Patient Assessment

Scene Size Up and General Impression

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-Special Operations Protocol** if appropriate.
4. Observe position of patient, mechanism of injury, surroundings.
5. For pediatric patients, utilize the Pediatric Assessment Triangle.
6. Identify self.
7. Utilize universal precautions in all protocols.
8. Determine if patient has a valid Do-not-resuscitate bracelet/order or a valid MI POST.

Primary Survey

1. Airway:
    A. Protect spine from movement in trauma victims. Provide continuous spinal precautions. Follow the **Spinal Injury Assessment-Treatment Protocol**.
    B. Observe the mouth and upper airway for air movement.
    C. Establish and maintain the airway. Follow the **Airway Management-Procedure Protocol.**
    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 Protocol.**
3. Circulation
    A. Check pulse and begin CPR if no central pulse. Follow **Pediatric or Adult Cardiac Arrest-Treatment Protocol** or **Newborn and Neonatal Assessment and Resuscitation-Treatment 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 Protocol** and/or **Bleeding Control-Treatment Protocol.**)
    D. Check capillary refill time in fingertips.
    E. If evidence of shock or hypovolemia begin treatment according to **Shock-Treatment 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

Oriented and talking	5	Smiles, recognizes sounds, follows objects, interacts
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

Motor 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 appropriate and as indicated in protocol.
   c. Blood glucose measurement as appropriate and as indicated by protocol. (May be MFR sill, see **Blood Glucose Testing-Procedure Protocol**).
   d. Pulse oximetry as appropriate and as indicated by protocol.
   e. ECG monitoring as appropriate and as indicated in protocol.
   f. 12 Lead as appropriate and as indicated by protocol (Per MCA selection, may be a BLS or Specialist procedure) follow **12 Lead ECG-Procedure Protocol**.
   g. Monitor capnography as appropriate and as indicted by protocol (refer to **End Tidal Carbon Dioxide Monitoring-Procedure Protocol**

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 spinal precautions; follow the **Spinal Precautions-Procedure 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 according to protocol

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 protocol, per patient condition:
    A. **General Pre-hospital Care-Treatment Protocol**
    B. **Newborn and Neonatal Assessment and Resuscitation Treatment Protocol**
    C. **Cardiac Arrest-Treatment Protocol**
    D. **Pediatric Cardiac Arrest-Treatment Protocol**
    E. **General Trauma-Treatment Protocol**
    F. **Spinal Precautions-Procedure Protocol**
    G. **Crashing Adult/Impending Arrest-Treatment Protocol**
    H. **Crashing Pediatric Patient/Impending Arrest-Treatment Protocol**