

PROBLEM NO. 2



At the Sunrise Underground Mine, Bob Williams had his back to loose rib conditions when cleaning out the dust collection box on the No. 2, roof bolter. The rib sloughed; struck Bob and pushed him forward hitting his head and upper body into the roof bolting machine.

Bob is unconscious with blood draining from his ear from a fractured cranium with severe abdominal pain and no signs of spinal injury.

PATIENT STATEMENT

During rapid patient assessment, when patient is touched in the abdomen the patient will:

Begin moaning and complaining of abdominal pain.

This will occur after CPR has been performed.

CPR CARD

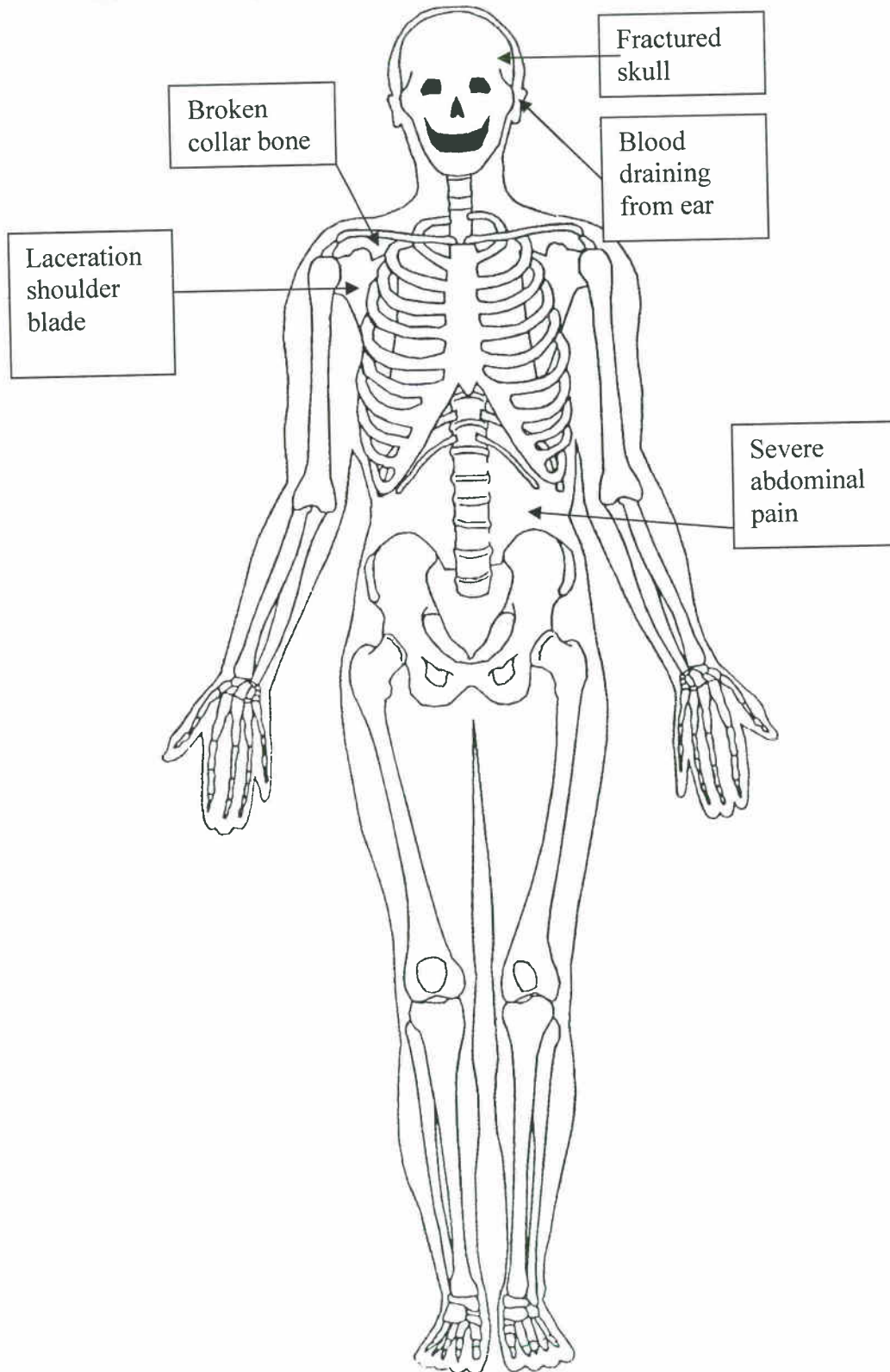
Patient has stopped breathing
and has no pulse

Perform three sets of two - rescuer CPR.

(NOTE TO JUDGES: Give to team after skull
fracture is treated or before Rapid Patient
Assessment is started)

PATIENT ASSESSMENT/UNCONSCIOUS

HIGH PRIORITY PATIENT DUE TO FRACTURED SKULL & SEVERE ABDOMINAL PAIN
TREAT ONLY LIFE THREATENING INJUIRES (SKULL FRACTURE)



INITIAL ASSESSMENT

PROCEDURES	CRITICAL SKILL	
1. SCENE SIZE UP	<input type="checkbox"/> <input type="checkbox"/>	*A. Observe area to ensure safety *B. Call for help
2. MECHANISM OF INJURY	<input type="checkbox"/> <input type="checkbox"/>	*A. Determine causes of injury, if possible *B. Ask patient (if conscious) what happened
3. INITIAL ASSESSMENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	*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 threats
4. ASSESS AIRWAY AND BREATHING	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Correctly execute head-tilt/chin-lift or jaw thrust maneuver, depending on the presence of cervical spine (neck) injuries B. Look, listen, and feel for breathing (3-5 seconds) C. If present, treat sucking chest wound
5. ASSESS FOR IMMEDIATE LIFE THREATENING CONDITIONS	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Check for presence of a carotid pulse (5-10 seconds) B. If present, control life threatening bleeding C. Start treatment for all other life threatening injuries/conditions (reference Rule 2).
6. DETERMINE PRIORITY OF PATIENT	<input type="checkbox"/> <input type="checkbox"/>	*A. Teams must make statement to judge, identifying whether patient is low priority or high priority load and go. *B. Teams must make statement to judge, "Removing clothing, exposing and cleaning wound surface(s)"

HIGH PRIORITY: 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**.

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- Teams may use the acronym "PMS" when checking pulse, motor function and sensory function

TWO-PERSON LOG ROLL

PROCEDURES	CRITICAL SKILL	
1. STABILIZE HEAD	<input type="checkbox"/> <input type="checkbox"/>	*A. Stabilize the head and neck B. Collar secure in place (if spinal injury is present)
2. PREPARING THE PATIENT	<input type="checkbox"/> <input type="checkbox"/>	A. Place board parallel to the patient B. Kneel at the patient's shoulders opposite the board 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	<input type="checkbox"/> <input type="checkbox"/>	A. Grasp the patient at the shoulder and pelvis area B. Give instructions to bystander, if used to support
4. ROLLING THE PATIENT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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 with other D. Roll the body as a unit onto the board (board may be slanted or flat) E. Place the arm alongside the body
5. SECURING PATIENT TO BOARD	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Secure patient's head to backboard when required B. If suspected spinal injury exists, maintain support of the patient's head until the body, torso, legs and head are secured to the back board. C. Tie the wrists together unless injury prevents

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IMMOBILIZATION OF CERVICAL SPINE REQUIRED FOR SKULL FRACTURE

PROCEDURES	CRITICAL SKILL
1. ESTABLISH AND MAINTAIN IN-LINE IMMOBILIZATION	<input type="checkbox"/> A. Place head in a neutral, in-line position unless patient complains of pain or the head is not easily moved into position <input type="checkbox"/> B. Place head in alignment with spine <input type="checkbox"/> C. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with head immobilized
2. ASSESS PMS	<input type="checkbox"/> *A. Assess PMS in all extremities: <ul style="list-style-type: none"> • Pulse • Motor function • Sensory function
3. ASSESS CERVICAL REGION AND NECK	<input type="checkbox"/> *A. Inspect and palpate for injuries or signs of injuries using: DOTS acronym <input type="checkbox"/> B. Remove clothing or jewelry as necessary
4. BANDAGE ANY WOUND	<input type="checkbox"/> A. Any neck wounds
5. APPLY CERVICAL SPINE IMMOBILIZATION	<input type="checkbox"/> A. Apply properly sized collar or manual immobilization <u>One piece C-collar</u> <input type="checkbox"/> A. Select proper sized collar <input type="checkbox"/> B. Apply collar <input type="checkbox"/> C. Ensure that patient's head is not twisted during application <input type="checkbox"/> D. Ensure airway is open after placement <u>Two piece C-collar</u> <input type="checkbox"/> A. Select proper sized collar <input type="checkbox"/> B. Apply rear section to back of neck <input type="checkbox"/> C. Center rigid support on spine <input type="checkbox"/> D. Apply front section (overlaps rear section) <input type="checkbox"/> E. Ensure chin rests in chin cavity <input type="checkbox"/> F. Secure collar with Velcro straps <input type="checkbox"/> G. Ensure airway is open after placement
6. SECURE HEAD TO APPROPRIATE IMMOBILIZATION DEVICE	<input type="checkbox"/> A. Immobilize patient to appropriate immobilization device <input type="checkbox"/> B. Use head set or place rolled blankets or towels on each side of head <input type="checkbox"/> C. Tape head securely to appropriate immobilization Device
7. REASSESS	<input type="checkbox"/> *A. Reassess PMS <input type="checkbox"/> *B. Assess patient response and level of comfort

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

PROCEDURES	CRITICAL SKILL
1. RESCUER 1 - ESTABLISH UNRESPONSIVENESS	<input type="checkbox"/> A. Tap or gently shake shoulders <input type="checkbox"/> *B. "Are you OK?" <input type="checkbox"/> C. Determine unconsciousness without compromising cervical spine (neck) injury <input type="checkbox"/> *D. "Call for help"
2. RESCUER 1 - ESTABLISH AIRWAY	<input type="checkbox"/> A. Kneel at the patient's side near the head <input type="checkbox"/> B. Correctly execute head-tilt/chin-lift maneuver
3. RESCUER 1 - MONITOR PATIENT FOR BREATHING	A. Look, listen, and feel for breathing (within 10 seconds)
4. RESCUER 1 - VENTILATE PATIENT	<input type="checkbox"/> A. Place barrier device (pocket mask/shield with one-way valve) on manikin <input type="checkbox"/> B. Give 2 breaths 1 second each <input type="checkbox"/> C. Each breath - minimum of .8 (through .7 liter line on new manikins)
5. RESCUER 1 - CHECK FOR CAROTID PULSE	<input type="checkbox"/> 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 <input type="checkbox"/> B. Check for presence of carotid pulse for 5 to 10 seconds <input type="checkbox"/> *C. Absence of pulse
6. RESCUER 2 - POSITION FOR COMPRESSIONS	<input type="checkbox"/> A. Locate the compression point on the breastbone between the nipples <input type="checkbox"/> B. Place the heel of one hand on the compression point and the other hand on top of the first so hands are parallel. Do not intentionally rest fingers on the chest. Keep heel of your hand on chest during and between compressions.

7. RESCUER 2 - DELIVER CARDIAC COMPRESSION	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Give 30 compressions B. Compressions are at the rate of 100 per minute (30 compressions delivered within 23 seconds) C. Down stroke for compression must be on or between compression lines D. Return to baseline on upstroke of compression
8. RESCUER 1 - VENTILATIONS BETWEEN COMPRESSIONS	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Give 2 breaths 1 second each B. Each breath - minimum of .8 (through .7 liter line on new manikins) C. Complete breaths and return to compressions in 4-7 seconds (This will be measured from the end of last down stroke to the start of the first down stroke of the next cycle.)
9. CONTINUE CPR FOR TIME STATED IN PROBLEM	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A. Provide 5 cycles of 30 chest compressions and 2 rescue breaths B. To check for pulse, stop chest compressions for 5-10 seconds after the first set of CPR C. Rescuer at patient's head maintains airway and looks, listens, and feels 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)
10. CHANGING RESCUERS	<input type="checkbox"/>	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.
11. CHECK FOR RETURN OF PULSE	<input type="checkbox"/> <input type="checkbox"/>	A. After providing required CPR (outlined in problem), check for return of pulse (within 10 seconds) *B "Patient has a pulse."

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PATIENT ASSESSMENT

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

8. BACK SURFACES	□	*A. Check back for DOTS
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DOTS: Deformities, Open Wounds, Tenderness and Swelling

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Abdominal Injury

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

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

IMMOBILIZATION - LONG SPINE BOARD (Backboard)

NOTE: High Priority patients must be prepared for transport by placing on backboard. RULE 12 requires team to cover patient with a blanket after securing on backboard, lift patient from floor, and verbalize "transporting patient."

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

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SHOCK

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

NOTE: Use Option 2 due to skull fracture, and after body is immobilized, tilt backboard injured side (right side) down.

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

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

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