**g4F**

**EMS SKILL**

**PATIENT ASSESSMENT & MANAGEMENT - TRAUMA**

**PERFORMANCE OBJECTIVES**

Demonstrate competency in performing a complete trauma assessment involving scene size-up, primary assessment, secondary assessment, physical examination, ongoing assessment, and perform life-threatening interventions as necessary.

**CONDITION**

Perform a trauma assessment on a simulated patient and perform life-threatening interventions as necessary. Necessary equipment will be adjacent to the patient or brought to the field setting.

**EQUIPMENT**

Live model or manikin, oxygen tank with flow meter, oxygen tubing, BMV device, oxygen mask, nasal cannula, stethoscope, blood pressure cuff, pen light, timing device, clipboard, pen, goggles, various masks, gown, gloves, trauma bag, airway bag, SMR equipment.

**PERFORMANCE CRITERIA**

• Items designated by a diamond (⧫) must be performed successfully to demonstrate skill competency.

• Items identified by double asterisks (\*\*) indicate actions that are required if indicated.

• Items identified by (§) are not skill component items, but should be practiced.

• Patient assessment and management of life-threatening interventions must be completed within 10 minutes.

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| **PREPARATION** | |
| **Skill Component** | **Key Concepts** |
| ⧫ Take body substance isolation (BSI) precautions | • Mandatory (minimal) personal protective equipment – gloves |
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| **SCENE SIZE-UP**  **Critical Decisions** | |
| **Skill Component** | **Key Concepts** |
| ⧫ Assess the scene:  • Personnel/patient safety  • Environmental hazards  • Number of patients  • Mechanism of injury/Nature of injury | • The initial information obtained from the mechanism of injury or nature of injury assists in formulating the field impression. |
| ⧫ Determine need for:  • Additional resources  • Specialized equipment   * Additional BSI – *if indicated*   • Extrication/spinal motion restriction (SMR)   * Approach the patient from the front side – if   possible   * Direct patient not to move or turn head   - Direct 2nd rescuer to stabilize the cervical spine | • Trauma patients have the potential for a spinal injury. Determine the level of SMR required.  • Approaching the patient from the front, whenever possible, minimizes the potential that the patient will turn his/her head to look at the EMS provider.  • Initiating axial spinal stabilization begins with manual control of the head. The C-collar is applied after the primary assessment is has been completed.   * Additional BSI is indicated if the patient is actively bleeding, or you have determined that the patient may have a communicable disease. * Situational - goggles, mask, gown |
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| **PRIMARY ASSESSMENT**  **(Initial Assessment)** | |
| **Skill Component** | **Key Concepts** |
| ⧫ Formulate a general impression of the patient:  • General impression - Stable  • Imminent Life-threatening condition - Unstable  • Observe for major disabilities - Unstable | • The general impression is determined by observing the appearance and hygiene, patient position, sounds, and smells. It establishes the overall condition of the patient, and if immediate life threats exist, or if are immediate interventions are needed. Does the patient appear stable, potentially unstable, or unstable?  • The primary assessment should be completed within 60 – 90  seconds.  Continued…   * Stop, and manage life-threatening situations when identified. * The patient’s condition may change at any time. EMS providers must re-assess and manage any changes in the patient’s condition.   **NOTE:** The patient’s condition may change at any time. EMS providers must re-assess and manage any changes in the patient’s condition. |
| **Skill Component** | **Key Concepts** |
| ⧫ Establish patient rapport – *if patient is alert*  • Introduce yourself to the patient and/or caregiver  • Ask the patient’s name  • Ask why EMS was called (preliminary chief complaint of the patient)  • Obtain permission to treat  • Respond with empathy  • Use positive body language | • The overall situation and patient condition will determine~~s~~ the level of rapport that is possible.  • Establishing a positive rapport assists with decreasing the patient’s anxiety and promotes a greater degree of cooperation.  • Determining the reason that EMS was called assists with determining the preliminary chief complaint and ultimately the provider impression.  • Responding with empathy develops trust and encourages effective patient communication.  • Patients have the right to be treated with respect. Care and treatment should be delivered in a non-judgmental and impartial manner.  • Positive body language refers to facial expressions, gestures, and body movements that are used to communicate a variety of messages to the patient by the healthcare provider; (i.e. caring words, providing encouragement, and performing interventions competently). |
| ⧫ Assess mental status/stimulus response **(AVPU):**  • **A**lert  • **V**erbal stimulus  • **P**ainful stimulus  • **U**nresponsive | • During the primary assessment, only the patient’s response to environmental stimuli is determined. This is **NOT** the time to obtain a comprehensive orientation level.  • The least amount of stimuli should be used to determine mental status. |
| **IF UNRESPONSIVE AND NOT BREATHING GO TO CPR AND AED SKILL(S)** | |
| **Skill Component** | **Key Concepts** |
| ⧫ Explain the care being delivered to the patient | * Communication is important when dealing with the patient, family, or caregiver. This is a very critical and frightening time for all involved and providing information helps in decrease anxiety |
| ⧫ Assess the **airway**:  • Patent  • Obstructed | • Noisy breathing is obstructed breathing.  • If the airway appears obstructed, go to Adult Obstructed Airway  skill.     * Open the airway and assess for the presence of a foreign   body such as food, gum, etc., if indicated. If it can be removed  easily, remove it. |
| ⧫ Manage the **airway** – if indicated  ***\*\* Manage life-threatening findings:***   * ***Open and clear/suction airway - if indicated***   • ***Utilize basic airway adjuncts - if indicated***  • ***Initiate immediate transport – if unable to open***  ***the airway*** | | * Insert nasopharyngeal (NP) airway for either responsive or   unresponsive patients. NP airways are contraindicated in  pediatric patients < 12 months of age.  • Use Insert an oropharyngeal (OP) airway for the  unresponsive patient with no gag reflex.  • Immediate transport should be initiated if unable to establish or maintain an adequate airway. |

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| **Skill Component** | **Key Concepts** |
| ⧫ Determine if the airway is manageable vs, unmanageable | * A patient has a manageable airway if:   + breathing adequately through a patent airway   + ventilation is effective using positive pressure ventilation using a bag-mask-ventilation (BMV) device. * A patient has an unmanageable airway if: * The patient cannot breathe on their own * The patient cannot be ventilated with a BMV |
| ⧫ Assess **breathing**:  • Rate (fast, slow, normal or absent)  • Rhythm (regular, irregular)  • Quality (air movement, chest expansion)  • Depth (tidal volume)  • Rapid chest auscultation - *if difficulty breathing, shortness of breath, and chest trauma* | • Visualize chest and signs of inadequate breathing.  • The initial respiratory rate should not be counted at this time, but only observed if it is too fast, too slow or in the normal range.  • Abnormal rates may not provide adequate ventilations or tidal volume. Use BMV to increase tidal volume or rate if necessary, especially if level of consciousness is decreased.  • Administer O2 therapy if vital organs are at risk for hypo-  perfusion.  • When rapid chest auscultation is indicated, auscultate for the presence and equality in *2 locations only* (5th-6th intercostal space, mid-axillary line) bilaterally. |
| ⧫ Manage **breathing** – if indicated  ***\*\*Applies oxygen – if indicated per Los Angeles County EMS Agency Reference No. 1302***  ***\*\*Deliver positive pressure ventilations (PPV) – if***  ***Indicated***  ***\*\*Transport immediately* *if unable to manage***  ***ventilations*** | * The indications for the use of PPV include: * Agonal * Apnea * Decreased tidal volume in a patient with an altered mental status (AMS) * Bradypnea - < 8 breaths/minute and AMS * Tachypnea > 30 breaths/minute and AMS * A goal of oxygen administration is to deliver the minimum amount of oxygen to meet the needs of the patient and to maintain an oxygen saturation level at or above 94%. * When available, use pulse oximetry to guide oxygen delivery. The desired SpO2 for most non-critical patients is 94-98%. * **SPECIAL CONSIDERATION:** For chronic obstructive pulmonary disease (COPD), the goal is to titrate oxygen to keep the SpO2 at 88-92%. |
| ⧫ State the indications for immediate high-flow oxygen (15L/min) administration:   * Respiratory Arrest * Cardiac Arrest * Shock/Poor Perfusion * Anaphylaxis * Traumatic Brain Injury * Carbon Monoxide Poisoning * Suspected Pneumothorax | * Hypoventilation results in high arterial carbon dioxide (CO2). level, which has a harmful effect on the body. |
| ⧫ Assess **circulation**: (mnemonic **COPS**)   * **C**apillary refill *- if appropriate* * **O**bvious external bleeding * **P**ulse – normal, too fast, too slow or absent * **S**kin - color, temperature, moisture | • Check the radial and carotid pulses at same time in critical situations. Check the femoral pulse if unable to obtain a carotid pulse. The radial pulse may be absent due to decreased blood pressure.  • Capillary refill is most accurate in pediatric patients. It is **NOT** always accurate in adults due to chronically poor peripheral circulation. It is not accurate in cold environments.  • Capillary refill can be assessed at any skin area such as fingernail bed, palm of the hand, chest, forehead, etc. If you will be using the ball of the foot in a pediatric patient, the child must be in a supine position. The most accurate site to check capillary refill is a central site (chest wall) vs. a peripheral site. |

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| **Skill Component** | **Key Concepts** |
| ⧫ Manage the circulation and life threatening situations:  ***\*\**Control *external bleeding***  ***\*\*Initiate immediate treatment and transport if internal bleeding is suspected* or *if there is uncontrolled external bleeding***  ***\*\*Place the patient in supine position – if signs of hypo-perfusion is suspected*** | * Internal bleeding is not typically controlled in the field. Surgical intervention is usually required to stop the bleeding. * See Bleeding Control and Shock Management Skill Sheet. * Serial vital signs should be taken and monitored for trends and for signs and symptoms of deterioration. * When a life-threatening condition exists, EMTs must use their judgement to determine when the patient should be transported. If the ETA for the responding ALS unit exceeds the ETA to the most accessible receiving facility (MAR), they may transport the patient by BLS. See Reference No. 502. |
| ⧫ Observe for deformities and **disabilities**:   * Neurological deficits * Abnormal body positioning | • While observing for deformities, ask a conscious patient if they had any pre-existing disabilities. (If the patient is unable to move their lower extremities, this may have been from a previous injury).   * Neurological deficits include facial droops, slurred speech,   paresthesias, and paralysis.  • Abnormal body presentations include tripod position, decerebrate, decorticate posturing, or contractures due to prolonged immobility. |
| ⧫ Expose and visualize the area associated with the preliminary trauma complaint | • The preliminary complaint is the reason for summoning EMS to the scene.  • While exposing the area associated with the preliminary complaint, maintain the patient’s privacy as best as possible.   * If the patient is unresponsive, remove the patient’s clothing and cover with a sheet or blanket. |
| ⧫ Form a field impression  ***\*\*Obtain a blood glucose level - if altered level of consciousness***  ***\*\*Manage any life-threatening situations - if not already addressed*** | • A field impression is formed based upon all of the information gathered by EMS personnel up until this point. It utilizes all information gathered earlier in the assessment. At this point, a determination is made as to whether the patient a stable or patient or unstable patient. Ask yourself: Does the patient have a serious illness that requires prompt transport of does the patient have a minor illness that is **NOT** life threatening? |
| ⧫ Determine transport options:  • Level of transport (ALS/ BLS)  • Mode of transport (Ground ambulance/Air ambulance)  • Destination (The most appropriate type of facility) | * In life threatening situations (e.g. unmanageable airway or uncontrollable hemorrhage) in which the ETA of the paramedics exceeds the ETA to the most accessible receiving (MAR) facility, EMTs should exercise their clinical judgment as to whether it is in the patient’s best interest to be transported prior to the arrival of ALS. * EMT personnel may immediately transport hypotensive trauma patients with life-threatening injuries to the torso to the closest trauma center, not the MAR, when the transport time is less than the estimated time of paramedic arrival. The transporting unit should make every attempt to contact the receiving trauma center (via their dispatcher or by the use of a call phone).   • Trauma patients who meet trauma center criteria should be assessed and treated while enroute to the designated Trauma Center (TC).  • ALS and BLS providers should transport to the appropriate facility as indicated. |

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| **SECONDARY ASSESSMENT** | |
| **Skill Component** | **Key Concepts** |
| ⧫ Assess the current chief complaint of the patient:  **SAMPLE History Assessment**  **• S**igns/**S**ymptoms  - OPQRST for current complaint  **• A**llergies  **• M**edications  **• P**ertinent history  - age  - weight  - under physician’s care/private medical doctor  - pertinent medical/surgical history  **• L**ast oral intake (last meal or when medication taken) *- if pertinent*  ***OR***   * **L**ast menstrual period   **• E**vent leading to injury | * Assessing the current chief complaint assists with identifying the current injury.   • The age for pediatrics in Los Angeles County is 14 and under.  • The pediatric emergency resuscitation tape shall be used to obtaining an infant’s or a child’s weight, and dosages of pain medications in all children 14 and under.  • OPQRST is a mnemonic used to assess pain and shortness of breath. **It should only be used with a minor trauma patient who is conscious and fully oriented.**  - **O**nset – What caused the pain to occur? What was the patient doing at the time the pain started? Was the onset gradual or rapid  - **P**rovokes – What makes it worse? **P**alliative – What makes it better? **P**osition – What position is the patient found in?  - **Q**uality – How does the patient describe the pain? (Burning, stabbing, crushing, dull, heaviness). Is the pain constant or intermittent?  - **R**egion – area involved, **R**adiation – does the pain/discomfort spread from origin, **R**ecurrence – has this occurred before  - **S**everity – pain scale  - **T**ime – when did the problem/pain begin and what is the duration of time  • Obtaining information such as whether the patient is under a physician care and the name of primary medical doctor or health plan assists with determining the patient’s medical history and transport destination. If the patient is unable to speak, obtain information from family or bystanders  • A pertinent medical history refers to past medical history that is relevant to the chief complaint/problem such as a heart condition, pulmonary problems, hypertension, diabetes, CVA, syncopal episode, or recent surgery. Ask yourself “did the patient have a syncopal episode and then fall?”  • The last oral intake is important when there is a possibility that the patient may require surgery or if there is a potential for aspiration. |
| ⧫ Verbalize the appropriate level of assessment that is required   * **Unstable patients**   – Perform a rapid trauma assessment, while enroute   * **Stable patients:**   + Focused exam of the area associated with the chief complaint, while on scene | * For unconscious/unresponsive /unstable patients, perform a rapid trauma assessment (head to toe). * A rapid trauma assessment is a brief inspection and palpation of the body. It reveals life-threatening injuries which must be treated immediately and require rapid transport. A rapid medical assessment includes all **DCAP BTLS TIC** elements and must be performed as quickly as possible or take no long loner than 60-90 seconds. * Scene time should not exceed 10 minutes for a patient with life-threatening injuries unless there are extenuating circumstances. * The information/observations you obtained during the primary assessment determine which type of physical exam is needed during the secondary assessment (rapid vs. slower). * A stable patient is defined as having vital signs within normal limits; the patient is conscious and comfortable. * If the patient is deemed “stable” and has an isolated injury, you may perform an assessment while still on scene. * If the patient has a minor or isolated injury, perform a slower,   focused exam of the particular body region that is associated  with the injury.  Continued…   * The secondary assessment allows you to obtain additional information in order to determine and establish priorities for * Treatment. Other options must always be considered. * Changes in the patient’s condition may dictate additional   assessment parameters. |
| **Skill Component** | **Key Concepts** |
| ⧫ Performs a detailed head to toe exam of each body region and assess **DCAP/BTLS TIC**  • head • pelvis  • neck • lower extremities  • chest • upper extremities  • abdomen • back  • **D**eformity (visible and palpated)  • **C**ontusions  • **A**brasions  • **P**enetrations / Punctures  • **B**urns / Bruises  • **T**enderness  • **L**acerations  • **S**welling / Scars  ⧫ **Palpate for**:  • **T**enderness  • **I**nstability  • **C**repitus | * The purpose of performing a physical exam during the secondary assessment is to look for the presence of hidden injuries that may compromise the patient’s condition and warrant more definitive care. * Performing a logical and systematic physical assessment of the patient may only focus on a certain area or body region based upon the statements made by a conscious patient. * Scene circumstances and patient presentation may dictate the level of the assessment performed while on scene or enroute.   • Definition of Crepitus:  - grating of bone fragments  - crackling of joints  - air or gas in soft tissue (subcutaneous emphysema)   * A rapid trauma assessment is a brief inspection and palpation of the body. It reveals life-threatening injuries which must be treated immediately and require rapid transport. A rapid medical assessment includes all **DCAP BTLS TIC** elements and must be performed as quickly as possible or take no long loner than 60-90 seconds. * The information/observations you obtained during the primary assessment determine which type of physical exam is needed during the secondary assessment (rapid vs. slower). * If the patient is deemed “stable” and has a minor illness, you may perform an assessment while still on scene. * A stable patient is defined as having vital signs within normal limits; the patient is conscious and comfortable. * If the patient is deemed to be unstable, perform a rapid medical (head to toe) exam. * A patient is considered unstable if the assessment reveals an immediate threat to life i.e. vital signs that are abnormal and S/S of shock. * If the patient has a minor illness, perform a slower, focused exam of the particular body region that is associated with initial complaint. * The secondary assessment allows you to obtain additional   information in order to determine and establish priorities for treatment. Other options must always be considered.   * Changes in the patient’s condition may require additional assessment parameters. |
| ⧫ Assess the **HEAD - Skull, Eyes, Ears, Nose, Mouth,**  **Face**  **Additional Assessment Elements:**  • Asymmetry of head and face  • Drainage  • Raccoon eyes  • Battle’s sign  • Soot and singed nasal or facial hairs  ***\*\* Maintain patent airway*** | • **Adults** – Using a head-to-toe approach for examination works the best.  • **Children** – Using a toe-to-head approach for examination works the best for gaining the child’s confidence.  • Asymmetry of the head and face may be due to a medical problem such as stoke or Bell’s Palsy (unilateral facial paralysis of sudden onset and unknown cause).  • **Battle’s sign** is bruising over the mastoid process, which indicates a basilar skull fracture or a fracture of the temporal bone.  • **Raccoon eye(s)** is the bruising of one or both orbits that indicates fracture of the sphenoid sinus.  • Battle’s sign and raccoon eyes take time to develop. Therefore, they are not typically seen right after an injury. If they are seen during an assessment, they may be due to a previous injury.  • Fluid drainage from the ear or nose also may indicate a cerebral spinal fluid leak resulting from a basilar skull fracture. |
| **Skill Component** | **Key Concepts** |
| * Assess the **NECK/CERVICAL SPINE**   **Additional Assessment Elements:**  • Track marks and tattoos  • Jugular vein distention (JVD)  • Tracheal deviation  • Accessory muscle use (AMU)  • Carotid pulses  • Subcutaneous emphysema (SE) or (crepitus)  • Stoma  **Medical Devices**:  • Tracheostomy  • Central venous catheters   * Medical alert tags   Continued…  ***\*\* Maintain SMR - if indicated***  ***\*\* Apply occlusive dressing - if puncture wound to neck*** | • **DO NOT** assess for carotid pulses on the right and left side at the same time. Palpating both carotid arteries at the same time simultaneously may limit the blood supply to the brain.   * The presence of a medical alert tag may provide information related to whether the patient is allergic to any medications or suffers from a significant medical condition. * Tracheal deviation is a very late sign that may **NOT** be visualized in the field. * AMU may include the sternocleidomastoid and scalene muscles (anterior, middle, and posterior). The use of accessory muscle use while at rest is a sign of respiratory distress that must be addressed. * SE is when gas or air is trapped under the layers of the skin and can only be identified by palpation of the body region. Upon palpation, SE is represented by a crackling feeling that has been described as compressing Rice Krispies. It occurs as the result of rupture/disruption of respiratory structures. It most commonly appears under the skin covering the chest and neck but may also appear in any body area. SE may progress into a life threatening condition. * A stoma is an opening in the anterior neck through which the patient breathes. A stoma is created when a patient has had an advanced airway in place and is ventilator dependent for a long period. A stoma may be temporary or permanent depending upon the nature of the illness. * A tracheostomy tube is placed in the stoma and the ventilator connects to the universal 15mm adapter.• Full face helmets should be removed to allow access to the patient’s airway and provide in-line immobilization of the head and neck.   • **DO NOT REMOVE** shoulder pads or custom fitted helmets such as football or hockey helmets unless respiratory distress is coupled with inability to access the airway. Remove face guard with rescue scissors or a screwdriver.  • Leave infants and children in safety seats for assessment and for controlled spinal immobilization. Remove them only if the seat is damaged, child requires further assessment, or life-threatening treatment that cannot be performed in the safety seat.  • Pad (shim) patients to maintain a neutral position and restrict movement on a long spine board:  - Adults - head and neck for comfort and to prevent hyper-extension  - Infant or child - immobilize in child safety seat, if possible, or -pad neck and shoulder area to maintain alignment if placed on long spine board.  - Elderly - head and neck to maintain comfort and prevent hyper-extension, airway obstruction, and skin breakdown  - Athletes - head and neck to prevent hyper-extension, if the shoulder pads are in place, and the helmet is removed |

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| **Skill Component** | **Key Concepts** |
| ⧫Assess the **CHEST – Clavicles, Sternum, Ribs**    **Additional Assessment Elements:**  • Paradoxical respirations/movement  • Accessory muscle use  • Sucking chest wound  • Subcutaneous emphysema (crepitus)  \*\* Assess breath sounds in all lung fields – if not assessed  previously  ***\*\* Apply an occlusive dressing or ventilated chest seal to a sucking chest wound - if indicated*** | * Paradoxical chest wall motion or paradoxical respiration is a type of breathing that occurs when a part of the lung inflates during inspiration and causes ballooning out of the chest during exhalation. It is most commonly associated with blunt chest trauma, which results in a flail chest. However, if paradoxical movement of the chest is noted in the absence of trauma, the patient may be suffering from a spontaneous pneumothorax or have a congenital abnormality. * An attempt to maintain patient modesty when performing chest palpation/auscultation should always be made. * If the patient has an open wound to the chest, cover it with a commercial chest seal or an occlusive dressing. * While assessing the chest, also determine if the patient has a pacemaker or an internal cardiac defibrillator (ICD).   • At this time, lung sounds should be assessed in all fields, if possible.   * SCE is the presence of air trapping under the skin. It occurs as the result of rupture/disruption of respiratory structures. It most commonly appears under the skin covering the chest and neck but may also appear in any body area. While the presence of SCE is usually may progress into a life threatening condition. * SCE can only be identified by palpation of the body region. Upon palpation, SCE is represented by a crackling feeling that has been described as compressing Rice Krispies. * In the presence of trauma, an assessment finding of subcutaneous emphysema (crepitus) indicates an injury to an airway structure, which causes air to be trapped under the skin. |
| ⧫ Assess the **ABDOMEN (DR GERM)**  **Additional Assessment Elements:**  • **D**istention  • **R**igidity   * **G**uarding * **E**cchymosis * **R**ebound tenderness   • Pulsating **M**ass  • Signs of pregnancy and/or complications  • Subcutaneous emphysema (crepitus)  **Medical Devices**:  • Gastrostomy tube  • Colostomy/Ostomy  • Medication pumps (insulin pump)   * Suprapubic catheters * Urostomy tubes | • EMS providers should palpate each of the 4 quadrants one time only to assess for rigidity and guarding. If the patient is complaining of abdominal pain, begin palpating the quadrant furthest away from the pain.  • Use finger pads of the first 3 fingers to palpate the abdomen. **DO NOT** use finger tips.  • Rebound tenderness should not be assessed in the field. It causes severe pain and prehospital treatment does not change. It is a diagnostic signfor testing for peritoneal irritation caused by infection or internal bleeding.  • Guarding is the reflexive tightening of abdominal muscles as the depth of palpation is increased.  • Pregnancy related complications are; contractions, vaginal bleeding, rigid abdomen, back pain, etc. |
| ⧫ Assess the **PELVIS**  **Additional Assessment Elements:**  • Femoral pulses  • Incontinence  • Priapism  • Signs of pregnancy and/or complications  • Vaginal bleeding  **Medical Devices**:  • Urinary catheter   * Drains | • **DO NOT** rock the pelvis or compress the iliac crests. The mechanism of injury, presence of back and abdominal pain is used to assess the pelvis without palpation.  • Pelvic injuries are critical and have the potential for major blood loss. **DO NOT** palpate if there are obvious pelvic injuries or patient complains of pelvic pain, but transport immediately, if not already enroute.  • Palpating femoral pulses is useful in the elderly if circulation to extremities is diminished. Maintain modesty and dignity and palpate in a manner as to avoid inference of impropriety.  • Pregnancy related complications are; contractions, vaginal bleeding, rigid abdomen, back pain, etc.  Continued…  • Priapism is a prolonged painful penile erection not associated  with sexual stimulation. It may be caused by:  - blood disorders such as Sickle cell anemia and leukemia  - prescription medications used for erectile dysfunction, antidepressants, psychiatric disorders, anti-anxiety and blood thinners  - illicit or recreational drugs  - spinal cord lesions  - spinal cord trauma |
| **Skill Component** | **Key Concepts** |
| ⧫ Assess the **LOWER EXTREMITIES**  **Additional Assessment Elements:**  • Track marks   * Redness and tenderness   • Pedal pulses  • Motor movement and function  • Sensation   * Pedal Edema   **Medical Devices**:  • IV catheters   * Drains * Medical alert tags | • Compare bilateral pulses, motor movement, and sensation.  • Abnormal sensations may be tingling, burning or numbness.   * Pedal edema is swelling of the feet and ankles and may signify the presence of a pre-existing medical condition. |
| ⧫ Assess the **UPPER EXTREMITIES**  **Additional Assessment Elements:**  • Tract marks  • Brachial/radial pulses  • Motor movement and function  • Sensation  **Medical Devices**:  • Arteriovenous (AV) shunt or fistula  • IV catheters   * Medical alert tags | • Compare bilateral pulses, motor movement, and  sensation.  • Abnormal sensations may be tingling, burning or  numbness.   * Arteriovenous (AV) shunts, or fistulas connect an artery to a vein and is used for dialysis. |
| ⧫ Assess the **BACK - Posterior Thorax, Lumbar,**  **Buttocks**  **Additional Assessment Elements:**   * Subcutaneous emphysema (crepitus) * Assess posterior lung sounds * Entrance and exit wounds | • Log roll patient if there is a suspicion of a spinal injury.   * Assess breath sounds in all posterior locations.   • Roll patient directly onto backboard once examination is complete. |
| ⧫ Assess the vital signs:  • Cardiac status  - pulse - rate, rhythm, quality  • Respiratory status  - respirations - rate, effort, tidal volume  - breath sounds  - oxygen saturation SpO2% (Pulse oximetry  • Blood pressure (systolic and diastolic)  • Skin signs  - color  - temperature  - moisture  • Pain scale  ***\*\* Re-evaluate the effectiveness of all primary assessment interventions performed - if applicable*** | * A complete set of vital signs are taken and counted at this time. * The SpO2 reading must be documented on the EMS Report or ePCR.   • The pulse oximetry device measures the amount of hemoglobin that is saturated with oxygen.   * When rapid chest auscultation is **NOT** indicated, auscultate for the presence and equality in *all lung fields*   • When assessing a blood pressure on the patient, determine both a systolic and diastolic B/P by using the auscultation method. The palpation method only measures the systolic blood pressure. The only time the palpation method is appropriate is if you are unable to hear the pulsations when attempting to auscultate.   * Palpating a blood pressure in order to save time is **NOT** acceptable as the palpation method does not provide a diastolic blood pressure, which is necessary to determine the presence of significant medical conditions such as a rise in intracranial pressure.   • An evaluation of the condition of the skin involves assessment of color, temperature, and moisture.  • All patients must be assessed for presence and absence of pain.  Document what patient states the pain level is using the 0 - 10 scale. (0 = no pain, 10 = excruciating pain). EMS providers explain what the scale represents in order to receive an accurate  rating from the patient. Prehospital providers **MUST** document  what the patient states and not the provider’s perception of the pain level. |
| **Skill Component** | **Key Concepts** |
| ⧫ Examine the neurological status:  ***\*\*Determine a comprehensive orientation level: Person, place, time, or event***  ***\*\*Determine a Glasgow Coma Scale (GCS) score- eyes, verbal, motor***  ***\*\*Evaluate the pupils – equal size, round, react to light (PERRL) and movement - if indicated***  • Extremities-circulation, movement, strength, sensation  ***\*\* Perform a finger stick blood sugar check – if indicated*** | * Comprehensive orientation level involves three (3) parameters: Person, place, time, or event.   • Glasgow Coma Scale (GCS) is a numerical rating forassessing the eyes, verbal, and motor responses of the patient.  • Neuro symptoms described by the patient may include headache, blurred vision, photophobia, dizziness, paresthesia, etc.  • Assess each extremity individually and then compare findings.   * The indications for a glucose check are: the patient has a history of diabetes and has an altered mental status. **See Los Angeles County Skill Sheet “Finger Stick Blood Glucose Testing.”** * Hypoglycemia is defined as a blood sugar < 60mg/dL |
| ⧫ Re-evaluate transport decision to appropriate facility | • See Los Angeles County Reference Nos. 502, 506, 508, 510, 511, 512, 513, 515, 518, 521 |
| ⧫ Determines the “Provider Impression” | * Provider Impressions are mandatory for all ALS and BLS providers in California. * Provider Impressions **ARE NOT** a diagnosis; it is your impression, based on your assessment of the patient, which guides your choice of treatment. It can change depending upon additional assessment information gained. * Conveying the initial impression of the patient to ALS and the receiving hospital personnel improves patient care by helping to guide treatment and clarify decision‐making. * Each patient encounter begins by utilizing a structured approach to completing a patient assessment. Determining the chief complaint leads to an assessment. The assessment then leads to formulating a “Provider Impression.” * The provider impression drives the treatment that should be implemented (management decisions). * Provider impressions were mandated by the State and local EMS Agencies have now begun to implement them in their everyday practice. * Some provider impressions are broad and require further clarification in EMS documentation. For example, if a medical patient is unconscious, unresponsive, and pulseless, the provider impression is Cardiac Arrest – Non-Traumatic. |

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| **RE-ASSESSMENT/DOCUMENTATION**  **(Ongoing Assessment)** | |
| **Skill Component** | **Key Concepts** |
| § Re-assess a patient at least every **5 minutes for priority** patients and every **15 minutes for stable** patients.  • Primary assessment  • Relevant portion of the secondary assessment  • Vital signs: Blood pressure, pulse and respirations  ***\*\*Manage patient condition as indicated.*** | • Unstable patients have abnormal vital signs, S/S of poor perfusion, there is a suspicion that the patient’s condition may deteriorate, or when the patient’s condition changes.   * Evaluating and comparing prior assessment findings assists with recognizing if the patient is improving, responding to treatment, or if their condition is deteriorating. * Patients must be re-evaluated at least every 5 minutes if any treatment was initiated or medication administered. |
| § Continue O2 therapy, if indicated, until the transfer of patient care has occurred | * Once oxygen therapy has been initiated, it should **NOT BE** discontinued until the transfer of patient care has occurred. |
| § Give patient report to equal or higher level of care provider  **Exception**:  *Report may be given to a lower level of care provider when an ALS to BLS downgrade has occurred* | • Report should consist of all pertinent information regarding the assessment findings, treatment rendered and patients response to care provided. |

Developed 11/99: Revised 11/2018

** PATIENT ASSESSMENT & MANAGEMENT**

**Supplemental Information**

**NOTES:**

• Trauma patients with chest injuries and having difficulty breathing or signs of shock should be assessed for bilateral breath sounds during the primary assessment to determine possible tension pneumothorax.

• A patient with a respiratory rate is outside of the normal range and has inadequate tidal volume accompanied by altered level of consciousness and abnormal skin signs needs positive pressure ventilation.

• Capillary refill can be taken at any skin area such as fingernail bed, palm of the hand, chest, forehead, etc. If using the ball of the foot in pediatric patients, the child must be in a supine position. The most accurate site is a central site, such as the chest wall rather than a peripheral site.

• While the onset and provoking factors may be obvious, trauma conditions can be evaluated by using the mnemonic OPQRST.

• GCS Eye Opening (awake or unresponsive), verbal response, motor response (Normal 4-5-6)

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| **Eye Opening**  Stimuli needed for patient to open eyes  4 = spontaneous  3 = responds to voice  2 = responds only to painful stimuli  1 = no response | **Verbal Response**  Best communication when questioned  5 = oriented , converses normally  4 = confused, disoriented  3 = inappropriate words or phrases  2 = incomprehensible sounds  1 = makes no sound | **Motor Response**  Best response to command or stimulus  6 = obeys commands  5 = localizes stimulus (purposeful)  4 = flexion, withdraws from stimulus  3 = abnormal flexion (spastic) (*decorticate*  *posturing)*  2 = extension (rigid) (*decerebrate posturing*)  1 = makes no movement |

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| **COMPONENTS OF A TRAUMA BAG:** | | | |
| **Adhesive dressings (Band-Aids®** | **Dressings – Trauma, 4X4, Vaseline** | | **Gauze bandages** |
| **Trauma shears** | **Splints – long, short, and traction** | | **Extrication device** |
| **Commercial chest seals** | **Tape – assorted sizes** | | **Head immobilizer device** |
| **Tourniquets** | **Occlusive dressing / Vaseline gauze** | | **C collars** |
| **Hemostatic dressings** | **Normal saline irrigation** | | **Flashlight** |
| **PPE Gloves/gown/goggles** | **Burn pack or burn sheet** | |  |
| **COMPONENTS OF AN AIRWAY BAG:** | | | |
| **BMV devices – adult, child, infant** | | **Portable suction** | |
| **OP/NP airways – all sizes** | | **Suction equipment– various sizes** | |
| **Nasal cannula** | | **Portable oxygen cylinder and oxygen regulator** | |
| **Simple face mask – adult, child, and infants** | | **Pulse Oximeter** | |
| **Non-rebreather – adult, child, and infants** | | **Water soluble lubricant** | |

**PERTINENT QUESTIONS FOR COMPLAINTS OF PAIN / DISCOMFORT**

• When did the pain/discomfort first begin? (Minutes - weeks)

• What caused the pain? (Acute vs. chronic)

• How do you describe the pain? (I.e. sharp, ache, squeezing, burning, etc.)

• Area effected and if focal or diffuse

• Pain moves to another area away from its origin

• Constant or intermittent

• 0 - 10 pain scale (initial event and ongoing assessment)

• Duration

**PATIENT ASSESSMENT & MANAGEMENT TRAUMA**

**Supplemental Information (Continued)**

**PERTINENT QUESTIONS FOR COMPLAINTS OF PAIN / DISCOMFORT**

• When did the pain/discomfort first begin? (Minutes - weeks)

• What caused the pain? (Acute vs. chronic)

• How do you describe the pain? (I.e. sharp, ache, squeezing, burning, etc.)

• Area effected and if focal or diffuse

• Pain moves to another area away from its origin

• Constant or intermittent

• 0 - 10 pain scale (initial event and ongoing assessment)

• Duration

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| --- | --- |
| **REFERENCES**  • 502 - Patient Destination  • 506 - Trauma Triage  • 508 - Sexual Assault Patient Destination  • 510 - Pediatric Patient Destination  • 511 - Perinatal Patient Destination  • 512 - Burn Patient Destination  • 515 - Air Ambulance Trauma Transport  • 519 - Management of Multiple Casualty Incidents  • 521 - Stroke Patient Destination  • 606 - Documentation of Prehospital Care  • 808 - Base Hospital Contact and Transport Criteria  • 834 - Patient Refusal of Treatment or Transport |  |

**RECEIVING FACILITIES**

• Emergency Department Approved for Pediatrics (EDAP)

• Most Accessible Receiving (MAR)

• Pediatric Trauma Center (PTC)

• Perinatal Center (N)

• Sexual Assault Center (SART)

• Trauma Center (TC)

**FOR A LIST OF PROVIDER IMPRESSIONS RELATED TO TRAUMA, SEE LOS ANGELES COUNTY EMS AGENCY REFERENCE NO. 1200.3**



Pediatrics

Adults