SECTION II

2015

First Aid

REDLINE RULES

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2015 FIRST AID CONTEST RULES

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Section II

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RULES GOVERNING THE 2015 NATIONAL FIRST AID CONTEST

First Aid rules were designed as a training tool for first aid teams. They were developed for contest purposes only. Discretion should be used in actual mine emergency situations.

1. Members of First Aid Teams must be bona fide employees of the mining industry. Teams shall furnish their own recording manikin, and all other materials listed in C Miscellaneous.

2. A team shall consist of two members and a patient. A team shall not use the same patient for multiple teams. Bystander(s) may only assist in supporting, lifting, or moving the patient. If the problem requires a bystander(s), they will be provided. Bystander(s) will be positioned at the field and will be identified as a bystander with labels or name tags and Body Substance Isolation BSI precautions will be in place. If a patient is used as a bystander teams must provide BSI precautions prior to patient contact. Each team shall work ~~one skill station problem and~~ one first aid problem and the score shall ~~be combined to~~ determine the team's final standings. ~~The skill station problem will only utilize the following skill sheets; AED, One Person CPR (Manikin Only), Two-Rescuer CPR (No Spinal Injury-Manikin Only), Two-Rescuer CPR (With Spinal Injury – Manikin Only), Mouth-to-Mask Resuscitation (Manikin Only), Air-Way Obstruction (Unconscious Victim-Witnessed.)~~

3. Each team entering the contest will draw a number to determine the order of the performance at the time of registration. ~~With the exception of the recording manikin, teams will not be allowed to share equipment. Teams sharing recording manikins must notify the registrar upon registration, so that these teams will not be working at the same time and enough time is allowed for inspection of equipment prior to second team using the equipment.~~

4. Each participating team must be under guard before the start of the contest. Any team or team member receiving information concerning a contest problem prior to arriving at the working area will, be disqualified by the Chief Judge and Director.

5. No practicing will be allowed on the field before the beginning of the Contest. No reference books or training material will be permitted in the working area during the working or reading of the problems.

6. Only designated officials will be allowed to communicate with teams while teams are working.

7. All Procedures shall be performed in the order listed: Skill sheets supersede First Aid Rules which supersede Brady First Responder ninth Edition by Bergeron and Le Baudour.

8. Contest officials will designate ~~2 stations, one for skill station problem and one for first aid problem. For the working of the first aid problem~~ a space (15 feet by 15 feet - minimum) ~~will be designated~~ for teams to work. All equipment will be kept behind a baseline designated by a Contest Official. All problems will be worked in the designated area which shall contain only the judges, bystanders/patients and the contesting teams. ~~Teams will be escorted to the skill station to complete the skills problem, once completed the team will be escorted to the first aid station to complete the first aid problem.~~

9. The Timekeepers shall explain to the team the timing devices used. Judges will require a signature and team number on the sample CPR tape at the skill station. (Check shallow breaths and shallow compressions).

10. Problems will be kept in unsealed envelopes, retained by the judges, and given to the team after the timing device has been started. Judges shall place the patient in the required position as stated in the problem to be worked.

    a. The working time for a problem will start when the team starts the timing device.

    b. If props are to be utilized during the working of the problem, such props must be readily available to the working teams and in working condition. These props must be identified by the judges to the team members prior to starting the timing device and must be located within the designated working area. Props will not be utilized in lieu of first aid equipment for treatment of patient(s). Props will be limited to items related to communication and mechanism of injury for effects unless skill sheets are provided. Props shall be within the application of the skill sheets used for treatment of the injury/conditions.

    A barrier device must be used when contacting manikin. The face masks/shields may be removed when the team is required to give artificial ventilation, CPR, inflating splints, etc.

11. Injuries/conditions requiring treatment will be identified by cards, envelopes or labels attached to the patient at or as near the location of the injury as possible on the outside of the clothing, be identified by simulated wounds, or be in the reading

of the problem. Signs, symptoms or mechanisms of injury may be used. If signs and symptoms are used, all signs and symptoms shall be identified by cards, envelopes or labels placed on patient. All signs and symptoms will be given to the teams in writing. Wounds that are listed in the reading of the problem shall also be placed on patient. (Exception: If the wound is on the eyelid or an impaled object in the eye, the label will NOT be placed on the eye, but in an obvious area near the eye.)

During the initial or patient assessment, teams may find an envelope attached to the patient(s) or be provided an envelope by the judges which contains patient information that needs immediate attention. If repositioning of patient(s) is required for treatment, patient(s) must be placed in the proper position prior to treatment. Upon completion of treatment of these conditions, the initial or patient assessment will be resumed at the point where team left off. The patient(s) will already be marked upon arrival of the team.

12. Lettering on the cards and/or labels will be at least 1/4-inch in height.

Example: 2-INCH WOUND ON FOREHEAD

13. The problem will end and teams will stop the timing device when all conditions have been located, treated, and work area has been cleaned. The timekeeper/judge must time the problem in minutes and seconds and consult with the team upon completion of the problem to verify the time.

14. After stopping the timing device, team members will remain with the patient(s) until released by the judges. Any physical treatment(s) not performed, i.e. bandage, splint will be pointed out to team at this time.

15. The calculated time will be determined by Contest Officials by averaging the working time of all teams participating in the Contest (1 discount per 3 minute overtime or fraction thereof).

16. The accumulation of individual discounts within a procedure shall not exceed the discounts for failure to perform that procedure. (Example AV, CPR, etc.)

A. Written Examination

1. During isolation, contest officials will give the written exam to the two working team members. The written examination will be ten statements of fact taken verbatim from the contest rules. The answers will be multiple choice with four choices. Team members will select A, B, C, or D by circling the complete answer.

   Example:

   1. As a member of the EMS team, your primary role is one of:

      a. Patient care.
      b. Safety.
      c. Transport.
      d. Documentation.

   A maximum of fifteen minutes will be allowed for the team members to take the test.

2. Team members taking the written examination will not be permitted to take any written material or information into the testing area.

3. There will be no discussion during the time that written examinations are being taken.

B. Ties

In the event of ties in the contest, Scorecard A (First Aid Procedures and Critical Skills) discounts will be the first tie breaker, Scorecard B (AV/CPR) discounts will be the second tie breaker, written exam will be the third tie breaker and actual working time, in minutes and seconds, of the team will be the fourth tie breaker.

C. Miscellaneous

Teams will be notified by posting when they may review their score cards. Within one hour of posting, team members and trainer shall report to a designated location. Once notified, team members and the trainer shall have 20 minutes for reviewing ~~each~~ the problem, the judge's skill sheets and scorecards to prepare any protest. All protests shall be in writing and shall state the discount in question, the scorecard involved, and their reference proof in the rule book or Brady book to support their protest or the protest will not be considered. All protests will be considered by the Final Appeals Committee. A decision by the Final Appeals Committee is binding and final. Protest sheets will be furnished to the teams by the Judges for the recording of rules infractions or discounts assessed to teams. Judges shall remain available until released.

MATERIALS LIST

Participants will be required to furnish their own materials. Teams must provide the minimum equipment. Listed below is the minimum equipment required. Problems will be designed utilizing no more than the minimum material list. For contest purposes, all bandaging materials will be considered sterile.

24 Triangular Bandages
6 Adhesive compresses
24 Sterile gauze, (4"x4") and/or 4" Compresses
6 Roller Bandages
3 Blankets
1 Scissors, EMT Utility
6 Pairs of Examination Gloves
2 Mask/face shields or masks and goggles combination meeting blood borne pathogen requirements
2 Heat Pack - Simulated
4 Cold packs - Simulated
2 Oval Eye Pads
1 Pen and paper set
1 Elevating device
1 Recording manikin
2 Barrier devices with one-way valve for performing AV/CPR
1 White bag (i.e. plastic garbage bag)
1 Compliment of splints (may be pre-padded but not assembled)
1 Long back board with straps (Aluminum, Wood, etc.)
2 Air splints (1 full arm and 1 full leg)
1 Packet Sugar/Tube Instant Glucose (for Diabetic Purposes)
1 Adhesive Tape
1 Burn Sheet, Sterile (40" x 80" minimum)
1 Rigid Extrication Collar
4 Trauma Dressings (minimum of 10" X 30")
1 Eye Shield/Cup
1 Pen Light
4 Tourniquets
2 Towels
1 Pillow
4 Occlusive Dressing
2 Sticks, Wooden Dowels or equivalent
1 Watch/Timing Device
1 Headset (long spine board)
1 500 ml sterile water

Compliment of Straps for Long Spine Board (buckle straps, spider straps, etc.)
Automated External Defibrillator Training Unit

Problem~~s~~ will be designed from the Skill Sheets approved by the Rules Committee. Teams will be required to triage the accident scene ~~(first aid problem)~~. Problem~~s~~ may have up to three patients at the scene.

Manikins will be furnished by teams for performing procedures and critical skills pertaining to all ventilation problems, cardiac arrest problems. Signal boxes on manikins will be covered or positioned so that indicators will not be visible to the team. NOTE: Live patients will **not** be used in any CPR or ventilation problems.

Under no circumstances will videotape recordings or photos be introduced as supplementary material for consideration of the appeal.

Guidelines for skills sheet discounts:

1. The team is required to call for help/call 911, once during the working of the problem. This statement must be made prior to starting triage.

2. Each critical skill identified with an asterisk (*) shall be clearly verbalized by the team as it is being conducted.

3. After initially stating what DOTS stands for; Deformities, Open Wounds, Tenderness, and Swelling, the team may simple state "DOTS" when making their checks.

4. After initially stating what CSM stands for; Circulation, Sensation and Motor Function, the team may simple state "CSM" when making their checks.

5. After initially stating what AVPU stands for; Alert, Verbal, Painful, Unresponsive, the team may simply state "AVPU" when making their checks.

6. If an injury requires a back board, the team may continue to the next area to be treated once all injuries not requiring the backboard have been treated or treatment started.

7. The collar for a skull fracture and/or brain injuries, will be applied after the neck has been examined and treatment completed if required.

8. Except for slings required for treatment for fractures or dislocation, slings may be applied anytime during the working of the problem prior to stopping clock. (This

includes slings for fractured ribs). Factory or Triangular slings may be used. No sling required when using a full arm splint, arm should be secured to the body.

9. For injuries requiring splinting, any acceptable splint may be used. Factory splints, wooden splints, air splints, sam splints, etc.

10. Prior to stopping the clock, the team must reassess the patient's level of consciousness, respiratory status and patient response.

11. Teams must make statement to judge, "Removing clothing; exposing and cleaning wound surface(s)". This statement is only required to be made once during the working of the problem, prior to treating first wound.

Table 26.2 – Start Triage System				
	IMMEDIATE	**DELAYED**	**MINOR**	**DECEASED**
Respirations	**>30 per minute**	**<30 per minute**	**<30 per minute**	**Absent**
Perfusion	**Capillary refill >2 seconds or radial pulse absent**	**Capillary refill <2 seconds or radial pulse present**	**Capillary refill <2 seconds or radial pulse present**	**Absent**
Mental Status	**Unable to follow commands**	**Able to follow commands**	**Able to follow commands**	**Absent**

Table Reference: Emergency Medical Responder, ninth edition by Le Baudour and Bergeron

SCORECARD A DISCOUNTS

1. Violations of general rules not covered on scorecards. ___5 each infraction

2. All life-threatening conditions shall be located and started before patient assessment can begin. ___ 20

   Life threatening conditions will be considered a patient having any one or more of the following conditions: breathing difficulties, no pulse, spinal injury, skull fracture, a sucking chest wound or life threatening bleeding)

   Patient assessment can begin after all life-threatening conditions have been located and treatment started. Environmental and Medical Emergencies can be treated anytime during the working of the problem after initial assessment.

3. When the team encounters life-threatening bleeding, no work other than controlling bleeding shall be done until bleeding is controlled. Bleeding is controlled when notified by the Judge (judge makes a statement that bleeding is controlled). If treatment has been started and one team member can complete that treatment, the other team member may continue to work. ___10 each infraction

4. During the course of the problem, teams may encounter a card, envelope or label stating various conditions. Upon completion of treatment of these conditions, resume patient assessment at the point where team left off._____5 each infraction

5. Patient cannot talk, direct, or assist unless stated in the problem. (Reactionary or unintentional movements by the patient should not be discounted) ____ 5 each infraction

6. The bystander/patient must be shown the correct method of support. ____ 2

   The bystander must be shown the correct method of support and maintaining the open airway by a team member or members any time during the working of the problem, but before taking support.

7. No practicing will be allowed on the field before the beginning of the Contest. No reference books or training material will be permitted in the working area during the working or reading of the problems. _____ 5

8. All team members and patient shall be dressed similarly. Shoes need not be identical. The patient may wear shorts even if the team members are wearing pants. The pants and shorts shall be the same color. ____ 1

9. The team's material and equipment (jump kits, splints, etc.) may not be assembled or donned (excluding BSI) until after the timing device is started. ~~(First Aid Problem)~~ The manikin may be placed in the designated area prior to starting the timing device. ~~(Skill Station Problem)~~ ___ 5

10. Handling of a patient by a team or team member in such a manner that could compromise condition of the patient. (Examples: Mishandling extremities, stepping across patient, etc.) (Straddling is only acceptable for patient loading.) ____5 each infraction

11. All injuries and/or conditions shall be treated (example: wound, fracture, frostbite). ____20 each infraction

12. Preassembly of material.____5

13. Failure to perform a required critical skill. Each CRITICAL SKILL shall be performed as identified on the skill sheets. ____2 each infraction

14. During patient assessment, failure to verbally state the location physically examined and each condition found. ____1 each infraction

15. Working out of order (assessment, procedure, critical skill). ____2

Delayed

Teams will systematically conduct the patient assessment according to procedures of the patient assessment skill sheet. Each area of the body shall be examined in its entirety prior to treating injuries in that area (except taking support). All injuries must be treated on the area being examined prior to moving to the next area to be examined. The sling for fractured ribs may be applied after upper extremity has been surveyed/treated. If treatment has been started and can be completed by one team member (except injuries requiring a backboard), the other team member may continue the examination to the next area and begin treatment. (Systemically, legs are treated before the arms.)

Immediate

Teams will systematically conduct initial assessment, treating all life-threatening injuries/conditions. When one or more of the conditions listed in rule 26 is encountered the team will perform a rapid patient assessment according to the

patient assessment skill sheet. To perform a rapid patient assessment, teams will examine each area of the body in its entirety, verbalizing critical skills and injuries/conditions found. No treatment is required for non life-threatening conditions/injuries found during the rapid patient assessment. If transportation is delayed patient treatment will continue until transportation is available. Patient is then prepared for transport and/or transported as required by written problem. To prepare for transportation, a team will be required to properly place and secure a patient on a backboard as outlined in the skill sheets, cover with a blanket and lift patient from the floor. After the patient has been lifted from the floor, the team will verbalize – "transporting patient".

16. Failure to follow written instructions.____5

17. Teams shall not pad around the head and neck of the patient, for a suspected spinal injury, before the patient is placed onto the backboard. ____ 1

~~17. Teams shall tuck the tails of bandages. ____1 (discount only one (1) point when three or more tails of bandages are not tucked)~~

18. All material shall be placed behind baseline prior to stopping the timing device. After completing the problem the work area shall be cleaned of ALL material, including the infectious waste, which shall be placed in a white trash bag provided by the team. When all materials have been placed behind baseline, a team member shall stop the timing device. The judges and First Aid team will verify the working time upon completion of the problem. ____1

19. Protective equipment must be donned prior to patient(s) contact (gloves, masks, and eye protection - eyeglasses are acceptable). Only BSI may be donned prior to starting the timing device. ____5 each infraction

20. Gloves shall be changed if there would be contamination because of a glove tear or due to other contamination (such as contacting multiple patients.)____2 each infraction

21. The broken-back board splint may be preassembled and padded. Other splints may be pre-padded but not assembled. (Cravat bandages cannot be preassembled on the back board, except for tying padding.) ____5

22. Failure to take support of a fracture or dislocation (not supporting fracture or dislocation)._____10

- Support of Extremities – Above and below the fracture or dislocation
- Support of Hip – Both sides of the fracture or dislocation

- Support for spinal injury – Stabilization of neck/Modified Jaw Trust
- Support for skull fracture – Stabilization of neck/Modified Jaw Trust
- No support for fractured ribs,
- No support of fractures/dislocations of nose, jaw, fingers, and toes

23. Support of fractures and/or dislocations shall not be broken or released. __5__

    When changing support, if support is broken, this discount applies. Change of support can be done as many times as the team desires provided the support is not broken.

    Support for upper extremity fractures/dislocations shall be maintained until the sling and swathe ~~is~~are completed. Discount if support of fracture and/or dislocation is released by support person before sling is completed.

    Sling and swath not required with air splints.

24. Fractures/dislocations shall be supported prior to bandaging injuries. Once the extremity has been assessed, fractures/dislocations must be supported prior to bandaging injuries on the extremity. ____5

    During initial and patient assessment, teams must physically support/stabilize fractures and dislocations that require support as they are found. When the fracture/dislocation is on an extremity and support has been taken, the team must complete the examination on the extremity treating other injures prior to splinting the fracture/dislocation.

25. Not applying sling for upper extremity wound. __1__

    Triangular slings are required for all wounds of upper extremities, including shoulder and armpit wounds. Slings will not be required for upper extremity burns/deep cold injuries. However, if a burn/deep cold injury and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied.

26. Failure to determine immediate patients._____10

    An immediate patient shall be transported immediately. This presents a load and go situation.

    Immediate conditions are:
    - Respirations: >30 respirations per minute
    - Perfusion: Capillary refill > 2 seconds or radial pulse absent

- Mental Status: Unable to follow commands. Any one or more of the above conditions must be clearly visible on the patients.

27. Failure to start timing device. __ 2 discounts

28. Each incorrect answer on written examination __1 discount

INTERPRETATIONS OF SCORECARD B
ARTIFICIAL VENTILATION/CARDIOPULMONARY RESUSCITATION

1. Failure to determine unresponsiveness (according to Critical Skill Sheet). ____1

2. Failure to call for help. ____1

3. Failure to open airway. ____1

4. Failure to use proper maneuver to open airway (using head-tilt/chin-lift maneuver when jaw-thrust should be used, vice versa). ____1

5. Failure to assess breathlessness within 10 seconds. ____1

6. Failure to use one-way valve barrier device when ventilating manikin. ____1

7. Failure to state "get AED". ____1

8. Failure to use mouth-to-nose ventilation when required. ____1

9. Failure to keep body and head in line, if spinal injury exists. ____1

10. Failure to use tongue jaw lift, cross-finger technique, or finger sweep when required.____1

11. Failure to reposition head when airway obstruction is suspected. ____1

12. Failure to give chest compressions when required. (airway obstruction skill sheet) _____1

13. Failure to check pulse prior to giving compressions. ____1

14. Failure to assess pulse for 5-10 seconds. ____1

15. Failure to correctly locate the carotid pulse. ____1

16. Failure to verbalize absence of pulse. ____1

Cardiopulmonary Resuscitation

1. Failure to give AV/CPR when required. ___20
   (Maximum of 3 sets AV/CPR or combination thereof)

2. Failure to locate landmark for giving compressions. ___1

3. Failure to make parallel axis with heels of hands. ___1

4. Allowing fingers to rest on chest. ___1

5. Compressions. Discounts shall apply to each set.

   a) Timing. 30 compressions shall be delivered within 18 seconds. ___1

   b) Depth. Compression depth shall break the first line for 60-80 pounds pressure. Over compressions shall not be discounted. ___1

   c) Number required. A total of 30 compressions shall be made each cycle.__1

   d) Release of upstroke. The release line shall be straight. ___1

   e) Rate. Compressions shall be made at the rate of (at least) 100 per minute.__1

6. Failure to maintain hand contact with manikin when releasing pressure during compressions. ___1 (This does not apply between cycles).

7. Failure to give 2 breaths between each cycle of compressions. ___1

   a. Timing (not completing breaths and returning to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.) ___1

   b. Volume shall be at least .8 liters (through .7 liter line on new manikins). Over inflation shall not be discounted. ___1

8. Failure to give 5 cycles of 30 compressions and 2 breaths for each set of CPR (point of first down stroke to peak of last breath). (A cycle is 30 compressions and two (2) ventilations. A set is 5 cycles.) ___1

9. Failure to assess pulse within 10 seconds after each set of CPR. ___1 (one discount per set)

10. Failure to give 30 chest compressions when airway obstruction is suspected.____1

11. Failure to perform CPR as stated in the problem. Too many or too few compressions can be detrimental to patient. _____1

12. Failure for the number of Rescuer/Rescuers to perform CPR as stated in the problem. Team performing One-Person CPR when Two-Person CPR is required and vice versa. ____ 3 (When problem states "Two-Rescuer CPR", two people are required to perform CPR as listed in Two-Rescuer CPR skill sheets.)

13. Failure to begin with compressions after pulse check is completed or when changing rescuers. ____1

14. Failure of rescuers to change positions in 5 seconds or less when performing two-person CPR. ____1

15. Failure of rescuer to state that patient has a pulse when CPR is completed. ____1

Artificial Ventilation

1. Failure to give artificial ventilation. _____ 20
(Maximum of 3 sets AV/CPR or combination thereof)

2. Failure to give 10-12 breaths in each 58-62-second period. ____1
(1 minute of AV = 1 set)

3. Failure to provide a breath volume of at least .8 liters (through .7 liter line on new manikins). Over inflation shall not be discounted. _____ 1

4. Failure of rescuer to check for return of breathing and pulse when artificial ventilation is completed. _____1

5. Failure of rescuer to state that patient is breathing and has a pulse when artificial ventilation is completed. ____1

INITIAL ASSESSMENT

PROCEDURES		CRITICAL SKILL
1. SCENE SIZE UP	☐ ☐	*A. Observe area to ensure safety *B. Call for help
2. MECHANISM OF INJURY	☐ ☐ ☐	*A. Determine causes of injury, if possible *B. Triage: Immediate, Delayed, Minor or Deceased. *C. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	☐ ☐ ☐	*A. Verbalize general impression of the patient(s) *B. Determine responsiveness/level of consciousness (AVPU) Alert, Verbal, Painful, Unresponsive *C. Determine chief complaint/apparent life threat
4. ASSESS AIRWAY AND BREATHING	☐ ☐ ☐	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR CIRCULATION	☐ ☐ ☐	A. Check for presence of a carotid pulse (5-10 seconds) B. If present, control life threatening bleeding C. Start treatment for all other life threatening injuries/conditions (reference Rule 2).

IMMEDIATE: Rapid Patient Assessment treating all life threats Load and Go. If the treatment interrupts the rapid trauma assessment, the **assessment** will be completed at the end of the **treatment**.

DELAYED: Detailed Patient Assessment treating all injuries and conditions and prepare for transport.

MINOR: (Can walk) Detailed Patient Assessment treating all injuries and conditions and prepare for transport. After all IMMEDIATE and DELAYED patient(s) have been treated and transported.

DECEASED: Cover

NOTE: Each critical skill identified with an asterisk (*) shall be clearly verbalized by the team as it is being conducted. After initially stating what DOTS stands for, the team may simply state "DOTS" when making their checks.

- **Teams may use the acronym "CSM" when checking circulation, sensation, and motor function.**

PATIENT ASSESSMENT

PROCEDURES			CRITICAL SKILL
1. HEAD	☐		*A. Check head for DOTS: Deformities, Open wounds, Tenderness and Swelling
	☐		*B. Check and touch the scalp
	☐		*C. Check the face
	☐		*D. Check the ears for bleeding or clear fluids
	☐		*E. Check the eyes for any discoloration, unequal pupils, reaction to light, foreign objects and bleeding
	☐		*F. Check the nose for any bleeding or drainage
	☐		*G. Check the mouth for loose or broken teeth, foreign objects, swelling or injury of tongue, unusual breath odor and discoloration
2. NECK	☐		*A. Check the neck for DOTS
	☐		*B. Inspect for medical ID
3. CHEST	☐		*A. Check chest area for DOTS
	☐		*B. Feel chest for equal breathing movement on both sides
	☐		*C. Feel chest for inward movement in the rib areas during inhalations
4. ABDOMEN	☐		*A. Check abdomen (stomach) for DOTS
5. PELVIS	☐		*A. Check pelvis for DOTS
	☐		*B. Inspect pelvis for injury by touch (Visually inspect and verbally state inspection of crotch and buttocks areas)
6. LEGS	L	R	
	☐	☐	*A. Check each leg for DOTS
	☐	☐	B. Inspect legs for injury by touch
	☐	☐	C. Unresponsive: Check legs for paralysis (pinch inner side of leg on calf)
	☐	☐	*D. Responsive: Check legs for motion; places hand on bottom of each foot and states "Can you push against my hand?"
	☐	☐	*E. Check for medical ID bracelet

	L	R	
7. ARMS	□	□	*A. Check each arm for DOTS
	□	□	B. Inspect arms for injury by touch
	□	□	C. Unresponsive: Check arms for paralysis (pinch inner side of wrist)
	□	□	*D. Responsive: Check arms for motion (in a conscious patient; team places fingers in each hand of patient and states "Can you squeeze my fingers?"
	□	□	*E. Check for medical ID bracelet
8. BACK SURFACES	□		*A. Check back for DOTS

AUTOMATED EXTERNAL DEFIBRILLATOR

	PROCEDURES			CRITICAL SKILL
1.	RESCUER 1 – ESTABLISH UNRESPONSIVENESS~~ASSESSES~~	☐	A.	~~Check for response~~Tap or gently shake shoulders
		☐	*B.	~~Checks for no breathing or no normal breathing, only gasping (5-10 seconds)~~"Are you OK?"
			C.	Determine unconsciousness without compromising cervical spine (neck) injury
			*D.	"Call for help"
			*E.	"Get AED" (Note: If AED is used, follow local protocol)
2.	RESCUER 1 – MONITOR PATIENT FOR BREATHING~~ACTIVATE~~	☐	A.	~~Emergency response system~~Look for absence of breathing (no chest rise and fall) or gasping breaths, which are not considered adequate (within 10 seconds)
3.	RESCUER 1 – CHECK FOR CAROTID PULSE~~CHECKS FOR PULSE~~	☐	A.	~~No more than 10 seconds~~Correctly locate the carotid pulse – on the side of the rescuer, locate the patients' windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck
			B.	Check for presence of carotid pulse for 5 to 10 seconds
			*C.	Absence of pulse
4.	GIVES HIGH-QUALITY CPR	☐	A.	Correct compression hand placement
		☐	B.	Adequate Rate: At least 100/min. (i.e., delivers each set of 30 chest compressions in 18 seconds or less)
		☐	C.	Adequate Depth: Delivers compressions at least 2 inches in depth (at least 23 out of 30)
		☐	D.	Allows complete chest recoil (at least 23 out of 30)
		☐	E.	Minimizes interruptions: Gives 2 breaths with pocket mask in less than 10 seconds

5.	SECOND RESCUER ARRIVES WITH AED (DURING FIFTH SET OF COMPRESSIONS)	□	A. First rescuer continues compressions while second rescuer turns on AED and applies pads
		□	*B. RESCUERS SWITCH - First rescuer clears victim, allowing AED to analyze (Judges shall provide an envelope indicating a shockable or non-shockable rhythm)
		□	*C. If AED indicates a shockable rhythm, first rescuer clears victim again and delivers shock.
6.	RESUME HIGH-QUALITY CPR	□	A. Second rescuer gives 30 compressions immediately after shock delivery (2 cycles)
		□	B. First rescuer successfully delivers 2 breaths

ONE-PERSON CPR (MANIKIN ONLY)

PROCEDURES		CRITICAL SKILL
1. RESCUER 1 – ESTABLISH UNRESPONSIVENESS	□ □ □ □ □	A. Tap or gently shake shoulders *B. "Are you OK?" C. Determine unconsciousness without compromising cervical spine (neck) injury *D. "Call for help" *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER 1 – MONITOR PATIENT FOR BREATHING	□	A. Look for absence of breathing (no chest rise and fall) or gasping breaths, which are not considered adequate (within 10 seconds)
3. RESCUER 1 – CHECK FOR CAROTID PULSE	□ □ □	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck B. Check for presence of carotid pulse for 5 to 10 Seconds *C. Absence of pulse
4. POSITION FOR COMPRESSIONS	□ □ □ □	A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel C. Do not intentionally rest fingers on the chest D. Keep heel of your hand on chest during and between compressions
5. DELIVER CARDIAC COMPRESSION	□ □ □ □	A. Give 30 compressions B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) C. Down stroke for compression must be on or through compression line D. Return to baseline on upstroke of compression
6. ESTABLISH AIRWAY	□ □	A. Kneel at the patient's side near the head B. Correctly execute head-tilt/ chin-lift or jaw thrust maneuver depending on the presence of cervical spine injuries

7. VENTILATIONS BETWEEN COMPRESSIONS	□ □ □ □	A. Place barrier device (pocket mask / shield with one way valve) on manikin B. Give 2 breaths 1 second each C. Each breath - minimum of .8 (through .7 liter line on new manikins) D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)
8. CONTINUE CPR FOR TIME STATED IN PROBLEM	□ □ □ □ □ □	A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check for pulse, stop chest compressions for no more than 10 seconds after the first set of CPR C. Rescuer opens airway and checks for adequate breathing or coughing D. Rescuer checks for a carotid pulse E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle)
9. CHECK FOR RETURN OF PULSE	□ □	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) *B. "Patient has a pulse."

TW0-RESCUER CPR (NO SPINAL INJURY - MANIKIN ONLY)

PROCEDURES		CRITICAL SKILL
1. RESCUER 1 – ESTABLISH UNRESPONSIVENESS	□ □ □ □ □	A. Tap or gently shake shoulders *B. "Are you OK?" C. Determine unconsciousness without compromising cervical spine (neck) injury *D. "Call for help" *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER 1 – MONITOR PATIENT FOR BREATHING	□	A. Look for absence of breathing (no chest rise and fall) or gasping breaths, which are not considered adequate (within 10 seconds)
3. RESCUER 1 – CHECK FOR CAROTID PULSE	□ □ □	C. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck D. Check for presence of carotid pulse for 5 to 10 Seconds *C. Absence of pulse
4. RESCUER 2 - POSITION FOR COMPRESSIONS	□ □ □	A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel. C. Do not intentionally rest fingers on the chest. Keep heel of your hand on chest during and between compressions.
5. RESCUER 2 - DELIVER CARDIAC COMPRESSION	□ □ □ □	A. Give 30 compressions B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) C. Down stroke for compression must be on or through compression line D. Return to baseline on upstroke of compression
6. RESCUER 1 - ESTABLISH AIRWAY	□ □	A. Kneel at the patient's side near the head B. Correctly execute head-tilt/ chin-lift maneuver

7. RESCUER 1 - VENTILATIONS BETWEEN COMPRESSIONS	□ □ □ □	A. Place barrier device (pocket mask / shield with one way valve) on manikin B. Give 2 breaths 1 second each C. Each breath - minimum of .8 (through .7 liter line on new manikins) D. Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)
8. CONTINUE CPR FOR TIME STATED IN PROBLEM	□ □ □ □ □ □	A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check for pulse, stop chest compressions for no more than 10 seconds after the first set of CPR C. Rescuer at patient's head maintains airway and checks for adequate breathing or coughing D. The rescuer at the patient's head shall feel for a carotid pulse E. If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set F. A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle
9. CHANGING RESCUERS	□	A. Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in the problem. Team must switch every 5 cycles in less than 5 seconds.
10. CHECK FOR RETURN OF PULSE	□ □	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) *A. "Patient has a pulse."

TWO-RESCUER CPR (WITH SPINAL INJURY - MANIKIN ONLY)

PROCEDURES		CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	□ □ □ □ □	A. Tap or gently shake shoulders *B. "Are you OK?" C. Determine unconsciousness without compromising cervical spine (neck) injury *D. "Call for help" *E. "Get AED" (Note: If AED is used, follow local protocol)
2. RESCUER 1 - MONITOR PATIENT FOR BREATHING	□	A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. RESCUER 1 – CHECK FOR CAROTID PULSE	□ □ □	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and the muscle in the neck B. Check for presence of carotid pulse for 5 to 10 second *C. Absence of pulse
4. RESCUER 1 - POSITION FOR COMPRESSIONS	□ □ □	A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel C. Do not rest fingers on the chest Keep heel of your hand on chest during and between compressions
5. RESCUER 1 - DELIVER CARDIAC COMPRESSION	□ □ □ □	A. Give 30 compressions B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) C. Down stroke for compression must be on or through compression line D. Return to baseline on upstroke of compression
6. RESCUER 2 - ESTABLISH AIRWAY	□ □	A. Kneel at the patient's head B. Correctly execute jaw thrust maneuver

7. RESCUER 2 - VENTILATIONS BETWEEN COMPRESSIONS	□	A.	Rescuer 1 should place the barrier device (pocket mask/Shield with one way valve) on manikin (OPTION 1: When spinal injury is present, Rescuer No. 2 can hold barrier device on manikin after Rescuer No. 1 correctly places device over the mouth and nose (OPTION 2: Rescuer 1 can place the device on the manikin each time patient is ventilated
	□	B.	Rescuer 2 Gives 2 breaths 1 second each
	□	C.	Each breath - minimum of .8 (through .7 liter line on new manikins)
	□	D.	Complete breaths and return to compressions in less than 10 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)
8. CONTINUE CPR FOR TIME STATED IN PROBLEM	□	A.	Provide 5 cycles of 30 chest compressions and 2 rescue breaths
	□	B.	To check pulse, stop chest compressions for no more than 10 seconds after the first set of CPR
	□	C.	Rescuer at patient's head maintains airway and checks for adequate breathing or coughing
	□	D.	The rescuer giving compressions shall feel for a carotid pulse
	□	E.	If no signs of circulation are detected, continue chest compressions and breaths and check for signs of circulation after each set
	□	F.	A maximum of 10 seconds will be allowed to complete ventilations and required pulse checks between sets (this will be measured from the end of the last down stroke to the start of the first down stroke of the next cycle
9. CHANGING RESCUERS	□	A.	Change of rescuers shall be made in 5 seconds or less and will be completed as outlined in problem. Team must switch every 5 cycles in less than 5 seconds.
10. CHECK FOR RETURN OF PULSE	□	A.	A final pulse check will be required at the end of the last set of CPR (within 10 seconds)
	□	*B.	"Patient has a pulse."

MOUTH-TO-MASK RESUSCITATION

PROCEDURES		CRITICAL SKILL
1. ESTABLISH UNRESPONSIVENESS	□ □ □ □ □	A. Tap or gently shake shoulders *B. "Are you OK?" C. Determine unconsciousness without compromising C-spine injury *D. "Call for help" *E. "Get AED" (Note: If AED is used, follow local protocol)
2. MONITOR PATIENT FOR BREATHING	□	A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. CHECK FOR CAROTID PULSE	□ □ □	A. Correctly locate the carotid pulse (on the side of the rescuer) B. Check for presence of carotid pulse within 10 seconds *B. Presence of pulse
4. ESTABLISH AIRWAY	□	A. Correctly execute head tilt / chin lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries
5. VENTILATE PATIENT	□ □	A. Place barrier device (pocket mask/shield with one-way valve on manikin B. Ventilate patient 10 to 12 times per minute. Each ventilation will be provided at a minimum of .8 (through .7 liter line on new manikins)
6. CHECK FOR RETURN OF BREATHING AND PULSE	□ □	A. After providing the required number of breaths (outlined in problem), check for return of breathing and carotid pulse within 10 seconds *B. "Patient is breathing and has a pulse"

AIRWAY OBSTRUCTION (UNCONSCIOUS VICTIM – WITNESSED)

PROCEDURES		CRITICAL SKILL
1. INTIALLY ASSESS LEVEL OF CONSCIOUSNESS	□ □ □ □ □	A. Tap or gently shake shoulders *B. "Are you OK?" C. Determine unconsciousness without compromising C-spine injury *D. "Call for help" *E. "Get AED" (Note: If AED is used, follow local protocol)
2. MONITOR PATIENT FOR BREATHING	□	A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds)
3. PULSE CHECK	□ □ □	A. Correctly locate the carotid pulse - on the side of the rescuer, locate the patient's windpipe with your index and middle fingers and slide your fingers in the groove between the windpipe and muscle in the neck B. Check for presence of carotid pulse for 5 to 10 seconds *C. Patient has pulse
4. OPEN AIRWAY	□ □	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver depending on the presence of cervical spine (neck) injuries *B. "Look for foreign object"
5. ATTEMPT VENTILATION	□ □ □ □	A. Place barrier device on manikin B. Seal mouth and nose C. Attempt to give slow breath (1 second duration) *D. Identify if there is an obstruction
6. CHECK POSITIONING	□ □	A. Re-establish airway using correct method and procedure *B. Identify continued presence of the obstruction
7. POSITION FOR COMPRESSIONS	□ □ □	A. Locate the compression point on the breastbone between the nipples B. Place the heel of one hand on sternum the compression point and the other hand on top of the first so hands are parallel C. Do not rest fingers on the chest keep heel of your hand on chest during and between compressions.

8. COMPRESSIONS	□ □ □ □	A. Give 30 compressions B. Compressions are at the rate of at least 100 per minute (30 compressions delivered within 18 seconds) C. Down stroke for compression must be on or through compression line D. Return to baseline on upstroke of compression
9. OPEN AIRWAY	□ □	A. Correctly execute head-tilt / chin-lift or jaw-thrust maneuver depending on the presence of cervical spine (neck) injuries *B "Look for foreign object"
10. PERFORM FINGER SWEEP (IF OBJECT IS SEEN)	□ □	A. Follow with finger sweep, only if the object is seen. (open mouth, grasping tongue and lower jaw with thumb and fingers, insert index finger of other hand down along inside cheek and deeply into throat in a hooking action) B. Grasp and remove foreign object
11. ATTEMPT VENTILATION	□ □ □	A. Correctly make effort to administer breath B. Administer second breath, if first successful and check pulse C. If unsuccessful repeat sequence of compressions, mouth check, finger sweep (if object is visible) and attempt to ventilate

SUCKING CHEST WOUND

PROCEDURES		CRITICAL SKILL
1. EXPOSE WOUND	☐	*A. Expose entire wound
2. SEAL WOUND AND CONTROL BLEEDING	☐ ☐	*A. Place occlusive dressing over wound (If occlusive dressing is not available use gloved hand) B. Apply direct pressure as needed to stop the bleeding
3. APPLY AN OCCLUSIVE DRESSING	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	A. Keep patient calm and quiet *B. Explain to the patient what you are doing *C. Ensure dressing is large enough not to be sucked into the wound (two inches beyond edges of wound) D. Affix dressing with tape *E. Seal on three sides *F. Monitor patient closely for increasing difficulty breathing *G. Transport as soon as possible H. Keep patient positioned on the injured side unless other injuries prohibit *I. Reassess wound to ensure bleeding control *J. Assess level of consciousness(AVPU), respiratory status and patient response

LIFE-THREATENING BLEEDING

PROCEDURES		CRITICAL SKILL
1. DIRECT PRESSURE AND ELEVATION	□ □ □ □ □	*A. Apply direct pressure with a gloved hand *B. Apply a dressing to wound (cover entire wound) and continue to apply direct pressure *C. Elevate the extremity except when spinal injury exists *D. Bleeding has been controlled *E. If controlled, bandage dressing in place
2. IF NOTIFIED THAT BLEEDING IS NOT CONTROLLED, PRESSURE POINTS SHALL BE UTILIZED	□ □	*A. Apply pressure to appropriate pressure point and notify judge verbally that bleeding is controlled (Apply pressure to blood vessels leading to area – in arm, press just below armpit; in leg, press against groin where thigh and trunk join.) B. If controlled, bandage dressing in place
3. IF NOTIFIED THAT BLEEDING IS NOT CONTROLLED, APPLY TOURIQUET	□	A. Apply as per tourniquet skill sheet

External Bleeding

To Control: 1st: direct pressure
2nd: elevation & direct pressure
3rd: pressure point
Last Resort: Tourniquet

Internal Bleeding

*1. Monitor breathing and pulse
*2. Keep patient still
*3. Loosen restrictive clothing
*4. Be alert if patient vomits
*5. Nothing by mouth
*6. Report possibility of internal bleeding as soon as EMS personnel arrive on scene

TOURNIQUET

PROCEDURES		CRITICAL SKILL
1. DETERMINE NEED OR USING TOURNIQUET	□ □ □	If these conditions are met, a tourniquet may be the only alternative: A. Direct pressure has not been successful in stopping bleeding B. Elevation of wound above heart has not been successful in stopping of bleeding C. Compression of pressure point has not been successful in stopping of bleeding.
2. SELECT APPROPRIATE MATERIALS	□	A. Select a band that will be between 3-4 inches in width and can be wrapped six or eight layers deep for improvised tourniquet or select factory tourniquet.
3. APPLY TOURNIQUET	□ □ □ □	Factory Tourniquet A. Wrap band around the extremity proximal to the wound (one inch above but not on a joint) Improvised Tourniquet B. Apply a bandage around the extremity proximal to the wound (one inch above but not on a joint) and tie a half knot in the bandage C. Place a stick or pencil on top of the knot and tie the ends of the bandage over the stick in a square knot D. Twist the stick until the bleeding is controlled, secure the stick in position
4. APPLY PRESSURE WITH TOURNIQUET	□ □	A. Do not cover the tourniquet with bandaging material *B. Notify other medical personnel caring for the patient
5. MARK PATIENT APPROPRIATELY	□	A. Mark a piece of tape on the patient's forehead "TQ" and time applied
6. REASSESS	□	*A. Assess level of consciousness (AVPU), respiratory status, and patient response

DRESSINGS AND BANDAGING – OPEN WOUNDS

PROCEDURES		CRITICAL SKILL
1. EMERGENCY CARE FOR AN OPEN WOUND	□ □ □ □	*A. Control bleeding *B. Prevent further contamination *C. Bandage dressing in place after bleeding has been controlled *D. Keep patient lying still
2. APPLY DRESSING	□ □ □ □	A. Use sterile dressing B. Cover entire wound C. Control bleeding D. Do not remove dressing
3. APPLY BANDAGE	□ □ □ □ □ □	A. Do not bandage too tightly. B. Do not bandage too loosely. C. Do not leave loose ends. D. Cover all edges of dressing. E. Do not cover tips of fingers and toes, unless they are injured. F. Bandage from the bottom of the limb to the top (distal to proximal) if applicable.

Multiple wounds will be treated as per procedures listed in patient assessment.

<u>Impaled Objects</u>

*1. Do not remove
2. Expose wound
3. Control bleeding
4. Stabilize with a bulky dressing; criss-cross the layers
5. Tie 4in. wide cravats around to hold in place, or tape in place
*6. <u>Check for exit wound</u> (treat when found)
7. Immobilize affected area

<u>Impaled Objects in the Cheek</u>

*1. Examine; inside & outside
2. If end not impaled in mouth – pull it out
3. Position head for drainage: if spinal injury, immobilize 1st and tilt board
4. Dress outside of wound
*5. Gauze on inside only if patient alert, (Simulate only in contest and state, "I would leave 3-4 inches of gauze outside of mouth.")

Impaled Objects in the Eye

1. Stabilize with 3 inch gauze or folded 4x4
2. Put cup (no Styrofoam) over object and allow cup to rest on roller gauze or 4x4
3. Secure cup with roller gauze (not over top of cup)

*4. Cover uninjured eye too

Open Neck Wound (Serious or Life Threatening)

*1. Gloved hand over wound
*2. Occlusive dressing over wound- 2 inches larger than wound site
3. Gauze dressing over occlusive
4. Place roller gauze beside site and wrap around figure 8 under opposite arm

Abdominal Injury

*1. Place on back with legs flexed at the knees (for closed or open wounds)

Additional Steps for Open Abdominal Wounds (Serious or Life Threatening)

*1. Apply moist dressing, then an occlusive dressing
*2. Cover the occlusive with pads or a towel for warmth
*3. If an object is impaled in abs, stabilize it and do not flex legs- leave them in the position you found them.

Skull Fractures and Brain Injuries

*1. Open airway with jaw thrust
2. Apply collar
*3. Use loose gauze dressing- no direct pressure
*4. Keep at rest, ask them questions
5. Don't elevate legs (on or off a backboard)
6. After entire body is immobilized- tilt back board, injured side down

Amputations

*1. Wrap in slightly moistened sterile dressing
2. Place in plastic bag or wrap in plastic
*3. Keep part cool avoid freezing
*4. Do not place in water or direct contact with ice
*5. Transport with patient
6. Label with patients name

NOTE:
Slings are required for all wounds of upper extremities, including shoulder and armpit wounds. Slings will not be required for upper extremity burns. However, if a burn and wound and/or fracture/dislocation are present on the same upper extremity, a sling shall be applied.

TWO-PERSON LOG ROLL

PROCEDURES		CRITICAL SKILL
1. STABILIZE HEAD	□	*A. Stabilize the head and neck
2. PREPARING THE PATIENT	□ □	A. When placing patient on board place board parallel to the patient B. Kneel at the patient's shoulders opposite the board (if used) leaving room to roll the patient toward knees Raise the patient's arm, if not injured (the one closer to the rescuer) above the patient's head
3. PREPARING THE RESCUER	□ □	A. Grasp the patient at the shoulder and pelvis area B. Give instructions to bystander, if used to support
4. ROLLING THE PATIENT	□ □ □ □ □	A. While stabilizing the head, roll the patient toward the rescuer by pulling steadily and evenly at the shoulder and pelvis areas B. The head and neck should remain on the same plane as the torso C. Maintain stability by holding patient with one hand and placing board (if used) with other D. Roll the body as a unit onto the board (if used) (board may be slanted or flat) E. Place the arm alongside the body

SPLINTING (RIGID) UPPER EXTREMITY FRACTURES AND DISLOCATIONS

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	□	*A. Check for distal circulation, sensation, and motor function ▪ Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	□ □ □ □ □ □ □	A. Selection of appropriate rigid splint of proper length B. Support affected limb and limit movement C. Apply appropriate padded rigid splint against injured extremity D. Place appropriate roller bandage in hand to ensure the position of function E. Secure splint to patient with roller bandage, handkerchiefs, cravats, or cloth strips F. Apply wrap distal to proximal *G. Reassess distal circulation, sensation, and motor function
3. SECURING WITH SLING	□ □ □ □ □ □ □ □	A. Place sling over chest and under arm B. Hold or stabilize arm C. Triangle should extend behind elbow on injured side D. Pull sling around neck and tie on uninjured side E. Pad at the neck (except when C-Collar is present) F. Secure excess material at elbow G. Fingertips should be exposed *H. Reassess distal circulation, sensation, and motor function
4. SECURING SLING WITH SWATHE	□ □ □	A. Use triangle cravat or factory swathe B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor function

<u>ELBOW (STRAIGHT POSITION)</u>
Follow Procedures No. 1 and No. 2 above

<u>FINGER/FINGERS</u>
Immobilize Fracture
1. Tape injured finger to an adjacent uninjured finger; or
2. Tape injured finger to a tongue depressor, aluminum splint, or pen and pencil
3. Secure with sling and swathe

COLLAR BONE
Support and limit movement of affected area
Follow Procedures No. 1, No. 3 and No. 4 above

SHOULDER BLADE
Support and limit movement of affected area
Follow Procedures No. 1, No. 3 and No. 4 above

NOTE: Do not reposition dislocations

SPLINTING (SOFT) UPPER EXTREMITY FRACTURES AND DISLOCATIONS (WRIST AND HAND)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	□ □	*A. Check for distal circulation, sensation, and motor function B. Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	□ □ □ □ □	A. Support affected limb and limit movement B. Place two cravats (triangular bandage) under wrist/hand C. Place pillow length wise under wrist/hand, on top of cravats (pillow should extend past fingertips) D. Lower limb, adjust cravats to tie E. Tie cravats distal to proximal
3. SECURING WITH SLING	□ □ □ □ □ □	A. Place sling over chest and under arm B. Hold or stabilize arm C. Triangle should extend behind elbow or injured side D. Secure excess material at elbow E. Fingertips should be exposed *F. Reassess distal circulation, sensation, and motor function
4. SECURING SLING WITH SWATHE	□ □ □	A. Use triangle cravat or factory swathe B. Swathe is tied around chest and injured arm *C. Reassess distal circulation, sensation, and motor function

SPLINTING (RIGID OR SOFT) PELVIC GIRDLE, THIGH, KNEE, AND LOWER LEG

PROCEDURE		CRITICAL SKILL
1. DETERMINE NEED FOR SPLINTING	□ □	*A. Assess for: ▪ Pain ▪ Swelling ▪ Deformity B. Determine if splinting is warranted
2. APPLY MANUAL STABILIZATION	□	A. Support affected limb and limit movement ▪ Do not attempt to reduce dislocations
3. SELECT APPROPRIATE SPLINT	□ □	A. Select appropriate splinting method depending on position of extremity and materials available B. Select appropriate padding material
4. PREPARE FOR SPLINTING	□ □ □ □ □	A. Remove or cut away clothing as needed *B. Assess distal circulation, sensation, and motor function C. Cover any open wounds with sterile dressing and bandage D. Measure splint E. Pad around splint for patient comfort

5. SPLINT	☐	A. Maintain support while splinting
		Living Splint:
	☐	A. Immobilize the site of the injury
	☐	B. Carefully place a pillow or folded blanket between the patients knees/legs
	☐	C. Bind the legs together with wide straps or cravats
	☐	D. Carefully place patient on long spine board
	☐	E. Secure the patient to the long spine board (if primary splint)
	☐	*F. Reassess distal circulation, sensation, and motor function
		Padded Board Splint:
	☐	A. Splint with two long padded splinting boards (one should be long enough to extend from the patient's armpit to beyond the foot. The other should extend from the groin to beyond the foot.) (Lower leg requires boards to extend from knee to below the foot.)
	☐	B. Cushion with padding in the armpit and groin and all voids created at the ankle and knee
	☐	C. Secure the splinting boards with straps and cravats
	☐	D. Carefully place the patient on long spine board
	☐	E. Secure the patient to the long spine board (if primary splint)
	☐	*F. Reassess distal circulation, sensation, and motor function
		Other Splints:
	☐	A. Immobilize the site of the injury
	☐	B. Pad as needed
	☐	C. Secure to splint distal to proximal
	☐	D. Carefully place patient on long spine board
	☐	E. Secure the patient to the long spine board (if primary splint)
	☐	*F. Reassess distal circulation, sensation, and motor function
6. REASSESS	☐	*A. Assess patient response and level of comfort

SPLINTING (SOFT) LOWER EXTREMITY FRACTURES AND DISLOCATIONS (ANKLE AND FOOT)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	□	*A. Assess for distal circulation, sensation, and motor function
	□	B. Do not attempt to reduce dislocations (if applies)
2. IMMOBILIZING FRACTURE	□	A. Support affected limb and limit movement
	□	B. Place three cravats (triangular bandage) under ankle/foot
	□	C. Place pillow length wise under ankle/foot, on top of cravats (pillow should extend 6 inches beyond foot)
	□	D. Lower limb, adjust cravats to tie
	□	E. Tie cravats distal to proximal
	□	F. Elevate with blanket or pillow
	□	*G. Reassess distal circulation, sensation, and motor function

SPLINTING UPPER EXTREMITY/LOWER EXTREMITY FRACTURES (AIR SPLINT)

PROCEDURES		CRITICAL SKILL
1. CARE FOR FRACTURE	□	*A. Assess distal circulation, sensation, and motor function(fingers/toes)
2. IMMOBILIZE FRACTURE	□ □ □ □ □ □	A. Grasp above and below the injury site B. Maintain support C. Properly apply air splint D. Splint should be relatively free of wrinkles E. Inflate splint to point that slight dent can be made *F. Reassess distal circulation, sensation, and motor function (fingers/toes)
3. MONITOR AIR-INFLATED SPLINT	□ □ □ □	*A. Periodically check for increase or decrease in pressure *B. Monitor pressure in splint with finger tip C. Make sure desired pressure is maintained *D. Reassess distal circulation, sensation, and motor function (fingers/toes)

NOTE: Air splints may not be used with open (protruding bones) fractures.
Air splints may only be used on the lower part of the extremities (from below the elbow on the arm and below the knee to the leg).

SPLINTING – FLAIL CHEST

PROCEDURES		CRITICAL SKILL
1. DETERMINE NEED FOR SPLINTING	□ □	*A. Assess for: • Pain • Swelling • Deformity *B. Determine if splinting is warranted
2. SELECT APPROPRIATE SPLINTING MATERIAL	□	A. Choose a pillow, blanket, trauma dressing, or other appropriate splinting material
3. PREPARE FOR SPLINTING	□ □	*A. Remove or cut away clothing as needed. B. Cover any open wounds with sterile dressing and bandage
4. APPLY SPLINT	□ □ □ □	A. Affix splint to chest with adhesive tape or roller bandage B. Immobilize the site of injury C. Use caution when taping splint to chest circumferentially *D. Ensure sufficient chest expansion
5. REASSESS	□	*A. Assess patient response and level of comfort
6. ASSIST VENTILATIONS	□	*A. Assist with ventilation as needed

ONE RESCUER BLANKET DRAG

PROCEDURES		CRITICAL SKILL
1. VICTIM SUPINE ON GROUND	◻ ◻	A. Properly prepare blanket for use in blanket drag B. Spread blanket alongside patient with approximately one half the width gathered lengthwise into pleats
2. POSITION PATIENT	◻ ◻ ◻	A. Properly roll victim on one side B. Take patients arm on side of body opposite to blanket and extend arm over head C. Support head and neck roll patient on side away from Blanket
3. PLACE PATIENT ON BLANKET	◻ ◻ ◻ ◻ ◻	A. Properly position on blanket B. Hold patient on side while pleated portion of blanket is pulled in close to victim's back C. Roll patient onto blanket, extend opposite arm and roll onto opposite side D. Smooth out pleats and roll patient onto back E. Snugly wrap patient in blanket with arms at sides
4. PREPARE TO DRAG PATIENT	◻ ◻	A. Proper blanket drag of patient B. Grasp portion of blanket beneath victim's head and drag victim to safety

TWO RESCUER EXTREMITY GROUND LIFT

PROCEDURES		CRITICAL SKILL
1. POSITIONING	□ □	A. Rescuer 1 – Kneel at the head of the patient and place one hand under each of the shoulders B. Rescuer 2 – Kneel by the patients knees and grasp the patient's wrist
2. RAISING PATIENT TO A SITTING POSITION	□ □	A. Rescuer 1 – push patient's shoulders up and support patient's back and head with body B. Rescuer 2 – Gently pull on patient's arms
3. POSITIONING AND LIFTING	□ □ □	A. Rescuer 1 – Support patient in sitting position B. Rescuer 2 – Slip hands under the patient's knees C. On command, rescuers stand simultaneously, lifting patient with proper body mechanics

SHIRT DRAG

PROCEDURES		CRITICAL SKILL
1. POSITIONING	□	A. Rescuer - Kneel at the head of the patient and place one hand under each of the shoulders
2. MOVING PATIENT	□ □	A. Rescuer – Grasp shirt at the shoulder area B. Drag patient in a straight line (keep spine as straight as possible)

ESTABLISHING AIRWAY–SUSPECTED CERVICAL SPINE (NECK) INJURY

PROCEDURES		CRITICAL SKILL
1. STABILIZE HEAD	□ □	A. Rescuer – Position at top of the victim's head B. Restrain victim's head and neck to avoid voluntary or involuntary movement/rotation of the neck
2. ESTABLISH AIRWAY	□	A. Use modified jaw thrust maneuver without causing over-extension of victim's neck
3. CHECK FOR BREATHING	□ □	A. Look for absence of breathing (no chest rise and fall) or gasping, which are not considered adequate (within 10 seconds) *B. State that the victim is/is not breathing
4. MAINTAIN OPEN AIRWAY	□	A. Do not compromise suspected neck injury

SHOCK

PROCEDURES		CRITICAL SKILL
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	□ □ □	*A. Check for pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration. *B. Check for cool, clammy skin *C. Check for weakness
2. TREATMENT	□ □ □ □	A. Keep victim lying down B. Cover with blanket to prevent loss of body heat and place a blanket under the patient. (Do not try to place blanket under patient with possible spinal injuries) C. Elevate according to injury *D. Reassure and calm the patient

Option 1: Elevate the lower extremities or foot end of the back board. This procedure is performed in most cases. Place the patient flat, face up and elevate the legs or foot end of the back board 8 to 12 inches. Do not elevate any limbs with possible fractures or pelvic injuries until they have been properly splinted. Remember to consider the mechanism of injury for every patient.

Option 2: Lay the patient flat, face up. This is the supine position, used for patients with a spinal injury and patients who have serious injuries to the extremities that have not been supported. If the patient is placed in this position, you must constantly be prepared for vomiting.

Option 3: Slightly raise the head and shoulders. This position should be used only for responsive patients with no spinal injuries, life threatening chest or abdominal injuries and only for patients having difficulty breathing, but who have an open airway. A semi-seated position can also be used for patients with a history of heart problems. It is not recommended for moderate to severe cases of shock. Be certain to keep the patient's head from tilting forward.

Note: Injuries requiring the injured side to be tilted or placed down may be done after patient has been properly secured to a back board if a back board is required.

IMMOBILIZATION – LONG SPINE BOARD (Backboard)

PROCEDURES		CRITICAL SKILL
1. MOVE THE PATIENT ONTO THE LONG SPINE BOARD	□	A. One First Aid Provider at the head must maintain in-line immobilization of the head and spine
	□	B. First Aid Provider at the head directs the movement of the patient
	□	C. Other First Aid Provider control movement of the rest of body
	□	D. Other First Aid Provider position themselves on same side
	□	E. Upon command of First Aid Provider at the head, roll patient onto side toward First Aid Providers
	□	F. Quickly assess posterior body, if not already done
	□	G. Place long spine board next to the patient with top of board beyond top of head
	□	H. Place patient onto the board at command of the First Aid Provider at head while holding in-line immobilization using methods to limit spinal movement
	□	I. Slide patient into proper position using smooth coordinated moves keeping spine in alignment
2. PAD VOIDS BETWEEN PATIENT AND LONG SPINE BOARD	□	A. Select and use appropriate padding
	□	B. Place padding as needed under the head
	□	C. Place padding as needed under torso
3. IMMOBILIZE BODY TO THE LONG SPINE BOARD	□	A. Strap and secure body to board ensuring spinal immobilization, beginning at shoulder and working toward feet
4. IMMOBILIZE HEAD TO THE LONG SPINE BOARD	□	A. Using head set or place rolled towels on each side of head
	□	B. Tape and/or strap head securely to board, ensuring cervical spine immobilization
5. REASSESS	□	*A. Reassess distal circulation, sensation, and motor function
	□	*B. Assess patient response and level of comfort

IMMOBILIZATION OF CERVICAL SPINE

PROCEDURES		CRITICAL SKILL
1. ESTABLISH AND MAINTAIN IN-LINE IMMOBILIZATION	□ □ □	A. Place head in a neutral, in-line position unless patient complains of pain or the head is not easily moved into position B. Place head in alignment with spine C. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with head immobilized
2. ASSESS CSM	□	*A. Assess distal circulation, sensation, and motor function (on all extremities)
3. ASSESS CERVICAL REGION AND NECK	□ □	*A. Inspect and palpate for injuries or signs of injuries using: DOTS acronym B. Remove clothing or jewelry as necessary
4. BANDAGE ANY WOUND	□	A. Any neck wounds
5. APPLY CERVICAL SPINE IMMOBILIZATION	□ □ □ □ □ □ □ □ □ □ □ □	A. Apply properly sized collar or manual immobilization <u>One piece C-collar</u> A. Select proper sized collar B. Apply collar C. Ensure that patient's head is not twisted during application D. Ensure airway is open after placement <u>Two piece C-collar</u> A. Select proper sized collar B. Apply rear section to back of neck C. Center rigid support on spine D. Apply front section (overlaps rear section) E. Ensure chin rests in chin cavity F. Secure collar with Velcro straps G. Ensure airway is open after placement
6. SECURE HEAD TO APPROPRIATE IMMOBILIZATION DEVICE	□ □ □	A. Immobilize patient to appropriate immobilization device B. Use head set or place rolled blankets or towels on each side of head C. Tape and or strap head securely to appropriate immobilization device
7. REASSESS	□ □	*A. Reassess distal circulation, sensation, and motor function *B. Assess patient response and level of comfort

BURNS

PROCEDURES		CRITICAL SKILLS
1. DETERMINE BURN TYPE	□	*A. Determine type ▪ Thermal ▪ Chemical ▪ Electrical
2. DETERMINE BODY SURFACE AREA	□	*A. Determine Body Surface Area (BSA) using rule of nines
3. BURN CARE (All Types)	□ □ □ □ □ □ □	*A. Remove patient from source of burn and prevent further contamination *B. Consider the type of burn and stopping the burning process initially with water or saline if appropriate *C. Remove jewelry *D. Continually monitor the airway for evidence of closure *E. Cover the burned area with a dry sterile dressing *F. Do not use any type of ointment, lotion or antiseptic *G. Do not break blisters *H. Ensure patient does not get hypothermic
4. CARE FOR CHEMICAL BURNS	□ □ □ □ □ □	A. Protect yourself from exposure to hazardous materials B. Wear gloves, eye protection, and respiratory protection *C. Brush off dry powders *D. Consider flushing with large amounts of water *E. Continue flushing the contaminated area if applicable *F. Use caution not to contaminate uninjured areas when flushing or brushing
5. CARE FOR ELECTRICAL BURNS	□ □ □ □ □	*A. Ensure safety before removing patient from the electrical source *B. If the patient is still in contact with the electrical source or you are unsure, do not approach or touch the patient, contact power company *C. Monitor the patient closely for respiratory and cardiac arrest D. Treat the soft tissue injuries associated with the burn *E. Look for both an entrance and exit wound
6. REASSESS	□	*A. Reassess level of consciousness (AVPU), respiratory status, and patient response

Multiple burns will be treated as per procedures listed in patient assessment.

EARLY OR SUPERFICIAL FROSTBITE

PROCEDURES		CRITICAL SKILLS
1. ASSESS FOR FROSTBITE AND COLD INJURIES	□	*A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR EARLY OR SUPERFICIAL FROSTBITE	□ □ □ □	A. Blanching of the skin – palpitation of the skin in which normal color does not return B. Loss of feeling and sensation in the injured area C. Skin remains soft D. If re-warmed, patient will feel a tingling sensation
3. TREAT EARLY OR SUPERFICIAL INJURY	□ □ □ □ □	*A. Remove the patient from the environment B. Protect the cold injured extremity from further injury *C. Remove wet or restrictive clothing D. Do not rub or massage E. Do not re-expose to the cold
4. REASSESS	□	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

LATE OR DEEP COLD INJURY

PROCEDURES		CRITICAL SKILLS
1. ASSESS FOR FROSTBITE AND COLD INJURIES	□	*A. Patient exhibits signs and symptoms of frostbite or cold injuries
2. ASSESS FOR LATE OR DEEP COLD INJURY	□ □ □ □ □	A. White, waxy skin B. Firm to frozen feeling upon palpitation C. If thawed or partially thawed, the skin may appear flushed with areas of purple and blanching or mottled and cyanotic D. Swelling may be present E. Blisters may be present
3. TREAT LATE OR DEEP COLD INJURY	□ □ □ □ □ □	*A. Remove the patient from the environment B. Protect the cold injured extremity from further injury *C. Remove wet or restrictive clothing D. Remove jewelry E. Cover with dry clothing or dressings *F. Do not: ▪ Break blisters ▪ Rub or massage area ▪ Apply heat ▪ Re-warm ▪ Allow the patient to walk on the affected extremity
4. REASSESS	□	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

MILD HYPERTHERMIA (HEAT)

PROCEDURES		CRITICAL SKILL
1. ASSESS FOR HYPERTHERMIA	□	*A. Patient exhibits signs and symptoms of hyperthermia: ▪ Redness ▪ Muscular cramps ▪ Weakness or exhaustion ▪ Rapid heart rate ▪ Dizziness or faintness ▪ Altered mental status to unresponsive
2. PREVIOUS INTERVENTIONS	□	*A. Inquire about previous interventions attempted
3. ASSESS FOR MILD HYPERTHERMIA (HEAT EXHAUSTION)	□	*A. Check skin for: ▪ Normal to cool temperature ▪ Pale ▪ Moist
4. TREATMENT FOR MILD HYPERTHERMIA	□ □ □ □ □	*A. Place in a cool environment *B. Cool patient by fanning C. Put in supine position with legs elevated *D. Offer drinking water if patient is responsive and not nauseated E. If the patient is unresponsive or is vomiting, transport to the hospital
5. REASSESS	□	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

SEVERE HYPERTHERMIA

PROCEDURES		CRITICAL SKILL
1. ASSESS FOR HYPERTHERMIA	□	*A. Patient exhibits signs and symptoms of hyperthermia: ▪ Redness ▪ Muscular cramps ▪ Weakness or exhaustion ▪ Rapid heart rate ▪ Dizziness or faintness ▪ Altered mental status to unresponsive
2. PREVIOUS INTERVENTIONS	□	*A. Inquire about previous interventions attempted
3. ASSESS FOR SEVERE HYPERTHERMIA (HEAT STROKE)	□	*A. Check skin for: ▪ Hot temperature ▪ Red ▪ Dry or moist
4. TREATMENT FOR SEVERE HYPERTHERMIA	□ □ □ □ □ □	*A. Place patient in a cool environment *B. Wet patient skin by applying water from sponge or wet towels and fan C. Put in supine position with legs elevated *D. Offer drinking water if patient is responsive and not nauseated *E. Apply cool packs to neck, groin and armpits *F. Transport immediately
5. REASSESS	□	*A. Reassess level of consciousness (AVPU), respiratory status and patient response

FIRST AID STATEMENTS OF FACT

1. The adequate flow of oxygenated blood to all cells of the body is called:

   a. Circulation
   b. Perfusion
   c. Compensation
   d. Systole

2. When assessing a patient's respirations, you must determine rate, depth, and:

   a. Regularity.
   b. Count of expirations.
   c. Ease.
   d. Count of inspirations.

3. The five most important vital signs are pulse, respirations, blood pressure, pupils, and:

   a. Oxygen saturation.
   b. Skin signs.
   c. Mental status.
   d. Capillary refill.

4. The first set of vital signs obtained on any patient is referred to as the ____ set.

   a. Historical
   b. Ongoing
   c. Baseline
   d. Serial

5. What can be assessed by watching and feeling the chest and abdomen move during breathing?

   a. Pulse rate
   b. Blood pressure
   c. Skin signs
   d. Repertory rate

6. Characteristics of a pulse include:

   a. Rate, depth, and ease.
   b. Rate, strength, and rhythm.
   c. Rate, depth, and strength.
   d. Rate, ease, and quality.

7. The most appropriate location to obtain a pulse for an unresponsive adult is the ___ artery.

   a. Brachial
   b. Femoral
   c. Carotid
   d. Radial

8. What are the two pulse points that are referred to as central pulses?

   a. Radial and tibial
   b. Carotid and femoral
   c. Femoral and brachial
   d. Brachial and carotid

9. As blood pressure drops, perfusion is most likely to:

   a. Increase.
   b. Decrease.
   c. Fluctuate.
   d. Remain the same.

10. Skin that is bluish in color is called:

    a. Pale.
    b. Flushed.
    c. Cyanotic.
    d. Jaundice

11. The term *diaphoretic* refers to:

    a. Pupil reaction.
    b. Skin temperature.
    c. Heart rhythm.
    d. Skin moisture.

12. When going from a well-lit room to a dark one, you would the expect the normal pupil to:

    a. Not react.
    b. Dilate.
    c. Constrict.
    d. Fluctuate.

13. Which one of the following is most accurate when describing a palpated blood pressure?

    a. It provides only the diastolic pressure.
    b. It must be taken on a responsive patient.
    c. It can be obtained without a stethoscope.
    d. It can be obtained with a BP cuff.

14. A respiratory rate that is less than ____ for an adult should be considered inadequate.

    a. 4
    b. 6
    c. 8
    d. 10

15. The pressure inside the arteries each time the heart contracts is referred to as the ____ pressure.

    a. Diastolic
    b. Pulse
    c. Systolic
    d. Mean

16. A ____ is something the Emergency Medical Responder can see or measure during the patient assessment.

    a. Symptom
    b. History
    c. Sign
    d. Chief complaint

17. The term trending is best defined as the:

    a. Ability to spot changes in a patient's condition over time.
    b. Name given to the last set of vital signs taken on a patient.
    c. Transfer of care from one level of care to another.
    d. The ability to improve a patient's condition over time.

18. After arriving on the scene, but before making patient contact, you should:

    a. Perform a primary assessment.
    b. Contact medical direction.
    c. Perform a secondary assessment.
    d. Take BSI precautions.

19. There are six components to the primary assessment, beginning with:

a. Assessing the patient's mental status.
b. Assessing the patient's airway.
c. Forming a general impression.
d. Evaluating patient's circulation.

20. The assessment of a patient's mental status or responsiveness includes using the ____ scale.

a. AVPU
b. ABC
c. SAMPLE
d. BP-DOC

21. Which one of the following statements best describes the relationship between a heart attack and sudden cardiac arrest?

a. A heart attack and sudden cardiac arrest are the same thing.
b. Sudden cardiac arrest is a leading cause of heart attack.
c. Heart arrack results in tissue damage; sudden cardiac arrest does not.
d. Heart attack is a leading cause of sudden cardiac arrest.

22. Blood that is returning to the heart from the lungs enters the heart at the:

a. Right atrium.
b. Left atrium.
c. Right ventricle.
d. Left ventricle.

23. You are caring for a patient with difficulty breathing. She states that she has a history of asthma. You understand asthma to be a disease of the:

a. Upper airway.
b. Lower airway.
c. Alveoli.
d. Trachea.

24. The respiratory control center located deep within the brain primarily monitors the level of ____ to maintain proper respiratory rate and volume.

a. Carbon dioxide.
b. Carbon monoxide.
c. Oxygen.
d. Glucose.

25. Which medical condition listed below causes inflammation of the bronchioles and excess mucus production within the airways? It is also characterized by a productive cough.

    a. Asthma.
    b. Bronchitis.
    c. Emphysema.
    d. Hyperventilation.

26. Which one of the medical conditions listed below results in the loss of elasticity of the lungs and the retention of carbon dioxide?

    a. Asthma.
    b. Bronchitis.
    c. Emphysema
    d. Hyperventilation.

27. Altered metal status is best defined as a patient who:

    a. Is unresponsive.
    b. Cannot speak properly.
    c. Cannot tell what day it is.
    d. Is not alert or responsive to surroundings.

28. A patient who is unresponsive and having full body muscle contractions is likely experiencing:

    a. Stroke.
    b. Seizure.
    c. Heart attack.
    d. Respiratory distress.

29. Which one of the following is the best example of appropriate care for a seizure patient?

    a. Keep him from injuring himself and place him in the recovery position following the seizure.
    b. Place him in a semi-sitting position and apply oxygen following the seizure.
    c. Place him in a prone position and provide oxygen by nasal cannula.
    d. Restrain him and assist ventilations with a bag-mask device.

30. Which one of the following is NOT evaluated as part of the Cincinnati Prehospital Stroke Scale?

    a. Abnormal speech
    b. Equal circulation
    c. Facial droop
    d. Arm drift

31. Activated charcoal is only recommended for what type of poisoning?

    a. Ingested
    b. Inhaled
    c. Topical
    d. Absorbed

32. What is the most commonly abused chemical in the United States?

    a. Arsenic
    b. Amyl nitrate
    c. Butane
    d. Alcohol

33. A diabetic who forgets to take her insulin and continues to eat a meal will most likely become:

    a. Hypoglycemic.
    b. Responsive.
    c. Hyperglycemic
    d. Short of breath.

34. In which one of the following situations is the patient losing body heat primarily by conduction?

    a. A 66-year-old male is found lying on the frozen ground without a coat.
    b. A 14-year-old male is wearing wet clothing after falling out of his boat while fishing.
    c. A 23-year-old female is outside in cool, windy weather.
    d. An elderly female patient is breathing into the cool night air.

35. More serious heat-related injuries should be suspected when the patient presents with;

    a. Feeling lightheaded.
    b. Muscle cramps.
    c. Hot, dry, skin.
    d. Weakness.

36. Your patient is a 34-year-old male who has been working outside in a hot, humid climate. He is alert and oriented, complaining of feeling weak and dizzy. His skin is cool and moist, and he has a heart rate of 104, a blood pressure of 110/70, and respirations of 16. You should:

    a. Place cold packs at the groin, armpits, and neck.
    b. Move the patient to a cool area in the shade.
    c. Offer the patient some salt tablets.
    d. Wet the skin, turn the air conditioning on high, and vigorously fan the patient.

37. A patient who is experiencing an abnormally low body core temperature is said to be:

    a. Hyperthermic
    b. Cyanotic
    c. Hypothermic
    d. Hyperglycemic

38. An injury characterized by the freezing or near freezing of a body part is known as:

    a. Frostbite.
    b. Frostnip.
    c. Hypothermia.
    d. Cold bite.

39. All of the following are appropriate steps in a management of a patient with a generalized cold emergency, EXCEPT:

    a. Removing the patient from the cold environment.
    b. Protecting him from further heat loss.
    c. Providing warm liquids to drink
    d. Monitoring his vital signs.

40. A patient who presents with warm, moist skin; weakness; and nausea is likely experiencing:

    a. Heat exhaustion.
    b. Heat stroke.
    c. Heat cramps.
    d. Mild heat stroke.

41. Your patient was hiking and was bitten on the ankle by a rattlesnake. When caring for this patient, you should:

a. Keep the foot lower than the level of the patient's heart.
b. Elevate the foot on pillows.
c. Apply a tourniquet above the bite.
d. Apply ice to the area of the bite.

42. Which one of the following is NOT a typical characteristic of arterial bleeding?

a. Blood spurts from the wound.
b. Blood flows steadily from the wound.
c. The color of the blood is bright red.
d. Blood loss is often profuse in a short period of time.

43. When attempting to control bleeding, which one of the following procedures will follow direct pressure?

a. Indirect pressure
b. Tourniquet
c. Elevation combined with direct pressure
d. Pressure points

44. Most cases of external bleeding can be controlled by:

a. Applying direct pressure.
b. Using a tourniquet.
c. Securing a pressure bandage.
d. Applying a clotting agent.

45. The material placed directly over a wound to help control bleeding is called a(n):

a. Bandage.
b. Elastic bandage.
c. Occlusive dressing.
d. Dressing.

46. The tearing loose or the tearing off of a large flap of skin describes which one of the following types of wound?

a. Abrasion
b. Amputation
c. Laceration
d. Avulsion

47. When providing care for an open injury to the cheek in which the object has entered through the skin into the mouth, you must ensure an open airway and:

a. Removed the impaled object.
b. Turn the patient's head to one side.
c. Dress and bandage the outside of the wound.
d. Place dressings in the mouth.

48. When providing care for an open injury to the external ear:

a. Pack the ear canal.
b. Use a cotton swab to clear the ear canal.
c. Wash out the ear canal.
d. Apply dressings and bandage in place.

49. Which one of the following patients is most at risk for multisystem trauma?

a. 16-year-old who fell four feet from a ladder.
b. 66-year-old female ejected from a vehicle rollover.
c. 44-year-old male whose foot was crushed by a forklift.
d. 27-year-old struck in the head by a baseball bat.

50. When caring for a patient with severe burns, you must take BSI precautions and then:

a. Stop the burning process.
b. Prevent further contamination.
c. Flush only large burn areas.
d. Remove jewelry.

51. As a member of the EMS team, your primary role is one of:
a. patient care.
b. safety.
c. transport.
d. documentation.

52. What type of consent is necessary from responsive, competent adult patients?
a. Implied
b. Applied
c. Absentee
d. Expressed

53. The best definition of the term *stressor* is anything that:
a. produces wear and tear on the body's resources.

b. consumes the attention of the person experiencing stress.
c. puts pressure on the body.
d. causes significant behavioral changes.

54. Which one of the following statements about critical incident stress is MOST accurate?
a. It is rarely caused by a single incident.
b. It can be the result of many incidents over a long period of time.
c. It affects all people the same way.
d. It can always be avoided with proper preparation.

55. The _____ separates the thoracic cavity from the abdominal cavity.
a. pelvic wall
b. midline
c. diaphragm
d. stomach

56. The _____ cavity contains the liver and part of the large intestine.
a. Pelvic
b. abdominal
c. thoracic
d. cranial

57. *Proper body mechanics* is best defined as:
a. properly using your body to facilitate a lift or move.
b. using a minimum of three people for any lift.
c. contracting the body's muscles to lift and move things.
d. lifting with your back and not your legs.

58. The load on your back is minimized if you can keep the weight you are carrying:
a. as close to your body as possible.
b. at least six inches in front of you.
c. at least 18 inches in front of you.
d. as low as possible.

59. The word *communicate* is best defined as:
a. expressing oneself to another.

b. talking to another person verbally.
c. an interchange of ideas or information.
d. understanding what another person is saying.

60. The words and sounds that make up a language is a description of which type of communication?
a. Verbal
b. Nonverbal
c. Written
d. Visual

61. Which one of the following improves ventilations delivered by way of a bag-mask device?
a. Inserting an oropharyngeal airway
b. Applying suction for four to six minutes
c. Alternating chest thrusts and squeezing the bag
d. Combining finger sweeps with a mouth-to-mouth technique

62. You have just made two attempts to ventilate an unresponsive child with an airway obstruction. Your next step is to:
a. begin chest compressions.
b. continue to ventilate.
c. perform five chest thrusts.
d. provide back slaps.

63. Which one of the following best describes the oxygen consumption of a normally functioning human being?
a. The body requires a constant supply of oxygen at 79%.
b. The human body needs a minimum of 10% oxygen to survive.
c. The body exhales an average of 21% carbon dioxide with each breath.
d. The average exhalation contains an oxygen concentration of between 10% and 16%.

64. The pressure gauge of a full oxygen cylinder will display approximately _____ psi.
a. 500
b. 1,000

c. 1,500
d. 2,000

65. One of the most common consequences of overinflating a patient during rescue breaths is:
a. a ruptured lung.
b. inadequate chest rise.
c. gastric distention.
d. A weak mask seal.

66. You are caring for an adult patient who was found unresponsive. You observe only gasping respirations. What is the most appropriate next step?
a. Open the airway and give a breath.
b. Call 911 and get an AED.
c. Begin chest compressions.
d. Attach the AED.

67. For most patients, an Emergency Medical Responder's assessment begins with performing a scene size-up followed by:
a. a secondary assessment.
b. a primary assessment.
c. obtaining vital signs.
d. determining the nature of illness.

68. In a SAMPLE history, the *E* represents:
a. EKG results.
b. evaluation of the neck and spine.
c. events leading to illness or injury.
d. evidence of airway obstruction.

69. The myocardium receives its blood supply from:
a. coronary arteries.
b. myocardial arteries.
c. the conduction pathway.
d. the aorta.

70. You have arrived on the scene of an unresponsive female who is pulseless and apneic. You should:
   e. begin CPR.
   f. administer oxygen.
   g. obtain a set of vital signs.
   h. place her in the recovery position.

71. Your patient has been in respiratory distress for approximately 30 minutes. Your assessment reveals pale skin and cyanosis of the nail beds. These are signs of:
   a. respiratory failure.
   b. asthma.
   c. hypoxia.
   d. respiratory arrest.

72. You are caring for a patient complaining of shortness of breath. Her respiratory rate is 24 with good tidal volume. Following the primary assessment, you should:
   a. provide supplemental oxygen.
   b. take a set of vital signs.
   c. perform a rapid secondary assessment.
   d. place her in the recovery position.

73. One of the best techniques for dealing with a patient experiencing a behavioral emergency is to:
   a. not let the patient know what you are doing.
   b. not believe a thing the patient says.
   c. speak in a calm and reassuring voice.
   d. acknowledge the "voices" he is hearing.

74. Your patient is presenting with an altered mental status and a history of diabetes. He states that he took his normal dose of insulin this morning but has not had anything to eat. His most likely problem is:
   a. hyperglycemia.
   b. anaphylaxis.
   c. hypoglycemia.
   d. a stroke.

75. Once a seizure has ended, the patient is said to be in the _____ state.
   a. REM
   b. postictal
   c. syncopal
   d. recovery

76. You are caring for a person who fell from a rope swing, landed in the water, and is now unresponsive. She has a large laceration on the top of her head. You should:
   a. suspect spine injury.
   b. begin CPR in the water.
   c. drag her by one arm to shore.
   d. wait for EMS before beginning care.

77. You are caring for a patient with a severe soft-tissue injury to the lower leg. You have exposed the wound. What should you do next?
   a. Apply direct pressure.
   b. Remove debris from the wound.
   c. Care for shock.
   d. Elevate the extremity.

78. All of the following are signs or symptoms of internal bleeding EXCEPT:
   a. increased pulse rate
   b. decreasing blood pressure
   c. decreasing pulse rate.
   d. pale skin color.

79. Your patient has a large open wound to his neck. You have controlled bleeding with direct pressure, so you should then:
   a. pack the inside of the wound with clean dressings.
   b. pour sterile saline over the wound.
   c. cover the wound with a dry, clean dressing.
   d. cover the wound with an occlusive dressing.

80. All of the following are signs of shock EXCEPT:
   a. increased pulse rate.
   b. decreasing blood pressure.

c. pink, warm, moist skin.
d. altered mental status.

81. When the body suffers a significant loss of blood, which type of shock is most likely to occur?
a. Anaphylactic
b. Cardiogenic
c. Hemorrhagic
d. Septic

82. Which one of the following is NOT one of the primary causes of shock?
a. Dilated blood vessels
b. Restricted movement
c. Severe fluid loss
d. Low levels of oxygen in the blood

83. Which one of the following would NOT be considered appropriate when caring for a suspected fracture?
a. Cut away clothing to expose the injury site.
b. "Pop" possible dislocations back into place.
c. Assess circulation, sensation, and motor function.
d. Immobilize the joint above and below the injury site.

84. The process of immobilizing an injury using a device such as a piece of wood, cardboard, or folded blanket is called:
a. immobilization.
b. traction.
c. splinting.
d. manual stabilization.

85. When properly applied, a sling and swathe will adequately immobilize a:
a. wrist.
b. forearm.
c. shoulder.
d. knee.

86. What is the most important initial step that you can take when caring for a person with a suspected spine injury?
   a. Assess the patient for circulation, sensation, and movement.
   b. Determine mechanism of injury
   c. Transport the patient to nearest trauma center.
   d. Manually stabilize patient's head and neck.

87. Combative behavior, abnormal breathing patterns, and repetitive questions are all signs of a(n):
   a. cervical-spine injury.
   b. unresponsive person.
   c. peripheral nervous system trauma.
   d. Injury to the head.

88. What are the two main components of the central nervous system?
   a. Peripheral and central nerves
   b. Discs and vertebrae
   c. Brain and spine
   d. Spine and nerves

89. You are caring for a patient who was struck in the lateral chest by a blunt object. You palpate a flail segment on the right lateral chest area. This type of injury is most likely to affect the:
   a. patient's ability to breathe normally.
   b. heart and lungs.
   c. patient's pulse rate.
   d. patient's ability to cough.

90. In the case of an open chest wound, place an occlusive dressing over the open wound and then:
   a. cover it loosely with a cloth bandage.
   b. tape it on three or four sides.
   c. hold it in place with a gloved hand.
   d. pack the opening with clean gauze.

91. The purpose of placing an occlusive dressing over an open chest wound is to:
   a. control the bleeding.

b. keep chest contents from spilling out.
c. keep air from entering the chest cavity.
d. make it easier for the patient to breathe.

92. The loss of mobility is a common complaint among the elderly and can lead to other problems, such as:
a. skeletal fractures.
b. hearing loss.
c. depression.
d. nearsightedness.

93. The inability to retain urine or feces is called:
a. dementia.
b. aphasia.
c. priapism.
d. incontinence.

94. Age-related changes in the musculoskeletal system can lead to changes in posture, range of motion, and:
a. awareness.
b. medication usage.
c. mental status.
d. balance.

95. The best way to approach a hazardous scene is to:
a. do only what you feel comfortable doing.
b. wear protective gear only if needed.
c. Make safety your first consideration before entering.
d. Get as close as possible to assess the scene.

96. Which one of the following best defines both simple access and complex access?
a. Neither simple access nor complex access requires specialized tools.
b. Simple and complex access both require special equipment.
c. Simple access sometimes requires special equipment; complex access often does.
d. Simple access does not require equipment, though complex access does.

97. If you find yourself needing to exit a smoke-filled environment, you should:
   a. stay close to the floor and crawl to safety.
   b. run out of the building.
   c. stop, drop, and roll.
   d. not exit until you find the patient.

98. A multiple-casualty incident (MCI) involves _____ victims.
   a. more than one
   b. more than two
   c. fewer than 10
   d. fewer than 100

99. The triage system was developed to assist in determining those victims needing:
   a. standard care.
   b. immediate transport.
   c. immediate care.
   d. long-term care.

100. Triage is a process of sorting patients into categories and prioritizing their medical care and transport based on:
   a. number of injuries and medical conditions.
   b. age, weight, and height of the patient.
   c. proximity to the mechanism of injury.
   d. severity of injuries and medical conditions.

Answer Key

1.	B	Ch. 11 #4
2.	C	Ch. 11 #5
3.	B	Ch. 11 #6
4.	C	Ch. 11 #7
5.	D	Ch. 11 #8
6.	B	Ch. 11 #9
7.	C	Ch. 11 #10
8.	B	Ch. 11 #11
9.	B	Ch. 11 #12
10.	C	Ch. 11 #13
11.	D	Ch. 11 #14
12.	B	Ch. 11 #15
13.	C	Ch. 11 #16
14.	D	Ch. 11 #17
15.	C	Ch. 11 #18
16.	C	Ch. 11 #19
17.	A	Ch. 11 #20
18.	D	Ch. 12 #2
19.	C	Ch. 12 #3
20.	A	Ch. 12 #4
21.	D	Ch. 13 #6
22.	B	Ch. 13 #1
23.	B	Ch. 14 #1
24.	A	Ch. 14 #2
25.	B	Ch. 14 #7
26.	C	Ch. 14 #10
27.	D	Ch. 15 #1
28.	B	Ch. 15 #2
29.	A	Ch. 15 #3
30.	B	Ch. 15 #6
31.	A	Ch. 15 #8
32.	D	Ch. 15 #10
33.	C	Ch. 15 #11
34.	A	Ch. 16 #1
35.	C	Ch. 16 #2
36.	B	Ch. 16 #3
37.	C	Ch. 16 #4

38. A	Ch. 16 #5
39. C	Ch. 16 #6
40. A	Ch. 16 #7
41. A	Ch. 16 #8
42. B	Ch. 17 #1
43. C	Ch. 17 #2
44. A	Ch. 17 #3
45. D	Ch. 17 #4
46. D	Ch. 17 #5
47. A	Ch. 17 #7
48. D	Ch. 17 #8
49. B	Ch. 17 #9
50. A	Ch. 17 #10
51. B	Ch 1 #10
52. D	Ch 2 #3
53. A	Ch 3 #6
54. B	Ch 3 #11
55. C	Ch 4 #15
56. B	Ch 4 #17
57. A	Ch 5 #1
58. A	Ch 5 #5
59. C	Ch 6 #1
60. A	Ch 6 #2
61. A	Ch 8 #9
62. A	Ch 8 #18
63. D	Ch 9 #2
64. D	Ch 9 #5
65. C	Ch 9 #15
66. B	Ch 10 #2
67. B	Ch 12 #1
68. C	Ch 12 #5
69. A	Ch 13 #4
70. A	Ch 13 #7
71. C	Ch 14 #3
72. A	Ch 14 #4
73. C	Ch 15 #5
74. C	Ch 15 #7
75. B	Ch 15 #13
76. A	Ch 16 #10
77. A	Ch 17 #6
78. C	Ch 17 #11
79. D	Ch 17 #12
80. C	Ch 18 #1

81. C	Ch 18 #2
82. B	Ch 18 #5
83. B	Ch 19 #3
84. C	Ch 19 #8
85. C	Ch 19 #12
86. D	Ch 20 #1
87. D	Ch 20 #5
88. C	Ch 20 #7
89. A	Ch 21 #1
90. B	Ch 21 #2
91. C	Ch 21 #5
92. C	Ch 24 #4
93. D	Ch 24 #5
94. B	Ch 24 #10
95. C	Ch 25 #1
96. D	Ch 25 #5
97. A	Ch 25 #12
98. A	Ch 26 #1
99. C	Ch 26 #3
100. D	Ch 26 #4