOMS

CONFUSION COMA PULMONARY EDEMA NECK STIFFNESS

SEIZURES VOMITING NEUROLOGIC SIGNS UNEQUAL PERIPHERAL PULSES

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- POSITION OF COMFORT RECHECK B/P EVERY 5 MINUTES PAY SPECIAL ATTENTION TO DIASTOLIC PRESSURE, CUFF SIZE AND PLACEMENT
- > SAMPLE HISTORY INCLUDING OPQRST
- > CHECK FOR UNDERLYING CAUSES
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

DURING AN ACTIVE SEIZURE TREATMENT

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- ➢ SUCTION AS NEEDED, IF POSSIBLE
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > POSITION OF COMFORT, PROTECT PATIENT FROM FALL OR INJURY
 - C-SPINE CONTROL AND SPINAL IMMOBILIZATION IF TRAUMA INDICATED
- IF SEIZURE IS SECONDARY TO TRAUMA OR <u>WITHOUT</u> THE CONFIRMATION OF HYPOGLYCEMIA, DO NOT ADMINISTER GLUCOSE
 - IF HYPOGLYCEMIC SEE HYPOGLYCEMIC PROTOCOL
- OBTAIN A SAMPLE HISTORY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

AFTER THE SEIZURE TREATMENT

- > LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- > SUCTION AS NEEDED
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- > TREAT ANY INJURIES SUSTAINED DURING THE SEIZURE
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > POSITION OF COMFORT, PROTECT PATIENT FROM FALL OR INJURY
 - C-SPINE CONTROL AND SPINAL IMMOBILIZATION IF TRAUMA INDICATED
- IF SEIZURE IS SECONDARY TO TRAUMA OR <u>WITHOUT</u> THE CONFIRMATION OF HYPOGLYCEMIA, DO NOT ADMINISTER GLUCOSE
 - IF HYPOGLYCEMIC SEE HYPOGLYCEMIC PROTOCOL
- OBTAIN A SAMPLE HISTORY
- KEEP IN MIND THE PATIENT COULD HAVE ANOTHER SEIZURE AT ANY TIME
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

UNCONSCIOUS/UNRESPONSIVE

- LEVEL OF CONSCIOUSNESS
- CHECK FOR A PULSE, IF NO PULSE START CPR (SEE BASIC LIFE SUPPORT ALGORITHM)
- > MAINTAIN ABC'S
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > POSITION OF COMFORT
 - C-SPINE CONTROL AND SPINAL IMMOBILIZATION IF TRAUMA INDICATED
- > OBTAIN A SAMPLE HISTORY
- ADMINISTER GLUCOSE IF BLOOD GLUCOSE IS <70 MG/DL</p>
 - (DO NOT ADMINISTER D50W IF TRAUMA IS SUSPECTED WITHOUT CONFIRMING HYPOGLYCEMIA FIRST)
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ASSESSMENT OF THE SITUATION IS CRITICAL, FOR THE MOST PART FIRST RESPONDERS SHOULD NOT ENTER THE SCENE UNLESS LAW ENFORCEMENT IS PRESENT AND THE SCENE IS SAFE.

- > LOC
- > MAINTAIN ABC'S
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- HAVE LAW ENFORCEMENT RESTRAIN AS NEEDED FOR PATIENT/CREW SAFETY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

SIGNS AND SYMPTOMS

RESPIRATORY DISTRESS (DYSPNEA, BILATERAL WHEEZES)ALTERED MENTAL STATUSSWELLINGHYPOTENSIONDEPRESSED LOCSYNCOPECHOKING SENSATIONNAUSEA/VOMITINGITCHINGFLUSHED OR MOTTLED SKINHISTORY OF ALLERGY

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- SUCTION AS NEEDED
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- IF THE PATIENT HAS A PRESCRIBED EPI AUTO INJECTOR, ASSIST PATIENT IN ADMINISTRATION BY:
 - 1. PLACE THE TIP OF THE AUTO INJECTOR AGAINST OUTER THIGH.
 - 2. PUSH THE AUTO INJECTOR FIRMLY AGAINST THIGH FOR SEVERAL SECONDS ALLOWING THE MEDICATION TO BE INJECTED.
- > OBTAIN A SAMPLE HISTORY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

SHOCK

SIGNS AND SYMPTOMS

ALTERED MENTAL STATUS RAPID SHALLOW RESPIRATIONS DECREASING B/P NAUSEA/VOMITING COOL CLAMMY PALE SKIN RAPID AND WEAK PULSE FEELING OF IMPENDING DOOM CYANOSIS

- LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- ➢ SUCTION AS NEEDED
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- CONTROL ANY BLEEDING
- VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- > POSITION OF COMFORT OR TRENDELENBURG IF HYPOTENSIVE
- > SPINAL IMMOBILIZATION IF TRAUMA IS SUSPECTED
- ➢ KEEP THE PATINET WARM
- ➢ OBTAIN A SAMPLE HISTORY
- NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

POLICE WILL BE PRESENT ON SCENE

- ♦ BE CALM, CARING AND SENSITIVE TOWARD PATIENT
- PATIENT CARE IS YOUR FIRST PRIORITY AFTER YOU ENSURE SCENE SAFETY
- EXPECT VARIABLE EMOTIONAL STATE(ANGRY, AFRAID, DESPONDENT)
- DO NOT MAKE UNNECESSARY PHYSICAL CONTACT WITH PATIENT
- ♦ HAVE WITNESS SAME SEX AS VICTIM PRESENT AT ALL TIMES IF POSSIBLE
- ♦ PROTECT THE VICTIM'S PRIVACY
- ◆ WRAP PLASTIC SHEET AROUND VICTIM IF POSSIBLE
- DO NOT INSPECT GENITALS UNLESS EVIDENCE OF UNCONTROLLED HEMORRHAGE, TRAUMA OR SEVERE PAIN IS PRESENT
- DO NOT ALLOW PATIENT TO SHOWER OR DOUCHE
- ASSESS FOR TRAUMATIC INJURIES (IF PRESENT TREAT PER SPECIFIC PROTOCOL)
- ANY PATIENT'S CLOTHING REMOVED SHOULD BE GIVEN TO POLICE INVOLVED, WHEN POSSIBLE
- PLACE CLOTHING IN PLASTIC SHEET OR SEPARATE PAPER BAGS WITH ID LABELS AND LOCATION FOUND
- IF GSW OR KNIFE WOUNDS, CUT CLOTHING AT A POINT AWAY FROM ENTRANCE/EXIT WOUNDS
- IF SEXUAL ASSAULT IS SUSPECTED, REMEMBER TO PRESERVE ALL POTENTIAL EVIDENCE. DO NOT ALLOW THE PATIENT TO BATHE OR GO TO THE BATHROOM. POLICE SHOULD COLLECT ALL CLOTHING.
- IN OBTAINING INFORMATION FROM A CAREGIVER, DO NOT ACCUSE. YOU MAY NOT BE SURE OF WHO IS THE ACTUAL ABUSER, AND MAKING THEM DEFENSIVE WILL NOT ASSIST THE PATIENT.
- DO YOUR BEST TO REMAIN OBJECTIVE.
- CAREFULLY AND FULLY DOCUMENT IN A FACTUAL MANNER WHATEVER YOU ARE TOLD AND WHAT YOU OBSERVE.
- ◆ REPORT SUSPECTED ABUSE TO THE EMS PERSONNEL AFTER ARRIVAL.
- MAKE VERBAL AND WRITTEN REPORT.
- MAINTAIN YOUR PROFESSIONALISM DESPITE ANY EMOTIONAL IMPACT THE SCENE OR THE ABUSED MAY HAVE.

BLS AND ALS

- > LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- ➤ IF INJURY OR ILLNESS PRESENT TREAT WITH APPROPRIATE PROTOCOL
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

SIGNS AND SYMPTOMS

AREAS OF PAIN LACERATIONS ON OR AROUND THE EYE PUPIL ABNORMALITIES EVIDENCE OF TRAUMA VISUAL PROBLEMS BLOOD ANTERIOR TO PUPIL ABNORMAL GLOBE POSITION

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- > ASSESS NATURE OF OPHTHALMOLOGIC EMERGENCY.
 - IF DIRECT TRAUMA:
 - PATCH BOTH EYES WITHOUT PRESSURE TO GLOBES
 - TRANSPORT PATIENT IN SUPINE POSITION.
 - EXCEPTION: IF BLOOD NOTED IN ANTERIOR CHAMBER (HYPHEMA), TRANSPORT WITH HEAD OF BED ELEVATED AT LEAST 60 DEGREES.
 - DIM CABIN LIGHTS FOR PATIENT COMFORT.
 - IF CHEMICAL TRAUMA:
 - IRRIGATE AFFECTED EYE WITH 2 LITERS NORMAIL SALINE OR STERILE WATER. IF PATIENT REMAINS SYMPTOMATIC AFTER INITIAL CARE, CONTINUE IRRIGATION
 - APPLY MOIST DRESSING TO EYES.
 - BE CAREFUL <u>NOT</u> TO FLUSH CONTAMINATED IV SOLUTION INTO THE PATIENT'S UNINJURED EYE
 - IF ATRAUMATIC:
 - PATCH BOTH EYES GENTLY; APPLY RAISED COVER (METAL SHIELD, STYROFOAM CUP, ETC.) TO AFFECTED EYE.
- > DO <u>NOT</u> APPLY PRESSURE TO THE GLOBE.
- ▶ REMOVE CONTACT LENSES, WHEN APPLICABLE.
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION.

TRAUMA, FRACTURES OR DISLOCATIONS

HISTORY OF INJURY

MECHANISM OF INJURY (BLUNT OR PENETRATING) BLUNT TRAUMA: AMOUNT AND DIRECTION OF FORCE PENETRATING TRAUMA: WEAPON, SIZE OF OBJECT, BULLET CALIBER, TRAJECTORY OF BULLET MOTOR VEHICLE ACCIDENT: CONDITION OF VEHICLE, DASHBOARD, AND STEERING WHEEL, SPEED OF IMPACT, SEAT BELT USE, PATIENT TRAJECTORY DESCRIPTION OF SCENE TREATMENT PRIOR TO ARRIVAL (PATIENT MOVEMENT)

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S WITH REGARD TO C-SPINE
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- > VITAL SIGNS
- RAPID ASSESSMENT
- > SPINAL IMMOBILIZATION/STABILIZATION
- > DETAILED HEAD TO TOE EXAMINATION TO ASSESS FOR INJURIES
- AVOID HEAT LOSS
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

SIGNS AND SYMPTOMS

PAIN OR LIMITED MOVEMENTDEFORMITYOBVIOUS DEFORMITY SWELLINGTENDERNESSCREPITATIONECCHYMOSISDISCOLORATIONLOSS OF FUNCTIONWEAK OR ABSENT DISTAL PULSES AND SENSATION

<u>BLS</u>

- ▶ LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S WITH REGARD TO C-SPINE
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- ➢ RAPID ASSESSMENT
- ➢ VITAL SIGNS
- ➢ IF INDICATED
 - SECURE SPINAL IMMOBILIZATION/STABILIZATION(LSB, CID AND COLLAR)
- REMOVE OR CUT AWAY CLOTHING TO EXPOSE AREA OF INJURY
- CONTROL ACTIVE BLEEDING
- CHECK DISTAL PULSES, CAPILLARY REFILL, SENSATION/MOVEMENT PRIOR TO SPLINTING
 - IF PRESENT, SPLINT IN POSITION FOUND IF POSSIBLE
 - IF ABSENT, ATTEMPT TO PLACE THE INJURY INTO ANATOMICAL POSITION
- > OPEN WOUNDS/FRACTURES SHOULD BE COVERED WITH STERILE DRESSINGS AND IMMOBILIZED IN THE PRESENTING POSITION
- DISLOCATIONS SHOULD BE IMMOBILIZED TO PREVENT ANY FURTHER MOVEMENT OF THE JOINT
- CHECK DISTAL PULSES, CAPILLARY REFILL, AND SENSATION BEFORE AND AFTER SPLINTING
- > CONTROL ACTIVE BLEEDING BY DIRECT PRESSURE AND ELEVATION
- NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

TACHYCARDIA

PAIN

ADULT TRAUMA TRAUMATIC AMPUTATION

SIGNS AND SYMPTOMS

AMPUTATED PART HYPOTENSION PALLOR CLAMMY

CYANOSIS

- BLS
- ► LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S WITH REGARD TO C-SPINE
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- > RAPID ASSESSMENT, EXPOSE INJURY SITE
- ➢ IF INDICATED
 - SECURE SPINAL IMMOBILIZATION/STABILIZATION(LSB, CID AND COLLAR)
 - O CONSIDÉR KED IF APPROPRIATE
- > CONTROL ACTIVE BLEEDING BY DIRECT PRESSURE THEN A TOURNIQUET
 - TOURNIQUET SHOULD BE WIDE USE BLOOD PRESSURE CUFF INFLATED JUST UNTIL BLEEDING IS CONTROLLED
 - NOTE TIME TOURNIQUET APPLIED
 - DO NOT RELEASE AFTER APPLICATION
- ➢ IF AMPUTATION INCOMPLETE
 - ATTEMPT TO STABILIZE WITH BULKY PRESSURE DRESSING
 - SPLINT INLINE POSITION OF FUNCTION
 - CHECK DISTAL PULSES, CAPILLARY REFILL, AND SENSATION BEFORE AND AFTER SPLINTING
- ➢ IF AMPUTATION COMPLETE
 - CLEANSE AMPUTATED PART WITH STERILE SALINE
 - WRAP IN STERILE SALINE MOISTENED DRESSING, PLACE IN COOLER WITH SMALL AMOUNT OF ICE TO KEEP COOL, NOT FROZEN.
 - PLACE IN PLASTIC BAG IF POSSIBLE
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ADULT TRAUMA THERMAL/BURN INJURIES

SIGNS AND SYMPTOMS

PAIN PHARYNGEAL INFLAMMATION LOSS OF CONSCIOUSNESS SEIZURES SOOT IN MOUTH OR SPUTUM COUGH VOMITING STRIDOR BURNS RESPIRATORY DISTRESS HOARSENESS WHEEZING SINGED NASAL/FACIAL HAIR

ASSESS PATIENT FOR:

SEVERITY OF BURNS - DETERMINED BY DEPTH AND LOCATION OF BURN BODY SURFACE AREA (BSA) INVOLVED AGE GENERAL HEALTH OF PATIENT ASSOCIATED INJURIES.

MAJOR BURN:

- PARTIAL THICKNESS > 25% BSA IN ADULTS; > 20% BSA IN CHILDREN
- FULL THICKNESS > 5% BSA
- ALL BURNS OF HANDS, FEET, FACE, EYES, EARS, GENITALIA
- INHALATION INJURY
- ELECTRICAL BURNS
- BURNS COMPLICATED BY FRACTURE(S) OR OTHER MAJOR TRAUMA
- HIGH RISK PATIENTS (VERY YOUNG, ELDERLY, PATIENTS WITH CHRONIC MEDICAL PROBLEMS)

MODERATE BURN:

- PARTIAL THICKNESS 15% TO 25% BSA IN ADULTS; 10% TO 20% BSA IN CHILDREN
- FULL THICKNESS <u><</u>5% BSA

MINOR BURN:

- PARTIAL THICKNESS < 15% BSA IN ADULTS; < 10% BSA IN CHILDREN
- FULL THICKNESS < 2% BSA

ASSESS TYPE, DEPTH, AND EXTENT OF BURN. DOCUMENT AREA INVOLVED ON CHART USING "RULE OF NINES."

ADULT TRAUMA

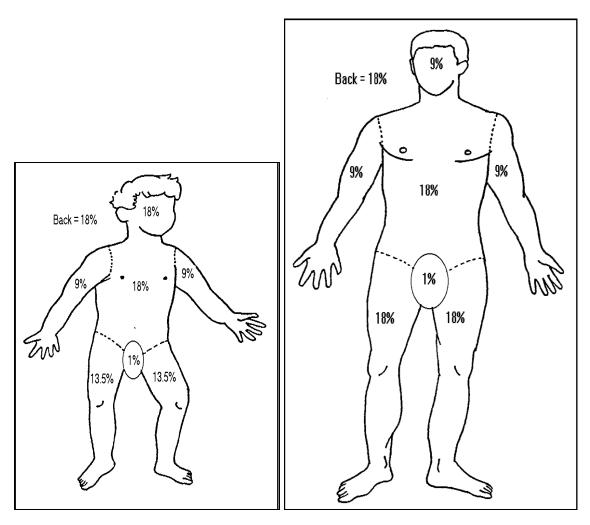
THERMAL INJURIES CONTINUED

BLS

- > STOP THE BURNING PROCESS
- LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- > OXYGEN AS NEEDED VIA APPROPRIATE AIRWAY ADJUNCT
- RAPID ASSESSMENT
- > REMOVE ALL CLOTHING FROM PATIENT; EXPOSE ALL BURNED AREAS.
- > DO NOT REMOVE CLOTHING THAT IS STUCK TO THE PATIENT
- IF BURNING AGENT STILL IN CONTACT WITH SKIN, REMOVE GENTLY AFTER COOLING WITH STERILE WATER OR NS.
- ► IF BURNING AGENT IS CHEMICAL:
 - CAUTION: DO NOT USE WATER IRRIGATION IN CHEMICAL BURNS SUCH AS: DRY LIME, CARBOLIC ACID, SOLID POTASSIUM OR SODIUM METALS, OR SULFURIC ACID. CONTACT MEDICAL CONTROL IMMEDIATELY.
 - BRUSH OFF DRY CHEMICALS BEFORE IRRIGATION.
- > SPINAL IMMOBILIZATION AS NEEDED
- > DRESS INJURIES
 - MINOR BURNS: COOL COMPRESS DRESSINGS WITH STERILE SALINE
 - LESS THAN 10-15% BSA INVOLVED, WRAP BURNED AREAS WITH STERILE CLOTHS OR SHEETS COOLED IN AMBIENT TEMPERATURE NS OR STERILE WATER.
 - 0 15% OR MORE BSA INVOLVEMENT -
 - DRY, STERILE BURN SHEET ON 2° BURNS GREATER THAN 15% OF BODY SURFACE AREA
- > MAINTAIN BODY TEMPERATURE KEEP PATIENT WARM; WRAP IN BLANKETS AS NEEDED.
- > DO NOT ALLOW PATIENT TO BECOME HYPOTHERMIC.
 - MORPHINE 2-5 MG TITRATE TO EFFECT TO MAINTAIN SYSTOLIC B/P 110MMHG AND ADEQUATE RESPIRATORY EFFORT (NO MAX DOSE)
 - IF NO RELIEF: FENTANYL 1MCG/KG EVERY 5 MIN TITRATE TO EFFECT TO MAINTAIN SYSTOLIC B/P 110MMHG AND ADEQUATE RESPIRATORY EFFORT
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

Montgomery County EMS First Responder Patient Care Protocols

ADULT TRAUMA RULE OF NINES



ADULT ENVIRONMENTAL NEAR DROWNING

BLS

- LEVEL OF CONSCIOUSNESS
- > CLEAR AIRWAY WITH REGARD TO C-SPINE
- > MAINTAIN ABC'S, IF NECESSARY START CPR
- > 100% OXYGEN VIA APPROPRIATE AIRWAY ADJUNCT
- RAPID ASSESSMENT
- ➢ VITAL SIGNS
- ➢ GLUCOSE CHECK, IF AVALIBLE
- CONSIDER SPINAL IMMOBILIZATION
- ➢ KEEP PATIENT WARM
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ADULT ENVIRONMENTAL POISONOUS SNAKE BITE

PROTECT YOURSELF FROM DANGER OF SNAKE BITE DETERMINE TYPE OF SNAKE, IF POSSIBLE (NUMBER OF PUNCTURE MARKS NOT DIAGNOSTIC)

TREATMENT

- ➢ MOVE PATIENT TO A SAFE LOCATION
- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- > OXYGEN WITH APPROPRIATE AIRWAY ADJUNCT DEVICE
- ➢ VITAL SIGNS
- ➢ SAMPLE HISTORY
- ➢ NOTHING BY MOUTH
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > SUPINE POSITION WITH AFFECTED EXTREMITY ELEVATED
- > ALLAY ANXIETY KEEP PT CALM
- REMOVE JEWELRY
- > OBSERVE FOR ANAPHYLAXIS AND TREAT ACCORDINGLY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ADULT ENVIRONMENTAL HYPOTHERMIA

SIGNS AND SYMPTOMS

EXTREMITY PAIN SHIVERING (OCCURS BETWEEN 89.60 F - 98.60 F) RECTAL TEMPERATURE < 95° F DECREASED RESPIRATORY RATE BLANCHING AND/OR BLISTERING OF EXTREMITIES, EARS, NOSE

PARESTHESIA (FROSTBITE) BRADYCARDIA DECREASED LOC HYPOTENSION

TREATMENTS

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- MAINTAIN SUPINE HORIZONTAL POSITION AVOID ROUGH MOVEMENT OR EXCESSIVE ACTIVITY
- CONSIDER LSB
- SUPPLEMENTAL OXYGEN VIA APPROPRIATE AIRWAY ADJUNCT
- > DETERMINE TEMPERATURE OF PATIENT AS POSSIBLE.
- REMOVE WET, COLD, OR CONSTRICTING CLOTHING; WRAP PATIENT IN BLANKETS.
- > PROTECT FROM FURTHER EXPOSURE AND HEAT LOSS
- HANDLE PATIENT GENTLY;
 - THE HYPOTHERMIC HEART IS IRRITABLE, AND ROUGHNESS MAY RESULT IN VENTRICULAR ARRHYTHMIAS.
- ▶ REWARMING IS THE PRIORITY.
- ➢ GLUCOSE CHECK, IF POSSIBLE
- > IF HYPOTHERMIA INJURY IS LOCAL (FROSTBITE);
 - HANDLE INJURED PART GENTLY; LEAVE UNCOVERED.
 - DO NOT ALLOW INJURED PART TO THAW IF CHANCE EXISTS FOR REFREEZING BEFORE ARRIVAL AT DEFINITIVE CARE FACILITY.
- MAINTAIN CORE TEMPERATURE OF PATIENT WITH BLANKETS, HOT PACKS IN AXILLA, GROIN AND KIDNEY AREA.
- SAMPLE HISTORY
- > REASSESS PATIENT FREQUENTLY.
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ADULT ENVIRONMENTAL HYPERTHERMIA

SPECIFIC INFORMATION NEEDED:

ONSET AND DURATION ACTIVITY LEVEL (EXERCISE INDUCED?) DRUG OR ALCOHOL USE PATIENT AGE PATIENT ATTIRE AIR TEMPERATURE, HUMIDITY

SIGNS AND SYMPTOMS

CHILLS LOSS OF CONSCIOUSNESS MUSCLE CRAMPS NAUSEA/VOMITING WARM TO HOT SKIN WHEEZING SEIZURES WEAKNESS BEHAVIORAL CHANGES HEADACHE VISUAL DISTURBANCES SKIN PALLOR OR FLUSHING RESTLESSNESS DELIRIUM SWEATS THIRST HIGH TEMP SKIN MOIST OR DRY PSYCHOSIS

HEAT CRAMPS

S/S

PAINFUL SPASMS OF THE EXTREMITIES OR ABDOMINAL MUSCLES CAUSED BY SALT DEPLETION, PATIENT A&O X 4, V/S NORMAL

HEAT EXHAUSTION S/S

DIZZINESS, LIGHT-HEADEDNESS, HEADACHE, IRRITABILITY CAUSED BY FLUID/ELECTROLYTE LOSS AND RESULTING HYPOVOLEMIA, NORMAL OR SLIGHTLY DECREASED LOC, NORMAL OR DECREASED BP, TACHYCARDIA

HEAT STROKE

S/S

MARKED ALTERATION IN LOC, EXTREMELY HIGH TEMPERATURE [OFTEN > 104] WITH RED/HOT/DRY SKIN

ADULT ENVIRONMENTAL HYPERTHERMIA CONTINUED

TREATMENT

- LEVEL OF CONSCIOUSNESS
- > TAKE ORAL OR AUXILIARY TEMPERATURE
- ➢ REMOVE EXCESS CLOTHING
- ➢ MOVE PATIENT TO COOL AREA
- > CONSIDER COOL/COLD LIQUIDS ORALLY AS TOLERATED
- > OXYGEN VIA APPROPRIATE AIRWAY ADJUNCT
- > WET PATIENT AND MAXIMIZE EXTERNAL VENTILATION
- ➢ GLUCOSE CHECK, IF AVALIBLE
- > SAMPLE HISTORY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

PRECAUTIONS AND COMMENTS:

- THOSE AT GREATEST RISK OF HYPERTHERMIA ARE THE ELDERLY, INDIVIDUALS IN ENDURANCE ATHLETIC EVENTS, AND PATIENTS ON MEDICATIONS WHICH IMPAIR THE BODY'S ABILITY TO REGULATE HEAT
- ♦ BE AWARE THAT HEAT EXHAUSTION MAY PROGRESS TO HEAT STROKE
- DO NOT USE ICE WATER OR COLD WATER TO COOL PATIENT DUE TO POTENTIAL VASOCONSTRICTION AND INDUCTION OF SHIVERING
- DO NOT PLACE TOWELS OR BLANKETS ON THE PATIENT AS THEY MAY INCREASE CORE TEMPERATURE
- BE ALERT FOR SIGNS OF TRAUMA, E.G. FALLS. BEGIN APPROPRIATE TREATMENT IF SUSPECTED

ADULT TOXINS/TABLETS HAZARDOUS CHEMICALS

SPECIAL CONSIDERATIONS

- MULTIPLE DEATHS COMMONLY OCCUR WHEN IMPROPERLY EQUIPPED PERSONS ATTEMPT RESCUE IN A CONFINED SPACE ACCIDENT; DO NOT ATTEMPT RESCUE UNLESS PROPERLY TRAINED AND EQUIPPED.
- INHALATION OF TOXIC PRODUCTS OF COMBUSTION OR CHEMICAL IRRITANTS PRODUCES VARYING DAMAGE, DEPENDING ON NATURE AND DURATION OF EXPOSURE.
- SIGNS AND SYMPTOMS MAY BE MINIMAL OR ABSENT INITIALLY; FATAL BURNS TO RESPIRATORY TRACT MAY OCCUR WITH LITTLE OR NO EXTERNAL EVIDENCE; NONCARDIOGENIC PULMONARY EDEMA MAY DEVELOP AS LATE AS 24 TO 72 HOURS AFTER INHALATION OF SOME IRRITANT SUBSTANCES.
- SUSPECT AIRWAY INJURY FOR BURNS SUSTAINED IN CONFINED SPACE, IF FACIAL BURNS OR SINGING ARE PRESENT. AIRWAY EDEMA USUALLY DOES NOT BECOME SEVERE UNTIL AFTER THE FIRST HOUR, BUT IT MAY DEVELOP WITH DRAMATIC RAPIDLY IN RESPIRATORY BURNS.
- MANY IRRITANT GASES (AMMONIA, NITROGEN OXIDE, SULFUR DIOXIDE, SULFUR TRIOXIDE) COMBINE WITH WATER TO FORM CORROSIVE ACID OR ALKALI THAT CAUSES BURNS OF THE UPPER RESPIRATORY TRACT WITH POTENTIAL EARLY UPPER AIRWAY COMPROMISE.

ADULT TOXINS/TABLETS CARBON MONOXIDE AND TOXIC INHALATION

SPECIFIC INFORMATION NEEDED

DESCRIPTION OF SCENE: ENCLOSED SPACE, BROKEN CONTAINERS, DISTINCTIVE ODORS, SIGNS OF FIRE OR SMOKE, POOR VENTILATION NATURE OF INHALANT OR COMBUSTIBLE MATERIAL DURATION OF EXPOSURE TIME SINCE EXPOSURE

SIGNS AND SYMPTOMS

BURNING SENSATION IN MOUTH, NOSE, THROAT, OR CHEST WEAKNESS THERMAL BURNS TO MOUTH, FACE, NOSE, CHEST EYE IRRITATION OR BURNING DIZZINESS **HYPOVENTILATION** NAUSEA AND VOMITING COUGH/WHEEZING DYSPNEA/LABORED BREATHING LOSS OF CONSCIOUSNESS CYANOSIS CHERRY RED SKIN (LATE SIGN) SEIZURES SINGED NASAL/FACIAL HAIR SOOT IN MOUTH/NOSE STRIDOR OR HOARSENESS SEIZURES **BEHAVIOR CHANGES** RALES, RHONCHI OR WHEEZING DECREASED LOC SEIZURES HEADACHE

TREATMENT

- PROTECT YOURSELF
- REMOVE PATIENT FROM SOURCE
- ➢ LEVEL OF CONSCIOUSNESS
- OXYGEN 100% VIA NRB OR APPROPRIATE AIRWAY ADJUNCT
- > MAINTAIN ABC'S WITH REGARD TO C-SPINE
- ➢ RAPID ASSESSMENT
- ➢ GLUCOSE CHECK, IF AVALIBLE
- ➢ MINIMIZE PATIENT MOTION
- > PREPARE SUCTION EQUIPMENT FOR LIKELY EMESIS
- SAMPLE HISTORY INCLUDING DRUG OR ALCOHOL USE
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

ADULT TOXINS/TABLETS OVERDOSE AND POISONING

GENERAL INFORMATION

HISTORY OF INJURY

ROUTE, TYPE, TIME, QUANTITY OF EXPOSURE ACCIDENTAL, INTENTIONAL BYSTANDER ACTION PRIOR TO ARRIVAL EMESIS (INDUCED, SPONTANEOUS) ANY ANTIDOTE GIVEN DEPRESSION OR SUICIDAL PREVIOUS OVERDOSES/POISONINGS

SIGNS AND SYMPTOMS

MOUTH OR THROAT PAIN EYE IRRITATION/BURNING SLEEPINESS ABDOMINAL PAIN HEADACHE CHEST PAIN CYANOSIS, RASH, DIAPHORESIS INCREASED SALIVATION ABNORMAL BREATHING PATTERNS WHEEZING DECREASED LOC SEIZURES BURNS AROUND THE MOUTH DYSPNEA NAUSEA/ VOMITING DIARRHEA ITCHING DEPRESSION ABNORMAL BREATH ODOR EXCESSIVE TEARING LABORED RESPIRATIONS, DYSRHYTHMIAS COMA

ADDITIONAL INFORMATION NEEDED:

PARTICULAR AGENT(S) INVOLVED THE TIME OF THE INGESTION/EXPOSURE THE AMOUNT INGESTED. BRING EMPTY PILL BOTTLES, ETC., TO THE RECEIVING EMS CREW

ADULT TOXINS/TABLETS

OVERDOSE AND POISONING CONTINUED

TREATMENT

- PROTECT YOURSELF
- LEVEL OF CONSCIOUSNESS
- > OXYGEN 100% VIA NRB OR APPROPRIATE AIRWAY ADJUNCT
- > MAINTAIN ABC'S WITH REGARD TO C-SPINE
- ➢ RAPID ASSESSMENT
- GLUCOSE CHECK, IF AVALIBLE
 O IF HYPOGLYCEMIC GO TO HYPOGLYCEMIC PROTOCOL.
- > PREPARE SUCTION EQUIPMENT FOR LIKELY EMESIS
- > SAMPLE HISTORY INCLUDING DRUG OR ALCOHOL USE
- > NOTHING BY MOUTH
- ➢ IF INDICATED
 - SECURE SPINAL IMMOBILIZATION/STABILIZATION(LSB, CID AND COLLAR)
 - CONSIDER KED IF APPROPRIATE
 - IF HYPOGLYCEMIC GO TO HYPOGLYCEMIC PROTOCOL.
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

OBSTETRICS / GYNECOLOGY LABOR AND DELIVERY

PERTINENT DATA

- DUE DATE
- ♦ RUPTURED MEMBRANES
- ◆ VAGINAL FLUID DRAINAGE, BLEEDING
- PRENATAL CARE
- ♦ AGE
- NUMBER OF PRIOR PREGNANCIES (GRAVIDA)
- NUMBER OF LIVE BIRTHS (PARA)
- ♦ PROBLEMS WITH CURRENT PREGNANCY
- ◆ PROBLEMS WITH PREVIOUS PREGNANCIES
- ♦ LAST MENSTRUAL PERIOD

SIGNS AND SYMPTOMS

ABDOMINAL PAIN/CONTRACTIONS URGE TO PUSH

CROWNING BLEEDING

FIRST STAGE: DILATION OF THE CERVIX:

- FREQUENCY AND DURATION OF UTERINE CONTRACTIONS?
- HEMORRHAGE? ESTIMATED BLOOD LOSS?

SECOND STAGE: EXPULSION OF THE FETUS:

- ♦ URGE TO PUSH?
- PRESENTATION OF FETAL PARTS (CEPHALIC? BREECH? LIMB?)
- ♦ HEMORRHAGE? ESTIMATED BLOOD LOSS?
- ◆ UMBILICAL CORD? WRAPPED AROUND INFANT'S NECK?
- ◆ INJURIES (TEARS) OF EXTERNAL GENITALIA OR VAGINA?
- EVALUATE INFANT ON DELIVERY. FETAL DISTRESS: CYANOSIS? RESPIRATIONS?

THIRD STAGE: EXPULSION OF PLACENTA:

- ◆ EVALUATE AND MANAGE INFANT.
- ♦ HEMORRHAGE? ESTIMATED BLOOD LOSS?
- EVALUATION OF UTERINE TONE.
- INJURIES (TEARS) OF EXTERNAL GENITALIA OR VAGINA?
- EVALUATE PLACENTA ON DELIVERY FOR COMPLETENESS.
- PLACENTA MUST BE BROUGHT TO THE HOSPITAL FOR EVALUATION.

OBSTETRICS / GYNECOLOGY LABOR AND DELIVERY - NORMAL DELIVERY

TREATMENT (MOTHER)

- > MAINTAIN ABC'S
- > OXYGEN VIA APPROPRIATE ADJUNCT
- > SAMPLE HISTORY
- REMOVE CLOTHING FROM VAGINAL AREA
- PREPARE EQUIPMENT (OB KIT, SUCTION, BLANKETS, BLOW BY OXYGEN, BVM)
- > IF SIGNS OF NEWBORN DELIVERY ARE IMMINENT, PREPARE FOR DELIVERY.
 - AS BABY'S HEAD BEGINS TO EMERGE FROM VAGINA, SUPPORT IT GENTLY WITH HAND AND TOWEL TO PREVENT AN EXPLOSIVE DELIVERY.
 - SUCTION MOUTH AND NOSE
- ➢ IF DELIVERY OCCURS
 - SEE NEWBORN INFANT GUIDELINES
- IF PLACENTA DELIVERS SPONTANEOUSLY, CONTAIN AND DELIVER TO EMS WITH MOTHER. RECORD TIME OF PLACENTAL DELIVERY, AND ESTIMATED AMOUNT OF FLUID LOSS.
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

OBSTETRICS/GYNECOLOGY

LABOR AND DELIVERY - NORMAL DELIVERY CONTINUED

TREATMENT (INFANT)

- IF INFANT IS PREMATURE (<36 WEEKS GESTATION), PREPARE FOR NEONATAL RESUSCITATION
- PROTECT AGAINST EXPLOSIVE DELIVERY
- ➢ IF OR WHEN DELIVERY OCCURS:
 - AFTER HEAD IS DELIVERED, LOOK AND FEEL TO SEE IF CORD IS WRAPPED AROUND BABY'S NECK
 - IF THE CORD IS AROUND NECK AND LOOSE, SLIDE IT GENTLY OVER THE HEAD - DO NOT TUG.
 - IF THE CORD IS AROUND NECK AND SNUG, CLAMP THE CORD WITH 2 CLAMPS AND CUT BETWEEN THE CLAMPS.
 - SUCTION THE MOUTH THEN NOSE
 - IF MECONIMUM OR PARTICULATE OR THICK MECONIUM USE SUCTION BEFORE THE INFANT'S FIRST BREATH AND BEFORE STIMULATION.
 - AS THE SHOULDERS DELIVER, CAREFULLY HOLD AND SUPPORT THE HEAD AND SHOULDERS AS THE BODY DELIVERS, USUALLY VERY SUDDENLY - AND THE BABY IS VERY SLIPPERY!
 - PLACE THE BABY ON ITS SIDE WITH HEAD LOWER THAN THE BODY AND GENTLY SUCTION MOUTH AND THEN NOSE MAKING SURE THE AIRWAY IS CLEAR.
 - STIMULATE CHILD BY TAPPING FEET, RUBBING BABIES BACK
 - IF NO SPONTANEOUS CRY WITHIN ONE MINUTE, REPEAT SUCTIONING AND PREPARE FOR INFANT RESUSCITATION
 - NOTE THE EXACT TIME OF DELIVERY.
 - O PREVENT HEAT LOSS FROM THE BABY
 - DRY BABY OFF AND REMOVE ALL WET LINEN, KEEP WARM, (SILVER SWADDLER),
- > MAINTAIN AIRWAY, SUCTION PRN
- OXYGEN 100% VIA APPROPRIATE AIRWAY ADJUNCT PER PATIENTS CONDITION
- ASSESS BABY FOR HEART RATE, RESPIRATIONS, AND COLOR, APGAR IF POSSIBLE AT 1 AND 5 MINUTES.
- DO NOT ALLOW INFANT TO NURSE UNTIL BOTH HAVE BEEN EVALUATED IN THE EMERGENCY DEPARTMENT
- > SEE NEWBORN RESUSCITATION GUIDELINES FOR CARE OF NEONATE
- KEEP INFANT ON SAME PLANE AS MOTHER UNTIL CORD IS CLAMPED AND CUT
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

OBSTETRICS/GYNECOLOGY NEWBORN RESUSCITATION

FOR NEWBORN INFANTS WITH

- > PERSISTENT CENTRAL CYANOSIS (LONGER THAN 15 TO 30 SECONDS);
- RESPIRATORY RATE LESS THAN 30 BREATHS PER MINUTE (HYPOVENTILATION);
- > HEART RATE LESS THAN 100 BEATS PER MINUTE (BRADYCARDIA); OR
- CARDIAC ARREST (ABSENCE OF BREATHING AND PULSE):

TREATMENT

INITIATE NEWBORN RESUSCITATION PROCEDURES. (SEE GUIDELINES BELOW.)

- ▶ RÉQUEST ADVANCED LIFE SUPPORT ASSISTANCE.
- BEGIN RAPID TRANSPORT, KEEPING THE NEWBORN WARM. ALS

IF THE NEWBORN HAS:

- > PERSISTENT CENTRAL CYANOSIS;
- > A RESPIRATORY RATE LESS THAN 30 BREATHS PER MINUTE; OR
- > A HEART RATE BETWEEN 60 AND 100 BEATS PER MINUTE:
 - ASSIST VENTILATION AT A RATE OF 40 TO 60 BREATHS PER MINUTE.
 - START CPR IF THE HEART RATE IS BETWEEN 60 AND 80 BEATS PER MINUTE AND NOT RAPIDLY INCREASING AFTER 30 SECONDS OF ASSISTED VENTILATION
 - STOP CPR AND RESUME ASSISTED VENTILATION AT A RATE OF 40 TO 60 BREATHS PER MINUTE ONCE THE HEART RATE IS GREATER THAN 100 BEATS PER MINUTE.
 - SWITCH TO HIGH CONCENTRATION MASK OR "BLOW BY" OXYGEN ONCE THE RESPIRATORY RATE IS GREATER THAN 30 BREATHS PER MINUTE, THE HEART RATE IS GREATER THAN 120 BEATS PER MINUTE, AND CENTRAL CYANOSIS DISAPPEARS.

IF THE NEWBORN HAS:

NOTE:

- > HEART RATE LESS THAN 60 BEATS PER MINUTE; OR
- > CARDIAC ARREST:
- > START CPR IMMEDIATELY.

CARDIOPULMONARY RESUSCITATION IN A <u>NEWBORN</u> IS PERFORMED UTILIZING CHEST COMPRESSIONS WITH INTERPOSED VENTILATIONS IN A RATIO OF 3:1 AT A RATE OF 120 (90 COMPRESSIONS, 30 VENTILATIONS) PER MINUTE.

STOP CPR AND BEGIN ASSISTED VENTILATION AT A RATE OF 40 TO 60 BREATHS PER MINUTE ONCE THE HEART RATE IS GREATER THAN 100 BEATS PER MINUTE.

OBSTETRICS/GYNECOLOGY NEWBORN RESUSCITATION CONTINUED

- SWITCH TO HIGH CONCENTRATION MASK OR "BLOW BY" OXYGEN ONCE THE HEART RATE IS GREATER THAN 120 BEATS PER MINUTE, THE RESPIRATORY RATE IS GREATER THAN 30 BREATHS PER MINUTE, AND CENTRAL CYANOSIS DISAPPEARS.
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

OBSTETRICS / GYNECOLOGY APGAR SCORE

	SIGN	0 POINTS	1 POINT	2 POINTS
Α	APPEARANCE (SKIN COLOR)	BLUE-GRAY, PALE ALL OVER	NORMAL, EXCEPT FOR EXTREMITIES	NORMAL OVER ENTIRE BODY
Ρ	PULSE	ABSENT	BELOW 100 BPM	ABOVE 100 BPM
G	GRIMACE (REFLEX IRRITABILITY)	NO RESPONSE	GRIMACE	SNEEZE, COUGH, PULLS AWAY
Α	ACTIVITY (MUSCLE TONE)	ABSENT	ARMS AND LEGS FLEXED	ACTIVE MOVEMENT
R	RESPIRATION	ABSENT	SLOW, IRREGULAR	GOOD, CRYING

- THE GREATEST RISKS TO THE NEWBORN INFANT ARE AIRWAY OBSTRUCTION AND HYPOTHERMIA.
- KEEP THE INFANT WARM, DRY, COVERED, AND ITS AIRWAY MAINTAINED WITH A BULB SYRINGE. ALWAYS REMEMBER TO SQUEEZE THE BULB PRIOR TO INSERTION INTO THE INFANT'S MOUTH OR NOSE.
- THE GREATEST RISK TO THE MOTHER IS POST-PARTUM HEMORRHAGE. WATCH CLOSELY FOR SIGN OF HYPOVOLEMIC SHOCK AND EXCESSIVE VAGINAL BLEEDING.
- CONSIDER THE POSSIBILITY OF PREGNANCY IN ANY FEMALE OF CHILDBEARING AGE WITH COMPLAINTS OF VAGINAL BLEEDING, MENSTRUAL CYCLE IRREGULARITY, ABDOMINAL PAIN, CRAMPING, OR LOW BACK PAIN NOT ASSOCIATED WITH A TRAUMATIC INJURY.
- RECORD A BLOOD PRESSURE AND THE PRESENCE OR ABSENCE OF EDEMA IN EVERY PREGNANT WOMAN YOU EXAMINE-- NO MATTER WHAT THE CHIEF COMPLAINT.
- SPONTANEOUS OR INDUCTED ABORTIONS MAY RESULT IN COPIOUS VAGINAL BLEEDING. REASSURE THE MOTHER, ELEVATE LEGS, TREAT FOR SHOCK, AND TRANSPORT.

OBSTETRICS / GYNECOLOGY COMPLICATED DELIVERIES

BREECH PRESENTATION OR LIMB PRESENTATION

DEFINITION

PRESENTATION OF BUTTOCKS OR BOTH FEET OR LIMB(S)

TREATMENT

- > MAINTAIN ABC'S
- > OXYGEN VIA APPROPRIATE ADJUNCT
- > SAMPLE HISTORY
- PREPARE EQUIPMENT (OB KIT, SUCTION, BLANKETS, BLOW BY OXYGEN, BVM)
- > ALLOW DELIVERY TO PROCEED PASSIVELY UNTIL BABY'S WAIST APPEARS.
- > ROTATE BABY TO FACE DOWN POSITION (DO NOT PULL).
- IF HEAD DOES NOT DELIVER IN 3 MINUTES, INSERT GLOVED HAND INTO VAGINA TO CREATE AN AIR PASSAGE FOR INFANT.
- > IF DELIVERY OCCURS:
 0 SEE INFANT GUIDELINES
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

OBSTETRICS / GYNECOLOGY VAGINAL BLEEDING

PERTINENT DATA

- ONSET
- PREGNANCY STATUS (DUE DATE)
- ♦ VAGINAL FLUID DRAINAGE, BLEEDING
- MENSTRUAL HISTORY LAST MENSTRUAL PERIOD
- DURATION
- AMOUNT (NUMBER OF PADS OR TAMPONS, CLOTS AND TISSUE FRAGMENTS)
- CONTRACEPTION
- GRAVIDA, PARA, ABORTION (GPA)
- POSTPARTUM (TIME AND PLACE OF DELIVERY)

SIGNS AND SYMPTOMS

- ♦ ABDOMINAL PAIN, CRAMPING
- WEAKNESS
- PASSAGE OF CLOTS, TISSUE FRAGMENTS (BRING TO ED)
- NAUSEA, VOMITING
- THIRST
- DIZZINESS
- ♦ ORTHOSTASIS, TACHYCARDIA, HYPOTENSION
- SKIN: COOL, CLAMMY, DIAPHORESIS, PALLOR
- ♦ ABDOMINAL: TENDERNESS, DISTENSION, GUARDING, REBOUND

TREATMENT

- LEVEL OF CONSCIOUSNESS
- ➢ MAINTAIN ABC'S
- LEFT LATERAL RECUMBENT POSITION
- > 100% OXYGEN VIA NRB
- ➢ VITAL SIGNS
- ➢ SAMPLE HISTORY
- MINIMIZE SENSORY STIMULATION
 - DIM THE LIGHTS AND KEEP THE PATIENT IN A QUIET ENVIRONMENT.
- PROTECT AGAINST MATERNAL INJURY DURING SEIZURE ACTIVITY
- POSITION OF COMFORT
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

PEDIATRIC ASSESSMENT NEONATIAL ASSESSMENT GUIDELINES

ASSESS THE FOLLOWING:

1. AXILLARY TEMPERATURE (IF AVALIBLE)

- > NORMAL 98.6° F. GREATER THAN 100° OR LESS THAN 97° F. IS ABNORMAL.
- ➢ KEEP THE INFANT WARM

2. VENTILATION IS INSUFFICIENT WHEN

- > PERSISTENT APNEA OCCURS
- > THE INFANT IS GASPING FOR AIR
- ▶ LIPS AND TONGUE ARE BLUE IN 40% OXYGEN
- > SPONTANEOUS RESPIRATIONS ARE ABSENT
- BRADYCARDIA (HEART RATE LESS THAN 100/MIN)
- > TARGET RESPIRATORY RATE SHOULD BE BETWEEN 30-60/MIN

> TREATMENT

- CLEAR AIRWAY (SUCTION ORAL BEFORE NASAL)
- VENTILATE WITH BAG-MASK 40-60 TIME PER MINUTE
- O OXYGEN CONCENTRATIONS OF UP TO 100% MAY BE USED

IF VENTILATION IS INSUFFICIENT AFTER 1 MINUTE OF BAG MASK VENTILATION > SUCTION AGAIN

3. HEART RATE

A. TARGET HEART RATE SHOULD BE BETWEEN 100-180/MIN AND REGULAR

4. BLOOD PRESSURES

A. TARGET BLOOD PRESSURE SHOULD BE BETWEEN 50-90 SYSTOLIC AND 20-60 DIASTOLIC

PEDIATRIC RESPIRATORY

RESPIRATORY EMERGENCY ASSESSMENT

THIS ASSESSMENT SEGMENT OF THE PEDIATRIC RESPIRATORY PROTOCOL SHALL BE USED FOR ALL RESPIRATORY DISTRESS PATIENTS. WHILE TREATMENTS WILL CHANGE, DEPENDENT ON THE FINDINGS DURING THE ASSESSMENT, A COMPLETE AND COMPREHENSIVE ASSESSMENT IS NECESSARY FOR ALL RESPIRATORY DISTRESS PATIENTS AND SHOULD INCLUDE THE FOLLOWING:

- ♦ AIRWAY, BREATHING, AND CIRCULATION.
- ♦ LEVEL OF CONSCIOUSNESS
- ◆ VITAL SIGNS: BLOOD PRESSURE, PULSE RATE, AND RESPIRATORY RATE.
- SKIN CONDITIONS (TO INCLUDE: COLOR, TEMPERATURE, AND MOISTURE.)
- PUPILS
- BREATH SOUNDS
- PRESENCE OR ABSENCE OF DISTAL PULSES, MOVEMENT, & SENSATION.
- ♦ ASSESSMENT OF CAPILLARY REFILL.
- ◆ USE OF ACCESSORY MUSCLES TO BREATH AND POSITION TO BREATH
- ◆ PAST MEDICAL HISTORY, CURRENT MEDICATIONS, AND ALLERGIES
- ◆ HISTORY OF FEBRILE ILLNESS OR COUGH (PRODUCTIVE OR NON-PRODUCTIVE)
- HISTORY OF ONSET OF SYMPTOMS & ANY TREATMENTS RENDERED PRIOR TO FIRST RESPONDER/EMS ARRIVAL.
- ◆ NOTE ANY EXCESSIVE EDEMA TO THE EXTREMITIES OR ABDOMEN

PEIDATRIC MEDICAL

SEIZURES

DEFINITION

TONIC, CLONIC MOVEMENTS FOLLOWED BY A PERIOD OF UNCONSCIOUSNESS (POST-ICTAL PERIOD).

USUALLY FEBRILE IN NATURE, BETWEEN AGES OF 6 MONTHS AND 5 YEARS. MOST SEIZURES ARE SELF-LIMITING AND DO NOT REQUIRE FIELD TREATMENT. CONTINUOUS/RECURRENT SEIZURES ARE SEIZURE ACTIVITY GREATER THAN 10 MINUTES OR RECURRENT SEIZURES WITHOUT PATIENT REGAINING CONSCIOUSNESS.

DURING AN ACTIVE SEIZURE TREATMENT

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- > SUCTION AS NEEDED, IF POSSIBLE
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- ➢ GLUCOSE CHECK, IF AVALIBLE
- POSITION OF COMFORT, PROTECT PATIENT FROM FALL OR INJURY
 C-SPINE CONTROL AND SPINAL IMMOBILIZATION IF TRAUMA INDICATED
- > OBTAIN A SAMPLE HISTORY
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

AFTER THE SEIZURE TREATMENT

- LEVEL OF CONSCIOUSNESS
- > MAINTAIN ABC'S
- ➢ SUCTION AS NEEDED
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- ➢ VITAL SIGNS
- ➢ NOTHING BY OR IN MOUTH
- > TREAT ANY INJURIES SUSTAINED DURING THE SEIZURE
- ➢ GLUCOSE CHECK, IF AVALIBLE
- POSITION OF COMFORT, PROTECT PATIENT FROM FALL OR INJURY
- C-SPINE CONTROL AND SPINAL IMMOBILIZATION IF TRAUMA INDICATED
 OBTAIN A SAMPLE HISTORY
- ▶ KEEP IN MIND THE PATIENT COULD HAVE ANOTHER SEIZURE AT ANY TIME
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

PEDIATRIC MEDICAL

SHOCK

SIGNS AND SYMPTOMS

ALTERED MENTAL STATUS RAPID SHALLOW RESPIRATIONS DECREASING B/P NAUSEA/VOMITING COOL CLAMMY PALE SKIN RAPID AND WEAK PULSE FEELING OF IMPENDING DOOM CYANOSIS

TREATMENT

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- SUCTION AS NEEDED
- > OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- CONTROL ANY BLEEDING
- ➢ VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- > POSITION OF COMFORT OR TRENDELENBURG IF HYPOTENSIVE
- > SPINAL IMMOBILIZATION IF TRAUMA IS SUSPECTED
- ➢ KEEP THE PATINET WARM
- OBTAIN A SAMPLE HISTORY
 NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

PEDIATRIC MEDICAL

ANAPHYLACTIC REACTION

SIGNS AND SYMPTOMS

RESPIRATORY DISTRESS (DYSPNEA, BILATERAL WHEEZES)ALTERED MENTAL STATUSSWELLINGHYPOTENSIONDEPRESSED LOCSYNCOPECHOKING SENSATIONNAUSEA/VOMITINGITCHINGFLUSHED OR MOTTLED SKINHISTORY OF ALLERGY

TREATMENT

- LEVEL OF CONSCIOUSNESS
- MAINTAIN ABC'S
- ➢ SUCTION AS NEEDED
- OXYGENATE WITH APPROPRIATE AIRWAY ADJUNCT
- VITAL SIGNS
- > NOTHING BY OR IN MOUTH
- OBTAIN A SAMPLE HISTORY
- MANAGE HYPOTENSION AS NECESSARY
- NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION

PEDIATRIC MEDICAL

BASIC LIFE SUPPORT ALGORITHM - PEDIATRIC

- OPEN AIRWAY BY APPROPRIATE METHOD (HEAD TILT CHIN LIFT OR JAW THRUST)
- CHECK BREATHING
 - O IF NOT BREATHING GIVE 2 BREATHS THAT MAKE THE CHEST RISE
 - DO NOT HYPERVENTILATE
 - **O** SUCTION AS NEEDED
- ➢ IF NO RESPONSE CHECK PULSE
 - O DO YOU DEFINITELY FEEL PULSE WITHIN 10 SECONDS?
- > NO PULSE
 - GIVE 5 CYCLES 30 COMPRESSIONS AND 2 BREATHS (UNTIL AED/DEFIBRILLATOR ARRIVES)
 - PUSH HARD AND FAST >100 MIN RELEASE COMPLETELY
 - MINIMIZE INTERRUPTIONS
 - ENSURE FULL CHEST RECOIL
- IF AGE 1 AND ABOVE AED/DEFIBRILLATOR ARRIVES (AGES 1 TO 8 USE CHILD PADS AGES 8 AND ABOVE USE ADULT PADS)
- > APPLY AED/DEFIBRILLATOR
- > CHECK RHYTHM **SHOCKABLE RHYTHM**
- ➢ GIVE ONE SHOCK
- RESUME CPR FOR 5 CYCLES (30-2)
 O CONTINUE UNTIL MEDIC UNIT ARRIVES OR VICTIM BEGINS TO MOVE
- > CHECK RHYTHM NOT SHOCKABLE
- > CPR IMMEDIATELY 5 CYCLES (30-2)
 - CHECK RHYTHM EVERY 5 CYCLES
 - CONTINUE UNTIL MEDIC UNIT ARRIVES OR VICTIM BEGINS TO MOVE
 - REPEAT SHOCK/CPR CYCLE UNTIL AED ADVISES NO SHOCK ADVISED OR EMS ARRIVES
- PLACE PATIENT (TRAUMA AND NON TRAUMA) ON SPINE BOARD, IF AVAILABLE
- > NOTIFY THE RESPONDING MEDIC UNIT

PEDIATRIC TRAUMA

PEDIATRIC TRAUMA ASSESSMENT

- 1. PRIMARY SURVEY: A. B. C. 'S WITH REGARD TO C-SPINE
- 2. SECONDARY SURVEY: HEAD TO TOE
 - A. PERFORM PATIENT TRIAGE WITH EMPHASIS ON THE CARDIORESPIRATORY SYSTEM, CONTROL OF BLEEDING, LEVEL OF CONSCIOUSNESS, AND VITAL SIGNS.
 - B. DETERMINE MECHANISM OF INJURY AND ESTIMATE FORCE INVOLVED.
 - C. GATHER HISTORY INCLUDING MEDICATIONS AND UNDERLYING MEDICAL PROBLEMS.

PEDIATRIC TRAUMA

PEDIATRIC TRAUMA TREATMENT PRIORITIES

- SECURE AIRWAY/BREATHING WITH REGARD TO C-SPINE
- ASSESS AND TREAT A.B.C.'S
- OXYGEN 100%
- POSITION PATIENT ON LSB IF NECESSARY
- TRENDELENBURG POSITION
- MONITOR VITAL SIGNS AND NEURO STATUS
- > AVOID HEAT LOSS
- NOTIFY THE RESPONDING MEDIC UNIT

PEDIATRIC ENVIRONMENTAL

THERMAL BURN

ASSESSMENT

- LOOK FOR BURNS OF THE NARES, OROPHARYNGEAL MUCOSA, FACE OR NECK
- > LISTEN FOR ABNORMAL BREATH SOUNDS
- > NOTE IF BURN OCCURRED IN CLOSED SPACE
- > DETERMINE EXTENT OF INJURY (INCLUDE EVALUATION OF OTHER INJURIES)
- REMOVE CLOTHING FROM AFFECTED PARTS IF NOT ATTACHED

TREATMENT

- > OXYGEN 100%
- REMOVE RINGS EVEN IF EXTREMITIES ARE NOT AFFECTED
- > COVER BURNED AREA WITH STERILE DRESSING OR BURN SHEET
- > SOAK DRESSING WITH NORMAL SALINE IF LESS THAN 10% BSA
- > DO NOT USE ICE UNDER ANY CIRCUMSTANCES

PEDIATRIC BURNS

CHEMICAL EXPOSURE

ASSESSMENT

- > HISTORY OF EXPOSURE TO CHEMICAL
- > PROTECT YOURSELF FROM DANGER OR EXPOSURE
- IDENTIFY SUBSTANCE AND VERIFY WITH DOCUMENTATION (M.S.D.S.) MATERIAL SAFETY DATA SHEETS IF AVAILABLE.
- > CONSIDER SELF CONTAINED BREATHING APPARATUS
- EMS FUNCTIONS IN THE "COLD ZONE". CARE SHOULD NOT BE RENDERED IN THE "WARM/HOT ZONE". PATIENT DECON SHOULD BE COMPLETED PRIOR TO TREATMENT.

TREATMENT

IF INTERNAL EXPOSURE AND CONSCIOUS

CONTACT MEDICAL/POISON CONTROL 1-800-288-9999

IF EXTERNAL EXPOSURE

- ➢ REMOVE VICTIM'S CLOTHING
- > REMOVE (BRUSH OFF) ANY DRY CHEMICAL
- > DECONTAMINATE AS ORDERED BY MEDICAL/POISON CONTROL
- > NOTIFY FOR POSSIBLE NEED OF DECONTAMINATION IF NECESSARY

IF INHALATION

- > RECONSIDER SELF CONTAINED BREATHING APPARATUS
- ► REMOVE VICTIM FROM SOURCE
- > OXYGEN 100% AND AIRWAY MAINTENANCE

FOLLOW ADULT CHANGES

PEDIATRIC ENVIRONMENTAL

NEAR DROWNING

BLS

- LEVEL OF CONSCIOUSNESS
- > CLEAR AIRWAY WITH REGARD TO C-SPINE
- > MAINTAIN ABC'S, IF NECESSARY START CPR
- > 100% OXYGEN VIA APPROPRIATE AIRWAY ADJUNCT
- ➢ RAPID ASSESSMENT
- ➢ VITAL SIGNS
- ➢ GLUCOSE CHECK, IF AVALIBLE
- CONSIDER SPINAL IMMOBILIZATION
- ➢ KEEP PATIENT WARM
- > NOTIFY RESPONDING MEDIC UNIT OF PATIENTS CONDITION
- > IF HYPOTHERMIC GO TO HYPOTHERMIA PROTOCOL

CIRCUMSTANIAL INFORMATION

DNR ORDERS

- IF A FAMILY MEMBER OR CAREGIVER CAN PRODUCE A PROPERLY EXECUTED STATE APPROVED PRE-HOSPITAL DNR ORDER OR POST ORDER, RESUSCITATION CAN BE WITHHELD.
- <u>THIS DOES NOT MEAN WITHHOLD CARE</u>. COMFORT MEASURES SHOULD BE ADMINISTERED AS DETERMINED BY THE POST ORDER OR COMFORT MEASURES IF THE PATIENT HAS A DNR. (OXYGEN BY NRB OR NASAL CANNULA ARE NOT CONSIDERED HEROIC MEASURES)
- SUCTION, OXYGEN, POSITION OF COMFORT ARE ALLOWED
- TREAT PATIENTS WITH KNOWN DNR ORDERS APPROPRIATELY; JUST DO NOT INITIATE CPR IF THEY DEVELOP CARDIOVASCULAR OR RESPIRATORY ARREST.
- WHEN THERE IS ANY DOUBT ABOUT WHAT TO DO, BEGIN RESUSCITATIVE EFFORTS WITH ALL SKILLS AVAILABLE.
- NO CODE OR NO 813 ORDERS RECEIVED FROM THE HOSPITAL OR NURSING HOME ARE NOT APPROVED FORMS FOR PREHOSPITAL CARE PROVIDERS. IF PRESENTED WITH SUCH, INITIATE CPR AND RESUSCITATIVE MEASURES UNTIL MEDICAL CONTROL IS CONTACTED FOR VERBAL ORDERS TO CEASE EFFORTS.

RESUSCITATION INITIATED PRIOR TO FIRST RESPONDER/EMS ARRIVAL.

ANYTIME CPR OR AN ATTEMPT AT RESUSCITATION HAS BEEN INITIATED BY ANYONE AT THE SCENE,

RESUSCITATIVE EFFORTS WILL BE CONTINUED UNTIL:

 A PHYSICIAN DIRECTS THE TEAM TO STOP (EITHER ON-LINE OR ON-SCENE) NOTE: IF RESUSCITATION EFFORTS ARE TERMINATED ON THE ORDER OF A PHYSICIAN, THAT PHYSICIAN'S NAME AND THE TIME THAT DEATH IS DETERMINED MUST BE DOCUMENTED ON THE EMS MEDICAL RECORD.
 IT IS DETERMINED THE PATIENT MEETS THE CRITERIA FOR "DEFINITIVE SIGNS" OF DEATH.

3. A PROPERLY EXECUTED DNR ORDER FORM OR POST FORM IS PRESENTED.

NOTE THESE CRITERIA HAVE BEEN APPROVED BY THE STATE MEDICAL EXAMINER

PROCEDURES GLUCOSE TESTING

FIRST RESPONDERS

INDICATIONS

- ◆ ANY PATIENT WITH AN ALTERED LEVEL OF CONSCIOUSNESS.
- ◆ KNOWN DIABETES AND SUSPECTED HYPOGLYCEMIA

EQUIPMENT

- > ALCOHOL SWABS
- FINGER LANCETS (FOR DIGIT SAMPLES)
- ➢ IV CATHETER AFTER IV INITIATION
- STERILE GAUZE PADS
- > A PATIENTS GLUCOSE TESTING DEVICE AND STRIPS
- > BANDAID

PROCEDURE

- > IF OBTAINING BLOOD SAMPLE VIA FINGER STICK:
 - CLEANSE FINGER WITH ALCOHOL SWAB.
 - PUNCTURE FINGER TIP WITH LANCET.
 - PLACE DROP OF BLOOD ON GLUCOSE TEST STRIP PER MANUFACTURER'S INSTRUCTIONS.
 - PLACE GAUZE/COTTON BALL ON PUNCTURE SITE WITH PRESSURE TO STOP BLEEDING.
- > USE GLUCOSE TESTING DEVICE PER MANUFACTURER'S INSTRUCTIONS.
- DOCUMENT YOUR GLUCOMETER READING

ABREVIATION AND/OR DEFINITION:

A.C.L.S. ADVANCED CARDIAC LIFE SUPPORT.

A.L.S.: ADVANCED LIFE SUPPORT.

<u>ABRASION SCRAPE</u>; WHEN THE OUTER LAYER OF SKIN HAS BEEN SCRAPED AWAY. <u>ACETONE ODOR</u> A SWEET FRUITY SMELL.

<u>ACID:</u> A CHEMICAL WITH A PH OF < 7.0 THAT CAN POISON OR BURN SEVERELY. THE DEGREE OF INJURY DEPENDS ON THE PH. IF IT IS <2, IT IS VERY HARMFUL; IF IT IS >6, IT IS NOT LIKELY TO BE HARMFUL. THE NORMAL PH OF THE BODY IS 7.35-7.45.

<u>AFFECT:</u> FEELINGS; THE NON-PHYSICAL COMPONENT OF EMOTIONAL BEHAVIOR. <u>AIR EMBOLISM</u>: AIR BUBBLES WHICH OCCLUDE THE BLOOD VESSELS.

<u>AIRWAY:</u> THE ROUTE THROUGH THE BODY THAT AIR MUST TAKE TO ATTAIN ADEQUATE BREATHING.

<u>ALGORITHM</u>: A LOGICAL PROGRAM THAT DIAGRAMMATICALLY DEPICTS A DECISION TREE WITH DISCRETE COGNITIVE STEPS.

<u>ALKALI:</u> A CHEMICAL WITH A PH OF > 7.0 THAT CAN POISON OR BURN SEVERELY. THE DEGREE OF INJURY DEPENDS ON THE PH. IF IT IS >10, IT IS VERY HARMFUL; IF IT IS <8, IT IS NOT LIKELY TO BE HARMFUL.

ALVEOLI: THE TINY AIR SACS OF THE LUNGS WHERE OXYGEN IS DELIVERED TO THE BLOOD AND CARBON DIOXIDE IS EXTRACTED FROM THE BLOOD TO BE EXHALED BY THE LUNGS.

AMPHETAMINE: A CENTRAL NERVOUS SYSTEM STIMULANT ("UPPER").

<u>AMPUTATION</u>: SURGICAL OR TRAUMATIC REMOVAL OF AN ORGAN OR PART OF THE BODY

ANALGESIC: MEDICATION ADMINISTERED TO RELIEVE PAIN.

ANAPHYLACTIC SHOCK OCCURS WHEN AN INDIVIDUAL WHO HAS BECOME

SENSITIZED TO A SUBSTANCE BY PREVIOUS CONTACT REACTS VIOLENTLY;

ALLERGIC REACTION.

ANEURYSM A SAC OR DILATION IN A BLOOD VESSEL; WEAKENED PLACE.

<u>ANTERIOR SURFACE</u> SURFACE WHICH IS TOWARD THE FRONT PART OF THE BODY <u>APNEA:</u> ABSENCE OF BREATHING.

AREFLEXIA ABSENCE OF ALL REFLEX ACTIVITY

- BAROTRAUMA: TISSUE DAMAGE DIRECTLY RELATED TO THE MECHANISM EFFECTS OF PRESSURE, INCLUDING DYSBARIC AIR EMBOLISM (DAE) AND DIRECT TRAUMA TO GAS FILLED SPACES (E.G. EAR, SINUS "SQUEEZE").
- CEREBROVASCULAR ACCIDENT (CVA) THIS IS OFTEN CALLED A STROKE OR APOPLEXY. IT REFERS TO THE CONDITION IN WHICH A PORTION OF THE BRAIN SUDDENLY LOSES ITS FUNCTION BECAUSE OF INADEQUATE BLOOD SUPPLY. CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): A TERM DENOTING
- CHRONIC BRONCHITIS, EMPHYSEMA, AND ASTHMA-LIKE ILLNESS THAT CAUSES OBSTRUCTIVE PROBLEMS IN THE LOWER AIRWAYS; GENERALLY FOLLOWS A LONG SMOKING HISTORY.
- <u>CO</u> CHEMICAL ABBREVIATION FOR CARBON MONOXIDE GAS. THIS GAS IS A POISONOUS PRODUCT OF INCOMPLETE COMBUSTION THAT IS COLORLESS, TASTELESS, AND ODORLESS.

<u>C02:</u> CHEMICAL ABBREVIATION FOR CARBON DIOXIDE; ATMOSPHERIC GAS GIVEN OFF NATURALLY AS A WASTE PRODUCT DURING EXHALATION.

<u>COMA</u> STATE OF UNCONSCIOUSNESS FROM WHICH A PATIENT CANNOT BE AROUSED, EVEN BY POWERFUL STIMULI.

<u>COMPOUND FRACTURE</u> WHERE THE BONE END PROTRUDES THROUGH THE SKIN SURFACE OR THERE IS AN OPEN WOUND EXTENDING TO THE FRACTURE SITE. CONCUSSION: INJURY RESULTING FROM IMPACT WITH AN OBJECT; LOSS OF

FUNCTION, EITHER PARTIAL OR COMPLETE, THAT RESULTS FROM A FALL OR BLOW.

<u>CONTRAINDICATION</u> ANY CONDITION WHICH RENDERS A PARTICULAR TREATMENT IMPROPER OR UNDESIRABLE.

CONTUSION: BRUISE.

<u>CONVULSION:</u> VIOLENT, JERKY, AND PURPOSELESS MOVEMENTS CAUSED BY THE SUDDEN STIMULATION OF LARGE NUMBERS OF BRAIN CELLS.

<u>CREPITUS</u>: A GRATING OR GRINDING SENSATION THAT CAN BE FELT WHEN THE BROKEN BONE ENDS RUB TOGETHER.

- <u>CROWNING:</u> STATE OF LABOR WHEN THE FETAL HEAD PRESENTS AT THE VULVA (WHEN THE TOP OF THE BABY'S HEAD FIRST APPEARS).
- <u>CYANOSIS</u>: BLUISH TINGE IN THE COLOR OF THE MUCOUS MEMBRANES AND SKIN DUE TO EXCESSIVE AMOUNTS OF REDUCED HEMOGLOBIN IN THE CAPILLARIES. DECEREBRATE POSTURE ASSUMED BY PATIENTS WITH SEVERE BRAIN
- DYSFUNCTION, CHARACTERIZED BY EXTENSION AND ROTATION OF THE ARMS AND EXTENSION OF THE LEGS.
- DECOMPRESSION SICKNESS: MULTI-SYSTEM DISORDER RESULTING FROM THE LIBERATION OF GAS BUBBLES FROM SOLUTION WHEN AMBIENT PRESSURE DECREASES, EITHER TYPE I (SKIN, MUSCULOSKELETAL "BENDS") OR TYPE II (NEUROLOGICAL, SERIOUS SYMPTOMS).
- DECORTICATE: POSTURE ASSUMED BY PATIENTS WITH SEVERE BRAIN DYSFUNCTION, CHARACTERIZED BY EXTENSION OF THE LEGS AND FLEXION OF THE ARMS.
- DEFIBRILLATION: STOPPAGE OF FIBRILLATION OF THE HEART DONE WITH AN ELECTRIC CURRENT BRIEFLY PASSING THROUGH THE HEART, ALLOWING THE NORMAL SINUS IMPULSE TO RESUME RHYTHMIC CONTROL OF CONTRACTION. DEFORMITY: A CHANGE FROM NORMAL APPEARANCE.
- DETERIORATION: THE PROCESS OF WORSENING; NEGATIVE CHANGE IN THE PATIENT'S CONDITION
- DIASTOLIC PRESSURE: PRESSURE DURING RELAXATION OF THE HEART. THIS IS WRITTEN AS THE BOTTOM PART OF THE BLOOD PRESSURE.
- 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 INAPPROPRIATE PERSPIRATION

<u>DILATED PUPIL</u> THE APPEARANCE OF A PUPIL (DARK PART OF THE EYE) BEING LARGER THAN NORMAL

DISTAL: FARTHER FROM THE CENTER OF THE BODY OR POINT OF ATTACHMENT

DISTENTION: CONDITION OF ABNORMAL ENLARGEMENT, OFTEN DUE TO INTERNAL PRESSURE.

DORSAL: IN REFERENCE TO THE BACK OF THE BODY.

DRIP: A MEASURED DOSAGE OF A DRUG IN SOLUTION. (GTT=DROPS)

DURA MATER: THICK OUTER MEMBRANE COVERING THE SPINAL CORD AND BRAIN. DYSBARISM: A SYNDROME OF ILLNESS/INJURY RESULTING FROM DIFFERENCES IN

PRESSURE BETWEEN THE ENVIRONMENT AND TISSUES/ORGANS EITHER DIRECTLY (BAROTRAUMA) OR INDIRECTLY (DECOMPRESSION SICKNESS).

DYSPNEA: DIFFICULTY OR LABORED BREATHING.

DYSRHYTHMIA ABNORMAL ELECTRICAL RHYTHM OF THE HEART.

ET TUBE: ENDOTRACHEAL TUBE

EDEMA: CONDITION IN WHICH THE BODY TISSUES CONTAIN AN EXCESSIVE AMOUNT OF FLUID.

ELECTROCARDIOGRAM (EKG/ECG): A GRAPHIC RECORD OF THE ELECTRICAL IMPULSES OF THE HEART.

EMBEDDED: STUCK OR FIRMLY PLACED IN THE SURROUNDING MATTER.

EMBOLUS: A MASS 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 DISTENTION OF ALVEOLI AND DESTRUCTIVE CHANGES IN THE LUNG.

EPIGLOTTITIS CAUSED BY HIB (HAEMOPHILUS INFLUENZA TYPE B) INFECTION USUALLY BEGINS WITH A FEVER AND SEVERE SORE THROAT

ENVIRONMENTAL HAZARDS: NATURAL OR MAN-MADE DANGERS (E.G., FUMES,

FALLEN ELECTRICAL WIRES, BUILDING COLLAPSE, TRAFFIC, FLOODING, FIRE, RADIATION, CROWDS).

EPIGLOTTIS: A LEAF SHAPED TISSUE "VALVE" GUARDING THE OPENING OF THE TRACHEA

EPISTAXIS: NOSEBLEED.

ESOPHAGUS: THE GULLET TUBE EXTENDING FROM THE PHARYNX TO THE STOMACH.

ETIOLOGY: CAUSE OR ORIGIN.

EVISCERATION: WHERE AN INTERNAL ORGAN OF THE ABDOMEN IS PROTRUDING FROM THE BODY (EITHER REMAINING ATTACHED OR CUT OFF FROM THE BODY COMPLETELY) AS A RESULT OF A DEEP WOUND.

EXANGUINATE: TO BLEED TO DEATH

EXTENSION: THE UNBENDING OF A JOINT IN WHICH THE ANGLE BETWEEN THE BONES IS INCREASED.

FEMORAL ARTERY: LARGE BLOOD VESSEL WHICH ORIGINATES FROM THE EXTERNAL ILIAC ARTERY AND TERMINATES BEHIND THE KNEE AS THE POPLITEAL ARTERY.

FETUS: UNBORN OFFSPRING (USUALLY 3 MONTHS AFTER CONCEPTION TO BIRTH) CARRIED IN THE UTERUS

FIBULA SMALL NON WEIGHT BEARING BONE ALONG THE LATERAL SURFACE OF THE CALF.

FIBRILLATION GROSSLY IRREGULAR QUIVERING OF THE HEART.

FIRST DEGREE BURN BURN AFFECTING ONLY THE OUTER SKIN LAYERS; THE SKIN IS REDDENED AND NO BLISTERS ARE PRESENT.

FLAIL CHEST CONDITION WHICH OCCURS WHEN SEVERAL RIBS ARE BROKEN IN TWO OR MORE PLACES, SO THAT THE DISCONNECTED SECTION DOES NOT

RISE AND FALL WITH THE REST OF THE CHEST AS A PERSON BREATHES

<u>FLEXION</u> THE ACT OF BENDING OR CONDITION OF BEING BENT, IN CONTRAST TO EXTENSION.

FOREIGN OBJECT: A PIECE OF MATTER NOT NATURALLY FOUND IN THE AREA (E.G.,

A KNIFE IN THE SKIN, BROKEN TEETH, OR HARD CANDY IN THE MOUTH) <u>att:</u> Drop (Measurement in regulating I.V. fluids).

<u>GLASGOW COMA SCALE</u> A MEASUREMENT TOOL USED TO ACCURATELY RECORD THE PATIENT'S LEVEL OF CONSCIOUSNESS (NEUROLOGIC STATUS) AT REGULAR INTERVALS.

<u>GUARDING:</u> REACTION TO PAINFUL PROBING, ESPECIALLY IN A TENDER ABDOMINAL AREA; MAY BE THE REACTION OF FLINCHING OR PROTECTIVE STIFFENING OF THE APPROPRIATE MUSCLES.

<u>HALLUCINOGENS</u> DRUGS WHICH INDUCE OR CAUSE PERCEPTION WITHOUT EXTERNAL STIMULATION, WHICH MAY OCCUR IN EVERY FIELD OF SENSATION; MIND-ALTERING SUBSTANCES, SUCH AS LSD

<u>HEAT CRAMPS</u>: PAINFUL MUSCLE CRAMPS RESULTING FROM EXCESSIVE LOSS OF SALT AND WATER THROUGH SWEATING

<u>HEAT EXHAUSTION</u> PROSTRATION CAUSED BY EXCESSIVE LOSS OF WATER AND SALT THOUGH SWEATING, CHARACTERIZED BY COLD, CLAMMY SKIN AND A WEAK, RAPID PULSE.

HEAT STROKE LIFE-THREATENING CONDITION CAUSED BY A DISTURBANCE IN THE TEMPERATURE-REGULATING MECHANISM, CHARACTERIZED BY EXTREMELY ELEVATED BODY TEMPERATURE, HOT AND DRY SKIN, BOUNDING PULSE, AND DELIRIUM OR COMA.

<u>HEMATOMA</u>: AN ABNORMAL QUANTITY OF BLOOD WHICH COLLECTS TO FORM A MASS.

<u>HEMIPLEGIA:</u> PARALYSIS OF ONE-HALF (RIGHT OR LEFT) OF THE BODY <u>HEMOPTYSIS</u>COUGHING BLOOD.

HEMOPHILIA HEREDITARY BLOOD DISEASE CHARACTERIZED BY GREATLY

PROLONGED COAGULATION TIME, IN WHICH THE BLOOD FALLS TO CLOT AND ABNORMAL BLEEDING OCCURS.

<u>HEMORRHAGE</u>: BLEEDING (EITHER INTERNAL OR EXTERNAL).

HEMOTHORAX: BLOOD IN THE CHEST CAVITY.

<u>HIGH-FOWLERS</u>: SITTING POSITION WITH BACK SUPPORTED AT A 90 DEGREE ANGLE.

HYPEREXTENSION: EXTREME OR ABNORMAL EXTENSION

HYPERGLYCEMIA: ABNORMALLY INCREASED CONCENTRATION OF SUGAR IN THE BLOOD

<u>HYPERTENSION:</u> ABNORMALLY HIGH TENSION, ESPECIALLY HIGH BLOOD PRESSURE.

<u>HYPERTHERMIA</u> ABNORMALLY INCREASED BODY TEMPERATURE.

HYPERVENTILATION AN INCREASED RATE AND/OR DEPTH OF RESPIRATION

HYPOGLYCEMIA: ABNORMALLY DIMINISHED CONCENTRATION OF SUGAR IN THE BLOOD

<u>HYPOVOLEMIA</u> ABNORMALLY DECREASED AMOUNT OF BLOOD AND/OR TISSUE FLUIDS IN THE BODY

HYPOXEMIA: LOW OXYGEN IN BLOOD.

HYPOXIA: REDUCTION OF OXYGEN IN BODY TISSUES BELOW NORMAL LEVELS.

IM.: INTRAMUSCULAR.

<u>10</u> INTRAOSSEOUS.

IV INTRAVENOUS.

INDICATIONS REASONS FOR USING.

INFERIOR: AWAY FROM HEAD OR UPPER PART OF BODY

INITIAL PATIENT SURVEY THE ROUTINE OF TASKS AND DECISIONS THE EMT USES

TO ANSWER THE QUESTIONS: WHAT IS WRONG WITH THE PATIENT? WHAT

TREATMENT IS NECESSARY? WHAT SHOULD BE DONE FIRST?

INSPIRATION: THE ACT OF DRAWING AIR INTO THE LUNGS.

INSULIN SHOCK SEVERE HYPOGLYCEMIA CAUSED BY EXCESSIVE INSULIN DOSAGE WITH RESPECT TO SUGAR INTAKE, CHARACTERIZED BY BIZARRE BEHAVIOR, SWEATING, TACHYCARDIA, OR COMA.

JAUNDICE: A CONDITION CHARACTERIZED BY YELLOWING OF THE SKIN, SCLERA OF THE EYES, MUCOUS MEMBRANE, AND BODY FLUIDS, CAUSED BY AN EXCESS OF BILIRUBIN PIGMENT IN THE BODY.

JOULES: WATT-SECONDS (A MEASURE OF ENERGY FROM DEFIBRILLATION).

KG KILOGRAMS (L,000 GRAMS)

L.O.C LEVEL/LOSS OF CONSCIOUSNESS

L.P.M.: LITER(S) PER MINUTE

LACERATION: A SMOOTH OR JAGGED CUT THROUGH THE SKIN AND BLOOD VESSELS.

LARYNX ORGAN OF VOICE ("VOICE BOX" OR "ADAM'S APPLE").

LATERAL: FARTHER FROM THE MIDLINE OF BODY OR STRUCTURE

LEVEL OF CONSCIOUSNESS: PERSONS AWARENESS OF PERSON/PLACE AND TIME

LITER: METRIC UNIT OF VOLUME, EQUAL TO 1.056 U.S. QUARTS.

M.A.S.T. MILITARY ANTI SHOCK TROUSERS

MG -MILLIGRAM. (ONE THOUSANDTH OF A GRAM)

M.I. - MYOCARDIAL INFARCTION

ML.: MILLILITER (ONE THOUSANDTH OF A LITER)(ALSO A CC)

M.S.D.S MATERIAL SAFETY DATA SHEET

MEDIAL NEARER THE MIDLINE OF THE BODY OR STRUCTURE

MEDICAL CONTROL AN ACCOUNTABILITY SYSTEM FOR PHYSICIAN SUPERVISION

OF THOSE DELEGATED TO PERFORM PHYSICIAN TASKS

MICRODROP A MEASURE OF FLUID (SIXTY MICRODROPS PER CC)

MONOPLEGIA PARALYSIS OF A SINGLE LIMB OR GROUP OF MUSCLES

NECROSIS: DEATH OF TISSUE, USUALLY CAUSED BY A CESSATION OF BLOOD SUPPLY

NEONATE: AN INFANT LESS THAN TWENTY EIGHT DAYS OLD.

OCCLUDE COVER OR CLOSE WITHOUT LEAKAGE.

OCULAR PERTAINING TO THE EYE.

ORIENTATION AWARENESS OF TIME, PLACE, AND IDENTITY

OROPHARYNX RESPIRATORY TRACT FROM NEAR THE LIPS TO THE EPIGLOTTIS.

OXYGEN (02): AN ODORLESS, COLORLESS, AND TASTELESS GAS; COMPRISES

ABOUT 21% OF THE ATMOSPHERE AND IS ESSENTIAL FOR LIFE.

P.R.N.: WHENEVER NEEDED

P.V.C.: PREMATURE VENTRICULAR CONTRACTIONS

PALPATE TO FEEL

PARALYSIS: LOSS OF FUNCTION, RESULTING FROM DAMAGE TO NERVOUS TISSUE OR MUSCLE.

PARAPLEGIC A VICTIM OF PARALYSIS OF THE LOWER PORTION OF THE BODY AND OF BOTH LEGS.

<u>PEDIATRIC:</u> A PATIENT OVER TWENTY EIGHT DAYS OLD AND LESS THAN FIFTEEN YEARS OLD.

PENETRATING INJURY AN INJURY PRODUCED BY AN OBJECT PASSING INTO A BODY CAVITY OR STRUCTURE.

PERIPHERAL NERVOUS SYSTEM NERVOUS SYSTEM COMPONENTS WHICH ARE NOT BRAIN OR SPINAL CORD

<u>PLACENTA</u>: VASCULAR ORGAN ATTACHED TO THE UTERINE WALL, SUPPLYING OXYGEN AND NUTRIENTS THROUGH THE UMBILICAL CORD TO THE FETUS; AFTERBIRTH.

<u>PNEUMOTHORAX</u> COLLECTION OF AIR IN THE PLEURAL CAVITY OUTSIDE THE LUNG <u>POSTERIOR</u> BACK SIDE

<u>PRE-ECLAMPSIA</u> - HYPERTENSION, EDEMA AND PROTEINURIA DEVELOPING DURING PREGNANCY. OCCURS IN ABOUT 5% OF THE GENERAL (PREGNANT) POPULATION. USUALLY DEVELOPS AFTER 20TH WEEK OF PREGNANCY

PROLAPSED CORD AN UMBILICAL CORD WHICH COMES OUT OF THE VAGINA BEFORE THE BABY IS BORN.

PRONE: LYING FACE DOWN.

<u>PROPHYLACTIC</u> PREVENTING THE DEVELOPMENT OR SPREAD OF DISEASE; PREVENTS OR REDUCES HARMFUL EFFECTS.

PROTOCOL: WRITTEN DESCRIPTION OF STEPS TO BE TAKEN IN A TREATMENT SEQUENCE.

PROXIMAL NEARER TO THE CENTER OF THE BODY

PULMONARY EDEMA BODY FLUIDS COLLECTING IN THE AIR SACS OF THE LUNGS.

<u>PULSE PRESSURE</u> THE DIFFERENCE BETWEEN THE SYSTOLIC AND DIASTOLIC BLOOD PRESSURE.

QUADRIPLEGIC A VICTIM OF PARALYSIS AFFECTING ALL FOUR LIMBS.

RATE: THE NUMBER OF TIMES SOMETHING HAPPENS IN A GIVEN PERIOD OF TIME.

FOR INSTANCE, NORMAL HEART RATE IS 60-80 BEATS PER MINUTE.

RATIO THE NUMERICAL RELATION OF ONE THING TO ANOTHER. FOR INSTANCE,

THE RATIO OF MALES TO FEMALES IN A GIVEN POPULATION, WRITTEN AS 103:100.

RESPIRATORY DISTRESS BREATHING DIFFICULTIES.

RESUSCITATE: REVIVE FROM A DEATH-LIKE CONDITION.

<u>RIGIDITY</u> A HARD BOARD-LIKE FEELING.

<u>S.L</u> SUBLINGUAL (UNDER THE TONGUE)

S.Q.: SUBCUTANEOUS BENEATH THE SKIN).

SECOND DEGREE BURN: PARTIAL THICKNESS BURN PENETRATING BENEATH THE

SUPERFICIAL SKIN LAYERS, PRODUCING EDEMA AND BLISTERING.

<u>SEMI-FOWLERS</u> SITTING POSITION WITH BACK SUPPORTED AT ABOUT 45 DEGREES IN ANGLE.

<u>SHOCK:</u> A STATE OF COLLAPSE OF THE CARDIOVASCULAR SYSTEM IN WHICH TISSUE PERFUSION IS LOST.

<u>SOFT TISSUE INJURY</u> INJURY TO OUTER TISSUE LAYER, NOT DEEP ENOUGH TO INCLUDE UNDERLYING ORGANS

<u>SPHYGMOMANOMETER</u> AN INSTRUMENT FOR MEASURING HUMAN BLOOD PRESSURE.

STATUS EPILEPTICUS TWO OR MORE SEIZURES WITHOUT AN INTERVAL OF COMPLETE CONSCIOUSNESS.

STIMULUS: EVENT WHICH PRODUCES A REACTION OR RESPONSE

STOMA A SURGICALLY-PREPARED OPENING, USUALLY IN THE TRACHEA OR BOWEL.

SUBCUTANEOUS EMPHYSEMA: A CONDITION 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.

<u>SUBTLE LESS OBVIOUS; DIFFICULT TO FIND.</u>

<u>SUPERFICIAL:</u> PERTAINING TO THE SURFACE (USUALLY USED IN REFERENCE TO SKIN).

SUPINE: LYING FACE UP.

<u>SUPRAVENTRICULAR</u> ABOVE THE VENTRICLE; USUALLY REFERS TO THE ATRIUM. <u>SYSTOLE</u> THE CONTRACTION PHASE OF THE CARDIAC CYCLE. SYSTOLIC BLOOD

PRESSURE IS WRITTEN AS THE TOP PART OF THE BLOOD PRESSURE. T.K.O.: TO KEEP OPEN. (PERTAINING TO I.V. FLOW RATE)

TACHYCARDIA: A RAPID HEART RATE, OVER 100 BEATS/MINUTE IN AN ADULT TENDON A FIBROUS CORD BY WHICH A MUSCLE IS ATTACHED TO A BONE TENSION PNEUMOTHORAX 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

THIRD DEGREE BURN FULL THICKNESS BURN, INVOLVING ALL LAYERS OF THE SKIN AND UNDERLYING TISSUES, HAVING A CHARRED OR WHITE, LEATHERY APPEARANCE.

TRANSCUTANEOUS PACING: THE APPLICATION OF EXTERNALLY APPLIED ELECTRODES TO DELIVER AN ADJUSTABLE ELECTRICAL IMPULSE DIRECTLY ACROSS AN INTACT CHEST WALL FOR THE PURPOSE OF RHYTHMICALLY STIMULATING THE MYOCARDIUM TO INCREASE THE MECHANICAL HEART RATE. THROMBOSIS OCCLUSION OR CLOTTING IN A BLOOD VESSEL OR IN ONE OF THE CAVITIES OF THE HEART, FORMED BY DEPOSITION OF DEBRIS AND/OR

COAGULATION OF THE BLOOD. <u>TIBIA:</u> INNER AND LARGER BONE OF THE LEG BETWEEN THE KNEE AND ANKLE TITRATE: ADMINISTRATION OF A MEDICATION TO PRODUCE A DESIRED EFFECT.

TRENDELENBURG SUPINE POSITION WITH HEAD LOWER THAN FEET.

TRIAGE SORTING OF CASUALTIES TO DETERMINE THE PRIORITY OF NEED AND PROPER PLACE OF TREATMENT.

<u>UMBILICAL CORD</u>: CORD CONNECTING THE PLACENTA TO THE FETUS WITHIN THE MOTHER'S UTERUS.

UNIVERSAL PRECAUTIONS - BODY SUBSTANCE ISOLATION (BSI) EACH AND EVERY PROTOCOL HAS, AS ITS FIRST DIRECTIVE THE UNWRITTEN FOLLOWING WORDS:

MAINTAIN UNIVERSAL BLOOD AND BODY FLUID PRECAUTIONS. UNIVERSAL PRECAUTIONS ARE WITHIN THE REALM OF THE HOSPITAL ENVIRONMENT. WITHIN THE PRE-HOSPITAL ENVIRONMENT, MOST OF PRE-HOSPITAL EDUCATIONAL DOCTRINE SUGGESTS THAT INDIVIDUALS SHOULD USE "BODY SUBSTANCE ISOLATION" PRECAUTIONS AS A SET OF MUCH MORE STRINGENT PROTECTIVE MEASURES THAN THOSE FOUND IN UNIVERSAL PRECAUTIONS.

THESE INCLUDE: GLOVES, GOWNS, PROTECTIVE EYEWEAR, PROTECTIVE TURNOUT OR EXTRICATION GEAR INCLUDING HELMET, HAZARDOUS MATERIAL SUIT AND MASK WHERE NECESSARY. PERSONNEL SHOULD USE GOOD JUDGMENT IN SELECTING THE APPROPRIATE EQUIPMENT VASCULAR: PERTAINING TO OR COMPOSED OF BLOOD VESSELS

VAGAL MANEUVERS ARE NON-PHARMACOLOGIC INTERVENTIONS INVOLVING THE

APPLICATION OF A STIMULUS TO THE VAGUS NERVE TO INCREASE

PARASYMPATHETIC TONE AND SLOW CONDUCTION THROUGH THE AV NODE.

THEY ARE MOST COMMONLY USED AS A FIRST LINE TREATMENT FOR

SUPRAVENTRICULAR TACHYCARDIA IN A SYMPTOMATIC PATIENT WITH ADEQUATE PERFUSION.

VISCERAL: PERTAINING TO THE COVERING OF AN ORGAN; PERTAINING TO THE INTRABDOMINAL ORGANS.

W.O.: WIDE OPEN (PERTAINING TO I.V. FLOW RATE)

WATT-SECONDS A MEASURE OF ENERGY USED IN DEFIBRILLATION