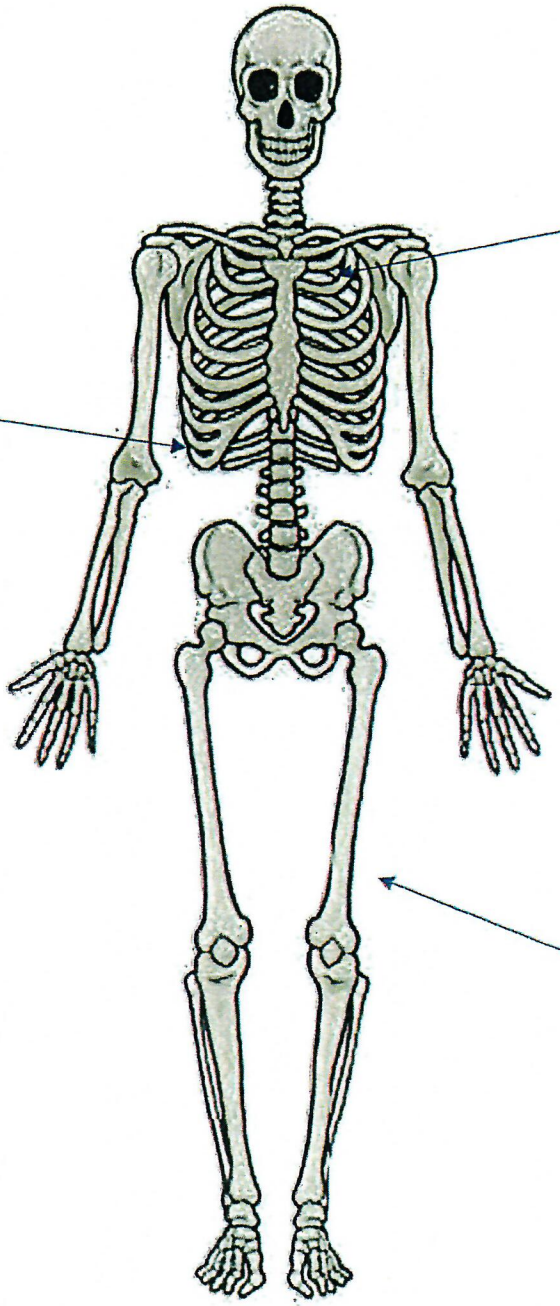
Southern West Virginia

2024 First-Aid Competition

Statement

You and your crew have arrived at Mine 81 for the start of the evening shift. This new mine has been in operation for 12 months. The belt line comes out of the mines and discharges onto a surface belt that transfers the coal along the highwall to the stockpile. Employees Travis and Luke were in the process of changing out top structures for the surface belt on this hot day before the start of the evening shift. A portion of the high wall collapsed, striking the surface belt and injuring Travis and Luke. Both employees were struck by pieces of the belt structure. When you and your crew arrived, both injured employees have been moved to a safe location away from the high wall. Travis is unconscious, bleeding profusely, and has a spinal injury. Luke is conscious but has multiple injuries. Please activate EMS and treat both injured employees.

Patient Assessment Manakin 2024



Respirations: 38

Perfusion: 3

Mental Status: Unable to follow

Sucking Chest Wound

3-inch laceration

Patient Assessment Live Patient 2024

6-inch laceration top of head

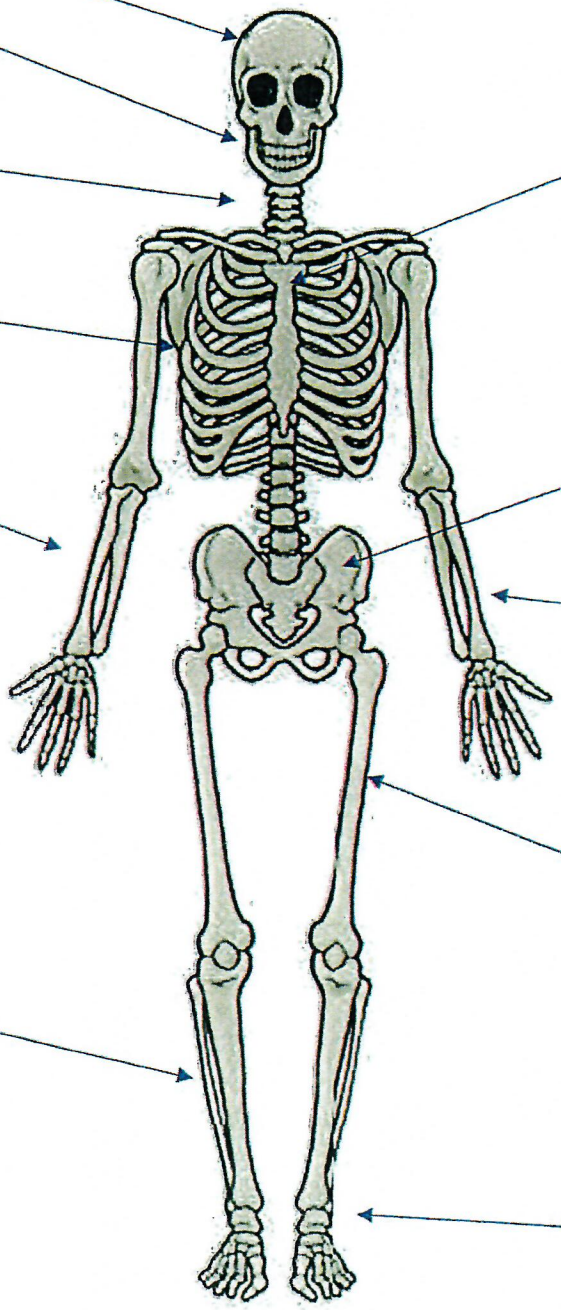
Impaled Object in the Jaw

Open Neck Wound

Flail Chest

Skin is Red, hot & dry

Open Tibia Fracture



Respirations: 28

Perfusion: 1

Mental Status: able to follow commands

Fracture Pelvis

Open Forearm Fracture

6-inch Laceration

Dislocated Ankle

*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 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

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.

NOTE: Team must call for help via radio. Teams will triage both patients. The manakin will be the Immediate patient. Treatment must start with manakin. Team must open airway with jaw thrust. The team must maintain spinal stabilization after assessing the airway on the manakin.

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

Note: Continue with Initial Assessment after treatment of Sucking Chest Wound

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

Note: Will take a tourniquet to control the bleeding. Cannot elevate due to spinal injury.

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 proximalto 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 squareknot 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

Note: Once Tourniquet is applied. Give team envelop #1 for CPR

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."

Note: After 5th cycle on first set of CPR, give team envelop # 2 stating no shock advise continue CPR. After 5th cycle on second set of CPR, give team Envelop #3 stating patient is deceased.

DECEASED

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

Note: Team must change gloves and begin Initial Assessment on live patient

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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

6-inch laceration top of head

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.

Impaled Objects in the Jaw

*1. Examine; inside & outside
2. If end not impaled in mouth – pull it out - Did not Remove
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.")

2. NECK	☐ ☐	**A. Check the neck Inspect **B. for medical ID

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

3. CHEST	□	**A. Check chest area **B. Feel chest for equal breathing movement on both sides **C. Feel chest for inward movement in the rib areas during inhalations

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

Patient Assessment continue

4. ABDOMEN	□	**A. Check abdomen (stomach)

Fracture Pelvis

5. PELVIS	☐	**A. Check pelvis Inspect pelvis for injury by touch **B. (Visually inspect and verbally state inspection of crotch and buttocks areas)

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