

Shaun Fix



PHTLS PREPARATION PACKET 10th Edition



Note: This packet contains the latest trauma guidelines, review information and pre-test. It is mandatory that participants review the textbook, complete the pre-test and be familiar with the PHTLS assessment and management criteria prior to the course. A pre-test score of 76% is required for this course. Feel free to contact our office should you have any questions

The pre-test will be collected at the beginning of the class.

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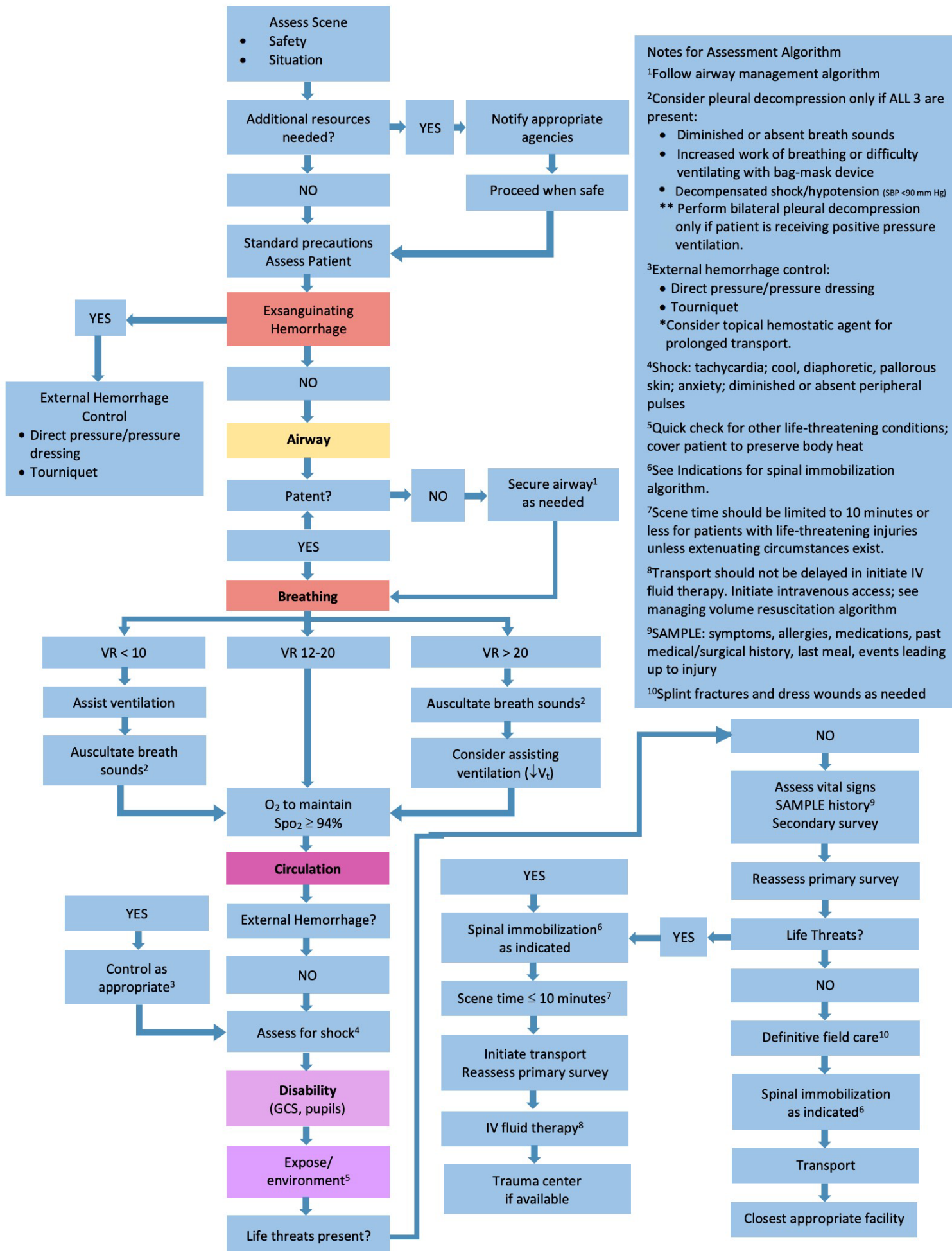
40 min	Lesson 1 Welcome, Course Intro, Collect Pre-test	
45 min	Lesson 2 (Trauma Assess & eXsanguinating Hemorrhage)	
10 min	BREAK	
60 min	Lesson 3 (Airway)	
10 min	BREAK	
60 min	Lesson 4 (Breathing, Oxygenation & Ventilation)	
10 min	BREAK	
60 min	Lesson 5 (Circulation)	
60 min	LUNCH	
	Skills Stations- 45 minutes each	
	<i>Skills</i>	<i>Patient Simulation</i>
Station 1: Assessment	-PHTLS Assessment Sequence (Practice full PHTLS sequence)	Baseline 1
	-Helmet Removal (Sports, Motorcycle)	Baseline 2
	-Perilaryngeals Airways	
Station 2: Airway	<i>Skills</i>	<i>Case</i>
	-Jaw Thrust (chin lift 2 rescuer)	Airway Case 1
	-OPA,NPA	Airway Case 4
	-BVM – 1 & 2 person	Airway Case 5
	-Trauma Intubation (Neutral C-Spine, frontal, bougie)	Airway Case 7
	-Cricothyrotomy	
Station 3: Bleeding Control & Breathing Control	<i>Skills</i>	<i>Case</i>
	-Plural Decompression	Breathing Case 1
	-Tourniquet	Circulation Case 1
	-Wound packing (Hemostatic agents)	Circulation Case 5
		Circulation Case 9

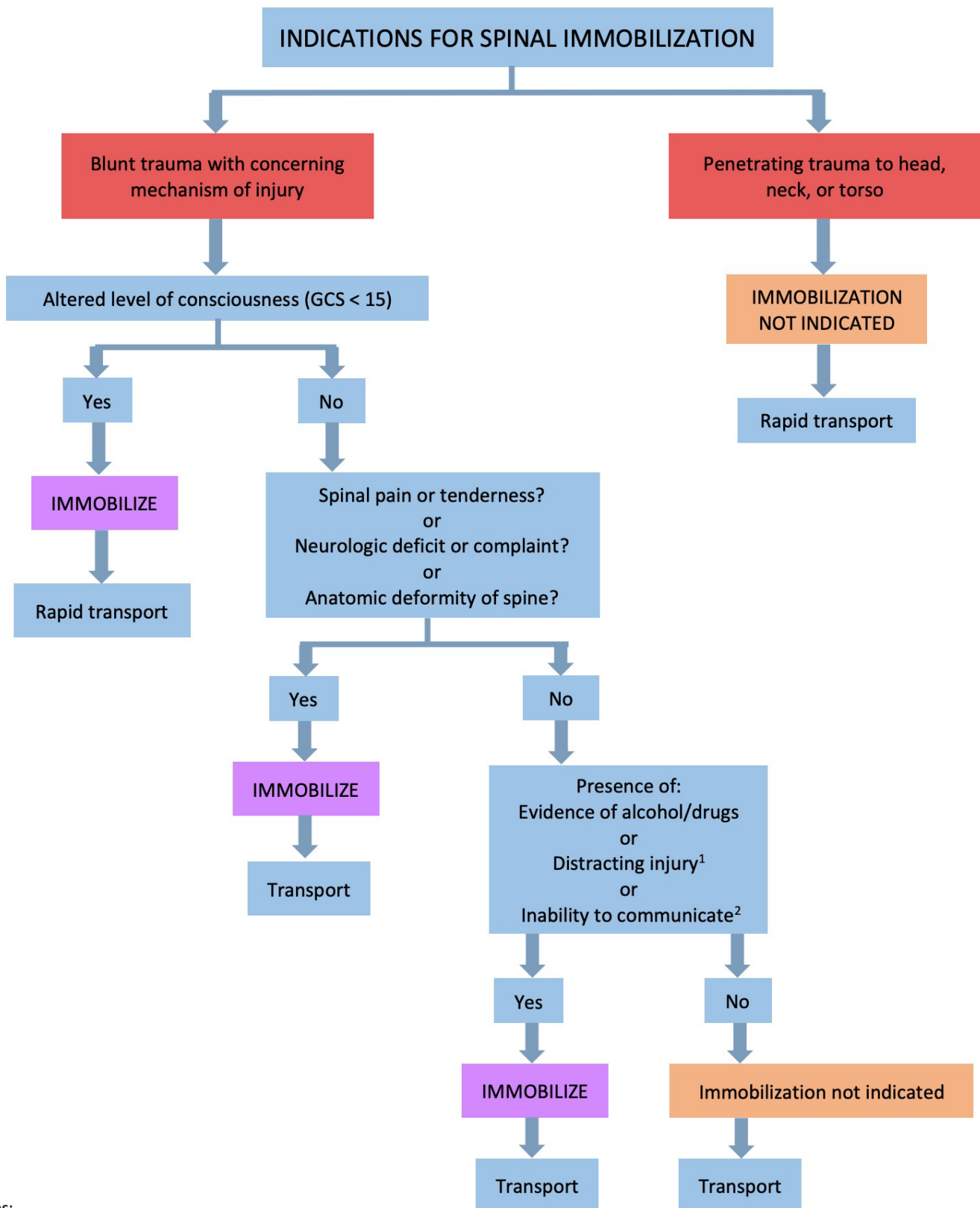
Pre-Hospital Trauma Life Support_10th edition

60 min	Lesson 6 (Secondary Survey)	
10 min	BREAK	
60 min	Lesson 7A (Disability-Traumatic Brain Injury)	
10 min	BREAK	
60 min	Lesson 7B (Disability- Spinal Injury)	
60 min	LUNCH	
60 min	Lesson 8 (Special Considerations)	
<i>Stations 1-3 are found in Day 1</i>	Final Scenario Evaluations- 45 minutes each (Each student is team leader in 1 case)	
Station 4: Student led scenarios	<i>Skills</i>	<i>Case</i>
	Review Rapid Extrication	Circulation Case 3 Circulation Case 4 Special Case 16 Special Case 22
Station 5: Student led scenarios	<i>Skills</i>	<i>Case</i>
	Review IO for Trauma	Circulation Case 1 eXsanguinating Case 1 Multisystem Case 2 Circulation Case 2
Station 6: Student led scenarios	<i>Skills</i>	<i>Case</i>
	Review Traction Splint Review Pelvic Binder	eXsanguinating Case 3 Exposure Case 4 Disability Case 5 Special Case 16
60 min	Written Exam	

End of Day 2

PHTLS Assessment





Notes:

¹Distracting injury

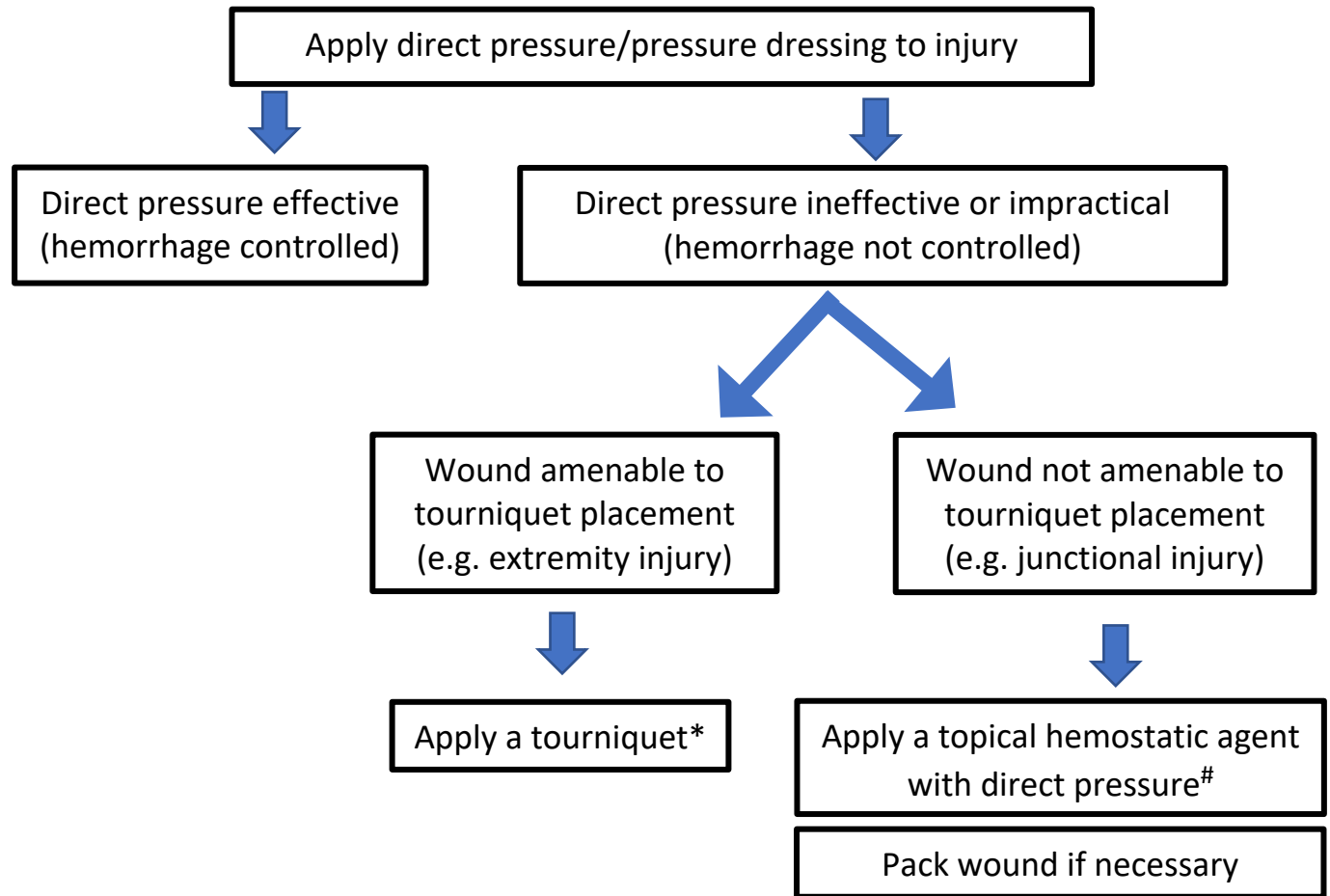
Any injury that may have the potential to impair the patient's ability to appreciate other injuries. Examples of distracting injuries include a) long bone fracture, b) a visceral injury requiring surgical consultation, c) a large laceration, degloving injury, or crush injury, d) large burns, or e) any other injury producing acute functional impairment.

(Adapted from Hoffman JR, Wolfson AB, Todd K, Mower WR: Selective cervical spine radiography in blunt trauma: methodology of the National Emergency X-Radiography Utilization Study [NEXUS], Ann Emerg Med 461, 1998.)

²Inability to communicate.

Any patients who, for reasons not specified above, cannot clearly communicate so as to actively participate in their assessment. Examples: speech or hearing impaired, those who only speak a foreign language, and small children.

Prehospital External Hemorrhage Control Protocol



Spine Board Debate

It is agreed that the long board is an appropriate device for extrication and patient movement on scene and to a stretcher, but 2015 brought about documented controversy as to its effectiveness at truly immobilizing the spine and its benefits; Key Issues:

- There are no documented studies to support that straight rigid board immobilization with a collar is beneficial.
- Some patients' anatomy actually flexes the head forward while others hyperextend the head when placed on a board.
- Patients will all begin to complain of neck and back pain if left on a hard board.
- Skin breakdown can occur at points that contact the board.
- Obese patients are at risk for positional asphyxia
- Emergency airway procedures are more difficult to perform on immobilized patients

The lack of supporting benefit and the growing potential for detrimental side effects has led many areas to decrease or completely remove the use of spine boards for anything more than extrication or movement. Instead opting for placing a collar on the patient and lying the spine on the stretcher.

***Some protocols for ruling “in” or “out” the use of spinal immobilization are still utilized.**

PHTLS Shock

There are three types of shock:

- ☐ Hypovolemic shock
 - ☐ Vascular volume smaller than normal vascular size
 - ☐ Loss of fluid and electrolytes
 - ☐ Dehydration
 - ☐ Loss of blood and fluid
 - ☐ Hemorrhagic shock
- ☐ Distributive shock
 - ☐ Vascular space is larger than normal
 - ☐ Neurogenic “shock” (hypotension)
 - ☐ Psychogenic shock
 - ☐ Septic shock
 - ☐ Anaphylactic shock
- ☐ Cardiogenic shock
 - ☐ Pump failure

Classification of Hemorrhagic Shock

	Class I	Class II	Class III	Class IV
Blood loss (mL)	Up to 750	750-1500	1500-2000	>2000
Blood loss (% vol)	Up to 15%	15%-30%	30%-40%	>40%
Pulse rate	<100	100-120	120-140	>140
Blood pressure	Normal	Normal	Decreased	Decreased
Pulse pressure	Normal or increased	Decreased	Decreased	Decreased
Respiratory rate	14-20	20-30	30-40	>35
Urine output (mL/hr)	>30	20-30	5-15	Negligible
CNS/ mental status	Slightly anxious	Mildly anxious	Anxious, confused	Confused, lethargic
Fluid replacement	Crystalloid	Crystalloid	Crystalloid and blood	Crystalloid and blood

Signs Associated with Types of Shock

Vital Sign	Hypovolemic	Neurogenic	Septic	Cardiogenic
Skin temperature	Cool, clammy	Warm, dry	Cool, clammy	Cool, clammy
Skin color	Pale, cyanotic	Pink	Pale, mottled	Pale, cyanotic
Blood pressure	Drops	Drops	Drops	Drops
Level of consciousness	Altered	Lucid	Altered	Altered
Capillary refilling time	Slowed	Normal	Slowed	Slowed

Shock Assessment

Vital Sign	Compensated	Decompensated
Pulse	Increased; tachycardia	Greatly increased; marked tachycardia that can progress to bradycardia
Skin	White, cool, moist	White, cold waxy
Blood pressure range	Normal	Decreased
Level of consciousness	Unaltered	Altered, ranging from disoriented to coma

Type of Fracture	Blood Loss Potential
Rib	125 mL
Radius or ulna	250-500 mL
Humerus	500-750 mL
Tibia or fibula	500-1000 mL
Femur	1000-2000 mL
Pelvis	1000-unlimited mL

Management

- Ensure oxygenation and ventilation
- Control hemorrhage (external or internal)
 - External- direct pressure or tourniquet or homeostatic agent
 - Internal-direct pressure (extremity immobilization/ PASG for pelvis/ low abd.)
- Move toward a definitive facility**
- Control body temp (lower the pt)
- Fluid replacement for Class II, III, or IV shock
 - Isotonic crystalloids (lactated Ringers preferred; warm if possible)
 - Ideally blood or packed RBC's (now being used prehospital)
 - Controllable bleeds- 1-2 liters (adult) (20 mL/kg peds) – Titrated to SBP 80-90 mmHg
 - Uncontrolled (internal) bleeds- the least amount of fluid required to maintain SBP 80-90 mmHg

PHTLS 10 Ed. FINAL EVALUATION STATION FLOW SHEET

Student (Leader): _____

Evaluator: _____ Scenario Number: _____

Beginning Time: _____ Ending Time: _____

Completed		
Yes	No	Assessment & Treatment
		Identify Safe Scene
		Proper Standard Precautions
		Perform Primary Survey
		Level of Consciousness/Response
		X – Stop Exsanguinating hemorrhage
		Airway
		Breathing
		Ventilation/Air Exchange
		Circulation/Perfusion
		External Hemorrhage Control
		Pulse
		Skin Condition
		Disability
		Exposure of All Critical Body Areas for Assessment
		Properly Identify Critical and Non-Critical Trauma Patients
		Use of Appropriate Spinal Immobilization Technique(s)
		Proper Use of Padding/Buttress Material
		Identification of All Life-Threatening Injuries
		Proper Treatment of All Life-Threatening Injuries
		Performed Only Lifesaving Treatment(s) While On-Scene
		Timely Transported When Indicated
		Appropriate Level Trauma Facility When Indicated
		Identification of All Non-Critical Injuries
		Proper Treatment Performed En-Route
		Completed Secondary Survey When Indicated
		Completed Scenario Within 10 Minutes On-Scene Time
		Reassessment of Patient's Conditions
		Safety Observed Throughout Scenarios

Any mark(s) within the critical criteria area would indicate the need for the group to repeat the station. Only mark those comments that apply to the scenario. Please document rationale for any checked critical criteria in the notation area.

Critical Criteria

- _____ Failure to utilize proper standard precaution techniques
- _____ Failure to identify safe scene
- _____ Failure to perform adequate/complete primary safety
- _____ Failure to identify all life-threatening injuries/conditions
- _____ Failure to immediately treat life-threatening injuries/conditions
- _____ Failure to identify critical patient based on assessment
- _____ Performed unnecessary treatment on-scene
- _____ Performed secondary survey before primary survey
- _____ Failure to assess and treat noncritical injuries
- _____ Failure to provide timely transport to an appropriate level trauma facility
- _____ Failure to reassess the patient's condition
- _____ Failure to perform scenario in a safe manner
- _____ Failure to perform in a team fashion
- _____ Failure to complete scenario within 10 minutes of on scene time

NOTES: _____

Successful Station Completion: YES _____ NO _____

Sample Scenario Evaluation Skill Station

Instructor Information

This skill station involves a skier who lost control while skiing. The patient's LOC is altered and he requires airway management and rapid transport. Follow the written scenario, and provide information to all team members as the scenario progresses or as the team members ask.

Patient Information

Moulage: Pale and diaphoretic, cyanotic lips and nails, multiple body abrasions, blood at mouth

Position: Laying on his side in a basket stretcher

Actions: Eyes open to pain, incoherent moaning, and withdraws from pain

Dispatch Information

You and your partner work for a rural emergency medical service. Your ambulance has been dispatched to a local ski resort for a skiing accident in a remote section of your response area. It is noontime in late winter, clear sky with 17°F (−8°C). The closest hospital with an emergency department is 40 minutes away by ground; the closest level I trauma center is a 60-minute ride by ground or 15 minutes by air ambulance.

Scene Assessment/General impression

Resort staff direct you to the first aid building. There you find three members of the ski patrol and the patient's wife. The ski patrol packaged the patient and moved him to the aid station at the base of the hill. No interventions have occurred. The ski patrol reports the patient lost control and tumbled into trees. They arrived 5 minutes after the accident and his condition has not changed. The accident happened 20 minutes ago.

Primary Survey

31-year-old male, approximately 270 lb (122 kg); patient dressed in heavy winter clothing and ski boots

X: No major external hemorrhage

A: Partially obstructed—gurgling

B: Rapid and shallow

C: Fast radial pulse, skin pale and clammy

D: 8 (E-2, V-2, M-4), PERRLA, moves all four extremities

E: Various small abrasions on hands, knees where the ski suit ripped, blood at mouth

Treatments/Critical Actions

***Note:** ★ icon indicates a Critical Action

- Spinal motion restriction ★
- Manual opening of the airway with suctioning of the oropharynx ★
- Insert NPA and assist ventilations with high-flow oxygen and bag mask ★
- Drug assisted intubation if within scope of practice ★
- Rapid transport to trauma center, request air medical transport ★
- Maintain body heat
- IV during transport to maintain BP at 90 mm Hg systolic

Secondary Survey

Initial Vital Signs	
BP:	112/72 (MAP 85)
P:	140, weak
R:	32, shallow, lung sounds equal bilaterally
Skin:	Pale, cool, clammy
SpO ₂ :	86%/RA; 94%/O ₂
GCS:	8 (E-2, V-2, M-4)
Glucose:	90 mg/dl (5 mmol/l)
etCO ₂ :	38 mmHg
Pain:	Unable to obtain
Temp:	98.8°F (37.1°C)

Sample Scenario Evaluation Skill Station

Reassessment Vital Signs

Critical actions done

BP:	126/74 (MAP 91)
P:	130, weak
R:	20, assisted
Skin:	Pale, cool, clammy
Spo ₂ :	94%/O ₂
GCS:	8 (E-2, V-2, M-4)
Glucose:	90 mg/dl (5 mmol/l)
etco ₂ :	38 mm Hg
Pain:	Unable to obtain
Temp:	98.8°F (37.1°C)

Critical actions NOT done

BP:	92/60 (MAP 71)
P:	150, weak, rapid, irregular
R:	8, irregular
Skin:	Cyanosed, cool, clammy
Spo ₂ :	90%/O ₂
GCS:	4 (E-1, V-1, M-3)
Glucose:	90 mg/dl (5 mmol/l)
etco ₂ :	60 mm Hg
Pain:	Unable to obtain
Temp:	98.8°F (37.1°C)

Sample

Signs/symptoms:	Reduced LOC
Allergies:	Penicillin (per wife)
Medications:	None
Past medical history:	Back surgery 8 years ago (per wife)
Last oral intake:	Breakfast, 3 hours ago
Event leading to incident:	Skiing

Body Systems

Head:	Obvious deformity and bleeding from jaw
Neck:	Unremarkable
Chest:	Equal, bilateral breath sounds and shallow
Abdomen:	Soft, nontender
Pelvis:	Stable
Extremities:	Abrasion of hands and knees, scant bleeding
Back:	Unremarkable

Transport and Destination

Transport Timing: Emergent/Rapid

transport Destination: Trauma center

Discussion Points

- What are the basic and advanced methods to maintain an airway?
- Are there any perceived complications with the cold winter gear the patient is wearing?

Notes

NAME: _____

This answer sheet will be collected

COURSE: PHTLS 10th Edition Mandatory Pre-Test

MISSED: _____ GRADE: _____

1. A B C D E

26. A B C D E

2. A B C D E

27. A B C D E

3. A B C D E

28. A B C D E

4. A B C D E

29. A B C D E

5. A B C D E

30. A B C D E

6. A B C D E

31. A B C D E

7. A B C D E

32. A B C D E

8. A B C D E

33. A B C D E

9. A B C D E

34. A B C D E

10. A B C D E

35. A B C D E

11. A B C D E

36. A B C D E

12. A B C D E

37. A B C D E

13. A B C D E

38. A B C D E

14. A B C D E

39. A B C D E

15. A B C D E

40. A B C D E

16. A B C D E

41. A B C D E

17. A B C D E

42. A B C D E

18. A B C D E

43. A B C D E

19. A B C D E

44. A B C D E

20. A B C D E

45. A B C D E

21. A B C D E

22. A B C D E

23. A B C D E

24. A B C D E

25. A B C D E

Grade Scale

-1= 97.8

-2= 95.6

-3= 93.4

-4= 91.2

-5= 89

-6= 86.8

-7= 84.6

-8=82.4

-9= 80.2

-10= 78

-11=75.8

-12=73.6

PHTLS 10th Edition Pre-Test

Please record your answers on the answer sheet provided.

1. A 15 year-old was involved in a convenience store robbery and has sustained a gunshot wound to his lower left abdomen. He is semi-conscious with a blood pressure of 74/40, pulse 136 and a respiratory rate of 28. What should you do first?
 - a. Cover the wound with occlusive dressing.
 - b. Prepare for immediate transfer to a trauma center; establish IV on the way.
 - c. Start 2 large bore IV's and infuse warmed normal saline 1000mL.
 - d. Apply an abdominal binder to the area to control the blood loss and minimize movement.
2. A 20 year-old female has fallen off the back of a truck while off road racing with friends. Her jaw is clenched; she is responding to noxious stimuli only, and has an increasing ETCO₂ with a oxygen saturation of 80%. Initially, you unsuccessfully attempt to assist her ventilations with a bag valve mask. The next best step to secure the airway would be:
 - a. Provide 100% oxygen with a non-rebreather mask
 - b. Insert a Laryngeal Tube Airway. (LTA)
 - c. Initiate a pharmacologically assisted intubation
 - d. Place the patient on a backboard for spinal motion control.
3. A young man fell 25 feet while rock climbing. He is alert but complaining of left sided chest pain when he breathes. He has tenderness noted to the left side with severely diminished breath sounds to that area. What is your initial thought regarding his presentation?
 - a. Simple pneumothorax
 - b. Flail chest
 - c. Torn diaphragm
 - d. Pulmonary contusion
4. A 45 y.o. man fell from a roof and has a Glasgow Coma Scale of 3. Ideally, what is the best plan to proceed for advanced airway management?
 - a. Transport immediately; preform a cricothyrotomy en route.
 - b. Intubate using a video laryngoscope while maintaining spinal precautions.
 - c. If the patient has an intact gag reflex-insert a Perilaryngeal airway.
 - d. Open the airway with a head tilt maneuver and insert an oral airway.
5. Decerebrate posturing is a sign of?
 - a. Critically low blood sugar
 - b. Cheyne Stokes breathing
 - c. Basilar skull fracture
 - d. Herniation of the brain stem
6. A 24 week old pregnant woman is involved in a high speed car accident. She was wearing a seat belt and you arrive to find her sitting by the side of the car and making a phone call to her husband. She is crying and visibly upset but denies any cramping or bleeding. What is your first priority of care?
 - a. Resume a focused pregnancy screening.
 - b. Place her on her left side to encourage optimal fetal blood return.
 - c. Assess her c-spine and consider spinal motion restriction.
 - d. Place on a backboard and apply a c-collar.

7. You are attending to a 22 year-old man who was involved in a street fight. He sustained some direct punches to his head. Although initially unconscious; he is now awake but responds very slowly and now seems confused. What do you initially suspect?
- Epidural hematoma
 - Hypoglycemia
 - Subdural hematoma
 - CVA
8. A 30 year-old woman fell from a galloping horse and has obvious facial trauma. She has a respiratory rate of 8 and is not responding to verbal stimuli. You note gurgling type noises coming from her airway. How would you proceed?
- Insert a Laryngeal Mask Airway
 - Apply a rigid c-collar
 - Do a comprehensive neurological exam.
 - Perform a modified jaw thrust
9. You are responding to the local deli shop where the new kid has just amputated half of his thumb on the meat slicer. After hemorrhage control, what is your initial treatment plan?
- Place the thumb in the freezer
 - Put the severed part in isopropyl alcohol.
 - Wrap the thumb in moistened gauze
 - Place the severed part in a baggie for transport.
10. When multisystem trauma is suspected the focus shifts to?
- Controlling significant external hemorrhage
 - Inserting an oral airway
 - Obtaining a Glasgow Coma score
 - Immobilizing fractures
11. A 20 year-old who hit the steering wheel during a MVA is complaining of shortness of breath and pain to the chest. He is experiencing crepitus to the area and difficulty taking a deep breath. What is the current priority?
- Assisting his respirations with a bag valve mask
 - Inserting a chest tube for drainage.
 - Administer high flow oxygen.
 - Perform a pericardiocentesis.
12. What is the initial priority when a patient has an obvious open fracture of an extremity with severe bleeding from the wound?
- Splint with an air splint to provide pressure to the wound while immobilizing.
 - Apply direct pressure to the wound.
 - Apply a tourniquet to the area above the fracture to control blood loss.
 - Utilize an occlusive dressing to control the bleeding.
13. What can decrease the fall risk for an elderly individual?
- Walking barefoot
 - Adding throw rugs along hallways and other open floor areas.
 - Eating a diet rich in antioxidants.
 - Regular visual screenings to maintain/assist with visual acuity.

14. One of the key points to consider when administering fluids to patients in shock is?
- a.** Fluids should be titrated to obtain a systolic blood pressure >120mmHg.
 - b.** Transport should be delayed to secure 2 large bore IV's for fluid resuscitation.
 - c.** Ideally, IV fluids should be warmed: not room temperature or cold.
 - d.** Synthetic colloid solutions such as dextran should be administered ASAP in the prehospital setting.
15. Distributive shock includes which of the following?
- a.** Neurogenic and Anaphylactic
 - b.** Spinal and Obstructive
 - c.** Anaphylactic and Spinal
 - d.** Cardiogenic and Obstructive
16. Which of the following regarding helmet removal is important to know?
- a.** Two trained rescuers are necessary to preform helmet removal.
 - b.** Helmet removal ensures that no hidden bleeding is occurring into the posterior helmet.
 - c.** It is necessary to assess and manage the airway.
 - d.** All of the above.
17. A 6 year-old child was thrown from a roller coaster at a local amusement park. He has a traumatic avulsion to his left lower calf area, and the bleeding has not been controlled by direct pressure. What is your next action?
- a.** Apply a tourniquet
 - b.** Pack a hemostatic agent dressing firmly into the wound.
 - c.** Place an abdominal binder to slow blood flow to the legs.
 - d.** Start an intraosseous IV to obtain rapid vascular access for fluid replacement.
18. Hitting the steering wheel during a violent head on collision often results in which type of injury?
- a.** Traumatic brain injury
 - b.** Cardiac contusion
 - c.** Pelvic fracture
 - d.** Open femur fracture
19. Which of the following symptoms might you see with a Basilar skull fracture?
- a.** 'Raccoon eyes' – discoloration around the eyes.
 - b.** Leakage of cerebrospinal fluid from the nose or ears.
 - c.** Blood behind the eardrum visualized via otoscope.
 - d.** All of the above
20. When placing a pregnant patient on spinal motion restriction, which of the following will help to minimize hypotension.
- a.** Place her on her left side and stack pillows for comfort.
 - b.** On her left side; by elevating the right side of a backboard.
 - c.** In a modified Trendelenburg
 - d.** Supine
21. Which best describes a full thickness burn?
- a.** Painful blisters
 - b.** Red painful areas that are oozing clear fluids
 - c.** Thick dry white leathery burns.
 - d.** None of the above.

22. A train accident has resulted in you caring for a patient that is conscious and alert with stable vital signs. However, she has an angulated fracture to her arm with absent radial pulses. What should you do next?
- Elevate the extremity and apply ice for transport
 - Apply an ace bandage to the area to minimize movement for transport.
 - Attempt to realign the extremity prior to splinting.
 - It is not safe to realign a closed fracture. Splint to position and transport immediately.
23. A victim of gang violence has been stabbed in the chest. The wound is oozing blood slightly to the left of the sternum. The patient is hypotensive and tachycardic with distant heart sounds and jugular vein distention. What is your initial impression?
- Flail chest
 - Tension pneumothorax
 - Cardiac contusion
 - Cardiac tamponade
24. A splint or cast that is applied too tightly may cause which of the following 'limb threatening' conditions characterized by pain, pallor and pulselessness to the affected extremity?
- Necrosis
 - Fasciitis
 - Crush Syndrome
 - Compartment Syndrome
25. Circumferential burns are characterized as:
- Life threatening due to the constriction of injured tissues.
 - A blistered pattern that is round
 - Burns that cover the torso and the extremities
 - Burns that measure greater than 50% of body surface area.
26. When intubation cannot be accomplished due to extrication difficulties; another life saving option might be to:
- Insert a nasopharyngeal airway.
 - Insert a supraglottic airway device
 - Administer ketamine and retry intubation.
 - Perform a cricothyrotomy
27. An elderly man slipped off a deck and hit his head yesterday. His wife now call for help and reports he has decreased mental status, a headache and is going in and out of consciousness.?
- Stroke
 - Brain herniation
 - Subdural hematoma
 - Coup-counter coup injury
28. You are managing the care for a 19 yo old female who had a jet ski accident. She collided with a boat and has sustained multiple fractures. She is on oxygen and bleeding is controlled and she is semi-conscious. After 3 unsuccessful IV attempts, your supervisor suggests which of the following?
- Intraosseous access
 - Attempt another IV in the femoral area
 - Apply a non-rebreather mask.
 - Medicate for pain and have another provider attempt a peripheral IV.

29. Principles of physics suggest that when a solid object collides with a human body, a transfer of significant energy occurs. Which of the following characteristics determine damage severity?
- Density of the moving object
 - The contact area of the impact
 - The cavitation that is created by the impact
 - All of the above
30. A difficult intubation should be anticipated for which individual?
- A 12 year old drowning victim
 - A 29 year old burn victim with a weak cry and inspiratory stridor.
 - A 56 year old with an abdominal gunshot wound
 - An 85 year old stroke patient
31. A teenager was thrown from the back of a pickup truck and is complaining of severe pain in her right chest area. Vital signs are stable, and she is alert, orientated and crying from pain. What would you do to specifically address the pain?
- Administer 20 mg of Morphine sublingually.
 - Administer 100 mcg of Fentanyl.
 - Administer 800 mg of Ibuprofen PO.
 - Administer 25 mcg of Ketamine.
32. A 45 yo man was pulled from a burning truck. Burns are noted to his entire left arm & hand as well as the entire posterior surface of his torso. What is your estimation for body surface that is affected by these burns?
- 28%
 - 40%
 - 15%
 - 60%
33. You have responded to a nursing home where a 94 y.o. woman slipped and fell in the hallway and is slow to respond to verbal stimuli; responsive to pain. Bleeding to the scalp is controlled. Glasgow Coma Scale is 5, BP 160/90, P 50, R 28 (irreg), Glucose 144. What should you consider next?
- Administer Fentanyl for pain.
 - Place in a hard c-collar.
 - Ask if the patient has a MOLST form or advanced directives.
 - Perform a head tilt chin-lift maneuver and insert an oral airway.
34. A 63 y.o. has been pulled from a high speed train accident. She does not have obvious signs of bleeding but appears disoriented, pale, diaphoretic. Her BP is 74/52, P 134, R24. What type of shock do you suspect?
- Cardiogenic
 - Anaphylactic
 - Hemorrhagic
 - Neurogenic
35. The safety of the EMS team cannot be stressed enough. Which of the following events causes the majority of deaths to EMS personnel?
- Fire related injuries
 - Gun violence
 - Hazardous materials
 - Vehicle collisions (on scene or in an EMS unit)

36. A 14 y.o. fell from a high jump at the skateboard park. He is complaining of abrasions to his left hip, knee and arm and hands. There was no loss of consciousness. Vitals are all stable. What action should you take next?
- a.** Start an IV and administer meds for pain control.
 - b.** Complete a primary and secondary survey.
 - c.** Clean the abrasions with saline and apply dry bandages.
 - d.** Apply oxygen via a nasal cannula.
37. When is rapid extrication indicated?
- a.** The patient has a life-threatening condition that cannot be corrected where the patient is found.
 - b.** The scene is unsafe for the EMS personnel and patient.
 - c.** The patient needs to be moved rapidly to access other patients.
 - d.** All of the above
38. A primary concern when a patient has an obvious traumatic facial injury is?
- a.** Altered mental status
 - b.** Obstruction of the airway
 - c.** How the patient will be able to communicate effectively
 - d.** Depressed skull fracture
39. An explosion at a local warehouse has left a 50 y.o. man with back injuries from an impact. He has sensation and movement to his lower legs. BP 140/92, P 108, R 28. His chief complaint is excruciating back pain and guarding of the rib area. What pain medication would be indicated?
- a.** high dose NSAID
 - b.** Ketamine
 - c.** Propofol
 - d.** No pain meds until neuro can evaluate.
40. What should you do first if a burn victim with stridor suddenly stops breathing during the initial assessment?
- a.** Insert an oropharyngeal airway and assist respirations.
 - b.** Apply 100% O₂ with a non-rebreather mask.
 - c.** Suction with saline lavage to clear the airway.
 - d.** Perform a needle cricothyrotomy.
41. Critical thinking on the scene is essential for optimizing patient outcomes. Which of the following is utilized in the PHTLS primary surveys to assess the trauma patient?
- a.** PHTLS secondary assessment
 - b.** XABCDE Assessment
 - c.** The Golden Hour Review
 - d.** MOLST Evaluation
42. The time to obtain the SAMPLER information is:
- a.** During the Primary Assessment
 - b.** Upon scene arrival to determine the need for additional resources.
 - c.** During the secondary survey, after life threatening conditions have been ruled out.
 - d.** During the hospital hand off of patient care.

43. Which of the following is not a goal of the Golden Period?
- a.** Identify and treat life threatening injuries.
 - b.** Minimize on scene time
 - c.** Follow the strict one-hour time frame
 - d.** Rapidly transport the patient to the closest facility.
44. The correct sequence for pre-hospital trauma care is:
- a.** Control significant hemorrhage, identify life threatening conditions, airway management.
 - b.** Airway management, primary survey, control significant hemorrhage.
 - c.** Airway management, identify mechanism of injury, control significant hemorrhage.
 - d.** None of the above are correct.
45. One of the goals of prehospital trauma care is to keep the scene time brief when life threatening conditions such as significant internal or external hemorrhage are present. Which of the following represents the goal of adequate scene time to transport?
- a.** 15 min
 - b.** 5 min
 - c.** 10 min
 - d.** None