EMT Skill Sheet

Skill #4 - Spinal Immobilization (Spinal Motion Restriction)

Student Name: ____________________________

Pass date - ___________

Evaluator Name______________________ Signature: __________________________________
(Sign if Student Passes Skill) Date

Dispatched:	Patient Contact:	Transport:	End of Call:	

Information on this skill can be found in the Text Book and on the class D2L website		Comments
SCENE SIZE-UP – Starts prior to Patient contact but continues throughout the call		
Takes, or verbalizes, body substance isolation precautions of Gloves and Eye Protection **(Critical Fail!)**		
Verbalizes Scene Size-up (Information from Dispatch and EMRs) – Safety **(Critical Fail!)**, Mechanism of Injury (MOI) – C-spine needed, Nature of Illness (NOI), Additional Resources, # of Patients		
PRIMARY ASSESSMENT (Primary Survey/Initial Assessment) - Done On Scene		
General Impression of the scene, patient & gathers information from EMRs or bystanders. Must observe: ✓ Unusual Environmental Factors (Hazards, Odors/Temperature, Lighting, Entrances/Exits, People) ✓ Patient's approximate Age, Sex, and Mental Status/ LOC (Level of Consciousness) ✓ Patient's Positioning, Level of Distress (Breathing/Pain), and any Gross Injuries seen ✓ Looking for Arterial Bleeding and ≈***If necessary*** - applying bleeding control as soon as possible		
Considers C-spine (Spinal Motion Restriction) for the Patient **(Critical Fail!)** – When in doubt – C-spine EMT should evaluate the scene for MOI (Mechanism of Injury). Does patient meet any of the following; • Significant MOI (MVC at high speed, Falls>20 feet) with Neck/Back Pain or Neurological deficit • Unresponsive/AMS (Altered Mental Status or Drugs/ETOH) patients with unknown history of event • Water related accidents, head/neck injuries, hangings If Yes to the above - Tell patient not to move and directs an EMT to hold manual stabilization (Skill #4)		
Evaluator states Patient involved with Trauma of Significant MOI with defects		
Informs patient not to move and directs an EMT to maintain manual immobilization of head in a neutral in-line position – Verbalizes to patient that an EMT will be holding their head to protect their spine		
Identifies self by Name, Level of Medical training, Agency and gets Patient's Consent (Expressed/Implied)		
Asks Patient – Name, Age and Chief Complaint • Determines patient's condition & considers calling for ALS if necessary		
Determines responsiveness of Patient by AVPU - May visualize for signs of Breathing at this time ✓ Awake - If patient is Alert must ask Person, Place, Time and Event orientation questions ✓ Responses to Verbal – check to see if patient can follow commands or answer questions ✓ Physical then Pain - check to see if patient can follow commands, open eyes or answer questions ✓ Unresponsive – **NO** response to Painful stimulus (Do no harm – neck/ear pinch, push bone above eye)		
≈***If necessary*** - If patient is Unresponsive to Pain start with Circulation not Airway (2010 ECC BLS)		
<u>Airway</u> - Assesses and Fixes **(Critical Fail!)** ✓ Listen for noise – snoring, stridor, gurgling, wheeze ✓ Smell for odors – ETOH (alcohol), emesis, ketones, unusual odors (must be within 3 feet of Head) ✓ **Ask if patient if they are nauseated or had emesis if awake** Considers if Airway is Good (Adequate) or Bad (Inadequate) ➢ **Signs/Symptoms (s/s) that Airway is Patent/Adequate** – Patient is awake and maintaining their own airway, no abnormal noises heard (stridor, snoring, gurgling), Patient can speak clearly, No oral trauma or obstructions (blood, vomit, fluid, swelling) are noted ➢ **Signs/Symptoms that Airway is Inadequate** – Diminished level of responsiveness, Abnormal noises heard (stridor, snoring, gurgling), Drooling, Difficulty talking or speaking clearly, Actively vomiting If Airway is Inadequate or Patient with Altered Mental Status (AMS) - Open mouth and look for Obstruction – broken teeth, dentures, edema, emesis, blood (use light pen) ≈***If necessary*** – Fixes Airway (Skill #2) • Suctions patient as needed • Open and maintain airway with Head-Tilt Chin-Lift/Jaw-Thrust if patient is not maintaining Airway due to decreased mental status Considers Airway Adjunct for all Patient's with AMS - OPA or NPA		

Breathing - Assesses and Fixes **(Critical Fail!)** – This may be done in Mental status assessment
Considers if Airway is Good (Adequate) or Bad (Inadequate)
- ✓ Looks for bilateral chest rise/Listens for Noisy breathing/Feels for chest rise (AMS patients)
  - ➢ **Breathing is Adequate** – Equal rise and fall of chest bilaterally, Non-labored, Patient is Awake with good mental status, no abnormal noise heard, Breathing is full, Appears to be a good rate (12-20), Pink dry skin, patient can speak in full sentences
  - ➢ **Breathing is Inadequate** – Labored breathing, Abnormal noises (stridor, wheezes, coughing, or noisy breathing), Bad rate (<12 or > 20), Shallow breathing, Patient is tripoding, using accessory muscles, Pale /cyanotic skin, unable to speak full sentences, (Nasal flaring, Grunting, Retractions, or Seesaw breathing - Kids) – patients with Decreased mental status should be carefully assessed
- ✓ If Breathing is labored - Describes level of Dyspnea as Mild, Moderate or Severe (**get SpO2**)

Considers Ventilation and Oxygen for the Patient –- **(Critical Fail!)** (Skill #1)

≈*If patient has* - Adequate Breathing & No life threating Complaint &/or signs of Hypoxia/Shock
- ✓ Oxygen therapy may not be required

≈*If patient has* - Adequate Breathing but life threating signs of Hypoxia or Shock

Directs an EMT to provide O2 therapy and place SpO2 on patient (**keep SpO2 greater or equal to 94%**)
- ✓ NC 1-6 LPM – Little Sick without Life Threating Complaints or only mild Respiratory distress
- ✓ NRM 15 LPM – Big Sick, Hypoxic, AMS, CO poisoning, Shock, or Respiratory distress (>Mild)
- ✓ Considers CPAP for moderate to severe Respiratory distress. Considers contraindications of CPAP

≈*If patient has* - Signs of Inadequate Breathing (Slow, Shallow, Unequal/Inadequate chest rise)
- ✓ Directs 2 EMT/EMRs to provide positive pressure ventilation with BVM (Oxygen at 15 LPM)

Circulation - Assesses and Fixes **(Critical Fail!)**
- ✓ Pulse **(Verbalize the Strength, Speed-fast/slow, and Regularity)** assess for up to 10 seconds
- ✓ Checks Skin signs (**Moisture/Color/Temperature**) and Cap Refill
- • Signs or symptoms of Shock must be treated in Primary assessment (Skill #5)

Deformities - Assesses and Fixes this assessment should take no more than 60 - 90 seconds

Anterior Rapid Scan in all Patients with decreased LOC;
- ✓ Head - Palpate head for deformities, Visualize ears, nose & open mouth for trauma or bleeding or ecchymosis, checks facial symmetry
- ✓ Neck – Visualize for JVD, swelling or bleeding. Palpate the midline neck if not already done
- ✓ Chest – Visualize equal rise & fall of chest. Expose chest and then Visualize then Palpate anterior Sternal and Lateral by Palpation
  - • Cover penetrating thoracic injuries with gloved hand until an occlusive dressing applied
  - • EMT may consider checking Lung Sounds (Bases & Apexes) for Critical patients/Chest trauma
- ✓ Abdomen – Expose and Palpate for guarding, tenderness, distention or rigidity in 4 quadrants
- ✓ Rub hands under posterior bilateral sides of Patient to check for Arterial Bleeding
- ✓ Pelvis – Visualize for incontinence of urine/feces (for significant Trauma Patients the EMT must palpate pelvis laterally and anteriorly/posterior). Checks for priapism.
- ✓ Extremities – Visualize/Palpate for arterial bleeding and gross injuries. Check CMS* in Arms/Legs

*CMS – Circulation, Motor & Sensory function (Neurovascular function or PMS - Pulse/Motor/Sensory)

≈*If necessary* - Provides bleeding control or occlusive dressing (Critical Fail!)
- ➢ Some EMTs may just do a quick Visual Scan without Palpation on Awake Medical/Trauma Patients

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Expose and Examine - To the appropriate level (Age, Mental status, Injury, Environment)
- • Head and Chest should be exposed in Critical Patients (Head Coverings/Shirt)

Consider and verbalizes to EMT partner(s) the following – Patient Priority (Life Threats) –
1. Appears – Stable (Little Sick);
   - ➢ Mental Status & ABCDs normal and no life threating complaint(s)
2. Appears - Potentially Unstable (possible Big Sick);
   - ➢ Mental Status and ABCD good but has life threating complaint(s)
3. Appears – Unstable (Big Sick);
   - ➢ Any abnormal Mental Status or abnormal ABCDs and/or has life threating complaint(s)

- ✓ Inform team of Transport Decision. Stay & Play or Load & Go
  - • **<10 min on scene for Critical patients**
- ✓ Calls for ALS or any other additional resources that may be needed
- ✓ Assign Tasks to Team Members (sometimes done in Scene Size up)
  - • EMT #1 – Holds Patient head till patient fully secured
  - • EMT #2 – C-spines (Spinal Motion Restriction)
  - • EMT #3 - C-spines (Spinal Motion Restriction)
  - • EMT #4 – Vital Signs, Demographics and Physical Assessment and Patient History

≈*If necessary* - Considers the Golden Hour/Period for Critical Trauma* (Critical Fail!)

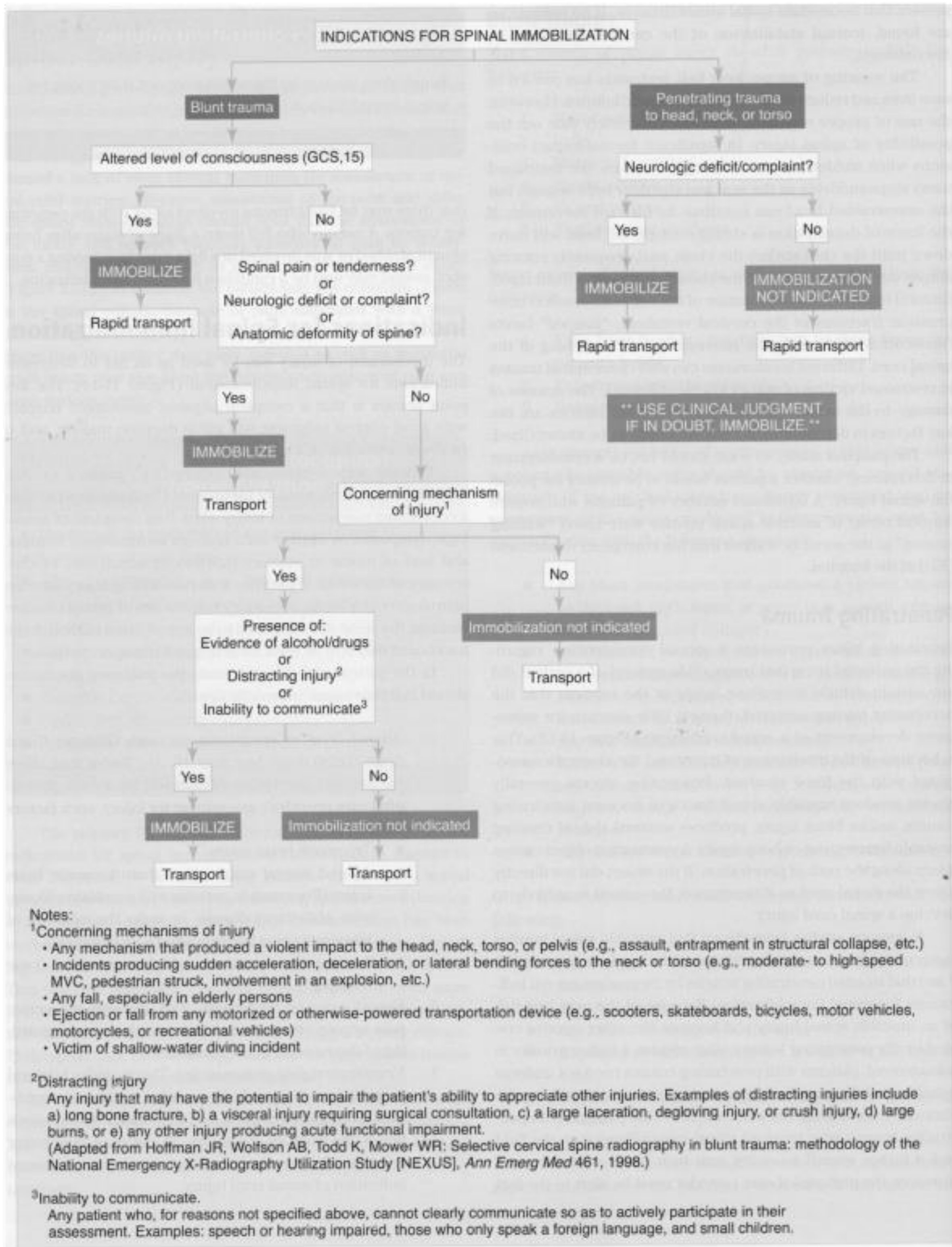
<table>
<tr><td colspan="3">Note: The Evaluator informs the student that the secondary assessment has been done by another EMT and to stabilize the spine with c-spine application using the equipment provided</td></tr>
<tr><td>Note C-spine protocols vary dramatically from State to State and County to County. This is the Current National standard for C-spine patients. The Current National standard may change in the near future;
• C-spine based not just on MOI but Neurological deficits, midline Neck/Back Pain with trauma
• Using Just C-collars or X-Collars without boards
• Using KEDS
• Using Full/Half Body Vacuum Splints with or without Combi-Carriers or Scoop stretchers
In some Counties this is call Spinal Motion Restriction not Spinal Immobilization</td><td></td><td></td></tr>
<tr><td>EMT explains treatment to patient and gets Informed consent</td><td></td><td></td></tr>
<tr><td>Assesses CMS* or motor, sensory and circulatory function in all 4 extremities if not done in the Primary Assessment (Critical Fail!)
• Should check strength bilaterally in feet and hands unless an injury prevents this assessment
✓ Must be done prior to moving the patient! (Critical Fail!)</td><td></td><td></td></tr>
<tr><td>Applies appropriately sized extrication collar – May be done/or not done at any time in skill
• Should assess after c-collar placement that the patients head is not hyper or hypo flexed
✓ If cervical collar is not used - the EMT should use towels or bed sheets rolls in securing head</td><td></td><td></td></tr>
<tr><td>Log rolls the patient laterally with assistant(s) if available
• EMT at head directs movement of patient
• Assesses patients posterior (head, spine, scapula, kidneys, buttocks (incontinent), back of legs) by Visualization and Palpation (Expose posture as necessary)
• Log rolls patient onto backboard</td><td></td><td></td></tr>
<tr><td>Directs movement of the patient onto the device without compromising the spine (Critical Fail!)
✓ Z pattern diagonal directional movement
✓ No lateral or horizontal movement that compromises spinal alignment allowed</td><td></td><td></td></tr>
<tr><td>Applies padding to voids between the patient and the board as necessary</td><td></td><td></td></tr>
<tr><td>Secures patient to backboard with straps (Critical Fail!)
✓ No strap over injuries, abdomen or patella – must be 2 inches above and below knee
✓ Tighten straps to prevent movement of patient on board (3 fingers should not fit in-between straps)
✓ Straps must be tucked in and not loose after tighten
➢ Textbooks state strapping order – Torso, Pelvis, Legs</td><td></td><td></td></tr>
<tr><td>Pads behind patient head (may use commercial head securing device)</td><td></td><td></td></tr>
<tr><td>Secures the patient head to the backboard (Critical Fail!) –
✓ At least 2 straps must be used (no tape over mandible or skin) and head must not move
➢ Some systems do not allow straps under chin</td><td></td><td></td></tr>
<tr><td>Secures patient’s arms based on patient mental status</td><td></td><td></td></tr>
<tr><td>Assesses distal CMS* or motor, sensory and circulatory function after patient is secured to the backboard (Critical Fail!)</td><td></td><td></td></tr>
<tr><td colspan="3">#4 EMT Obtains History, Vital Signs and Demographics – Done on Scene most of Time unless patient is unstable</td></tr>
<tr><td>#4 EMT Gets and Documents SAMPLE and OPQRST</td><td></td><td></td></tr>
<tr><td>#4 EMT Gets Get Patient’s Demographical Info (legal name, age, birthday, full address, phone #, insurance/hospital)
Patient ID and Insurance Cards (if at medical facility must get copy of patient’s medical record)</td><td></td><td></td></tr>
<tr><td>#4 EMT Gets and Documents Vital signs</td><td></td><td></td></tr>
<tr><td>Physical Assessment (Head to Toe) may be deferred till enroute</td><td></td><td></td></tr>
<tr><td>Contacts Medical Control and/or documents Standing Orders/Protocols followed</td><td></td><td></td></tr>
<tr><td>More than 4 missed points results in Failure   Total Missed Points</td><td></td><td></td></tr>
</table>

✓	Actions performed and/or verbalized by student when doing skill
➢	Additional information on the procedure
•	Key Points that student should know but do not need to verbalized/do unless asked

* CMS – Circulation, Motor and Sensory Function (also called Neurovascular Function and PMS – Pulse/Motor/Sensory)

Evaluator Comments:

PHTLS (8th) Spinal Immobilization Flow Chart



Notes:

[1]Concerning mechanisms of injury

- Any mechanism that produced a violent impact to the head, neck, torso, or pelvis (e.g., assault, entrapment in structural collapse, etc.)
- Incidents producing sudden acceleration, deceleration, or lateral bending forces to the neck or torso (e.g., moderate- to high-speed MVC, pedestrian struck, involvement in an explosion, etc.)
- Any fall, especially in elderly persons
- Ejection or fall from any motorized or otherwise-powered transportation device (e.g., scooters, skateboards, bicycles, motor vehicles, motorcycles, or recreational vehicles)
- Victim of shallow-water diving incident

[2]Distracting 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.)

[3]Inability to communicate.

Any patient 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.