



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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## **Adult Trauma Emergencies – ALS**

SERVING THE CITIZENS, EMS AGENCIES, ACUTE CARE HOSPITALS AND LOCAL GOVERNMENTS IN VIRGINIA PLANNING DISTRICTS 13,14,15 AND 19

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7818 E. Parham Road, Suite 911 • Richmond, VA 23294  
PHONE: 804-560-3300 • FAX: 804-560-0909 • [www.odemsa.vaems.org](http://www.odemsa.vaems.org)



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### **Injury – General Trauma Management**

#### **OVERVIEW:**

Each year, one out of three Americans sustains a traumatic injury. Trauma is a major cause of disability in the United States.

Trauma is the leading cause of death in people under 44 years of age, accounting for half the deaths of children under the age of 4 years, and 80% of deaths in persons 15 to 24 years of age. As a responder, your actions within the first few moments of arriving on the scene of a traumatic injury are crucial to the success of managing the situation.

Within these moments, you must size up the situation, mitigate as many hazards as possible, establish incident command, rapidly triage patients, and ultimately assess, treat, and extricate patients from the scene. In doing so, you must decide when to extricate a patient and what treatment is essential to improve the patient's chances of survival, based on your knowledge, previous experience, and a problem-based assessment algorithm.

**Rapid transport of the trauma patient is essential to improving patient outcomes.**



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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Primary Assessment
    - i. XABCDE Format
  - h. Life Threat Bleeding
    - i. Assessment
    - ii. Correction
  - i. Airway
    - i. Assessment
    - ii. Correction
  - j. Breathing
    - i. Assessment
    - ii. Correction
  - k. Circulation
    - i. Assessment
    - ii. Correction
  - l. Disability
    - i. Assessment



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- ii. Correction
  - m. Exposure
    - i. Assessment
    - ii. Correction
- 2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Triage
- 3. Demonstrates the selection of the proper protocol based on above assessment.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



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Student's and FTO'S signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **General – Universal Patient Care/Initial Patient Contact (Trauma Patient Assessment)**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature



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### **Injury – Abdominal Trauma – ALS**

#### **OVERVIEW:**

Blunt and penetrating traumas are major causes of morbidity and mortality in the United States. In blunt force abdominal trauma, the spleen, and liver are typically the most commonly injured organs, and in penetrating trauma, there is a slightly higher mortality, depending on the mechanism of injury.

Gunshot and stab wounds combine to make up the largest percentage of penetrating abdominal injuries.

When performing a focused abdominal assessment, be organized, efficient, and thorough.

Initial abdominal examinations only identify injury about half the time; secondary exams are needed when there is a high index of suspicion for abdominal trauma.

A proper abdominal examination involves exposing the entire abdomen from the nipple line to the groin and using a standard examination sequence of inspection, auscultation, percussion, and palpation.



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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - k. IV Access
  - l. Consider Anti-Emetic IV per current Protocol standards.
  - m. Primary Assessment
    - i. XABCDE Format
  - n. Life Threat Bleeding
    - i. Assessment
    - ii. Correction
  - o. Airway
    - i. Assessment
    - ii. Correction
  - p. Breathing
    - i. Assessment
    - ii. Correction
  - q. Circulation
    - i. Assessment
    - ii. Correction
  - r. Disability
    - i. Assessment

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- ii. Correction
- s. Exposure
  - i. Assessment
  - ii. Correction
- 2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Focused Assessment of the Abdomen
    - i. Anterior
    - ii. Postier
  - c. Pulse Ox Measurement
  - d. Oxygen/Ventilation based on Assessment.
  - e. Demonstrates the appropriate transport mode and destination.
  - f. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

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Competency – ODEMSA – Regional Protocols – **Injury – Abdominal Trauma – ALS**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
 Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
 Printed Name Signature



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## Injury – Burns – ALS

### OVERVIEW:

Burns are a devastating form of trauma associated with high mortality rates, lengthy rehabilitation, cosmetic disfigurement, and permanent physical disabilities.

Thermal, chemical, electrical, nuclear radiation, or solar sources may cause burns.

Burns can affect more than just the skin. They can affect the body's fluid and chemical balance, temperature regulation, and musculoskeletal, circulatory, and respiratory functions.

Burns are classified by degree:

- 1° **Superficial** - some reddening to skin,
- 2° **Partial-thickness** - has blistering and deep reddening to the skin, and
- 3° **Full-thickness** - causes damage to all skin layers and is either charred/ black or white/ leathery with little or no pain at the site.

**The patient's palm equals approximately 1% of their body surface area when determining the area affected.**

**This is sometimes more helpful than using the “rule of nines” especially with pediatric patients.**



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1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Pulse Ox
  - h. Need for ALS.
  - i. Pulse Ox
  - j. End Tidal CO<sub>2</sub>
  - k. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - l. IV Access
  - m. Type of Burn
    - i. Thermal
      1. Stop the burning process.
    - ii. Chemical
      1. Dry Chemicals
        - a. Brush off the substance
        - b. Rinse with copious amounts of water for 20 minutes
      2. Liquid Chemicals
        - a. Flush area with copious amounts of water for 20 minutes
    - iii. Electrical
      1. Ensure Electricity/Energy is turned off.
        - a. Remove from source.
      2. Treat based on assessment of injuries.
    - iv. Radiation /Nuclear Materials
      1. Remove from source.
      2. Treat based on assessment of injuries.

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- n. Primary Assessment
    - i. XABCDE Format
  - o. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - p. Airway
    - i. Assessment
    - ii. Correction
  - q. Breathing
    - i. Assessment
    - ii. Correction
  - r. Circulation
    - i. Assessment
    - ii. Correction
  - s. Disability
    - i. Assessment
    - ii. Correction
  - t. Exposure
    - i. Assessment
    - ii. Correction
  - u. Remove constricting clothing/Jewelry.
  - v. Bandage Dry Sterile Dressing
    - i. Burn Sheet
  - w. IV Fluids
    - i. If burn more than 20 BSA of 2<sup>nd</sup> or 3<sup>rd</sup> degree burns
    - ii. Patient less than 5 yrs, rate of 125 ml/hr.
    - iii. Patient 5-14 yrs. Rate of 250 ml/hr.
    - iv. Patient older than 14 yrs. Rate 500 ml/hr.
  - x. Pain management per current Pain Management protocol
2. Demonstrates the following skills.
- a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems



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1. Critical Burns
  - iii. Vital Signs / Documentation
  - b. IV skills / Rate measurement/management
  - c. Pulse Ox Measurement
  - d. Rules of Nine/Body Surface Estimated
  - e. Frequently assess for Shock
  - f. Oxygen/Ventilation based on Assessment.
  - g. Demonstrates the appropriate transport mode and destination.
  - h. Transport as soon as safe to do so to the proper destination.

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Competency – ODEMSA – Regional Protocols – **Injury** – **Burns** – ALS

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature



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### **Injury – Crush Syndrome – ALS**

#### **OVERVIEW:**

Crush injuries can result from a variety of mechanisms including mine cave-ins, trench collapses, building collapse, vehicular collisions, or industrial accidents.

Also called **traumatic rhabdomyolysis**, it is defined as the prolonged compression, usually 4 - 6 hours but possibly less than 1 hour, of large muscle mass and compromised local circulation.

Crush syndrome may also be exacerbated by hypovolemia secondary to hemorrhage.

Compression on the body causes a disruption in tissue perfusion to a muscle group leading to cellular hypoperfusion and hypoxia. Cellular perfusion is further decreased due to hemorrhage from torn or compressed vessels.

Once the compressive force is relieved, blood flow resumes, releasing the toxic substances that have been collecting in the compressed areas into the systemic circulation.

This can result in systemic metabolic acidosis, widespread vasodilation, and hyperkalemia.

Metabolic acidosis and high potassium levels could have deleterious effects on the myocardium and lead to patient death.

Cardiac arrest due to hyperkalemia typically occurs within the first hour of removal from compression.

**Because of this, treatment for crush injuries begins prior to patient removal from compression.**



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1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Pulse Ox
  - h. Need for ALS.
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - k. IV Access
  - l. Additional Resources/Equipment
    - i. Technical Rescue Team /Manpower
  - m. Bolus of Fluid 20 ml/kg prior to extrication if possible/as soon as possible**  
**Do NOT USE Lactated Ringers**
  - n. Peaked T waves – **contact Medical Control.**
    - i. Albuterol 5 mg via Nebulizer
    - ii. Sodium Bicarbonate
      1. IV push
      2. Drip via D<sub>5</sub>W
    - iii. Calcium Chloride - Drip
  - o. Pain Management per Current Pain Management Protocol
  - p. Time of entrapment**
  - q. Consider Sodium Bicarbonate based on time of entrapment and number of limbs involved/injured.**
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format

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- ii. All major body parts/systems
- iii. Vital Signs / Documentation
- b. Pulse Ox Measurement
- c. Oxygen/Ventilation based on Assessment.
- d. Proper placement of tourniquet(s) prior to being freed from entrapment.
- e. Demonstrates the appropriate transport mode and destination.
- f. Transport as soon as safe to do so to the proper destination.

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Competency – ODEMSA – Regional Protocols – **Injury – Crush Syndrome – ALS**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature



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### **Injury – Electrical Injuries – ALS**

#### **OVERVIEW:**

**Before treating any patient with an electrical injury, ensure your personal safety.**

**Do not touch the patient if the patient is still in contact with the electrical source.**

Most electrical injuries are caused by generated electricity, such as that encountered in power lines and household outlets.

**Relative to the external damage caused by electrical injuries, internal damage is often more severe and can include damage to muscles, blood vessels, organs, and nerves.**

Damaged muscle releases myoglobin which can cause acute renal failure.

Electrical current as low as 20 mA can cause respiratory arrest and as little as 50 mA can cause ventricular fibrillation.

Although long-bone fractures and spinal injuries can occur due to falls after electrocution, they can additionally occur due to severe tetanic muscle spasms with high amplitude electrocutions.

**Before treating any patient with an electrical injury, ensure your personal safety. Do not touch the patient, if the patient is still in contact with the electrical source.**



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1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - k. IV Access
  - l. Ensure Electricity/Energy is turned off.
    - i. Remove from the source.
  - m. Treat based on an assessment of injuries.
  - n. Remove constricting clothing/Jewelry.
  - o. Treat any Cardiac Dysrhythmia per appropriate Protocol
  - p. If Hyperkalemia is noted
    - i. **Contact Medical control**
  - q. Pain management per Current Pain Management Protocol
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Proper 12 lead placement.
  - e. Demonstrates knowledge of ACUTE MI message on 12 Lead.

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- f. Demonstrates the appropriate transport mode and destination.
- g. Transport as soon as safe to do so to the proper destination.

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Competency – ODEMSA – Regional Protocols – **Injury** – **Electrical Injuries** – **ALS**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name    Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name    Signature



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### **Injury – Head Injury - ALS**

#### **OVERVIEW:**

Brain injury and its accompanying pathologic processes continue to be a leading cause of mortality associated with trauma.

Whether the injury is due to a blunt or penetrating mechanism, bleeding or swelling of the brain and surrounding tissue may lead to an increase in pressure within the cranial cavity, known as intracranial pressure (ICP).

If the pressure within the skull is not controlled, neurologic changes may produce signs and symptoms ranging from headache to coma with loss of protective reflexes.

Blunt force trauma may result in scalp injury, skull fracture, and meningeal and brain tissue injury.

Penetrating trauma may produce focal or diffuse injury, depending on the velocity of the penetrating object.

Although the pre-hospital provider cannot reverse the brain tissue damage from the initial/primary brain injury that has already occurred, they can play a major role in preventing or limiting the processes that exacerbate and lead to a secondary brain injury.

**The pre-hospital provider's goal is to focus on reversing any hypoxia, hypotension, hypercarbia, acidosis, or increasing intracranial pressure.**



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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Pulse Ox
  - h. Document GCS
  - i. Obtain 12 Lead EKG
  - j. Need for ALS.
  - k. Mental Status
  - l. End Tidal CO<sub>2</sub>
  - m. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - n. IV Access – if possible establish a second IV site
  - o. Treat based on an assessment of injuries.
  - p. Remove constricting clothing/Jewelry.
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Proper Determination of GCS and Reassessments
  - c. Pulse Ox Measurement
  - d. Oxygen/Ventilation based on Assessment.
  - e. Proper Assessment for Spine Motion Restriction/Immobilization
    - i. Proper Back boarding techniques
      1. Adult
      2. Pediatric

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- ii. Proper Head/Neck Immobilization
- iii. Proper method to secure Patient to the Backboard
- iv. Proper method to secure Back boarded Patient to Stretcher.
- v. PMS properly assessed and documented.
- f. Frequent Mentals Status evaluation/GCS Calculation
- g. Glucose checked.
- h. Proper 12 lead placement.
- i. Demonstrates knowledge of ACUTE MI message on 12 Lead.
- j. Demonstrates the appropriate transport mode and destination.
- k. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



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Competency – ODEMSA – Regional Protocols – **Injury** – **Head Injury** – ALS

Student's Name and Signature – date below:

_____	_____	Date _____
Printed Name	Signature	

FTO's Name and Signature – date below:

_____	_____	Date _____
Printed Name	Signature	



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### **Exposure – Airway/Inhalation Irritants – ALS**

#### **OVERVIEW:**

Most of the fire-related deaths are the result of smoke inhalation.

Suspect inhalation injury and respiratory damage in any victim of a thermal burn, particularly if the patient has facial burns, singed nasal hair, carbonaceous sputum, or was in an enclosed space.

Be aware that many chemicals are present during ordinary combustion including Hydrogen Sulfide, Hydrogen Cyanide, and Carbon Monoxide (CO). CO is a tasteless, odorless, colorless, and non-irritating gas.

Almost any flame or combustion device can produce the gas. CO poisoning is a common problem and produces a broad spectrum of signs and symptoms, often imitating the flu. Think about CO poisoning when multiple patients present with the same signs and symptoms at a residence.

Hydrogen cyanide is a by-product of the combustion of materials used in everyday life products (i.e., insulation, carpets, clothing, and synthetics). The culprit is nitrogen.

Nitrogen gas in atmospheric air can contribute (under the right circumstances) to the formation of minute amounts of cyanide during combustion.

High temperatures and low-oxygen concentrations favor the formation of cyanide gas.

Smoke from the combustion of grass clippings, green wood, tobacco, cotton, paper, wool, silk, weeds, and animal carcasses will likely contain some hydrogen cyanide gas.



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But the real offender is the combustion of man made plastic and resins containing nitrogen, especially if the fire is hot and in an enclosed space.

Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Pulse Ox
  - h. End Tidal CO<sub>2</sub>
  - i. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - j. IV Access
  - k. Need for ALS.
    - i. Thermal
      1. Remove from the source.
      2. Stop the burning process.
    - ii. Chemical
      1. Remove from the source.
      2. Stop the burning process.
    - iii. Electrical
      1. Ensure Electricity/Energy is turned off.
        - a. Remove from the source.
        - b. Stop the burning process.
    - iv. Radiation /Nuclear Materials
      1. Remove from the source.
  - l. Primary Assessment

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- i. XABCDE Format
  - m. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - n. Airway
    - i. Assessment
    - ii. Correction
      - 1. CPAP
      - 2. Determine need for ET
  - o. Breathing
    - i. Assessment
    - ii. Correction
  - p. Circulation
    - i. Assessment
    - ii. Correction
  - q. Disability
    - i. Assessment
    - ii. Correction
  - r. Exposure
    - i. Assessment
    - ii. Correction
  - s. Treat based on an assessment of injuries.
    - i. If Carbon Monoxide Suspected
      - 1. Cyanokit Admin per Instructions
2. Demonstrates the following skills.
- a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
    - i. CPAP
  - d. Proper 12 lead placement.

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- e. Demonstrates knowledge of ACUTE MI message on 12 Lead.
  - i. ALS
- f. Demonstrates the appropriate transport mode and destination.
- g. Transport as soon as safe to do so to the proper destination.

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### **Injury – Sexual Assault - ALS**

#### **OVERVIEW:**

A patient that has experienced the trauma of sexual abuse may present in a variety of ways.

Physical trauma may be evident along with emotional trauma, which is very prevalent in these situations. In other cases, emotional trauma may be the only presenting problem.

Pre-hospital EMS providers may be thrust into the role of mediator, buffer, or confidant. They may even be subject to violent aggression on the part of the victims or their families.

Injuries associated with sexual assault may vary widely. They can be as subtle as slight pain or discomfort or as grossly evident as either debilitating or disfiguring trauma. The victim's injuries also may not be obvious or visible on first inspection; some may even deny injuries and relay untruthful information regarding the occurrence.

**The pre-hospital provider must develop and foster rapport with the victim to gain the victim's confidence, so that accurate information can be obtained.**

**It is the ethical and legal responsibility to notify the receiving hospital of suspicions of child and elder abuse.**





# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
    - a. Scene Survey
    - b. HPI – Complete
    - c. Signs and Symptoms
    - d. SAMPLE
    - e. OPQRST
    - f. MOI – NOI
    - g. Need for ALS.
    - h. Primary Assessment
      - i. XABCDE Format
    - i. Life Threat(s) Identified
      - i. Assessment
      - ii. Correction
    - j. Treat based on an assessment of injuries.
    - k. Notify Police/CPS/APS – EMS providers are Mandated Reporters.**
      - i. Inform ER staff**
    - l. Limited Physical Exam
      - i. Bleeding control
    - m. Do not allow the patient to bathe, or change/remove clothing.**
      - i. If clothing has/needs removal
        1. Bag/Label all items separately in brown paper bags.
          - a. Transport clothing/items with the patient/leave with Police on scene
      - ii. Bring clean clothes if possible.
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation

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## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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- b. Pulse Ox Measurement
- c. Oxygen/Ventilation based on Assessment.
- d. Demonstrates the appropriate transport mode and destination.
- e. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury - Sexual Assault - ALS**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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### **General – Neglect or Abuse Suspected – ALS**

#### **OVERVIEW:**

Child and elder abuse, which includes sexual abuse, physical abuse, and neglect is often overlooked and under-reported.

**It is the ethical and legal responsibility to notify the receiving hospital of suspicions of child and elder abuse.**

It may prevent serious injury and death. Proof of abuse is not needed to make the report to the hospital, CPS, APS, or social services.

Patterns of abuse can reflect any form of physical and/ or mental trauma but are usually characterized by unexplained or poorly explained injuries of different ages and delays in seeking medical care.

There are often no external signs of injuries. The provider should note vague medical symptoms such as repeated vomiting, abdominal pain, and distention in an elderly person with other evidence of abuse.

Also be observant of decubitus ulcers, unsanitary conditions, skin conditions, and the general nourishment of the elder.

**Observation, transport, and reporting are the key responsibilities of the pre-hospital provider.**



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Pulse Ox
  - h. Need for ALS.
  - i. Primary Assessment
    - i. XABCDE Format
  - j. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - k. Treat based on an assessment of injuries.
    - l. Notify Police/CPS/APS – EMS providers are Mandated Reporters.**
      - i. Inform ER staff**
  - m. Bring clean clothes if possible.
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Demonstrates the appropriate transport mode and destination.
  - e. Transport as soon as safe to do so to the proper destination.



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **General – Neglect or Abuse Suspected - ALS**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name Signature



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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# **Injury – Conducted Electrical Weapons - ALS (i.e. Taser)**

### **OVERVIEW:**

A conducted energy device is a non-lethal, battery-operated device that can deliver 50,000 volts of electricity in rapid pulses that stimulate the nerves in the body.

This high-voltage, low-amperage electrical discharge overrides the body's muscle-triggering mechanisms causing neuromuscular incapacitation.

This neuromuscular incapacitation overrides the patient's sensory and motor nerves of the peripheral nervous system by disrupting the electrical impulses sent by the brain to command skeletal muscle function.





## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
    - i. Refer to the proper Cardiac Dysrhythmia Protocol
  - k. If the Patient is agitated
    - i. Refer to the Behavioral Protocol
  - l. IV Access
  - m. Primary Assessment
    - i. XABCDE Format
  - n. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - o. Treat based on an assessment of injuries.
  - p. **Do Not Break Wires if possible – these are very delicate.**
  - q. Notify Police - if not already on scene
  - r. Inform ER staff
  - s. **Verify the electrical source is disconnected/Off.**
  - t. Removal of Barb(s) per current Agency/Regional Protocols
  - u. It is **imperative** patient is Transported to the Appropriate Hospital for Evaluation
2. Demonstrates the following skills.
  - a. Proper Physical Exam

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- i. Head to toe format
- ii. All major body parts/systems
- iii. Vital Signs / Documentation
- b. Pulse Ox Measurement
- c. Oxygen/Ventilation based on Assessment.
- d. Glucose checked.
- e. Proper 12 lead placement.
- f. Demonstrates knowledge of ACUTE MI message on 12 Lead.
  - i. Request ALS.
- g. Demonstrates the appropriate transport mode and destination.
- h. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury – Conducted Electrical Weapons – ALS (i.e. Taser)**

Student's Name and Signature – date below:

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

FTO's Name and Signature – date below:

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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### **Injury – Thoracic Trauma – ALS**

#### **OVERVIEW:**

Thoracic injuries can be very dramatic, presenting with obvious physical findings that lead to immediate identification and management during the initial assessment, while others may only exhibit subtle signs and symptoms that can be easily missed initially.

A high index of suspicion, accurate assessment, and frequent reassessment are necessary to identify both the apparent and less obvious thoracic injuries that could lead to lethal consequences.

Thoracic injury may result from both penetrating and blunt trauma.

**Penetrating trauma** - tends to be more obvious due to the presence of an open wound.

**Blunt trauma** - may produce findings such as large contusions, tenderness, fractured ribs or flailed segments, or relatively little external evidence of injury.

Although little external injury may be present, the patient may be suffering from multiple and severe organ, vascular, and structural injuries.



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - k. IV Access
  - l. Primary Assessment
    - i. XABCDE Format
  - m. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
      1. Chest seal(s)
      2. Objects stabilized.
      3. Bleeding Controlled
  - n. Treat based on an assessment of injuries.
  - o. It is imperative patient is Transported to the Appropriate Hospital for Evaluation
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.

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- d. Glucose checked.
- e. Object Stabilization
- f. Chest Seal
- g. Demonstrates the appropriate transport mode and destination.
- h. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury** – **Thoracic Trauma** – ALS

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name                      Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name                      Signature



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**Injury – General Trauma Management**  
**(Regional Field Triage Scheme)**

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## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. Primary Assessment
    - i. XABCDE Format
  - j. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - k. Treat based on an assessment of injuries.
  - l. All Patients that have Airway, or Uncontrolled Bleeding or in Cardiac Arrest
    - i. **Immediate Transportation to the Closest ER**
  - m. You will need to be familiar with the current Protocol/Agency Policy**
  - n. It is imperative patient is Transported to the Appropriate Hospital for Evaluation
2. Demonstrates the following skills.
  - a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Glucose checked.
  - e. Demonstrates the appropriate transport mode and destination.
  - f. Transport as soon as safe to do so to the proper destination.

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- g. Proper Backboard /C-Spine protection
- h. Can demonstrate Proper Triage.
- i. Can demonstrate proper use of the Current Triage protocol

The above is a very abbreviated summary of the Protocol.

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# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury – Regional Field Triage Protocol**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_

Printed Name

Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_

Printed Name

Signature



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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### **Injury – Spinal Motion Restriction**

#### **OVERVIEW:**

Mechanism of injury alone has not been shown to be a predictor for spinal injury.

An appropriate patient assessment can be used to determine the need for spinal motion restriction. The below cervical spinal motion restriction selection guidelines are taken from National Model Guidelines V2 and NEXUS (National Emergency X-Radiography Utilization Study).

There is limited data studying spinal motion in patients with applied cervical collars.

Patient exiting out of the car under their own power, with a cervical collar in place, may result in the least amount of motion of the cervical spine based on recent research.

Cervical spinal motion restriction devices include but are not limited to soft and hard collars.

Long backboards have not been shown to reduce spinal injury complications.

Long backboards are associated with increased pain, decubitus development, and possibly decreased functional residual capacity of the lungs.

Long backboards and scoop stretchers may be used for the safe movement/transfer of patients. However, if used in this way, patients should be removed from the device as soon as possible.



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. Primary Assessment
    - i. XABCDE Format
  - j. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - k. Treat based on an assessment of injuries.
  - l. Proper determination for the use/nonuse of Spinal Restriction
    - i. Penetrating Trauma – no deficits noted – Spinal immobilization not recommended.**
    - ii. Use Spinal Restriction
      1. Ages 15-65 years of age
        - a. Cervical Pain/Deformity
        - b. Neuro Deficits – New-Onset



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- c. AMS
  - d. Intoxication
  - e. Distracting injury
  - iii. Inability to communicate with the patient effectively.
  - iv. Patients 65 years of age and older with traumatic mechanism and suspected injury should have Spinal Motion Restriction used
  - v. Provider Discretion
2. Demonstrates the following skills.
- a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Glucose checked.
  - e. Demonstrates the appropriate transport mode and destination.
  - f. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury – Spinal Motion Restriction**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_

Printed Name

Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_

Printed Name

Signature



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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### **Injury - Hemorrhage Control**

#### **OVERVIEW:**

When treating soft tissue injuries, control of blood loss, prevention of shock, and decontamination of affected areas take priority.

Unless you note extensive bleeding, wound management by dressing and bandaging is a late priority in the care of trauma patients.

**Dress and bandage wounds whose bleeding do not represent a life threat only after you stabilize your patient by caring for higher priority injuries.**





# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student Can demonstrate the following competencies without prompting and can explain the clinical reasoning for each listed below:

1. Demonstrates proper assessment techniques / Physical skills.
  - a. Scene Survey
  - b. HPI – Complete
  - c. Signs and Symptoms
  - d. SAMPLE
  - e. OPQRST
  - f. MOI – NOI
  - g. Need for ALS.
  - h. Pulse Ox
  - i. End Tidal CO<sub>2</sub>
  - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
  - k. IV Access
  - l. Primary Assessment
    - i. XABCDE Format
  - m. Life Threat(s) Identified
    - i. Assessment
    - ii. Correction
  - n. Treat based on an assessment of injuries.
  - o. Order of Bleeding Control
    - i. Direct Pressure
      1. Controlled – Pressure Dressing over wound(s)
    - ii. Remains uncontrolled
      1. Expose Wound(s) fully
      2. Direct Pressure on Wound(s)
        - a. Packing using Hemostatic Gauze if available.
        - b. Uncontrolled - Tourniquet
  - p. Proper determination for the use/nonuse of Tourniquet(s)
    - i. Life Threat Bleeding
    - ii. Proper Placement

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- iii. Use of commercial Tourniquet.
  - iv. Ability to use/make improvised Tourniquet.
  - q. Bleeding controlled.
  - r. PMS
  - s. Treat for Potential shock
    - i. Refer to the Hypotension/Shock protocol
2. Demonstrates the following skills.
- a. Proper Physical Exam
    - i. Head to toe format
    - ii. All major body parts/systems
    - iii. Vital Signs / Documentation
  - b. Pulse Ox Measurement
  - c. Oxygen/Ventilation based on Assessment.
  - d. Glucose checked.
  - e. Demonstrates the appropriate transport mode and destination.
  - f. Transport as soon as safe to do so to the proper destination.

The above is a very abbreviated summary of the Protocol.

For the complete Protocol, please review the appropriate Protocol as published by ODEMSA.



## OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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Student's and FTO's signatures below signify that the student has demonstrated sufficient working knowledge and can perform such competency and has had the opportunity to ask and has had all questions and answers provided to their level of comfort.

Competency – ODEMSA – Regional Protocols – **Injury – Hemorrhage Control**

Student's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name                      Signature

FTO's Name and Signature – date below:

\_\_\_\_\_ Date \_\_\_\_\_  
Printed Name                      Signature



# OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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