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## ***Patient Assessment***

### **Scene Size Up**

1. Recognize environmental hazards to rescuers, and secure area for treatment.
2. Recognize hazard for patient, and protect from further injury.
3. Identify number of patients. Follow the **Mass Casualty Incident Protocol** if appropriate.
4. Observe position of patient, mechanism of injury, surroundings.
5. Identify self.
6. Utilize universal precautions in all protocols.
7. Determine if patient has a valid Do-not-resuscitate bracelet/order.

### **Primary Survey**

1. Airway:
  - A. Protect spine from movement in trauma victims. Provide continuous spinal precautions. Follow the **Spinal Injury Assessment Protocol**.
  - B. Observe the mouth and upper airway for air movement.
  - C. Establish and maintain the airway. Follow the **Emergency Airway Procedure**.
  - D. Look for evidence of upper airway problems such as vomitus, bleeding, facial trauma, absent gag reflex.
  - E. Clear upper airway of mechanical obstruction as needed.
2. Breathing: Look, Listen and Feel
  - A. Note respiratory rate, noise, and effort.
  - B. Treat respiratory distress or arrest with oxygenation and ventilation.
  - C. Observe skin color and level of consciousness for signs of hypoxia.
  - D. Expose chest and observe chest wall movement, as appropriate.
  - E. Look for life-threatening respiratory problems and stabilize.
  -  F. Tension pneumothorax: Follow **Pleural Decompression Procedure**.
3. Circulation
  - A. Check pulse and begin CPR if no central pulse. Follow **Cardiac Arrest – General Protocol Adult or Pediatric or Neonatal Resuscitation Protocol**.
  - B. Note pulse quality and rate; compare distal to central pulses as appropriate.
  - C. Control hemorrhage by direct pressure. (If needed, use elevation, pressure points or follow the **Tourniquet Application Procedure**.)
  - D. Check capillary refill time in fingertips.
  - E. If evidence of shock or hypovolemia begin treatment according to **Shock Protocol**.
4. Level of consciousness:
  - A. Note mental status (AVPU)
    - a. Alert
    - b. Verbal stimuli response
    - c. Painful stimuli response
    - d. Unresponsive



**B. Measure Glasgow Coma Scale**

Patient age > 2 years old

Patient age < 2 years old

**Eye opening**

Spontaneous	4	Spontaneous
To speech	3	To speech
To Pain	2	To Pain
No response	1	No response

**Verbal response**

<b>Motor</b>	Oriented and talking	5	Smiles, recognizes sounds, follows objects, interacts	<b>response</b>
	Disoriented and talking	4	Cries, consolable, inappropriate interactions	
	Inappropriate words	3	Inconsistently inconsolable, moaning	
	Incomprehensible sounds	2	Agitated, restless, inconsolable	
	No response	1	No response	
	Obeys command	6	Spontaneous movement	
	Localizes pain	5	Withdraws from touch	
	Withdraws to pain	4	Withdraws from pain	
	Flexion to pain	3	Abnormal flexion to pain (decorticate posturing)	
	Extension to pain	2	Abnormal extension to pain (decerebrate posturing)	
	No response	1	No response	

Any combined score of less than eight represents a significant risk of mortality.

**If the patient is not alert and the cause is not immediately known, consider:**

**A – Alcohol**  
**E – Epilepsy**  
**I – Insulin**  
**O – Overdose**  
**U – Uremia**


**T – Trauma**  
**I – Ingestion**  
**P – Psych**  
**P – Phenothiazine**  
**S – Salicylates**

**C – Cardiac**  
**H – Hypoxia**  
**E – Environmental**  
**S – Stroke**  
**S - Sepsis**

**5. The secondary survey is performed in a systematic manner.**

(Steps listed are not necessarily sequential.)

**A. Vital Signs:**

- A. Frequent monitoring of blood pressure, pulse, and respirations
- B. Temperature as indicated in protocol.
- C. Blood glucose measurement as available and appropriate.
- D. Pulse oximetry as available and appropriate.
-  E. ECG monitoring as indicated in protocol.
- F. 12 Lead if available and appropriate, follow **12 Lead ECG Procedure**.
- G. Monitor capnography, if available.

**B. Head and Face**

- A. Observe and palpate for deformities, asymmetry, bleeding, tenderness, or crepitus.
- B. Recheck airway for potential obstruction: upper airway noises, dentures, bleeding, loose or avulsed teeth, vomitus, or absent gag reflex.
- C. Eyes: pupils (equal or unequal, responsiveness to light), foreign bodies, contact lenses, or raccoon eyes
- D. Ears: bleeding, discharge, or bruising behind ears.

**C. Neck**

- A. Maintain stabilization; follow the **Spinal Injury Assessment Protocol**, if appropriate.
- B. Check for deformity, tenderness, wounds, jugular vein distention, and use of neck muscles for respiration, altered voice, and medical alert tags.

**D. Chest**

- A. Observe for wounds, air leak from wounds, symmetry of chest wall movement, and use of accessory muscles.
- B. Palpate for tenderness, wounds, crepitus, or unequal rise of chest.
- C. Auscultate for bilateral breath sounds.
- D. Capnography/capnometry if available and appropriate

**E. Abdomen**

- A. Observe for wounds, bruising, distention, or pregnancy.
- B. Palpation.

**F. Pelvis**

- A. Palpate pelvis for tenderness and stability

**G. Extremities**

- A. Observe for deformity, wounds, open fractures, and symmetry.
- B. Palpate for tenderness and crepitus.
- C. Note distal pulses, skin color, and medical alert/DNR tags.
- D. Check sensation.
- E. Test for motor strength if no obvious fracture present.

**H. Back**

- A. Observe and palpate for tenderness and wounds.

**Special Considerations:**

1. If there is a specific mechanism of injury with only localized injury, a focused exam may

be performed in lieu of the full patient survey provided the patient is alert.

2. Follow the appropriate assessment protocol:
  - A. **General Pre-hospital Care**
  - B. **Newborn Assessment, Treatment and Resuscitation**
  - C. **Cardiac Arrest – General Protocol**
  - D. **Pediatric Cardiac Arrest – General Protocol**
  - E. **General Trauma**
  - F. **Spinal Injury Assessment**