UNITED STATES AIR FORCE

PREHOSPITAL TREATMENT

PROTOCOLS

FOR THE

EMT - BASIC

August 1996

These USAF Prehospital Treatment Protocols were developed according to the 1994 Department of Transportation National Standard Curriculum. References include the Brady Emergency Care, 7th Edition and American Academy of Orthopaedic Surgeons, 6th Edition. They are designed to provide a guide for emergency care in the prehospital environment. These protocols should never replace good judgement by the EMT. They should be used in conjuction with sound medical direction from the Medical Director. The EMT must always maintain constant two-way communication with the Emergency Department. A copy of these protocols must be available at all times when performing prehospital emergency care. These protocols should be tools for continuing education of your EMT personnel.

These protocols have been reviewed and approved by each MAJCOM SG. All local medical directors should review these protocols to ensure they meet the needs of local policy. Any suggested revisions and/or additions must be coordinated with the USAF EMT Program Manager at DSN Fax 736-7569; 383 TRS/NTEE, 939 Missile Rd Ste 3, Sheppard AFB TX 76311-2262.

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USAF PREHOSPITAL TREATMENT PROTOCOLS
FOR THE EMT-BASIC

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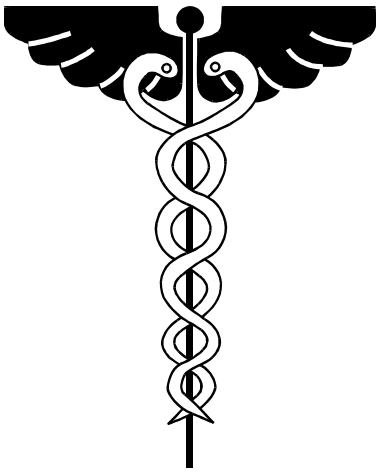
SECTION I

PATIENT ASSESSMENT



1. **SCENE SIZE-UP**
2. **INITIAL ASSESSMENT**
3. **FOCUSED HISTORY AND PHYSICAL EXAMINATION**
4. **FOCUSED HISTORY AND PHYSICAL EXAMINATION PATIENT AND ILLNESS/INJURY - SPECIFIC**

PATIENT ASSESSMENT 1

SCENE SIZE UP

**** TAKE BODY SUBSTANCE ISOLATION PRECAUTIONS***

**** ASSESS SCENE SAFETY***

**** DETERMINE MECHANISM OF INJURY OR NATURE OF ILLNESS***

**** DETERMINE TOTAL NUMBER OF PATIENTS***

**** CALL FOR ADDITIONAL HELP AS NEEDED***

**** BEGIN INITIAL TRIAGE***

**** BEGIN INITIAL ASSESSMENT***

CLINICAL NOTE: IF THE PATIENT IS A VICTIM OF TRAUMA, DETERMINE NEED FOR AND INITIATE SPINAL STABILIZATION AS APPROPRIATE

PATIENT ASSESSMENT 2

INITIAL ASSESSMENT

* ***DETERMINE GENERAL IMPRESSION OF PATIENT***

* ***DETERMINE IF POSSIBLE LIFE THREATS EXIST***

* ***DETERMINE PATIENT AGE, SEX AND RACE***

* ***ASSESS LEVEL OF CONSCIOUSNESS AND RESPONSIVENESS***

* ***ASSESS AIRWAY***

* ***CLEAR AIRWAY AS APPROPRIATE***

* ***DETERMINE NEED FOR ORO- OR NASO- PHARYNGEAL AIRWAY***

* ***ASSESS FOR ADEQUACY OF BREATHING***

* ***CONSIDER NEED FOR OXYGEN***

CLINICAL NOTE: ASSIST BREATHING WITH APPROPRIATE DEVICE AND OXYGEN IF THE UNRESPONSIVE PATIENT IS NOT BREATHING ADEQUATELY

* ***ASSESS FOR AND CONTROL MAJOR BLEEDING***

* ***ASSESS PERFUSION***

* ***DOCUMENT FINDINGS***

* ***PROCEED TO FOCUSED HISTORY AND PHYSICAL EXAMINATION***

PATIENT ASSESSMENT 3

FOCUSED HISTORY AND PHYSICAL EXAMINATION [TRAUMA]

**** RECONSIDER MECHANISM OF INJURY***

CLINICAL NOTE: IF MECHANISM OF INJURY IS NOT SIGNIFICANT, ASSESS INJURIES BASED UPON THE CHIEF COMPLAINT -- ASSESS BASELINE VITAL SIGNS -- ASSESS SAMPLE HISTORY

SIGNIFICANT MECHANISM OF INJURY

**** CONTINUOUS SPINAL STABILIZATION***

**** REASSESS AIRWAY, BREATHING AND CIRCULATION***

**** ASSESS THE HEAD***

**** ASSESS THE NECK***

**** APPLY CERVICAL COLLAR***

**** ASSESS THE CHEST***

**** ASSESS BREATH SOUNDS***

**** ASSESS THE ABDOMEN***

**** ASSESS THE PELVIS***

**** ASSESS ALL EXTREMITIES***

**** LOG-ROLL PATIENT AND ASSESS POSTERIOR BODY***

PATIENT ASSESSMENT 4

FOCUSED HISTORY AND PHYSICAL EXAMINATION [MEDICAL]

* ***ASSESS HISTORY OF PRESENT ILLNESS***

RESPONSIVE PATIENT

* ***ASSESS COMPLAINTS OR SIGNS AND SYMPTOMS***
* ***ASSESS S.A.M.P.L.E. HISTORY***
* ***PERFORM RAPID ASSESSMENT AS NEEDED***
* ***ASSESS BASELINE VITAL SIGNS***
* ***PROVIDE CARE BASED ON SIGNS AND SYMPTOMS***
* ***CONTINUE WITH FOCUSED HISTORY AND DETAILED EXAM AS APPROPRIATE***

UNRESPONSIVE PATIENT

* ***PERFORM RAPID ASSESSMENT***
* ***ASSESS THE NECK***
* ***ASSESS THE CHEST***
* ***ASSESS THE ABDOMEN***
* ***ASSESS THE PELVIS***
* ***ASSESS THE EXTREMITIES***
* ***ASSESS THE POSTERIOR BODY***
* ***ASSESS S.A.M.P.L.E. HISTORY***
* ***ASSESS BASELINE VITAL SIGNS***
* ***PROVIDE CARE BASED ON SIGNS AND SYMPTOMS***
* ***CONTINUE WITH FOCUSED HISTORY AND DETAILED EXAM AS APPROPRIATE***

PATIENT ASSESSMENT 5

FOCUSED HISTORY AND PHYSICAL EXAMINATION [PATIENT AND INJURY OR ILLNESS SPECIFIC]

RESPONSIVE PATIENT

* ***USE COMPONENTS OF DETAILED PHYSICAL EXAM TO GATHER ADDITIONAL INFORMATION AS APPROPRIATE***

* ***ASSESS THE POSTERIOR BODY***

* ***REASSESS VITAL SIGNS***

* ***PERFORM ONGOING ASSESSMENT***

* ***REPEAT INITIAL ASSESSMENT***

* ***REASSESS VITAL SIGNS***

* ***REPEAT COMPONENTS OF FOCUSED ASSESSMENT AS APPROPRIATE***

* ***CHECK INTERVENTIONS***

CLINICAL NOTE: CONTINUE TO REPEAT THE INITIAL ASSESSMENT, VITAL SIGNS, COMPONENTS OF THE FOCUSED ASSESSMENT AND CHECKING OF INTERVENTIONS UNTIL PATIENT DELIVERED TO EMERGENCY DEPARTMENT

PATIENT ASSESSMENT 6

FOCUSED HISTORY AND PHYSICAL EXAMINATION [PATIENT AND INJURY OR ILLNESS SPECIFIC]

UNRESPONSIVE PATIENT

* ***ASSESS THE HEAD***

* ***ASSESS THE FACE***

* ***ASSESS THE EARS***

* ***ASSESS THE EYES***

* ***ASSESS THE NOSE***

* ***ASSESS THE MOUTH***

* ***ASSESS THE NECK***

* ***ASSESS THE CHEST***

* ***ASSESS BREATH SOUNDS***

* ***ASSESS THE ABDOMEN***

* ***ASSESS THE EXTREMITIES***

* ***REASSESS VITAL SIGNS***

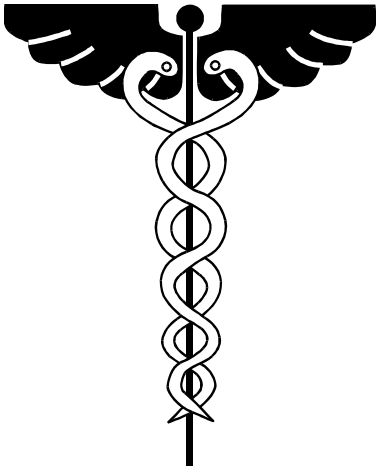
* ***REPEAT COMPONENTS OF FOCUSED ASSESSMENT***

* ***CHECK INTERVENTIONS***

CLINICAL NOTE: CONTINUE TO REPEAT THE INITIAL ASSESSMENT, VITAL SIGNS, COMPONENTS OF THE FOCUSED ASSESSMENT AND CHECKING OF INTERVENTIONS UNTIL PATIENT DELIVERED TO EMERGENCY DEPARTMENT

SECTION II

RESPIRATORY EMERGENCIES



1. **INADEQUATE BREATHING**
2. **BREATHING DIFFICULTY**

RESPIRATORY EMERGENCIES 1

INADEQUATE BREATHING

* ***ASSESS RATE***

RATE VERY FAST, VERY SLOW, OR AGONAL

* ***PROVIDE ARTIFICIAL VENTILATION WITH SUPPLEMENTAL OXYGEN***

RATE WITHIN NORMAL LIMITS

* ***ASSESS RHYTHM***

IF IRREGULAR AND ACCOMPANIED BY OTHER SIGNS OF INADEQUATE BREATHING

* ***PROVIDE ARTIFICIAL VENTILATION WITH SUPPLEMENTAL OXYGEN***

RHYTHM REGULAR

* ***ASSESS QUALITY***

CLINICAL NOTE: OTHER SIGNS OF INADEQUATE BREATHING INCLUDE -- DIMINISHED BREATH SOUNDS, SHALLOW RESPIRATIONS, INADEQUATE OR UNEQUAL CHEST EXPANSION, AND USE OF ACCESSORY MUSCLES

RESPIRATORY EMERGENCIES 2

BREATHING DIFFICULTY

**** ASSESS BREATHING RATE***

RATE ABOVE OR BELOW NORMAL RANGE

**** ASSESS FOR RHYTHM AND BREATH SOUNDS***

RHYTHM IRREGULAR AND/OR NOISY BREATHING

**** ASSESS PULSE RATE***

PULSE ABOVE OR BELOW NORMAL RANGE -- ACCOMPANIED BY ABNORMAL BREATHING

**** PROVIDE SUPPLEMENTAL OXYGEN [12-15 LPM] VIA NONREBREATHER MASK***

**** POSITION PATIENT IN A COMFORTABLE POSITION***

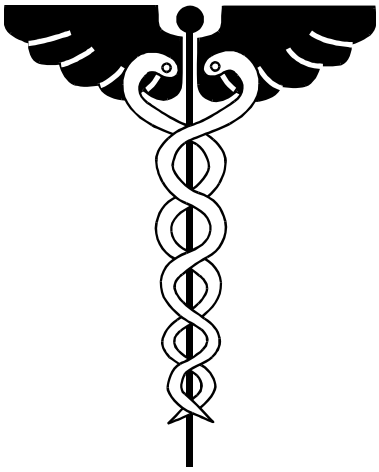
**** CONTINUE WITH ASSESSMENT AND MANAGEMENT OF PATIENT***

CLINICAL NOTE: ASSIST WITH ADMINISTRATION OF INHALER IF PRESCRIBED TO PATIENT AND APPROVED BY MEDICAL DIRECTOR

OTHER SIGNS AND SYMPTOMS OF ABNORMAL BREATHING: PALE, CYANOTIC, OR FLUSHED SKIN. INABILITY TO SPEAK IN FULL SENTENCES. USE OF ACCESSORY MUSCLES. ALTERED MENTAL STATUS. COUGHING. FLARING NOSTRILS. PURSED LIPS. PATIENT IN A TRIPOD POSITION. PATIENT LEANING FORWARD WITH FEET DANGLING. BARREL CHEST APPEARANCE.

SECTION III

CARDIAC EMERGENCIES



1. **CARDIAC COMPROMISE**
2. **CARDIAC ARREST**

CARDIAC EMERGENCIES 1

CARDIAC COMPROMISE

FOCUSED HISTORY AND PHYSICAL EXAM: PAIN, PRESSURE, OR DISCOMFORT IN CHEST OR EPIGASTRIUM. DIFFICULTY BREATHING. PALPITATIONS. SUDDEN ONSET SWEATING WITH NAUSEA AND VOMITING. ANXIETY. ABNORMAL PULSE. ABNORMAL BP.

CLINICAL NOTE: ANY OF THE ABOVE SIGNS AND SYMPTOMS MAY OR MAY NOT BE PRESENT. A THOROUGH PATIENT HISTORY IS ESSENTIAL.

**** PLACE PATIENT IN A COMFORTABLE POSITION***

**** APPLY HIGH CONCENTRATION OF OXYGEN***

ADMINISTER NITROGLYCERIN IF *ALL* OF THE FOLLOWING ARE PRESENT:

-- PATIENT COMPLAINS OF CHEST PAIN
-- PATIENT HAS HISTORY OF CARDIAC PROBLEMS
-- PATIENT PRESCRIBED NITROGLYCERIN BY PRIMARY PHYSICIAN
-- PATIENT HAS NITROGLYCERIN IN POSSESSION
-- SYSTOLIC BP GREATER THAN 100 MM/HG
-- AUTHORIZED BY MEDICAL DIRECTOR

ADMINISTER NITROGLYCERIN SUBLINGUALLY

REPEAT DOSAGE *UP TO A MAXIMUM OF THREE TIMES* IF:

-- PAIN IS NOT RELIEVED
-- SYSTOLIC BP REMAINS GREATER THAN 100 MM/HG
--AUTHORIZED BY MEDICAL DIRECTOR

TRANSPORT PROMPTLY IF:

-- PATIENT HAS NO HISTORY OF CARDIAC PROBLEMS
-- PATIENT HAS HISTORY OF CARDIAC PROBLEMS BUT HAS NO NITROGLYCERIN
-- A SYSTOLIC BP OF LESS THAN 100 MM/HG

CARDIAC EMERGENCIES 2

CARDIAC ARREST

**** START CPR***

**** ATTACH AND TURN ON AED***

**** ANALYZE PATIENT***

SHOCK IS INDICATED

**** SHOCK***

**** ANALYZE PATIENT***

THE ABOVE SEQUENCE IS REPEATED TWO TIMES -- TOTAL OF THREE SHOCKS

SHOCK IS NOT INDICATED

**** PERFORM CPR FOR 1 MINUTE***

**** ANALYZE PATIENT***

THE ABOVE SEQUENCE IS REPEATED TWO TIMES

SHOCK IS INDICATED FOLLOWING INITIAL THREE SHOCKS

**** SHOCK***

**** ANALYZE PATIENT***

REPEAT THE ABOVE SEQUENCE TWO TIMES -- TOTAL OF THREE ADDITIONAL SHOCKS

**** CHECK PULSE***

**** PERFORM CPR AS INDICATED AND TRANSPORT***

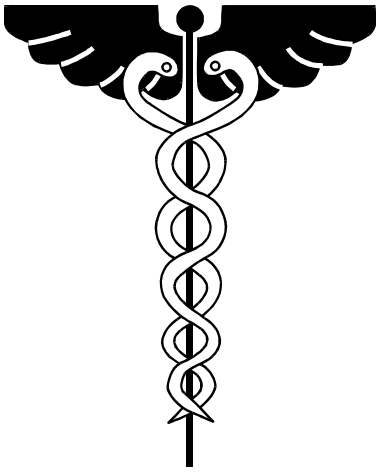
CLINICAL NOTE: FOLLOW INSTRUCTIONS PROVIDED BY THE SEMI-AUTOMATED DEFIBRILLATOR. ***EACH SHOCK IS SEPARATED BY ONE MINUTE OF CPR.***

DEFIBRILLATOR PAD PLACEMENT: ONE PAD -- UPPER RIGHT CHEST
SECOND PAD -- LOWER LEFT RIBS

*****FOLLOW THE COLOR CODES OF THE AED*****

SECTION IV

INTERVENTIONS



1. DIABETIC EMERGENCIES AND ALTERED MENTAL STATUS
2. SEIZURE DISORDER
3. ALLERGIC REACTION
4. INGESTED POISONS
5. INHALED POISONS
6. ABSORBED POISONS
7. ALCOHOL ABUSE
8. SUBSTANCE ABUSE
9. STROKE
10. HYPOTHERMIA
11. LOCAL COLD INJURY
12. HEAT EMERGENCIES -- PATIENT WITH MOIST, PALE, NORMAL-TO-COOL SKIN
13. HEAT EMERGENCIES -- PATIENT WITH HOT, DRY, OR MOIST SKIN
14. WATER RESCUE -- POSSIBLE SPINAL INJURY
15. INSECT STINGS AND BITES
16. SNAKEBITES
17. AIR EMBOLISM -- DECOMPRESSION SICKNESS
18. EMOTIONAL, PSYCHIATRIC, AGGRESSIVE, AND POTENTIAL OR ATTEMPTED SUICIDE EMERGENCIES
19. EXTERNAL BLEEDING
20. INTERNAL BLEEDING
21. SHOCK
22. OPEN NECK WOUND
23. OPEN CHEST WOUND
24. BURNS
25. ELECTRICAL INJURIES
26. CHEST INJURY COMPLICATIONS

INTERVENTIONS 1

DIABETIC EMERGENCIES AND ALTERED MENTAL STATUS

**** PERFORM INITIAL ASSESSMENT -- IDENTIFY ALTERED MENTAL STATUS***

**** PERFORM FOCUSED HISTORY -- PHYSICAL EXAMINATION***

**** TAKE BASELINE VITAL SIGNS***

-- PATIENT HAS HISTORY OF DIABETES
-- ALTERED MENTAL STATUS
-- PATIENT IS ABLE TO SWALLOW

**** GIVE ORAL GLUCOSE***

PATIENT IS UNCONSCIOUS

**** MAINTAIN OPEN AIRWAY***

**** CONSULT MEDICAL DIRECTION CONCERNING ADMINISTRATION OF ORAL GLUCOSE***

**** REASSESS PATIENT***

**** PERFORM CPR OR VENTILATORY SUPPORT AS APPROPRIATE***

TRANSPORT THE UNCONSCIOUS PATIENT ON SIDE -- MONITOR AIRWAY
ADMINISTER CPR -- VENTILATORY SUPPORT AS APPROPRIATE DURING TRANSPORT

INTERVENTIONS 2

SEIZURE DISORDER

CLINICAL NOTE: IT IS NOT THE EMT'S JOB TO DIAGNOSE THE CAUSE OF A SEIZURE -- IT IS THE EMT'S JOB TO DESCRIBE THE ACTIVITY TO THE MEDICAL DIRECTOR AND TO PROVIDE PROPER EMERGENCY CARE T0 THE PATIENT

EMERGENCY CARE DURING THE SEIZURE PHASE

**** PLACE PATIENT ON THE GROUND OR FLOOR***

**** LOOSEN RESTRICTIVE CLOTHING, JEWELRY, ETC***

**** REMOVE OBJECTS THAT MAY CAUSE THE PATIENT HARM***

**** PROTECT THE PATIENT FROM INJURY***

EMERGENCY CARE AFTER THE SEIZURE HAS ENDED

**** PROTECT THE AIRWAY***

THE PATIENT IS CYANOTIC

**** ASSURE THE AIRWAY***

**** PROVIDE ARTIFICIAL VENTILATIONS WITH SUPPLEMENTAL OXYGEN***

**** ASSESS FOR AND MANAGE ANY INJURIES INCURRED DURING THE SEIZURE***

**** TRANSPORT WHILE MONITORING VITAL SIGNS AND RESPIRATIONS***

INTERVENTIONS 3

ALLERGIC REACTION

**** PERFORM INITIAL ASSESSMENT***

**** MANAGE LIFE-THREATENING CONDITIONS***

**** PERFORM FOCUSED HISTORY AND PHYSICAL EXAMINATION***

CLINICAL NOTE: OBTAIN HISTORY OF ALLERGIES
-- WHAT PATIENT WAS EXPOSED TO
-- HOW PATIENT WAS EXPOSED
-- SIGNS AND SYMPTOMS
-- PROGRESSION
-- INTERVENTIONS TAKEN

**** OBTAIN BASELINE VITAL SIGNS***

**** MANAGE AIRWAY***

**** APPLY HIGH CONCENTRATION OF OXYGEN***

**** CONTACT MEDICAL DIRECTOR FOR USE OF EPINEPHRINE AUTO-INJECTOR PEN***

USE OF EPINEPHRINE AUTO-INJECTOR PEN APPROPRIATE WHEN:

PATIENTS WITH A HISTORY OF ALLERGIES AND REACTIONS IN THE PAST -- EXPERIENCING DISTRESS OR SHOCK DUE TO THE ALLERGEN -- PATIENT PRESCRIBED AUTO-INJECTOR BY PRIMARY PHYSICIAN -- PERMISSION FROM MEDICAL DIRECTOR

SIGNS AND SYMPTOMS OF ALLERGIC REACTION:

- SKIN [ITCHING -- HIVES -- SWELLING OF THE FACE -- WARM, TINGLING FEELING IN FACE, MOUTH, HANDS, CHEST, AND FEET]

- RESPIRATORY [TIGHTNESS IN THROAT OR CHEST -- RAPID BREATHING -- LABORED, NOISY BREATHING -- HOARSENESS OR LOSS OF VOICE -- STRIDOR -- WHEEZING]

- CARDIAC [INCREASED HEART RATE - DECREASED BLOOD PRESSURE]

- GENERALIZED FINDINGS [ITCHY, WATERY EYES -- HEADACHE -- RUNNY NOSE -- SENSE OF IMPENDING DOOM]

INTERVENTIONS 4

INGESTED POISONS

**** GATHER INFORMATION***

- WHAT SUBSTANCE WAS INGESTED?
- WHEN DID THE EXPOSURE OCCUR?
- HOW MUCH WAS INGESTED?
- OVER HOW LONG A PERIOD DID THE INGESTION OCCUR?
- WHAT INTERVENTIONS HAVE BEEN TAKEN?
- WHAT IS THE PATIENT'S ESTIMATED WEIGHT?
- WHAT EFFECTS IS THE PATIENT EXPERIENCING?

**** CALL MEDICAL DIRECTOR***

**** ADMINISTER ACTIVATED CHARCOAL AS DIRECTED***

**** POSITION PATIENT IN SIDE-LYING POSITION***

SAVE ALL VOMITUS
SUCTION AS NEEDED -- SAVE ALL STOMACH CONTENTS

**** PERFORM CPR AS APPROPRIATE***

CLINICAL NOTE: AVOID MOUTH-TO-MOUTH CONTACT -- USE POCKET MASK OR OTHER BARRIER DEVICE

INTERVENTIONS 5

INHALED POISONS

**** GATHER INFORMATION***

- WHAT SUBSTANCE WAS INVOLVED?
- WHEN DID THE EXPOSURE OCCUR?
- OVER HOW LONG A PERIOD DID THE EXPOSURE OCCUR?
- WHAT INTERVENTIONS HAVE BEEN TAKEN?
- WHAT EFFECTS IS THE PATIENT EXPERIENCING?

**** REMOVE THE PATIENT FROM SOURCE***

**** AVOID TOUCHING CONTAMINATED CLOTHING AND JEWELRY***

**** ESTABLISH AND MAINTAIN AN OPEN AIRWAY***

**** STAY ALERT FOR VOMITING***

**** POSITION PATIENT ON SIDE***

**** HAVE SUCTION AVAILABLE AT ALL TIMES***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** REMOVER CONTAMINATED CLOTHING AND JEWELRY***

**** CALL MEDICAL DIRECTOR AND FOLLOW DIRECTIONS***

**** TRANSPORT ASAP***

CLINICAL NOTE: ONLY DO WHAT YOU HAVE BEEN TRAINED TO DO WHEN RESPONDING TO A HAZARDOUS MATERIALS INCIDENT -- *ALWAYS ASSUME THE PATIENT IS CONTAMINATED* -- PROTECT YOURSELF AND OTHERS

****INHALED POISONS CAN ALSO BE ABSORBED INTO THE SKIN****

INTERVENTIONS 6

ABSORBED POISONS

**** GATHER INFORMATION***

- WHAT SUBSTANCE WAS INVOLVED?
- WHEN DID THE EXPOSURE OCCUR?
- OVER HOW LONG A PERIOD DID THE EXPOSURE OCCUR?
- WHAT INTERVENTIONS HAVE BEEN TAKEN?
- WHAT EFFECTS IS THE PATIENT EXPERIENCING?

**** REMOVE PATIENT FROM SOURCE***

**** BRUSH POWDERS FROM PATIENT***

**** REMOVE CONTAMINATED CLOTHING AND JEWELRY***

**** AVOID TOUCHING CONTAMINATED ARTICLES***

**** WASH PATIENT WITH CLEAR WATER***

**** CONTACT MEDICAL DIRECTOR AND FOLLOW INSTRUCTIONS***

**** BE ALERT FOR AND MANAGE SHOCK***

**** TRANSPORT ASAP***

- PROTECT YOUR SKIN
- WEAR PROTECTIVE CLOTHING
- HAVE FIREFIGHTER OR OTHER PERSON HOSE PATIENT BEFORE TOUCHING, IF APPROPRIATE

CLINICAL NOTE:

- IRRIGATE LIQUIDS WITH CLEAR WATER FOR AT LEAST 20 MINUTES -- CONTINUE ENROUTE TO EMERGENCY DEPARTMENT IF POSSIBLE
- BRUSH POWDER OFF THE PATIENT -- CONTINUE AS FOR OTHER ABSORBED POISONS
- IRRIGATE EYES WITH CLEAR WATER FOR AT LEAST 20 MINUTES -- CONTINUE ENROUTE TO EMERGENCY DEPARTMENT IF POSSIBLE

INTERVENTIONS 7

ALCOHOL ABUSE

SIGNS AND SYMPTOMS OF ALCOHOL ABUSE:

- ODOR OF ALCOHOL ON BREATH
- SWAYING AND UNSTEADINESS OF MOVEMENT
- SLURRED SPEECH, RAMBLING THOUGHT PATTERNS, INCOHERENT WORDS/PHRASES
- FLUSHED APPEARANCE TO THE FACE
- NAUSEA OR VOMITING
- POOR COORDINATION
- SLOWED REACTION TIME
- BLURRED VISION
- CONFUSION
- HALLUCINATIONS
- LACK OF MEMORY
- ALTERED MENTAL STATUS

SIGNS AND SYMPTOMS OF ALCOHOL WITHDRAWAL:

- CONFUSION AND RESTLESSNESS
- ATYPICAL BEHAVIOR [INSANE BEHAVIOR]
- HALLUCINATIONS
- GROSS TREMOR OF THE HANDS
- PROFUSE SWEATING
- SEIZURES

**** BE ALERT FOR AIRWAY AND RESPIRATORY PROBLEMS***

**** BE ALERT FOR CHANGES IN MENTAL STATUS***

**** MONITOR VITAL SIGNS***

**** TREAT FOR SHOCK***

**** PROTECT PATIENT FROM SELF-INJURY***

**** USE RESTRAINT AS AUTHORIZED BY MEDICAL DIRECTOR***

**** REQUEST ASSISTANCE FROM LAW ENFORCEMENT AS APPROPRIATE***

**** STAY ALERT FOR SEIZURES***

**** TRANSPORT TO EMERGENCY DEPARTMENT***

CLINICAL NOTE: BE ALERT FOR ALCOHOL/DRUG MIXTURES AS INDICATED BY DEPRESSED VITAL SIGNS. ASK THE PATIENT OR FAMILY MEMBER IF DRUGS HAVE BEEN TAKEN WITH THE ALCOHOL.

INTERVENTIONS 8

SUBSTANCE ABUSE

**** LOOK FOR SIGNS OF OVERDOSE AND TREAT APPROPRIATELY***

**** REMAIN ALERT FOR MEDICAL EMERGENCIES***

SIGNS AND SYMPTOMS OF DRUG WITHDRAWAL:

- SHAKING
- ANXIETY
- NAUSEA
- CONFUSION AND IRRITABILITY
- HALLUCINATIONS
- PROFUSE SWEATING
- INCREASED PULSE AND BREATHING RATES

**** PERFORM INITIAL ASSESSMENT***

**** PROVIDE CPR OR VENTILATORY SUPPORT AS APPROPRIATE***

**** TREAT FOR SHOCK***

**** ASSESS FOR INJURIES***

CLINICAL NOTE: ASSESS CAREFULLY FOR SIGNS OF HEAD INJURY

**** ASSESS FOR GROSS TISSUE DAMAGE ON EXTREMITIES***

**** TALK TO THE PATIENT TO GAIN HIS/HER CONFIDENCE***

**** PROTECT THE PATIENT FROM SELF-INJURY***

**** RESTRAIN AS APPROPRIATE AND AUTHORIZED BY MEDICAL DIRECTOR***

**** REQUEST ASSISTANCE FROM LAW ENFORCEMENT AS APPROPRIATE***

**** TRANSPORT TO EMERGENCY DEPARTMENT ASAP***

INTERVENTIONS 9

STROKE

SIGNS AND SYMPTOMS OF STROKE:

- **CONFUSION**
- **DIZZINESS**
- **NUMBNESS OR PARALYSIS [USUALLY ON ONE SIDE OF THE BODY]**
- **PARALYSIS OR WEAK, SAGGING MUSCLES OR LOSS OF EXPRESSION IN THE FACE [USUALLY ON ONE SIDE OF THE FACE]**
- **HEADACHE [NOT COMMON]**
- **UNEQUAL PUPILS**
- **IMPAIRED VISION**
- **RAPID, FULL PULSE**
- **DIFFICULT RESPIRATION OR SNORING SOUND**
- **NAUSEA OR VOMITING**
- **SEIZURES**
- **UNCONSCIOUSNESS**
- **LOSS OF BOWEL OR BLADDER CONTROL**

CLINICAL NOTE: ***IT IS NOT NECESSARY TO DIAGNOSE -- TREAT THE PATIENT AS YOU WOULD FOR ANY OTHER PATIENT WITH SIMILAR SIGNS AND SYMPTOMS***

CONSCIOUS PATIENT

**** CALM AND REASSURE THE PATIENT***

**** ENSURE AN OPEN AIRWAY***

**** ADMINISTER HIGH CONCENTRATION OF OXYGEN***

**** TRANSPORT IN A SEMI-SITTING POSITION***

UNCONSCIOUS PATIENT

**** MAINTAIN AN OPEN AIRWAY***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** TRANSPORT PATIENT ON SIDE***

**** MONITOR FOR VOMITING***

INTERVENTIONS 10

HYPOTHERMIA

SIGNS AND SYMPTOMS:

- **SHIVERING IN EARLY STAGES [ABSENT IN SEVERE STAGES]**
- **NUMBNESS OR REDUCED SENSATION**
- **STIFF OR RIGID POSTURE [PROLONGED CASES]**
- **DROWSINESS**
- **RAPID BREATHING AND RAPID PULSE IN EARLY STAGES**
- **SLOW TO ABSENT BREATHING AND PULSE IN PROLONGED STAGES**
- **LOW TO ABSENT BP**
- **LOSS OF MOTOR COORDINATION**
- **JOINT/MUSCLE STIFFNESS -- MUSCLE RIGIDITY**
- **DECREASED LOC OR UNCONSCIOUSNESS**
- **COOL ABDOMINAL SKIN TEMPERATURE**
- **RED TO PALE TO CYANOTIC SKIN COLOR**
- **FROZEN BODY PARTS IN EXTREME CASES**

CONSCIOUS PATIENT

**** REMOVE WET CLOTHING FROM PATIENT***

**** COVER PATIENT WITH DRY, WARM BLANKETS***

**** ACTIVELY REWARM PATIENT DURING TRANSPORT***
-- USE HEAT PACKS OR YOUR OWN BODY HEAT

CLINICAL NOTE: THE FOLLOWING PRECAUTIONS MUST BE TAKEN WHEN ACTIVELY REWARMING THE PATIENT:

- **REWARM SLOWLY**
- **USE CENTRAL REWARMING [PLACE HEAT PACKS ON LATERAL CHEST, NECK, ARMPITS AND GROIN]**
- **USE A WARM BATH IF TRANSPORT IS DELAYED [IF POSSIBLE]**
- **KEEP THE PATIENT AT REST**

**** CARE FOR SHOCK***

**** ADMINISTER OXYGEN [HUMIDIFIED AND WARMED IF POSSIBLE]***

**** SLOWLY ADMINISTER WARMED FLUIDS PO TO THE CONSCIOUS PATIENT EXPERIENCING SHIVERING ONLY***

UNCONSCIOUS PATIENT

**** INTERVENTIONS AS DESCRIBED ABOVE***

**** PERFORM CPR AS APPROPRIATE***

**** KEEP PATIENT NPO***

**** CONSTANTLY MONITOR AIRWAY***

INTERVENTIONS 11

LOCAL COLD INJURY

**** ASSESS PATIENT SKIN***

WHAT OR WAXY APPEARANCE

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** TRANSPORT TO EMERGENCY DEPARTMENT***

SKIN IS NOT WHITE OR WAXY

**** REMOVE PATIENT FROM COLD ENVIRONMENT***

**** WARM THE AFFECTED AREA***

**** SPLINT/COVER INJURED EXTREMITY***

IF TRANSPORT MUST BE DELAYED -- CONTACT MEDICAL DIRECTOR

ALERT: NEVER THAW A FROZEN BODY PART IF THERE IS A CHANCE IT MAY BECOME REFROZEN

ACTIVE RAPID REWARMING OF FROZEN BODY PARTS

- **HEAT WATER TO 100-105 DEGREES F**
- **REMOVE CLOTHING, JEWELRY, ETC FROM INJURED PART**
- **FULLY IMMERSE INJURED PART**
- **REMOVE INJURED PART AND ADD WARM WATER WHEN TEMPERATURE DROPS BELOW 100**
- **GENTLY PAT DRY AFTER REWARMING**
- **APPLY A STERILE DRESSING**
- **APPLY STERILE DRESSING BETWEEN FINGERS AND TOES IF AFFECTED**
- **KEEP INJURED PART WARM**
- **KEEP PATIENT WARM**
- **TRANSPORT WITH LIMB SLIGHTLY ELEVATED**

SIGNS AND SYMPTOMS OF SUPERFICIAL LOCAL COLD INJURY:

- **LIGHT SKIN DARKENS**
- **DARK SKIN LIGHTENS**
- **BLANCHING IN DARK AND LIGHT SKIN**
- **NUMBNESS IN AFFECTED AREA**

SIGNS AND SYMPTOMS OF LATE OR DEEP LOCAL COLD INJURY:

- **SKIN WHITE OR WAXY PROGRESSING TO A GRAYISH-BLUE COLOR**
- **AFFECTED AREA FEELS FROZEN**

INTERVENTIONS 12

HEAT EMERGENCIES

PATIENT WITH MOIST, PALE, NORMAL-TO-COOL SKIN

SIGNS AND SYMPTOMS

- MUSCULAR CRAMPS -- USUALLY IN LEGS AND ABDOMEN
- WEAKNESS OR EXHAUSTION -- SOMETIMES DIZZINESS OR PERIODS OF FAINTNESS
- RAPID, SHALLOW BREATHING
- WEAK PULSE
- MOIST, PALE SKIN WHICH MAY FEEL NORMAL OR COOL TO TOUCH
- HEAVY PERSPIRATION
- LOSS OF CONSCIOUSNESS IS POSSIBLE

**** ADMINISTER OXYGEN -- 15 LPM VIA NONREBREATHER MASK***

**** REMOVE PATIENT FROM HOT ENVIRONMENT***

**** REMOVE EXCESS CLOTHING***

- FAN PATIENT

CLINICAL NOTE: AVOID CHILLING THE PATIENT
-- AVOID SHIVERING

UNRESPONSIVE PATIENT

**** TRANSPORT PATIENT ON SIDE***

**** KEEP NPO***

RESPONSIVE PATIENT

**** TRANSPORT IN SUPINE POSITION WITH FEET ELEVATED***

**** ADMINISTER COOL WATER PO***

CRAMPING MUSCLES

**** FOLLOW PROCEDURES FOR RESPONSIVE PATIENT***

**** APPLY COOL MOIST TOWELS TO CRAMPING MUSCLES***

INTERVENTIONS 13

HEAT EMERGENCIES

PATIENT WITH HOT, DRY OR MOIST SKIN

SIGNS AND SYMPTOMS

- RAPID, SHALLOW RESPIRATIONS
- FULL AND RAPID PULSE
- GENERALIZED WEAKNESS
- HOT, DRY, POSSIBLY MOIST SKIN
- LITTLE TO NO PERSPIRATION
- LOSS OF CONSCIOUSNESS OR ALTERED MENTAL STATUS
- DILATED PUPILS
- SEIZURES ARE POSSIBLE

**** REMOVE PATIENT FROM HOT ENVIRONMENT***

**** PLACE PATIENT IN A COOL ENVIRONMENT***

**** REMOVE PATIENT CLOTHING***

**** PLACE COOL PACKS AT THE NECK, GROIN AND ARMPITS***

**** ADMINISTER OXYGEN -- 15 LPM VIA NONREBREATHER***

TRANSPORT MUST BE DELAYED

**** PLACE PATIENT IN COOLED WATER UP TO NECK LEVEL***

TRANSPORT WILL NOT BE DELAYED

**** TRANSPORT IMMEDIATELY***

CLINICAL NOTE: AVOID SHIVERING WHEN COOLING THE PATIENT

INTERVENTIONS 14

WATER RESCUE
POSSIBLE SPINAL INJURY

**** DON PERSONAL FLOATATION DEVICE***

**** ENTER WATER AND APPROACH PATIENT***

**** SPLINT HEAD AND NECK WITH ARMS***

**** ROLL PATIENT TO SUPINE POSITION***

**** ASSESS BREATHING***

**** BEGIN RESCUE BREATHING AS APPROPRIATE***

**** SLIP BACKBOARD UNDER PATIENT***

**** APPLY RIGID COLLAR***

**** STRAP PATIENT TO BOARD***

**** REMOVE PATIENT FROM WATER***

**** INITIATE CPR/AED AS APPROPRIATE***

**** TRANSPORT***

INTERVENTIONS 15

INSECT STINGS AND BITES

SIGNS AND SYMPTOMS

- **ALTERED STATES OF AWARENESS**
- **NOTICEABLE STINGS OR BITES ON SKIN**
- **PUNCTURE MARKS**
- **BLOTCHY OR MOTTLED SKIN**
- **LOCALIZED PAIN OR ITCHING**
- **NUMBNESS IN A LIMB OR BODY PART**
- **BURNING SENSATIONS FOLLOWED BY RADIATING PAIN**
- **REDNESS**
- **SWELLING OR BLISTERING AT SITE**
- **WEAKNESS OR COLLAPSE**
- **DYSPNEA**
- **ABNORMAL PULSE**
- **HEADACHE AND DIZZINESS**
- **CHILLS**
- **FEVER**
- **NAUSEA AND VOMITING**
- **MUSCLE CRAMPS**
- **CHEST TIGHTENING**
- **JOINT PAINS**
- **EXCESSIVE SALIVATION**
- **PROFUSE SWEATING**
- **ANAPHYLAXIS**

**** TREAT FOR SHOCK -- EVEN IF ASYMPTOMATIC***

**** CONTACT MEDICAL DIRECTOR FOR DIRECTION***

**** REMOVE JEWELRY FROM AFFECTED LIMBS***

**** APPLY CONSTRICTING BANDS ABOVE AND BELOW BITE OR STING***

**** IMMOBILIZE LIMB***

**** TRANSPORT TO EMERGENCY DEPARTMENT***

INTERVENTIONS 16

SNAKEBITES

SIGNS AND SYMPTOMS

- NOTICEABLE BITE ON SKIN
- PAIN AND SWELLING IN AREA OF BITE
- RAPID PULSE AND LABORED BREATHING
- PROGRESSING GENERAL WEAKNESS
- VISION PROBLEMS
- NAUSEA AND VOMITING
- SEIZURES
- DROWSINESS OR UNCONSCIOUSNESS

**** CALL MEDICAL DIRECTOR FOR DIRECTION***

**** TREAT FOR SHOCK***

**** CLEAN BITE AREA WITH SOAP AND WATER***

**** REMOVE CONSTRICTING ITEMS FROM EXTREMITIES***

**** IMMOBILIZE AFFECTED EXTREMITIES***

**** APPLY CONSTRICTING BANDS ABOVE AND BELOW SITE***

**** TRANSPORT WITH CAREFULLY MONITORING VITAL SIGNS***

INTERVENTIONS 17

AIR EMBOLISM
DECOMPRESSION SICKNESS

SIGNS AND SYMPTOMS OF AIR EMBOLISM

- **BLURRED VISION**
- **CHEST PAINS**
- **NUMBNESS AND TINGLING SENSATIONS IN THE EXTREMITIES**
- **GENERALIZED OR SPECIFIC WEAKNESSES**
- **POSSIBLE PARALYSIS**
- **FROTHY BLOOD IN MOUTH OR NOSE**
- **CONVULSIONS**
- **RAPID LAPSE INTO UNCONSCIOUSNESS**
- **RESPIRATORY ARREST**
- **CARDIAC ARREST**

SIGNS AND SYMPTOMS OF DECOMPRESSION SICKNESS

- **PERSONALITY CHANGES**
- **FATIGUE**
- **DEEP PAIN IN MUSCLES AND JOINTS**
- **ITCHY BLOTCHES OR MOTTLING SKIN**
- **NUMBNESS OR PARALYSIS**
- **CHOKING**
- **COUGHING**
- **LABORED BREATHING**
- **BEHAVIOR SIMILAR TO INTOXICATION**
- **CHEST PAINS**
- **COLLAPSE LEADING TO UNCONSCIOUSNESS**
- **SKIN RASHES**

**** MAINTAIN AN OPEN AIRWAY***

**** ADMINISTER HIGHEST POSSIBLE CONCENTRATION OF OXYGEN BY NONREBREATHER MASK***

**** TRANSPORT DIRECTLY TO HYPERBARIC CHAMBER WHEN AVAILABLE***

**** KEEP PATIENT WARM***

**** TRANSPORT ON SIDE IF UNCONSCIOUS***

INTERVENTIONS 18

EMOTIONAL, PSYCHIATRIC, AGGRESSIVE AND POTENTIAL OR ATTEMPTED SUICIDE EMERGENCIES

**** SCENE SIZE-UP***

SCENE IS NOT SAFE

**** RETREAT***

**** SUMMON POLICE***

**** WAIT FOR HELP***

SCENE IS SAFE

**** ASSESS FOR AND TREAT LIFE-THREATENING CONDITIONS***

**** PERFORM FOCUSED HISTORY***

**** BE ALERT FOR MEDICAL EMERGENCIES***

**** PERFORM DETAILED PHYSICAL EXAM ONLY IF SCENE IS SAFE AND INJURY IS SUSPECTED***

**** PERFORM ONGOING ASSESSMENT***

**** WATCH FOR SUDDEN CHANGES IN BEHAVIOR/PHYSICAL CONDITION***

**** NOTIFY RECEIVING HOSPITAL OF PATIENT STATUS***

CAUTION:

- DO NOT ISOLATE YOURSELF FROM YOUR PARTNER OR OTHER SOURCES OF HELP
- DO NOT TAKE ACTIONS THAT MAY BE PERCEIVED AS THREATENING TO THE PATIENT
- WATCH FOR WEAPONS
- BE ALERT FOR SUDDEN CHANGES IN PATIENT BEHAVIOR

INTERVENTIONS 19

EXTERNAL BLEEDING

**** TAKE BODY SUBSTANCE ISOLATION PRECAUTIONS***

**** CARE FOR AIRWAY, BREATHING, AND CIRCULATION***

**** APPLY DIRECT PRESSURE***

**** ELEVATION***

**** DRESSING/BANDAGE***

**** ARTERIAL PRESSURE POINT***

**** TOURNIQUET -- LAST RESORT AFTER ALL OTHER ATTEMPTS HAVE FAILED***

INTERVENTIONS 20

INTERNAL BLEEDING

**** MAINTAIN AIRWAY, BREATHING AND CIRCULATION***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** CONTROL ANY EXTERNAL BLEEDING***

**** TRANSPORT TO EMERGENCY DEPARTMENT PROMPTLY***

INTERVENTIONS 21

SHOCK

**** MAINTAIN AIRWAY***

**** PROVIDE ASSISTED VENTILATIONS WITH SUPPLEMENTAL OXYGEN AS APPROPRIATE***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** CONTROL ANY EXTERNAL BLEEDING***

**** SPLINT BONE AND JOINT INJURIES***

CLINICAL NOTE: DO NOT DELAY TRANSPORT TO SPLINT BONE AND JOINT INJURIES

**** ELEVATE LEGS 8-12 INCHES***

CLINICAL NOTE: ELEVATION CONTRAINDICATED IF:
- PASG IS USED
- SIGNS OF INJURY TO LEGS, HIPS, OR PELVIS
- SIGNS OF SPINAL INJURY
- SIGNS OF CHEST OR ABDOMINAL INJURY

**** KEEP PATIENT WARM***

**** TRANSPORT IMMEDIATELY***

CLINICAL NOTE: USE OF PASG RESTRICTED BY MEDICAL DIRECTOR APPROVAL ONLY

CLINICAL NOTE: IF SPINAL INJURY IS SUSPECTED, IMMOBILIZE PATIENT ON SPINE BOARD BEFORE TRANSPORT

INTERVENTIONS 22

OPEN NECK WOUND

**** ASSURE OPEN AIRWAY***

**** PLACE GLOVED HAND OVER WOUND***

**** APPLY OCCLUSIVE DRESSING TO WOUND***

CLINICAL NOTE: OCCLUSIVE DRESSING SHOULD BE A THICK MATERIAL AND SHOULD EXTEND TWO INCHES PAST THE SIDES OF THE WOUND

**** APPLY A DRESSING OVER THE OCCLUSIVE DRESSING***

**** APPLY PRESSURE AS APPROPRIATE TO STOP BLEEDING***

ALERT: DO NOT APPLY PRESSURE TO BOTH CAROTID ARTERIES AT THE SAME TIME

**** BANDAGE DRESSING IN PLACE ONCE BLEEDING HAS STOPPED***

ALERT: DO NOT RESTRICT THE AIRWAY OR THE NECK ARTERIES AND VEINS

**** IMMOBILIZE C-SPINE IF INJURY IS SUSPECTED***

INTERVENTIONS 23

OPEN CHEST WOUND

**** MAINTAIN OPEN AIRWAY***

**** PERFORM CPR/AED AS APPROPRIATE***

**** SEAL OPEN CHEST WOUND***

ALERT: DO NOT HESITATE -- USE GLOVED HAND OR ANY OTHER OCCLUSIVE DEVICE IF NECESSARY

**** APPLY OCCLUSIVE DRESSING***

CLINICAL NOTE: OCCLUSIVE DRESSING SHOULD BE A THICK MATERIAL THAT EXTENDS TWO INCHES PAST THE EDGES OF THE WOUND

**** ASSESS FOR AND SEAL EXIT WOUND***

**** APPLY HIGH CONCENTRATION OXYGEN***

**** CARE FOR SHOCK***

**** TRANSPORT ON INJURED SIDE UNLESS CONTRAINDICATED BY OTHER INJURIES***

INTERVENTIONS 24

BURNS

**** STOP THE BURNING PROCESS***

**** ENSURE AND MAINTAIN OPEN AIRWAY***

**** COMPLETE INITIAL ASSESSMENT***

**** TREAT FOR SHOCK***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** REMOVE CLOTHING AND JEWELRY***

ALERT: DO NOT TEAR CLOTHING OR OTHER ITEMS AWAY THAT ARE ADHERED TO THE PATIENT'S SKIN -- CUT AROUND THIS PORTION

**** COVER WITH DRY STERILE DRESSING***

CLINICAL NOTE: FINGERS AND TOES:
- REMOVE RINGS AND JEWELRY
- SEPARATE DIGITS WITH STERILE GAUZE PADS

EYES:
- THERMAL -- APPLY STERILE PADS TO BOTH EYES
- CHEMICAL -- FLUSH EYES FOR 20 MINUTES DURING TRANSPORT

*** TRANSPORT**

INTERVENTIONS 25

ELECTRICAL INJURIES

**** ESTABLISH A SAFE ZONE***

**** ESTABLISH AND MAINTAIN OPEN AIRWAY***

**** PROVIDE CPR/AED AS APPROPRIATE***

**** CARE FOR SHOCK***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** CARE FOR HEAD, SPINAL, AND SEVERE MUSCULOSKELETAL INJURIES***

**** EVALUATE ELECTRICAL BURNS [LOOK FOR A MINIMUM OF TWO BURN SITES]***

**** COOL BURN AREAS AND SMOLDERING CLOTHING***

**** APPLY DRY STERILE DRESSING TO BURNS***

**** TRANSPORT ASAP***

CLINICAL ALERT: MAINTAIN A HIGH LEVEL OF CAUTION FOR CARDIAC AND RESPIRATORY PROBLEMS DURING TRANSPORT

INTERVENTIONS 26

CHEST INJURY COMPLICATIONS

SIGNS AND SYMPTOMS TO LOOK FOR FOLLOWING CHEST INJURY:

- GASPING FOR BREATH
- SUCKING WOUNDS
- DISTENDED NECK VEINS
- CYANOSIS
- TONGUE AND LIPS SWOLLEN/CYANOTIC
- CHEST DEFORMITY
- STEADILY DECREASING PULSE PRESSURE

**** MAINTAIN OPEN AIRWAY***

**** APPLY APPROPRIATE DRESSING***

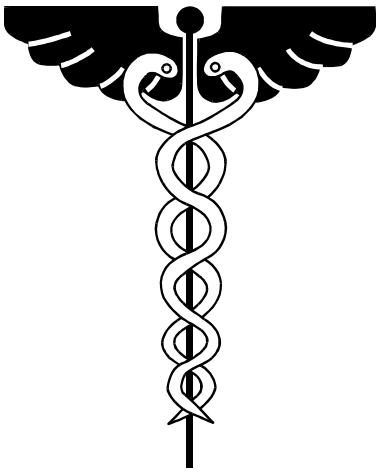
**** APPLY BULKY DRESSING, SANDBAG, OR OTHER APPROPRIATE DEVICE FOR A FLAIL SEGMENT***

**** CARE FOR SHOCK***

**** TRANSPORT ASAP***

SECTION V

MUSCULOSKELETAL EMERGENCIES



1. **MUSCULOSKELETAL INJURIES**
2. **HIP DISLOCATION**
3. **PELVIC INJURY**
4. **SKULL FRACTURE AND BRAIN INJURY**
5. **SPINAL INJURY**

MUSCULOSKELETAL EMERGENCIES 1

MUSCULOSKELETAL INJURIES

**** MANUALLY STABILIZE THE HEAD***

**** PERFORM INITIAL ASSESSMENT***

**** TREAT ALL LIFE-THREATENING CONDITIONS***

**** SPLINT ALL PAINFUL, SWOLLEN, DEFORMED EXTREMITIES***

CLINICAL NOTE: PRIORITY:

- LOW PRIORITY [STABLE] PATIENT
-- SPLINT INDIVIDUAL INJURIES
-- TRANSPORT

- HIGH PRIORITY [UNSTABLE] PATIENT
-- IMMOBILIZE WHOLE BODY ON LONG SPINE BOARD
-- LOAD AND GO

MUSCULOSKELETAL EMERGENCIES 2

HIP DISLOCATION

**** CHECK FOR DISTAL MOTOR, SENSORY, AND CIRCULATION***

**** IMMOBILIZE ON LONG SPINE BOARD***

ALERT: IF SCOOP STRETCHER IS USED, THE HIP MUST BE IMMOBILIZED

**** REASSESS DISTAL MOTOR, SENSORY, AND CIRCULATION***

CLINICAL NOTE: IF THERE IS A PULSE OR SENSORY OR MOTOR PROBLEM, NOTIFY MEDICAL DIRECTOR AND TRANSPORT IMMEDIATELY

**** CARE FOR SHOCK***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** TRANSPORT CAREFULLY***

MUSCULOSKELETAL EMERGENCIES 3

PELVIC INJURY

**** DETERMINE DISTAL MOTOR, SENSORY, AND CIRCULATION***

**** STRAIGHTEN LOWER LIMBS***

CLINICAL NOTE: CONTRAINDICATIONS FOR MOVING LOWER LIMBS:
- INJURY TO LOWER LIMBS
- RESISTANCE MET
- EXCESSIVE

**** STABILIZE LOWER LIMBS***

**** IMMOBILIZE PATIENT ON LONG SPINE BOARD***

**** REASSESS DISTAL MOTOR, SENSORY, AND CIRCULATION***

ALERT: IF DISTAL MOTOR, SENSORY, AND CIRCULATION ARE COMPROMISED -- CONTACT MEDICAL DIRECTOR AND TRANSPORT IMMEDIATELY

**** CARE FOR SHOCK***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** TRANSPORT***

MUSCULOSKELETAL EMERGENCIES 4

SKULL FRACTURE AND BRAIN INJURY

**** OPEN AND MAINTAIN AIRWAY***

**** INSERT ORO- OR NASO- PHARYNGEAL AIRWAY AS APPROPRIATE***

**** MONITOR FOR CHANGES IN BREATHING***

**** APPLY RIGID COLLAR***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

SIGNS OF BRAIN INJURY: HYPERVENTILATE PATIENT WITH POSITIVE-PRESSURE VENTILATION DEVICE WITH SUPPLEMENTAL OXYGEN

**** CONTROL BLEEDING AND TREAT WOUNDS***

**** MANAGE SHOCK EVEN IF ASYMPTOMATIC***

**** MONITOR VITAL SIGNS EVERY FIVE MINUTES***

**** TRANSPORT PATIENT ON LONG SPINE BOARD***

CLINICAL NOTE: TRANSPORT THE UNCONSCIOUS PATIENT ON LONG SPINE BOARD TURNED ON SIDE TO AVOID ASPIRATION IF APPROPRIATE -- REMAIN ALERT FOR VOMITING

MUSCULOSKELETAL EMERGENCIES 5

SPINAL INJURY

**** MANUAL INLINE STABILIZATION OF THE HEAD AND NECK***

**** ASSESS AIRWAY, BREATHING, AND CIRCULATION***

**** ASSESS HEAD AND NECK DURING FOCUSED TRAUMA EXAMINATION***

**** APPLY RIGID COLLAR***

**** ASSESS DISTAL MOTOR, SENSORY, AND CIRCULATION IN ALL EXTREMITIES***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** IMMOBILIZE PATIENT ON LONG SPINE BOARD***

**** REASSESS DISTAL MOTOR, SENSORY, AND CIRCULATION***

**** LOAD AND TRANSPORT***

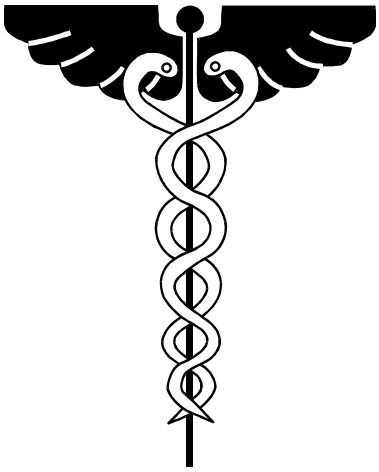
ALERT:

IT IS IMPORTANT THAT THE EMT IS AWARE OF THE FOLLOWING PROCEDURES:

1. **HELMET REMOVAL**
2. **LOW PRIORITY EXTRICATION**
3. **HIGH PRIORITY EXTRICATION**
4. **RAPID TAKEDOWN OF A STANDING PATIENT**
5. **FOUR-PERSON LOG-ROLL**
6. **IMMOBILIZATION OF A CHILD IN A CHILD SAFETY SEAT**
7. **RAPID EXTRICATION FROM A CHILD SAFETY SEAT**

SECTION VI

EMERGENCY CHILDBIRTH



1. **INITIAL ASSESSMENT FOR IMPENDING CHILDBIRTH**
2. **PREPARE THE MOTHER FOR DELIVERY**
   - **-- NORMAL DELIVERY**
   - **-- PREMATURE DELIVERY**
3. **CHILDBIRTH COMPLICATIONS AND ABNORMAL DELIVERIES**
   - **-- BREECH PRESENTATION**
   - **-- LIMB PRESENTATION**
   - **-- PROLAPSED UMBILICAL CORD**
4. **CHILDBIRTH COMPLICATIONS AND PREDELIVERY EMERGENCIES**
   - **A. EXCESSIVE PREBIRTH BLEEDING**
   - **B. SEIZURE ACTIVITY**
   - **C. MISCARRIAGE AND ABORTION**

EMERGENCY CHILDBIRTH 1

INITIAL ASSESSMENT FOR IMPENDING CHILDBIRTH

**** EVALUATE MOTHER***

**** OBTAIN AGE OF MOTHER AND EXPECTED DUE DATE***

**** ASK IF THIS IS HER FIRST PREGNANCY***

**** ASK HOW LONG LABOR PAINS HAVE CONTINUED***

**** ASK IF HER BAG OF WATERS HAS BROKEN***

**** ASK IF SHE HAS THE URGE TO MOVE HER BOWELS***

**** EXAMINE FOR CROWNING***

**** PALPATE FOR UTERINE CONTRACTIONS***

**** TAKE VITAL SIGNS***

EMERGENCY CHILDBIRTH 2

PREPARE THE MOTHER FOR DELIVERY

NORMAL DELIVERY

**** MAINTAIN SOMEONE AT MOTHER'S HEAD TO PROVIDE SUPPORT***

**** EXAMINE VAGINA FROM CROWNING***

IF BABY'S HEAD IS VISIBLE

**** PLACE GLOVED HAND AT VAGINAL OPENING***

**** SUPPORT BABY'S HEAD AS IT DELIVERS***

IF THE AMNIOTIC SAC IS STILL INTACT

**** PUNCTURE MEMBRANE WITH GLOVED FINGER***

IF THE UMBILICAL CORD IS WRAPPED AROUND BABY'S NECK

**** CAREFULLY REMOVE CORD OR CLAMP IN TWO PLACES AND CUT BETWEEN CLAMPS***

**** SUCTION BABY'S MOUTH AND NOSE***

**** AID IN BIRTH OF UPPER SHOULDER***

**** SUPPORT TRUNK***

**** SUPPORT THE FEET***

**** MAINTAIN BABY IN A POSITION TO FACILITATE DRAINAGE***
-- SIDE-LYING WITH FEET SLIGHTLY ELEVATED

**** RECORD EXACT TIME OF BIRTH***

PREMATURE BIRTH

**** FOLLOW PROCEDURES ABOVE FOR NORMAL CHILDBIRTH***

**** KEEP BABY WARM***

**** KEEP AIRWAY CLEAR***

**** PROVIDE VENTILATIONS/CHEST COMPRESSIONS AS NEEDED***

**** WATCH UMBILICAL CORD FOR BLEEDING***

CHILDBIRTH COMPLICATIONS
ABNORMAL DELIVERIES

BREECH PRESENTATION

**** INITIATE RAPID TRANSPORT***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** PLACE MOTHER IN HEAD-DOWN POSITION WITH PELVIS ELEVATED***

**** IF BABY DELIVERS, SUPPORT BABY - PREVENT EXPLOSIVE DELIVERY***
- CARE FOR BABY, CORD, AND MOTHER

LIMB PRESENTATION

**** INITIATE RAPID TRANSPORT***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** PLACE MOTHER IN HEAD-DOWN POSITION WITH PELVIS ELEVATED***

**** IF BABY DELIVERS, SUPPORT BABY - PREVENT EXPLOSIVE DELIVERY***
-- CARE FOR BABY, CORD, AND MOTHER

PROLAPSED UMBILICAL CORD

**** INITIATE RAPID TRANSPORT***

**** POSITION MOTHER WITH HEAD DOWN - BUTTOCKS ELEVATED ON A PILLOW OR BLANKET***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** CHECK CORD FOR PULSES***

**** WRAP EXPOSED CORD IN SALINE-MOISTENED STERILE TOWEL***

**** INSERT GLOVED FINGER INTO VAGINA***
- GENTLY PUSH UP ON BABY'S HEAD OR BUTTOCKS TO RELIEVE PRESSURE FROM CORD

PREDELIVERY EMERGENCIES

EXCESSIVE PREBIRTH BLEEDING

**** ASSESS FOR AND TREAT FOR SHOCK***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** INITIATE RAPID TRANSPORT***

**** PLACE SANITARY NAPKIN OVER VAGINA -- DO NOT PACK VAGINA***

**** SAVE ALL TISSUE THAT MAY BE PASSED***

SEIZURE ACTIVITY

**** ASSURE AND MAINTAIN AIRWAY***

**** ADMINISTER HIGH CONCENTRATION OXYGEN***

**** POSITION PATIENT ON LEFT SIDE***

**** MAINTAIN BODY HEAT -- AVOID OVERHEATING***

**** HAVE SUCTION AND DELIVERY KIT AVAILABLE AT ALL TIMES***

MISCARRIAGE AND ABORTION

**** OBTAIN BASELINE VITAL SIGNS***

**** ASSESS FOR AND TREAT FOR SHOCK***

**** PROVIDE HIGH CONCENTRATION OXYGEN***

**** PLACE SANITARY NAPKIN OVER VAGINA -- NEVER PACK VAGINA***

**** SAVE ALL BLOOD SOAKED PADS***

**** SAVE ANY TISSUE THAT MAY BE PASSED***

**** TRANSPORT ASAP***

**** PROVIDE EMOTIONAL SUPPORT***