SECTION II
2023
FIRST AID RULES

2023 FIRST AID
RULES INDEX

FIRST AID RULES

GENERAL RULES

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. The Contest Director(s) will establish a reasonable amount of time for each team to complete the problem. All teams will be notified of the established time prior to beginning to work the problem. Any teams working beyond the established time period will be notified by the Judge that they must leave the station.

2. Problems will be kept in unsealed envelopes, retained by the judges, and given tothe 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. 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. Props (except props used to simulate an injury) 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.

3. The First Aid team must furnish the basic first aid supplies needed to complete the problem unless specified by the contest coordinator that the supplies will be available ata specific station.

   A. The material list below is a recommended materials list that could be used totreat injuries.
   B. Problems should be designed utilizing no more than the minimum material listed below.
   C. For contest purposes, all bandaging materials will be considered sterile~~. For contests purposes only~~ and four by four dressings need not be opened before use for treatment.

   D. All cravat tails or excess material not being utilized will be tucked or cut after bandaging completed.

MATERIALS LIST

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 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 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 (a device used to cut off all blood supply)
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 (for contest purposes expiration date not applicable)

Compliment of Straps for Long Spine Board (buckle straps, spider straps, etc.)

Automated External Defibrillator Training Unit (do not power up)

4. All injuries presented during the First Aid Problem if feasible will be created using moulage to be as realistic as possible. If feasible no tape, tattoos, or photos describing the injury will be used. All material used to solve the first aid problem **will** be picked up by the team prior to moving on to their next prospective station.

   A. Local/Regional contests may use the following for the creation of injuries (if not using moulage). 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.)

   B. 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.

   C. If used Lettering on the cards and/or labels will be at least 1/4-inch in height and all life-threatening conditions will be in red.

      Example: 2-INCH WOUND ON FOREHEAD

      If required by the problem, Cardiopulmonary Resuscitation (CPR) with an AED and rescue breathing will only be performed on a manikin. 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.

5. ***WARNING ...*** Any team whose member(s) intentionally disturb or destroy any component on a competition field will immediately be disqualified. This is to be determined/concurred by at least two judges and after consultation with Contest Director(s).

GUIDELINES AND PROCEDURES

1. A first aid team will consist of three members of the 8-person registered mine rescue team.

2. Multiple first aid teams from a single mine rescue team may enter the event.

3. The first aid team members who will be associated with the mine rescue team for the combination award must be designated at the time the mine rescue team is registered.

4. Changes to the designated first aid team members may be made up to the time the team members report for lock-up prior to their event. This change will be submitted, in writing, to the Chief Judge of the First Aid event and/or the Contest Director(s), and must be signed by a representative of the team and the Contest Official.

5. First aid teams not designated to a mine rescue team for the combination award can compete in the First Aid event, and their scores will only be used to determine their ranking within that event.

6. Registration for the first aid team(s) competition will be made during the mine rescue team registration.

7. All first aid team members **will** remain in isolation until their team is called. Teams **will** receive a briefing on the problem scenario when they arrive at the first aid station.

8. 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(s).

   If participating teams need additional help, such as transporting or moving a patient, help will be provided by contest officials.

9. There will be a minimum of two (2) judges at the first aid station.

10. Judges will be assigned specific tasks to be scored prior to the judging and will record their findings on a specific scoring card issued prior to the contest.

11. Judges must be trained in first aid methods and knowledgeable in the scenario they will be judging.

12. There will be one first aid station, including:

    A. Patient assessment, control of bleeding, physical shock, wounds, burns, scalds, musculoskeletal injuries, and transportation.

B. Cardiopulmonary Resuscitation (CPR) with and AED and Artificial Respiration may be incorporated into the problem. The Contest Director will provide recording manikins of the same type, if required by the problem. Teams will not be allowed to use their own manikin in lieu of the ones provided by the Contest Director. Teams will be afforded the opportunity to practice on the provided manikin for a maximum of 5 minutes on designated First-Aid Field prior to working the problem, this will be done in conjunction with the First-Aid equipment being laid out, if the team wants to do that. At the end of the 5 minutes, teams will be expected to be ready to work the problem.

~~**NOTE:** Teams must provide their own recording manikin.~~

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

14. The problem will end, and teams will stop the timing device when all conditions have been located, and treated. 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.

15. Problem will be designed from the Skill Sheets approved by the Rules Committee. Teams will be required to triage the accident scene if more than one patient. Problem may have up to three patients at the scene.

16. Contest officials will designate a space (15 feet by 15 feet minimum) for teams to work, with a minimum of 3 feet by 15 feet area for the team's equipment. All equipment and team members 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.

17. 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 not correctly placed or utilized will be pointed out to team at this time. **No docks will be added for any physical treatment(s) not performed, i.e. bandage, splint not correctly placed or utilized that was not pointed out after the team leaves the working field.

18. If no time limit is set for the problem, a 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). When a time limit is utilized the average working time will not be in problems.

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

19. Judges must keep an accurate time and record it on scoring sheets for tie breaker purposes.

20. Judges will not discuss any first aid problem with team members (prior to the working of the problem) unless there are technical problems.

21. Only judges, contest officials, escorted photographers, and news media approved by the Contest Director(s) will be permitted in the first aid station. A separate area will be provided for spectators to observe the teams during competition.

22. On the day prior to the contest, a meeting will be held to discuss officials' and judges' assignments and training.

23. The Eleventh Edition of Brady "Emergency Medical Responder – First on the Scene" (Chapters: 3, 4, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 27), and the current American Heart Association BLS Student Handbook (as of January 1st of the contest year) are authorized for reference and guidance.

24. The team will not be permitted to use first aid manuals for reference purposes during the working of the problem. No practicing will be allowed on the field before the beginning of the contest, with the exception of familiarization of AED and Manikin.

~~25. If oxygen is required in the treatment of a patient, it will be simulated with the use of a mask. No oxygen tank will be required.~~

26. Liquids applied for the purposes of washing eyes, moistening dressings, and rinsing contaminated skin may be simulated. All dressings and splints must be placed properly. (If traction splints are used "DO NOT APPLY TRACTION TO THE SPLINT")

27. Team members are not allowed to leave the working area to obtain materials for the problem.

28. Rough treatment of patient is not allowed.

    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 during 2 person extremity lift, or fireman's drag.) (This does not include the rolling of the patient to the side that is injured or rolling a patient more than one time that has signs/symptoms of spinal injury. When teams are required to roll a patient with signs/symptoms of spinal injury, the correct log roll procedure skill sheet for the selected log roll technique, whether it is two or three person log roll will be followed).

29. If a tourniquet is required in First Aid problem, do not secure tightly. Upon proper application of the tourniquet (as per skill sheet), bleeding will be considered controlled and acknowledged by the judge.

30. Assistance in treatment from a supposedly unconscious patient (if patient is provided by the working team) is not allowed. Patient cannot talk, direct, or assist unless stated in the problem. (Reactionary or unintentional movements by the patient should not be discounted)

31. A predetermined amount of trophies will be awarded for the First Aid Competition based on the best cumulative team scores (least amount of discounts).

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.

WRITTEN EXAMINATION

1. During isolation, contest officials will administer a written examination to the three working team members of each working team.

2. The written examination will consist of 15 multiple choice questions taken from the Statements of Fact, ~~review questions and glossaries of~~ which will be selected from the Eleventh Edition of Brady "Emergency Medical Responder – First on the Scene" taken from (Chapters: 3, 4, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 22, 23 and 27 and the most current edition of American Heart Association BLS Student Handbook (as of January 1st of the contest year).

3. Each question shall contain a blank space which shall represent a key word, with no more than two consecutive blanks per statement. Answers will be multiple choice with three choices. Answers will not be intentionally misspelled. "None of the above" shall not be used as one of the choices.

4. A maximum of 20 minutes will be allowed for the team member to take the test.

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

6. No wireless communication or electronic device, including Apple watches or similar devices, will be permitted in the testing area.

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

8. Team members from the same team will not be allowed to sit at the same table while taking the written examination.

9. In any case, the judges will not explain the meaning of questions.

10. Scoring of the test will be completed by at least two qualified judges.

APPEALS

1. Upon completion of the examination of the patient by the judges, the team will be informed of any infractions regarding treatment while at the station. The team will be permitted to verbally appeal any infractions either with the field judge or the chief judge. If not resolved, the chief judge will make the final decision until an appeal can be filed by the team.

2. During the verbal appeal process, all questionable splints/dressings must remain intact until any verbal appeal is resolved. If any questionable splints/dressings are removed or altered by the team prior to being resolved, the appeal will not be allowed.

3. At the conclusion of the competition, the team members will be instructed to report to the area designated for 30-minute looks. A schedule will be posted near the 30-minute look location. The first aid team and team trainer will have thirty (30) minutes to review the judges' scorecards and the team's written test scores. At the conclusion of the 30-minute look, the first aid team and/or trainer may submit a written appeal for any discount received to the person in charge of the review. Written appeals are not to exceed one page for any discount assessed and will be forwarded to the First Aid Appeals Committee. No additional appeals will be accepted after the 30-minute look.

4. Documentation (contest rules and other documents used in the contest) supporting the appeal will be accepted. Any protest(s) will be considered by the First Aid Appeals Committee. A discount summary sheet will be used to list the discounts. All discounts except time will be listed and totaled. Both the first aid team and the review judge will sign the team discount summary sheet to certify they have reviewed the discounts and verified the totals. All appeals will be considered by the committee and their decision will be binding and final.

5. If a wireless internet connection is available, the Contest Director(s) may approve an option where the teams can review their results electronically. In those cases, the team must provide an email address that will be used for the review on the form provided at registration. The form must be completed and submitted at registration. Contest officials will email the scorecards, written examination, etc. to the email address on record when they are ready for review. The team will have 45 minutes to review the material starting upon the "read receipt" of the email, but no more than two hours from the time it was posted outside the appeals area, and email any protests back to the Contest Officials.

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 not utilizing moulage. Each critical skill identified with a double asterisk (**) shall be clearly verbalized by the team as it is being conducted at all contests.

3. When using acronyms required in the Eleventh Edition of Brady "Emergency Medical Responder – First on the Scene" i.e. BP-DOC and after initially stating what it stands for, the team will not be required to explain the Acronym again.

4. Discounts will not be added to the team score once the judges have signed their discount sheets following a review with team members. This does not preclude changes due to administrative errors or a misapplication of a rule.

5. Teams will not be discounted more than once for any one mistake in the same problem where such mistake may qualify under more than one discount. Judges will confer and assess the highest single discount.

6. Teams will be additionally discounted for repetition of the same mistakes in the same problem. For example; improper bandaging on two separate wounds (2 times the appropriate discount), three granny knots (3 times the appropriate discount), etc.

7. Teams will not be discounted for doing more than the problem call for, unless it is detrimental to the patient or improper care.

8. If the discount is not listed on the discount sheet and if it is not covered under one of the approved rules of the contest, judges will not improvise a discount to cover the suspected violation.

9. Prior to stopping the clock, the team must reassess the patient's level of

consciousness, respiratory status and patient response.

10. If moulage is not being used 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.

11. Rapid Assessment consists of Initial Assessment and Patient Assessment.

12. If the Rapid Assessment has been performed, all life-threatening injuries are treated, and transportation is delayed the detailed patient assessment will be performed and will consist only of the procedures (no critical skills on patient assessment) with treating all injuries when found.

Information for this table taken from Chart figure 27.5– 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 (Can Walk)**	**Absent**

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

IMMEDIATE

Teams will systematically conduct initial assessment, treating all life-threatening injuries/conditions. Life threatening conditions include: breathing difficulties, no pulse, life threatening bleeding, spinal injury, skull fracture or a sucking chest wound. 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. After completing rapid assessment and treating life threatening conditions, if transportation is delayed patient treatment will continue until transportation is available. A detailed patient assessment would be required, treating conditions/injuries as found. Straps may be released as necessary. Support would have to be taken as required. Team will re-strap and transport when

transportation is available or treatment completed. 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 the team will verbalize – "transporting patient". (If instructions are given that transportation is delayed prior to or during a rapid assessment a complete detailed patient assessment only will be required)

DELAYED

Teams will systematically conduct the patient assessment according toprocedures 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.)

MINOR

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.)

DECEASED

Once the determination that a patient is deceased the team will be required to cover the patient before stopping the timing device(s).

SCORECARD A DISCOUNTS

1. 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, life threatening bleeding, spinal injury, skull fracture, a sucking chest wound

   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.

2. 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

3. 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.

4. 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

5. The bystander/patient if used as a bystander 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.

6. 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

7. All team members shall be dressed uniformly. Shoes need not be identical. The pants/shorts shall be the same color._____1

8. 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. The manikin may be placed in the designated area prior to starting the timing device. _____5

9. 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.) (This does not include the rolling of the patient to the side that is injured or rolling a patient more than one time that has signs/symptoms of spinal injury. When teams are required to roll a patient with signs/symptoms of spinal injury, the correct log roll procedure skill sheet for the selected log roll technique, whether it is two or three person log roll will be followed). _____5 each infraction

10. All injuries and/or conditions shall be treated (example: wound, fracture, frostbite).___20 each infraction

11. Failure to perform a required critical skill. Each CRITICAL SKILL shall be performed as identified on the skill sheets.____2 each infraction (except for CPR/AV covered by scorecard B)

12. During patient assessment, failure to verbally state the location physically examined and each condition found._____1 each infraction.

13. Working out of order (assessment, procedure, critical skill)._____2

14. Failure to follow written instructions._____5

15. 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

16. Protective equipment must be donned prior to patient(s) contact (gloves, masks, and eye protection). Only BSI may be donned prior to starting the timing device. _____5 each infraction

17. 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

18. 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 each infraction

19. Failure to take support of a fracture or dislocation (not supporting fracture or dislocation).____10 each infraction

a. Support of Extremities – Above and below the fracture or dislocation
b. Support of Hip – Both sides of the fracture or dislocation
c. Support for spinal injury – Stabilization of neck/Modified Jaw Thrust except for analyzing and shocking with AED patient during CPR
d. Support for skull fracture – Stabilization of neck/Modified Jaw Thrust
e. No support for fractured ribs,
f. No support of fractures/dislocations of nose, jaw, fingers, and toes

20. Support of fractures and/or dislocations shall not be broken or released. (except during the use of an AED when analyzing or shock is delivered)____5 each infraction

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 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.

21. 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 each infraction

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.

~~22. Not applying sling for upper extremity wound.____1 each infraction~~

~~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.~~

23. Failure to determine immediate patients._____10 each infraction

An immediate patient shall be transported immediately (if transportation is available). 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.

24. Failure of team to start/stop timing device_____2 discounts

25. 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 make 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 ask judge for presence of a pulse.____1

Cardiopulmonary Resuscitation

1. Failure to give AV/CPR when required.____20
   (Maximum of 3 sets AV/CPR or combination thereof)

2. Improper Hand placement when 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) Depth. Compression depth shall break the first line for 60 pounds pressure. Over compressions shall not be discounted.____1

   b) Number required. A total of 30 compressions shall be made each cycle.____1

   c) Release of upstroke. The release line shall be straight.____1

   d) Rate. Compressions shall be made at the rate of 100 to 120 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 to apply the AED when available_____10

15. Failure of rescuers to change positions in 5 seconds or less when performing two- person CPR._____1

16. Failure of rescuer to ask the judge if the patient has a pulse when CPR is completed. _____1

17. Delivery of simulated shock with AED to patient while in contact with the patient _____5 each occurrence (add to scorecard)

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

***NOTE: Each critical skill identified with an asterisk (*) shall be clearly verbalized by the team as it is being conducted at contest not utilizing moulage. Each critical skill identified with a double asterisk (**) shall be clearly verbalized by the team as it is being conducted at all contests.**
After initially stating what BP-DOC- Bleeding, Pain, Deformities, Open wounds, and Crepitus stands for, the team may simply state BP-DOC- Bleeding, Pain, Deformities, Open wounds when making their checks. Teams my use the acronym "CSM" when checking circulation, sensation, and motor function.

INITIAL ASSESSMENT

PROCEDURES		CRITICAL SKILLS
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 (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

PATIENT ASSESSMENT

PROCEDURES			CRITICAL SKILLS
1. HEAD	□		**A. Check head for BP-DOC: Bleeding, Pain, Deformities, Open wounds, Crepitus
	□		**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 ~~BP-DOC~~
	□		**B. Inspect for medical ID
3. CHEST	□		**A. Check chest area ~~for BP-DOC~~
	□		**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 BP-DOC~~
5. PELVIS	□		**A. Check pelvis ~~for BP-DOC~~
	□		**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 BP-DOC~~
	□	□	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
7. ARMS	L	R	
	□	□	**A. Check each arm ~~for BP-DOC~~
	□	□	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 BP DOC~~

ONE-PERSON CPR (MANIKIN ONLY)

PROCEDURES		CRITICAL SKILLS
1. RESCUER 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 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 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 D. Immediately start CPR if no 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 100-120 per minute 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. "Ask judge for presence of a pulse."

TWO-RESCUER CPR WITH AED (NO SPINAL INJURY - MANIKIN ONLY)

PROCEDURES		CRITICAL SKILLS
1. RESCUER 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 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 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
	□	D. Immediately starts CPR if no pulse
4. RESCUER 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 DELIVER CARDIAC COMPRESSION	□	A. Give 30 compressions
	□	B. Compressions are at the rate of 100 to 120 per minute
	□	C. Down stroke for compression must be on or through compression line
	□	D. Return to baseline on upstroke of compression
6. RESCUER ESTABLISH AIRWAY	□	A. Kneel at the patient's side near the head
	□	B. Correctly execute head-tilt/chin-lift maneuver

7. RESCUER 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. RESCUER APPLIES THE AED (DURING THE FIFTH CYCLE OF COMPRESSIONS)	□ □ □	A. Rescuer continues compressions while other rescuer turns (simulated) on AED and applies pads. B. RESCUERS SWITCH 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, rescuer clears victim again and delivers shock. *verbalize shock given
10. RESUME HIGH QUALITY CPR	□ □	A. Rescuer gives 30 compressions immediately after shock delivery (2 cycles). B. Other rescuer successfully delivers 2 breaths.
11. 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
12. CHECK FOR RETURN OF PULSE	□ □	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) **B. "Ask judge for presence of a pulse."

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

PROCEDURES		CRITICAL SKILLS
1. RESCUER 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 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 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
	□	D. Immediately start CPR if no pulse
4. RESCUER 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 DELIVER CARDIAC COMPRESSION	□	A. Give 30 compressions
	□	B. Compressions are at the rate of 100 to 120 per minute
	□	C. Down stroke for compression must be on or through compression line
	□	D. Return to baseline on upstroke of compression
6. RESCUER ESTABLISH AIRWAY	□	A. Kneel at the patient's head
	□	B. Correctly execute jaw thrust maneuver

7. RESCUER VENTILATIONS BETWEEN COMPRESSIONS	□ □ □ □	A. Rescuer should place the barrier device (pocket mask/Shield with one way valve) on manikin B. Rescuer 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. RESCUER APPLIES THE AED (DURING THE FIFTH CYCLE OF COMPRESSIONS)	□ □ □	A. Rescuer continues compressions while other rescuer turns on AED and applies pads. B. RESCUERS SWITCH 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, rescuer clears victim again and delivers shock. *verbalize shock given
10. RESUME HIGH QUALITY CPR	□ □	A. Rescuer gives 30 compressions immediately after shock delivery (2 cycles). B. Other rescuer successfully delivers 2 breaths.
11. 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.
12. CHECK FOR RETURN OF PULSE	□ □	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) **B. "Ask judge for presence of a pulse."

MOUTH-TO-MASK RESUSCITATION

PROCEDURES		CRITICAL SKILLS
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 for 5 to 10 second. **C. 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 SKILLS
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 consideredadequate (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 100-120 per minute 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 SKILLS
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 SKILLS
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, APPLY TOURIQUET	□	A. Apply as per tourniquet skill sheet

External Bleeding

To Control: 1st: direct pressure
2nd: elevation & direct pressure
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

TOURNIQUET

PROCEDURES		CRITICAL SKILLS
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
2. SELECT APPROPRIATE MATERIALS	□	A. Select a band that will be between 1-4 inches in width and can be wrapped six or eight layers deep for improvised tourniquet or select factory tourniquet.
3. APPLY TOURNIQUET	□ □ □ □	<u>Factory Tourniquet</u> A. Wrap band around the extremity proximal to the wound (one inch above but not on a joint) <u>Improvised Tourniquet</u> 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 SKILLS
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. Cover all edges of dressing. D. Do not cover tips of fingers and toes, unless they are injured. E. 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.

Impaled Objects

*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. Check for exit wound (treat when found)
7. Immobilize affected area

Impaled Objects in the Jaw

*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 or4x4

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. A sling and swathe are generally effective for musculoskeletal injuries to the shoulder, upper arm, elbows, lower arm and wrists. 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 SKILLS
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

THREE-PERSON LOG ROLL

PROCEDURES		CRITICAL SKILLS
1. STABILIZE HEAD	□	*A. Stabilize the head and neck
	□	B. One rescuer should kneel at the top of the patient's head and hold or stabilize the head and neck in position found.
2. PREPARING THE PATIENT	□	A. A second rescuer should kneel at the patient's side opposite the direction the face is facing.
	□	B. When placing patient on board place board parallel to the patient.
	□	C. Quickly assess the patient's arms to ensure no obvious injuries.
	□	D. 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.
	□	E. The third rescuer should kneel at the patient's hips.
3. PREPARING THE RESCUER	□	A. Rescuers should grasp the patient at the
	□	shoulders, hips, knees, and ankles.
		B. Give instructions to bystander (physically show), if used to support
4. ROLLING THE PATIENT	□	A. While stabilizing the head, the rescuer at the patient's head should signal and give directions, all rescuers should slowly roll the patient toward the rescuers in a coordinated move, keeping the spine in a neutral, in-line position.
	□	B. On three, slowly roll. One, two, three roll together.
	□	C. The head and neck should remain on the same plane as the torso, the rescuer holding the head should not initially try to turn the head with the body. (if the head is already facing sideways, allow the body to come into alignment with the head)
	□	D. Maintain stability by holding patient with one hand and placing board (if used) with other
	□	E. Roll the body as a unit onto the board (if used) (board may be slanted or flat) Center the patient on the board.
	□	F. Place the arm alongside the body

SPLINTING (RIGID) UPPER EXTREMITY FRACTURES AND DISLOCATIONS

PROCEDURES		CRITICAL SKILLS
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

ELBOW (STRAIGHT POSITION)

Follow Procedures No. 1 and No. 2 above

FINGER/FINGERS

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 SKILLS
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

PROCEDURES		CRITICAL SKILLS
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
		<u>Living Splint:</u>
	□	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
		<u>Padded Board Splint:</u>
	□	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
		<u>Other Splints:</u>
	□	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 SKILLS
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 SKILLS
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 SKILLS
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 SKILLS
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 SKILLS
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 feet and grasp the patient's wrist
2. RAISING PATIENT TO A SITTING POSITION	□ □ □	A. Direct rescuer 2-to pull patient into a sitting position. B. Rescuer 1 – push patient's shoulders up, slip your arms under the patient's armpits and grasp wrist. C. Rescuer 2 – Gently pull on patient's arms
3. POSITIONING AND LIFTING	□ □ □	A. Rescuer 1 –Once the patient is in a semi sitting position have rescuer 2 crouch down and grasp the patient's legs behind the knees. B. Rescuer 1-Directs rescuer 2 so you both stand at the same time. Then move as a unit when carrying the patient. C. The rescuer at the head to direct the rescuer at the feet when to stop the carry and when to place the patient down in a supine or seated position.

SHIRT DRAG

PROCEDURES		CRITICAL SKILLS
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 (keep spine as straight as possible avoid dragging a patient sideways, by one arm, or one leg. A sideways drag can cause twisting motions of the spine that could aggravate existing injuries.)
3. MOVING PATIENT DOWN STAIRS OR INCLINE	□	A. When using a drag to move a patient down stairs or down an incline, grab the patient under the shoulders and pull the patient head first as you walk backward. If possible, try to cradle the patient's head in your forearms as you drag.

ESTABLISHING AIRWAY–SUSPECTED CERVICAL SPINE (NECK) INJURY

PROCEDURES		CRITICAL SKILLS
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 SKILLS
1. CHECK FOR SIGNS AND SYMPTOMS OF SHOCK	□	**A. Check restlessness; anxiety; altered mental status; increased heart rate; normal to slightly low blood pressure; mildly increased breathing rate; pale (or bluish) skin (in victim with dark skin examine inside of mouth and nailbeds for bluish coloration.
	□	**B. Check for cool, moist skin; sluggish pupils; and nausea and vomiting.
	□	**C. Check for weakness
2. TREATMENT	□	A. Ensure the ABCs are properly supported.
	□	B. Control external bleeding.
	□	C. Keep the patient in a supine position.
	□	**D. Calm and reassure the patient, and maintain a normal body temperature.
	□	E. 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)
	□	F. Continue to monitor and support ABCs
	□	G. Do not give the patient anything by mouth. Do not give any fluids or food and be alert for vomiting.
	□	**H. Monitor the patient's ABCs at least every five minutes.
	□	**I. Reassure and calm the patient

IMMOBILIZATION – LONG SPINE BOARD (Backboard)

PROCEDURES		CRITICAL SKILLS
1. MOVE THE PATIENT ONTO THE LONG SPINE BOARD	□	A. Rescuer One at the head must maintain in-line immobilization of the head and spine
	□	B. Rescuer One at the head directs the movement of the patient
	□	C. Other Rescuers control movement of the rest of body
	□	D. Rescuer Two position themselves on same side
	□	E. Upon command of Rescuer One at the head, roll patient onto side toward Rescuer Two.
	□	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 Rescuer 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 SKILLS
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
	□	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.
	□	C. Do not flush with water unless they involve an area less than 9% of the total body surface area)
	□	D. Remove smoldering clothing (do not remove any clothing that is melted onto the skin)
	□	jewelry
	□	**E. Continually monitor the airway for evidence of closure
	□	F. Prevent further contamination. Keep the burned area clean by covering it with a dressing. Cover partial- and full-thickness burns with dry clean dressings. In most cases place dry, sterile dressings onto the burned area.
	□	**G. Do not use any type of ointment, lotion or antiseptic
	□	**H. Do not break blisters
	□	**I. Ensure patient does not get hypothermic
	□	J. If eyes or eyelids have been burned, place dressings or pads over them. Moisten these pads with sterile water if possible. Both eyes will be covered.
		K. If serious burn (partial or full-thickness burns) involves the hands or feet, always place a clean pad between toes or fingers when completing the dressing.

4. CARE FOR CHEMICAL BURNS	□ □ □ □ □ □ □ □	A. Protect yourself from exposure to hazardous materials B. Wear gloves, eye protection, and respiratory protection **C. Flush the burned area for at least 20 minutes. (If possible and it can be done quickly, try to identify any chemical powders before applying water) D. Apply a dry, clean dressing. E. If dry lime is the agent causing the burn, do not flush with water. Instead use a dry dressing to brush the substance off the patient's skin, hair, and clothing. F. Remove any contaminated clothing or jewelry. G. Once this is done, you may flush the area with water. H. 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 SKILLS
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 SKILLS
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. Pertussis, hepatitis, and tetanus are commonly recommended immunization for health care providers. Ch.-3
2. Hepa mask would be the most important type of PPE to use when caring for a patient with tuberculosis. Ch.-3
3. Depression, burnout, insomnia are all common emotional reactions of an Emergency Medical Responder who has faced serious trauma, illness, or death. Ch.-3
4. Denial, anger, bargaining are terms used for the stages of death and dying. Ch.-3
5. Proper body substance isolation (BSI) precautions should be taken for any ill or injured patient. Ch.-3
6. Standing with hands at the sides and palms forward best describes the anatomical position. Ch.-4
7. The lower airway includes the following: Bronchi, alveoli, and trachea. Ch.-4
8. The central nervous system is made up of the brain and spinal cord. Ch.-4
9. The bladder is located in the pelvic cavity. Ch.-4
10. The abdominal cavity contains the liver and part of the large intestine. Ch.-4
11. The endocrine system includes the glands and hormones. Ch.-4
12. The kidneys are found in an area behind the abdominal wall. Ch.-4
13. Proper body mechanics are best defined as properly using your body to facilitate a lift or move. Ch.-6
14. When lifting a patient, your feet should be placed shoulder – width apart. Ch.-6
15. The load on your back is minimized if you can keep the weight, you are carrying as close to your body as possible. Ch.-6
16. Standard is the type of move used when there is no immediate threat to the patient's life. Ch.-6
17. When restraining a patient, it is important to remember that the patient should be kept supine at all times. Ch.-6
18. Before restraining a combative patient, the Emergency Medical Responder should obtain law enforcement assistance. Ch.-6

19. Rescue breathing is the application of manual ventilations. Ch.-9

20. When performing the head-tilt / chin-lift maneuver on an adult, tilt the head as far back as possible. Ch.-9

21. The recommended method for opening the airway of a patient with possible neck or spinal injury is the jaw-thrust maneuver. Ch.-9

22. Clinical death occurs when the patient's heartbeat and breathing have stopped. Ch.-9

23. A pocket face mask allows the rescuer to provide ventilations while minimizing direct contact with the patient's mouth and nose. Ch.-9

24. During rescue breathing you should check for the effectiveness of ventilations by looking for chest rise / and fall, listening for airflow and observing skin color. Ch.-9

25. Gurgling sounds during breathing is an indication for suctioning the upper airway. Ch.-9

26. Inserting an oropharyngeal airway improves ventilations delivered by way of a bag mask device. Ch.-9

27. The primary muscle of respiration is the diaphragm. Ch.-9

28. The epiglottis prevents food and other material from entering the trachea. Ch.-9

29. The alveoli are the tiny balloon-like structures deep within the lungs where gas exchange takes place. Ch.-9

30. Poor chest rise, pale or bluish skin color or use of accessory muscles are signs of difficulty of breathing. Ch.-9

31. When caring for an unresponsive patient, tilting his/her head back improves the airway by lifting his/her tongue from the back of his/her throat. Ch.-9

32. Foreign object is an example of mechanical airway obstruction. Ch.-9

33. Noisy breathing is a sign of partial airway obstruction. Ch.-9

34. The most common cause of cardiac arrest in the adult population is heart disease. Ch.-11

35. You have just delivered a shock with an automated external defibrillator you should begin chest compressions, immediately. Ch.-11

36. Over the lower half of the sternum is the most appropriate hand location for chest compressions on an adult. Ch.-11

37. An automated external defibrillator corrects an abnormal heart rhythm. Ch.-11

38. In a SAMPLE history, the E represents events leading to the illness or injury. Ch.-12

39. When assessing circulation for a responsive adult patient you should assess the radial pulse. Ch.-12

40. When assessing the pulse, you should assess rate, strength, and rhythm. Ch.-12

41. When assessing a patient's respirations you must determine rate, depth, and ease. Ch.-12

42. The five common vital signs are pulse, respirations, blood pressure, pupils, and skin signs. Ch.-12

43. Respiratory rate can be assessed by watching and feeling the chest and abdomen move during breathing. Ch.-12

44. The "R" in the OPQRST pneumonic refers to radiate. Ch.-12

45. Carotid and femoral are the two pulse points that are referred to as central pulses. Ch.-12

46. As blood pressure drops, perfusion is most likely to decrease. Ch.-12

47. Skin that is bluish in color is called cyanotic. Ch.-12

48. The term diaphoretic refers to skin moisture. Ch.-1

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

50. A respiratory rate that is lower than 10 for an adult should be considered inadequate. Ch.-12

51. The pressure inside the arteries each time the heart contracts is referred to as the systolic pressure. Ch.-12

52. The term trending is best defined as the ability to record changes in a patient's condition over time. Ch.-12

53. Determining the number of patients, manually stabilizing the cervical spine, and donning glove and safety glasses are all components of an appropriate scene size up. Ch.-13

54. After arriving on scene but before making patient contact, you should take BSI precautions. Ch. -13

55. A patient has been involved in a rollover vehicle collision, in this scenario, the rollover is an example of the mechanism of injury. Ch.-13

56. Identify and treat life-threatening conditions best describes the purpose of the primary assessment. Ch.-13

57. The steps of primary assessment include forming a general impression, assessing metal status, assessing ABCs, and determining priority for transport. Ch.-13

58. A patient who presents with normal vital signs and shows no indications of life-threatening problems may be described as stable. Ch.-13

59. When assessing a trauma patient who has a significant mechanism of injury, the BP-DOC, assessment tool is designed to look for signs of traumatic injury. Ch.-13

60. The secondary assessment is designed to find and treat non-life-threatening injuries or conditions. Ch.-13

61. Blood that is returning to the heart from the lungs enters the heart at the left atrium. Ch.-14

62. The myocardium receives its blood supply from the coronary arteries. Ch.-14

63. Angina pectoris, myocardial infarction, and heart failure are all common causes of cardiac compromise. Ch.-14

64. Heart attack is a leading cause of sudden cardiac arrest describes the relationship between a heart attack and sudden cardiac arrest. Ch.-14

65. You have arrived on the scene of an unresponsive patient whom you find to be pulseless and apneic, you should begin chest compressions. Ch.-14

66. A lack of blood flow caused by narrowing of the coronary arteries that causes temporary chest pain describes the pathophysiology of angina pectoris. Ch.-14

67. The respiratory control center, located deep within the brain, primarily monitors the level of carbon ~~monoxide~~ dioxide to maintain proper respiratory rate and volume. Ch. 15

68. Your patient has been in respiratory distress for approximately 30 minutes, your assessment reveals pale skin and cyanosis of the lips, these are signs of hypoxia. Ch.-15

69. History of smoking, barrel-shaped chest, and chronic hypoxia are all signs and symptoms of emphysema. Ch.-15

70. Bronchitis is a medical condition that causes inflammation of the bronchioles, excess mucus production within the airways and chronic productive cough. Ch.-15

71. Asthma is characterized by a narrowing of the lower airway, often associated with exercise or allergies. Ch.-15

72. A patient with altered mental status is best defined as one who is not alert or responsive to surroundings. Ch.-16

73. A patient who is unresponsive and having generalized muscle contractions is likely experiencing a seizure. Ch.-16

74. Protect the patient from injury and place him or her in the recovery position following the seizure is an example of appropriate care for a seizure patient. Ch.-16

75. One of the best techniques for dealing with a patient experiencing a behavioral emergency is to speak in a calm and reassuring voice. Ch.-16

76. Abnormal speech, facial droop, and arm drift are evaluated as part of the Cincinnati Prehospital Stroke Scale. Ch.-16

77. You are caring for a patient who intentionally ingested a large number of Tylenol pills approximately 30 minutes ago, you should contact poison control. Ch.-16

78. You have responded to a call for a possible overdose, you should first ensure that the scene is safe. Ch.-16

79. The most commonly abused substance in the United States is alcohol. Ch.-16

80. Compared to hyperglycemia, hypoglycemia has an onset that is usually faster. Ch.-16

81. Stroke is a medical emergency that is caused by a disruption of blood flow to the brain. Ch.-16

82. Once a seizure has ended, the patient is said to be in the postictal state. Ch.-16

83. The process of sending a patient's blood through an artificial filter is referred to as Hemodialysis. Ch.-16

84. More serious heat-related injuries should be suspected when the patient presents with hot, dry skin. Ch.-17

85. A patient who is experiencing an abnormally low body core temperature is said to be hypothermic. Ch.-17

86. An injury characterized by the freezing or near freezing of a body part is known as frostbite. Ch.- 17

87. Removing the patient from the cold environment, protecting him or her from further heat loss, and monitoring his or her vital signs are all appropriate steps in the management of a patient with hypothermia. Ch.-17

88. A patient who presents with warm, moist skin; weakness; and nausea is likely experiencing heat exhaustion. Ch.-17

89. Your patient was working and was bitten on the ankle by a rattlesnake, when caring for this patient you should apply a pressure bandage around the entire extremity. Ch.-17

90. Blood spurts from the wound, the color of the blood is bright red, and blood loss is often profuse in a short period of time are typical characteristics of arterial bleeding. Ch.-18

91. Most cases of external bleeding can be controlled by applying direct pressure. Ch.-18

92. The material placed directly over a wound to help control bleeding is called a dressing. Ch.-18

93. A wound where the top layers of skin have been scraped off, commonly seen in falls, can best be described as an abrasion. Ch.-18

94. You are caring for a patient with a severe soft tissue injury to the lower leg, you exposed the wound, and it is bleeding you should apply direct pressure. Ch.-18

95. A patient has a small wooden splinter impaled in their eye you should gently bandage both eyes. Ch.-18

96. Your patient has burned his hand, the skin is red and blistered and the burn is extremely painful, this burn would be classified as partial thickness. Ch.-18

97. Your patient shows signs of shock, and you suspect she is bleeding internally, you should facilitate immediate transport. Ch.-18

98. The appropriate care for an amputated body part is wrap it with clean gauze and place it on ice. Ch.-18

99. Your patient has been impaled through the right thigh by a long piece of metal bar, you should stabilize the object with bulky dressings. Ch.-18

100. You arrive on the scene to find a young girl with an active nosebleed, she is crying and the sight of blood is scaring her, you should have her lean forward while you pinch the nostrils. Ch.-18

101. You are caring for a burn victim who has partial-thickness burns covering his entire right arm and the front of his entire torso, the estimated BSA affected is 27%. Ch.-18

102. You are caring for a burn victim with both partial and full thickness burns over 40% of her body, you should ensure that the burning process has stopped. Ch.-18

103. Increased pulse rate, decreasing blood pressure and altered mental status are all signs of shock. Ch.-19

104. Hemorrhagic shock is the type of shock when the body sustains a significant loss of blood. Ch.-19

105. The four categories of shock include cardiogenic, hypovolemic, distributive, and obstructive. Ch.-19

106. Psychogenic shock is commonly known as fainting. Ch.-19

107. Immediate transport is the most important to the survival of a patient showing signs of shock. Ch.-19

108. When injury to the spinal cord causes systemic dilation of the blood vessels in the body, neurogenic shock develops. Ch.-19

109. The reason a patient's pulse rate increases as shock develops, is to maintain adequate perfusion. Ch.-19

110. Support, protection, and cell production are all functions of the musculoskeletal system. Ch.-20

111. An injury that is characterized by broken skin above the site of fracture is commonly described as an open fracture. Ch.-20

112. A dislocation occurs when a bone end is moved partially or completely away from a ~~point~~ joint. Ch.-20

113. When assessing a patient with a musculoskeletal injury, it is important to check circulation, sensation, and motor function. Ch.-20

114. Pain, swelling, deformity are all common signs and symptoms of an extremity injury. Ch.-20

115. The partial or complete tearing of the ligaments and tendons that support a joint is called a sprain. Ch.-20

116. You are caring for a patient who has an injury characterized by an open wound, severe deformity and bleeding, your highest priority should be controlling bleeding. Ch.-20

117. When the distal pulse is absent is a situation where it would be appropriate to place an angulated extremity back into the anatomical position. Ch.-20

118. A triangular bandage used to stabilize the elbow and arm is called a sling. Ch.-20

119. It is important to maintain the hand and foot of an injured extremity in a normal and comfortable position during splinting, this position is called the position of function. Ch.-20

120. You have just finished applying a splint to a patient's leg, you should recheck circulation, sensation, and motor function. Ch.-20

121. You are caring for a patient who has one leg that is shortened with the foot rotated to one side, these are likely signs of a possible dislocated hip. Ch.-20

122. You are caring for an angulated injury to the lower leg, and you find severe bleeding from the wound, you should use direct pressure to control the bleeding. Ch.-20

123. You are caring for a patient who you suspect has a spinal injury the first thing you should do is to manually stabilize the patient's head and neck. Ch.-21

124. Your patient is unresponsive, lying prone on the floor after falling off a high ladder, the appropriate care for this patient would include using the log-roll maneuver to roll the patient into the supine position. Ch.-21

125. Combative behavior, abnormal breathing patterns and repetitive questions are all signs of a head injury. Ch.-21

126. Your main priority when caring for a patient with a suspected head injury is to, assess and manage airway, breathing and circulation. Ch.-21

127. You are caring for a patient with a suspected open skull injury, when attempting to control the bleeding, you should use only enough pressure to slow or stop the bleeding. Ch.-21

128. Your patient has an open wound to her chest. The wound is bubbling and making "sucking" noises as she breathes you should cover the wound with an occlusive dressing. Ch.-22

129. The purpose of placing an occlusive dressing over an open chest wound is to keep air from entering the chest cavity. Ch.-22

130. You are caring for a patient with an open chest wound and have covered the wound with an occlusive dressing, the patient becomes increasingly short of breath, you should partially remove the dressing to allow air to escape. Ch.-22

131. Hypoxia from shallow respirations is a potential complication from a patient who appears to have injured a rib without a flailed segment, and the patient is alert and oriented. Ch.-22

132. The most appropriate care for an open abdominal injury is to cover the wound with a moist, sterile dressing. Ch.-22

133. A patient has been shot in the right upper quadrant of the abdomen; you should assume that the liver is the organ injured. Ch.-22

134. The organ that serves as a filter between the mother and the developing fetus is called the placenta. Ch.-23

135. The first stage of labor begins at the onset of contractions and end when the baby enters the vaginal canal. Ch.-23

136. A typical field obstetrics kit contains all of the following umbilical clamps, bulb syringe for suctioning, and plastic bag for biohazard disposal. Ch.-23

137. You are assisting a woman in active labor. As the baby's head begins to deliver you should apply gentle pressure and support the head during delivery. Ch.-23

138. Immediately following delivery, a newborn appears limp and cyanotic you should dry, warm, and stimulate the baby. Ch.-23

139. You have just assisted in the uncomplicated delivery of a healthy newborn, you notice moderate vaginal bleeding from the mother, you should place a sanitary pad at the vaginal opening. Ch.-23

140. While examining a mother for crowning, you notice that the umbilical cord is protruding from the vaginal opening, you should insert a gloved hand into the vaginal canal and lift the baby off the cord. Ch.-23

141. During a breech delivery, the baby appears to be stuck with only the buttocks and legs presenting, you should insert a gloved hand into the birth canal to create an air passage for the baby. Ch.-23

142. A multiple-casualty incident (MCI) may be best defined as an incident where the number of patients overwhelms available resources. Ch.-27

143. An incident management system is a tool for the command, control, and coordination of resources at the scene of a large-scale emergency involving multiple agencies. Ch.-27

144. The triage system was developed to assist in determining those victims who will likely benefit from immediate care. Ch.-27

145. In the START triage system, patients are categorized based on an assessment of respirations, perfusion, and mental status. Ch.-27

146. You are triaging an adult patient who presents as unresponsive and breathing at a rate of 24, the patient should be triaged as immediate. Ch.-27

147. Homes are where most out of hospital cardiac arrests occur.

148. Respiratory failure or shock is the most common cause of cardiac arrest in children.

149. Defibrillation is the third link in the adult out-of-hospital Chain of Survival.

150. The ratio of chest compressions to breaths when proving CPR to an adult is 30 compressions to 2 breaths.

151. A rate of 100 to 120 compressions per minute and a depth of at least 2 inches are the rate and depth for chest compressions on an adult.

152. When more rescuers arrive on scene you should assign tasks to other rescuers and rotate compressors every 2-minutes or more frequently if needed to avoid fatigue.

153. The preferred method for opening the airway when you suspect an unresponsive victim has head or neck trauma, is Jaw Thrust.

154. Proportion of time that rescuers preform chest compressions during CPR is called Chest Compression Fraction.

155. The appropriate first step to take as soon as the AED arrives at the victim's side is to power on the AED.

156. Placing the pads on the victim's bare chest is one of the universal step for operating an AED.

157. Avoid placing the AED pad directly over an implanted pacemaker or defibrillator.

158. Stand clear of the victim while the AED is analyzing.

159. A successful resuscitation attempt depends on high-quality resuscitation skills, good communication, and effective team dynamic.

160. Team dynamics during a resuscitation attempt include three elements, roles and responsibilities, communication, and debriefing.

161. Whether you are a team member or the Team Leader, there may be times when you need to point out another team member's incorrect or inappropriate actions.

162. Anyone on the team should speak up to someone else from making a mistake regardless of role.

163. The Team Leader asks you to perform bag-mask ventilation during a resuscitation attempt, but you have not perfected that skill, you should tell the Team Leader you are not comfortable performing the task.

164. The appropriate action to demonstrate closed-loop communication when the Team leader assigns you a task is to repeat back to the Team Leader that task assigned to you.

165. Children aged one to puberty the correct compression to ventilation ratio for a single rescuer is 30-compressions to 2-breaths.

166. Children aged one to puberty the correct compression to ventilation ratio when two rescuers or more are available is 15-compressions to 2-breaths.

167. When the age of the victim is an infant younger than one year old the two thumb-encircling hands technique is recommended.

168. The correct chest compression depth for a child aged one year to puberty is at least one third the depth of the chest, or approximately 2 inches (5 cm).

169. The correct chest compression depth for an infant is at least one third the depth of the chest, or approximately 1.5 inches (4 cm)

170. Opioids are medications used primarily for pain relief, common examples are hydrocodone, morphine, and fentanyl.

171. Too much opioid in the body can overwhelm the brain and depress the natural drive to breathe, this respiratory depression can result in respiratory arrest and cardiac arrest.

172. Scene assessment is an important tool for identifying whether opioids may be involved in a life-threatening emergency.

173. Signs of opioid overdose include slow, shallow or no breathing, choking, or gurgling sounds, drowsiness or loss of consciousness, small, constricted pupils, blue skin, lips, or nails.

174. The drug Naloxone can temporarily reverse the effects of respiratory depression that opioids can cause.

175. The stroke acronym F.A.S.T. stands for face drooping, arm weakness, speech difficulty, time to phone 9-1-1.

176. If you suspect someone is having a stroke, quickly check for signs of stroke using the acronym F.A.S.T.

177. When you are attempting to rescue a person who has experienced drowning, you should open the airway and administer rescue breaths.

178. Life-threatening breathing or circulation problems are sign(s) that someone is experiencing anaphylaxis.

179. Use the epinephrine device when you notice someone showing all the signs of a severe allergic reaction.

180. When administering an epinephrine injection, it should be on the person's thigh, about halfway between the hip and the knee.

181. Early recognition of foreign-body airway obstruction is the key to successful outcome.

182. Foreign bodies may cause a range of signs from mild to severe airway obstruction.

183. Clutching the throat with the thumb and fingers, making the universal choking sign indicates the need for help when a victim is choking.

184. Use abdominal thrusts to relieve choking in a responsive adult or child only, not infants.

185. Give each individual thrust with the intervention of relieving the obstruction, it may be necessary to repeat the thrust several times to clear the airway.

186. If the victim is pregnant or obese perform chest thrusts instead of abdominal thrusts.

187. When a choking victim losses consciousness, the muscles in the throat may relax, this could convert a complete/severe airway obstruction to a partial obstruction.

188. Wheezing between coughs is an example of a mild foreign-body airway obstruction.

189. Verifying the scene is safe is the first step in adult 1-rescuer Basic Life Support sequence.

190. Pocket mask is a handheld device consisting of a face mask with a one-way valve, the rescuer places it over a victim's nose and mouth as a barrier device when giving rescue breaths during CPR.

191. Shock is a life-threatening condition that occurs when the circulatory system can't maintain adequate blood flow.

192. Chest recoil is described as when the chest re-expands and comes back up to its normal position after a chest compression.

193. Head-tilt-chin lift is a maneuver used to open a victim's airway before providing rescue breaths during CPR.

194. Jaw thrust is a maneuver used to open a victim's airway before providing rescue breaths during CPR; used when the victim may have a suspected spinal injury or when the head tilt-chin lift doesn't work.

195. Agonal gasps an abnormal reflexive breathing pattern that may be present in the first minutes after sudden cardiac arrest.

196. Arrhythmia is an irregular rhythm or abnormal heartbeat; occurs when the electrical impulses that cause the heart to beat happen too quickly, too slowly and erratically.

197. The first step in determining if a victim is choking is to ask, "Are you choking". If the victim nods yes and cannot talk, severe airway obstruction is present.

198. Heart attack is when a blockage or spasm occurs in a blood vessel and severely restricts or cuts off the flow of blood and oxygen to the heart muscle.

199. Adults and adolescents is anyone with visible signs of puberty (chest or underarm hair in males; any breast development in females) and older.

200. Respiratory arrest is when a life-threatening emergency that occurs when normal breathing stops or when breathing is ineffective, if untreated, it will lead to cardiac arrest, or it can occur at the same time as cardiac arrest.