



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

Pediatric Medical Emergencies - ALS

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

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



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General – Universal Patient Care/Initial Patient Contact **(Pediatric Medical Patient Assessment)**

OVERVIEW:

Few encounters cause greater anxiety for medical providers than a pediatric patient experiencing a life-threatening situation.

Although pediatric calls only account for approximately 10% of all EMS calls, they can be among the most stressful.

Pre-hospital providers need to be prepared to face these challenges, as prompt recognition and treatment of potentially life-threatening diseases in children in the field may have a significant impact on the outcome of the patient.

Of the 10% of EMS calls that involve pediatric patients, fewer than 5% are for life- or limb-threatening situations.

When EMS does respond to a pediatric call, treatment such as administering oxygen, starting an IV, or performing endotracheal intubation can be involved in more than 50% of the cases.

PRIMARY ASSESSMENT:

Approach to the pediatric patient varies with the patient's age and the nature of illness or injury. It is critical that EMS providers be cognizant of the emotional and physiological needs of a child throughout the assessment.

It is equally important to identify the needs of the child's family members.

In this stressful environment, family members will be trying to find the cause of injury or illness in their child and maybe unruly when the answers they seek are not available or are contrary to what is expected.

The key to pediatric assessment in EMS is to identify and manage immediate life threats.

It is often easy to determine whether a child is sick just by looking at him.

Sick kids look sick.

If a child is active, appropriate, and alert, he is not sick.

The opposite is true as well. If a child is inactive and non-interactive, assume he is sick until proven otherwise.



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The most widely accepted approach to forming a general impression in a child is using the **Pediatric Assessment Triangle**.

This tool is especially useful because the assessment criteria are determined during the general impression. This assessment can be performed from across the room before contact with the patient is ever made.



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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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Primary Assessment
 - i. XABCDE Format
 - m. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - n. Airway
 - i. Assessment
 - ii. Correction
 - o. Breathing
 - i. Assessment
 - ii. Correction
 1. Ventilate at a rate of least 30 per min.
 2. Proper volume/Device
 3. Pulse Ox at least 94%
 - p. Circulation
 - i. Assessment
 - ii. Correction
 1. Need for CPR.

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- a. At least 100 Compressions a Minute
 - b. Single Rescuer Ratio
 - c. Two or more Rescuers Ratio
 - d. AED as soon as possible
 - i. Apply
 - ii. Follow prompts.
 - e. Reevaluate every 2 minutes for Signs of life.
 - i. Repeat the Entire CPR process until properly relieved or transfer of care has occurred.
 - q. Disability
 - i. Assessment
 - ii. Correction
 - r. Exposure
 - i. Assessment
 - ii. Correction
 - s. Place on Cardiac Monitor
2. Demonstrates the following skills.
- a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 - iii. All major body parts/systems
 - iv. Vital Signs / Documentation
 - b. Frequently assess for Signs of life
 - c. Proper CPR skills to current AHA Standards
 - d. Pulse Ox Measurement
 - e. Oxygen/Ventilation based on Assessment.
 - f. Demonstrates the appropriate transport mode and destination.
 - g. 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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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 (Pediatric Medical Patient Assessment)**

Student's Name and Signature – date below:

_____ Date _____
Printed Name Signature

FTO's Name and Signature – date below:

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Printed Name Signature



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Pediatric General Medical Emergencies

Medical – **Allergic Reaction/Anaphylaxis** – ALS

OVERVIEW:

Acute respiratory emergencies in the pediatric patient are common.

When not properly treated, respiratory distress can result in significant morbidity and mortality.

Anaphylaxis in children commonly results from insect stings and, less frequently, from food or medications.

Signs of shock as well as upper and lower airway obstruction are frequently present.

If the reaction involves the respiratory system, signs similar to severe asthma may be present (cyanosis, wheezing, and respiratory arrest).

Patients with allergic reactions frequently have local or generalized swelling while anaphylaxis can be characterized by wheezing, airway compromise, and/ or hypotension.



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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. IV/IO Access
 - i. Maintain SBP
 1. Birth to 1-month-old
 - a. 60 mm/hg.
 2. 1 month to 1 year greater than 70 mm/hg.
 3. Greater than 1 year $70+(2x \text{ age in years})$ mm/hg.
 - j. Place on Cardiac Monitor
 - k. Determine Relevant Differentials based on Assessment.
 - i. **Allergic Reaction** – one body system is involved.
 1. Diphenhydramine 1 mg/kg max 50 mg IV/IM
 - ii. **Anaphylaxis** – Respiratory problems – more than one body system involved or signs of shock.
 1. Administer Epi
 2. Bolus 20 ml/kg then reassess
 - l. Primary Assessment
 - i. XABCDE Format
 - m. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - n. Airway
 - i. Assessment

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- ii. Correction
- o. Breathing
 - i. Assessment
 - 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 - 1. Administer Oxygen per Assessment
 - 2. Pulse Ox at least 94%
 - p. Circulation
 - i. Assessment
 - ii. Correction
 - 1. Need for CPR.
 - a. At least 100 Compressions a Minute
 - b. Single Rescuer Ratio
 - c. Two or more Rescuers Ratio
 - d. AED as soon as possible
 - i. Apply
 - ii. Follow prompts.
 - e. Reevaluate every 2 minutes for Signs of life.
 - i. Repeat the Entire CPR process until properly relieved or transfer of care has occurred.
 - q. Disability
 - i. Assessment
 - ii. Correction
 - r. Exposure
 - i. Assessment
 - ii. Correction
- 2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment

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- ii. Head to toe format/Foot to Head
 - 1. Itching/Hives/Red Skin
- iii. All major body parts/systems
- iv. Vital Signs / Documentation
- b. Proper Admin of Epi Auto-Injector.
 - i. Request ALS.
- 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.

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Competency – ODEMSA – Regional Protocols – **Pediatric General Medical Emergencies - Medical – Allergic Reaction/Anaphylaxis – ALS**

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FTO's Name and Signature – date below:

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Printed Name Signature



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Pediatric General Medical Emergencies **Medical – Fever – ALS**

OVERVIEW:

Fever is a common chief complaint of children encountered in the pre-hospital environment. Patients with fever present in many different ways, depending on the age of the patient, the rate of rising of the temperature, the magnitude of the fever, the etiology of the fever, and the underlying health of the patient.

The patient's skin will be warm to the touch and maybe flushed on observation.

The patient may also complain of being warm and perspiring.

It is important to recognize that fever represents a symptom of an underlying illness, and the actual illness must be determined and treated.

Flu-like symptoms may accompany fevers, but it should not be assumed that fevers with these symptoms are minor, as there may be a serious underlying medical condition.

Febrile seizures usually are self-limiting and typically occur once from a rapid rise in temperature, usually above **101.8°F / 38.7°C**.

If more than one seizure occurs, causes other than fever should be suspected.

The first occurrence of a seizure warrants the most concern because the benign nature of the illness has not been established.



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 - a. Scene Survey
 - b. HPI – Complete
 - c. Signs and Symptoms
 - d. SAMPLE
 - e. OPQRST
 - f. MOI – NOI
 - g. Obtain Temperature
 - h. Need for ALS.
 - i. Pulse Ox
 - j. End Tidal CO₂
 - k. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - l. IV Access
 - m. Determine Relevant Differentials based on Assessment.
 - n. Primary Assessment
 - i. XABCDE Format
 - o. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - p. Airway
 - i. Assessment
 - ii. Correction
 - q. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment

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2. Pulse Ox at least 94%
- r. Circulation
 - i. Assessment
 - ii. Correction
- s. Disability
 - i. Assessment
 - ii. Correction
- t. Exposure
 - i. Assessment
 - ii. Correction
- u. If the patient is having a seizure
 - i. Refer to the Pediatric Seizure Protocol
- v. Blood Glucose Level
 - i. If less than 60mg/dl
 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 1. Refer to the Hyperglycemia Protocol.
 - iii. Place on Cardiac Monitor
- w. Obtain Patient Temperature
 - i. If temperature greater than 106°F/41°C
 1. Pediatric Hypothermia Protocol
 - ii. Begin Passive Cooling
 1. Removing layers of clothing/constrictive clothing
 2. Be careful to not remove too many layers.
 3. Obtain IV/IO
 - a. Maintain SBP
 - b. Birth to 1-month-old
 - i. 60 mm/hg.
 - c. 1 month to 1 year
 - i. greater than 70 mm/hg.
 - d. Greater than 1 year



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- i. 70+(2x age in years) mm/hg.
 - x. If Hypoperfusion/Shock is suspected
 - i. Refer to the Pediatric Shock Protocol
 - 2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 - 1. Warm to touch/Flushed skin
 - 2. Temperature Assessment
 - iii. All major body parts/systems
 - iv. 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.

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Competency – ODEMSA – Regional Protocols – **Pediatric General Medical Emergencies - Fever – 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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Pediatric General Medical Emergencies

Airway – **Obstruction/Foreign Body** – ALS

OVERVIEW:

Airway obstruction is one of the most readily treatable, yet immediately life-threatening emergencies faced by pre-hospital providers.

Approximately 3000 deaths occur each year in the United States from choking.

Most of these deaths are in children younger than four years of age.

In children, you should consider the possibility of foreign body aspiration in any patient who presents with ongoing respiratory distress or resolved respiratory distress.

The child may have a history of a sudden onset of respiratory distress with choking and cough, by an absence of symptoms and then followed by delayed stridor or wheezing.

This cycle occurs when the foreign body is not cleared from the airway but passes distally into the smaller airways.

In children, a foreign body may also lodge in the esophagus, causing stridor.

Patients may present with any degree of obstruction from simple hoarseness cleared with a cough to complete obstruction requiring a surgical airway, such as a cricothyrotomy.

Significant airway obstruction can occur at any time.

Early recognition and treatment are essential to a successful outcome.

Because of this, it is important to distinguish this problem from more serious conditions that cause sudden respiratory failure but are treated differently.



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 - 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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - iii. If Patient can move air/speak/cough
 1. Observe for changes.
 2. Transport
 - iv. If Patient has severe Airway Obstruction
 1. Refer to the proper section of the protocol.
 - a. FBAO – **CONSCIOUS** PATIENT: **≥ 1** YEAR OF AGE
 - b. FBAO – **CONSCIOUS** PATIENT: **≤ 1** YEAR OF AGE
 - c. FBAO -- **UNCONSCIOUS** PATIENT: **≥ 1** YEAR OF AGE

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- d. FBAO -- UNCONSCIOUS PATIENT: ≤ 1 YEAR OF AGE
 - 2. Abdominal Thrusts (Heimlich maneuver)
 - 3. Unconscious
 - 4. CPR
 - v. Place on Cardiac Monitor
- p. Breathing
 - i. Assessment
 - 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 - 1. Administer Oxygen per Assessment
 - 2. Pulse Ox at least 94%
- q. Circulation
 - i. Assessment
 - ii. Correction
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. If Hypoperfusion/Shock is suspected
 - i. Refer to the Pediatric Shock Protocol
- 2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head

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1. Proper FABO BLS per current AHA BLS Standards
 - iii. All major body parts/systems
 - iv. 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.

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Competency – ODEMSA – Regional Protocols – **Pediatric General Medical Emergencies - Airway – Obstruction/Foreign Body – 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

Pediatric General Medical Emergencies **Medical – Diabetic – **Hyperglycemia** – ALS**

OVERVIEW:

Diabetes mellitus is the most common endocrine disorder of childhood, affecting approximately 2/1,000 school-age children in the United States.

Symptomatic hyperglycemia is defined as a **blood glucose level > 300 mg/dl** with signs of severe dehydration, altered mental status, and/ or shock.

Hyperglycemia is usually the result of an inadequate supply of insulin to meet the body's needs.

Most pre-hospital care should be focused on the treatment of severe dehydration and support of vital functions.



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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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - p. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%

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- q. Circulation
 - i. Assessment
 - ii. Correction
 - r. Disability
 - i. Assessment
 - ii. Correction
 - s. Exposure
 - i. Assessment
 - ii. Correction
 - t. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 - 1. IV Access
 - a. Start Normal Saline per chart in protocol based on the weight in kg.
 - 2. If Hypoperfusion/Shock is suspected
 - a. Refer to the Pediatric Shock Protocol
2. Demonstrates the following skills.
- a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 - 1. Obtain Blood Glucose
 - 2. Temperature Assessment
 - iii. All major body parts/systems
 - iv. 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.



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Pediatric General Medical Emergencies Medical – Diabetic – **Hypoglycemia** – ALS

OVERVIEW:

Symptomatic hypoglycemia is defined as a **blood glucose level < 60 mg / dL** with signs of altered mental status and/or unconsciousness.

The many signs and symptoms that are associated with hypoglycemia can be divided into two broad categories: adrenergic and neurologic.

The adrenergic stimulation is due to the increased epinephrine levels.

The neurologic due to central nervous system dysfunction from the decreased glucose levels.

Treatment Goal – is to raise the blood sugar levels.



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 - 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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - p. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%

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- q. Circulation
 - i. Assessment
 - ii. Correction
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. If the patient can maintain/protect the airway
 - a. Oral Glucose 15 Grams
 - i. Repeat in 15 minutes.
 - ii. If Clinical Signs/Symptoms continue after 2 doses of Oral Glucose.
 - 1. If the patient is greater than 44 lbs./20 kg. in weight
 - a. 1.0 mg of Glucagon IM/IN
 - 2. Patient not able to maintain/protect the airway.
 - a. IV Access
 - b. If patient less than 30 days old
 - i. Dextrose 10% IV/IO 2 ml/kg. – max dose 100 ml
 - c. If patient is greater than 30 days old but less than 8 yrs.
 - i. Dextrose 25% 2 ml/kg.
 - d. If patient is older than 8 yrs.
 - i. Dextrose 50% 0.5 mg/kg. max dose 25 gm
 - e. Unable to establish IV/IO
 - i. Glucagon
 - 1. Under 20 kg – 0.5 mg IM/IN
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Pediatric Hyperglycemia Protocol
 - iii. If Hypoperfusion/Shock is suspected

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1. Refer to the Pediatric Shock Protocol
2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 1. All major body parts/systems
 - b. Vital Signs / Documentation Obtain Blood Glucose
 - c. Temperature Assessment
 - d. Administer
 - i. Oral Glucose
 - ii. Glucagon
 - e. Pulse Ox Measurement
 - 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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Printed Name Signature

FTO's Name and Signature – date below:

_____ Date _____
Printed Name Signature



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

Pediatric General Medical Emergencies **Medical – Nausea/Vomiting – ALS**

OVERVIEW:

The pre-hospital provider should be very careful to ensure that patients who present with vague complaints such as nausea and vomiting are thoroughly evaluated.

The patient's symptoms and recent history must determine the most appropriate care.

Frequently, treatment of an underlying cause and limiting movement may resolve or greatly reduce these complaints.

However, persistent nausea and vomiting of unknown etiology may respond well to pharmaceutical therapy.

All patients presenting with nausea and vomiting should be screened for potential life threats initially.

Anti-emetic treatment should occur only as a secondary priority.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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. End Tidal CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - p. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%

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- q. Circulation
 - i. Assessment
 - ii. Correction
 - r. Disability
 - i. Assessment
 - ii. Correction
 - s. Exposure
 - i. Assessment
 - ii. Correction
 - t. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Pediatric Hypoglycemia Protocol
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Pediatric Hyperglycemia Protocol
 - iii. If Hypoperfusion/Shock is suspected
 - 1. Refer to the Pediatric Shock Protocol
 - u. Position of Comfort
 - v. If IV form of Ondansetron Available
 - i. 0.1 mg/kg. IV/IM to max dose of 4mg over 2-5 minutes
 - w. If the patient is over 44 lbs./20 kg. The oral form is available.
 - i. Administer **1** dose of 4 mg. Ondansetron OTD.
 - x. Ondansetron can be repeated in 10 minutes
2. Demonstrates the following skills.
- a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 - 1. All major body parts/systems
 - b. Vital Signs / Documentation Obtain Blood Glucose
 - c. Temperature Assessment
 - d. Administer



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Pediatric General Medical Emergencies **General – Pain Management – ALS**

OVERVIEW:

The practice of pre-hospital emergency medicine requires expertise in a wide variety of pharmacological and non-pharmacological techniques to treat acute pain resulting from a myriad of injuries and illnesses.

One of the most essential missions for all healthcare providers should be the relief and/or prevention of pain and suffering.

Approaches to pain relief must be designed to be safe and effective in the organized chaos of the pre-hospital environment.

The degree of pain and the hemodynamic status of the patient will determine the rapidity of care.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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. Pulse Ox
 - j. End Tidal CO₂
 - k. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - l. IV Access
 - m. Determine Relevant Differentials based on Assessment.
 - n. Primary Assessment
 - i. XABCDE Format
 - o. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - p. Airway
 - i. Assessment
 - ii. Correction
 - q. Breathing
 - i. Assessment
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%
 - r. Circulation
 - i. Assessment
 - ii. Correction

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- s. Disability
 - i. Assessment
 - ii. Correction
- t. Exposure
 - i. Assessment
 - ii. Correction
- u. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Pediatric Hypoglycemia Protocol
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Pediatric Hyperglycemia Protocol
 - iii. If Hypoperfusion/Shock is suspected
 - 1. Refer to the Pediatric Shock Protocol
- v. Position of Comfort
- w. Determine Acuity of Pain
 - i. Acute
 - ii. Chronic – 3 weeks or longer
 - 1. Attempt to determine/identify cause.
 - a. Further refine PMH/HPI/MOI/NOI
 - iii. If pain is mild-moderate
 - 1. Agency OMD Approved
 - a. Pain management
 - 2. If no nonsteroidal given and not cancer/palliative care patient
 - a. Patient is older than 10 yrs. of age and or no HX of Renal disease
 - i. Toradol 15 mg IV or 30 mg IM
 - iv. If the patient is severe
 - 1. Fentanyl 2mcg/kg. IN – half of the dose in each nostril after 5 mins may repeat previous dose - Max total first dose 100 mcg.
 - 2. Fentanyl 1mcg/kg. IV/IM – Max single dose is 100 mcg.

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- v. If Ketamine in the box and **Intermediate or Paramedic**
 - 1. Ketamine 0.1 mg/kg. IV/IO/IN max single dose 15 mg.
Max of 2 doses
 - a. Medical Control
 - i. for additional doses
 - ii. For patients under 2 yrs. of age or under 25 kg
 - 2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 - 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 - 1. All major body parts/systems
 - iii. Age-Appropriate Pain Score Assessment
 - 1. Universal Pain Assessment Tool
 - b. Vital Signs / Documentation Obtain Blood Glucose
 - c. Temperature Assessment
 - d. Pulse Ox Measurement
 - e. Oxygen/Ventilation based on Assessment.
 - f. Demonstrates the appropriate transport mode and destination.
 - g. 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

Pediatric General Medical Emergencies

General – Medical – Overdose/Poisoning/Toxic Ingestion – ALS

OVERVIEW:

Ingestion and overdose are among the most common pediatric “accidents.”

The substance usually is a medication prescribed for family members or for the child.

Other commonly ingested poisons include cleaning chemicals, plants, and anything that fits in a child’s mouth.

Primary manifestations may be a depressed mental status and/or respiratory and cardiovascular compromise.

Unfortunately, the history of poisoning /overdose is notoriously unreliable whether it is obtained from the patient, friends and family members or emergency services personnel.

Poison Control may be contacted at any time for information on poisoning (**1- 800-222-1222**).
Only Medical Control may give patient care direction.

Despite the possible inaccuracies, the most important historical factors to obtain include:

- **What** poison was involved?
- **How much** was taken?
- **How** was it taken?
- **When** was it taken?
- **Why** was it taken?
- **What** else was taken?



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Primary Assessment
 - i. XABCDE Format
 - m. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - n. Airway
 - i. Assessment
 - ii. Correction
 - o. Breathing
 - i. Assessment
 - ii. Correction
 1. If the patient is over 44 lbs./20 kg.
 - a. Ineffective Resp effort
 - b. Ventilate per Assessment.
 - c. ALS
 - d. If Opiates are suspected

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- i. Narcan IN 2 mg. may repeat 1 time.
 - ii. If respiratory effort remains ineffective
 - 1. Narcan 0.1 mg/kg slow IVP/IM max dose 2 mg
 - p. Circulation
 - i. Assessment
 - ii. Correction
 - 1. Need for CPR.
 - q. Disability
 - i. Assessment
 - ii. Correction
 - r. Exposure
 - i. Assessment
 - ii. Correction
 - s. If other substances are suspected
 - i. Contact Poison Control
 - ii. **Contact Medical Control for Orders**
 - iii. ALS
 - t. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Hyperglycemia 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. Frequently assess for shock
 - c. Administration of Narcan
 - d. Pulse Ox Measurement – may not work due to cold extremity/poor perfusion.



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- e. Oxygen/Ventilation based on Assessment.
- f. Blood Glucose Level
- 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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OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

Pediatric General Medical Emergencies - ALS

Medical – Medical - Respiratory Distress/Asthma/ COPD/Croup/Reactive Airway (Respiratory Distress – Asthma)

OVERVIEW:

Respiratory distress is characterized by a clinically recognizable increase in work of breathing.

Respiratory failure is characterized by ineffective respirations with a decreased level of consciousness.

Acute respiratory emergencies in the pediatric patient are common.

When not properly treated, respiratory distress can result in significant morbidity and mortality.

One of the common causes of respiratory distress is asthma.

The treatment of patients in severe asthmaticus must be prompt and efficient.

Decisive intervention is mandatory to ensure the best outcome.

The appearance of the child reflects the adequacy of oxygenation and ventilation.

An increased effort to breathe may indicate an airway obstruction or lack of oxygenation.

Decreased breathing effort may indicate impending respiratory failure.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l.
 - 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
 1. Ineffective Resp effort
 2. Ventilate per Assessment.
 3. ALS
 - q. Circulation
 - i. Assessment

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- ii. Correction
 - 1. Need for CPR.
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. Position of comfort – usually upright.
- u. If Stridor is present and Croup is Suspected
 - i. Refer to Pediatric Croup & Epiglottitis Protocol
- v. Assist patient with prescribed Metered Dose Inhaler (MDI)
 - i. If no Dosing schedule noted
 - 1. Repeat in 5 to 10 mins as needed.
- w. If Critical Respiratory Distress
 - i. Give Albuterol via nebulizer
 - 1. If less than 10 kg. use 2.5 mg.
 - 2. If greater than 10 kg.
 - a. 5.0 mg. Albuterol and Ipratropium 0.5 mg. only 1 time
 - 3. Repeat Albuterol every 10 minutes max of 4 treatments.
 - ii. IV/IO access
 - 1. Dexamethasone 0.6 mg/kg. IV/IM/PO to max dose of 10 mg.
 - iii. Place on Cardiac Monitor
 - iv. CPAP 5-10 cm. H₂O PEEP
 - v. If asthmatic and non-responsive to the above treatment
 - 1. Magnesium Sulfate 40 mg/kg IV over 20 minutes – Max dose is 2 grams
 - 2. Medical Control
 - a. EPI 1:1,000 0.1kg.kg. up to 0.3 mg/kg IM
 - vi. Spontaneous Respiratory Effort
 - 1. Provide BVM assistance
 - vii. If unresponsive
 - 1. BVM with Airway Adjunct

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- x. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Hyperglycemia 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. Frequently assess for shock
 - c. CPAP Application
 - d. Proper Nebulizer setup
 - e. BVM
 - f. Obtain Temperature
 - g. Pulse Ox Measurement – may not work due to cold extremity/poor perfusion.
 - h. Oxygen/Ventilation based on Assessment.
 - i. Blood Glucose Level
 - 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.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 – **Pediatric General Medical Emergencies – ALS - Medical – Respiratory Distress/Asthma/ COPD/Croup/Reactive Airway - (Respiratory Distress – Asthma)**

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

Pediatric General Medical Emergencies - ALS **Medical – Medical - Respiratory Distress/Asthma/ COPD/Croup/Reactive Airway** **(Respiratory Distress – Croup/Epiglottitis)**

OVERVIEW:

Croup (or laryngotracheobronchitis) is an acute viral infection of the upper airway, leading to swelling and the classical symptoms of a "barking" cough, stridor, and hoarseness.

It may produce mild, moderate, or severe symptoms, which often worsen at night.

It is often treated with a single dose of oral steroids; occasionally nebulized epinephrine is used in more severe cases.

Epiglottitis is swelling of the epiglottis, which leads to breathing problems.

Swelling of the epiglottis is usually caused by the bacteria *Haemophilus influenzae* (H. influenza), although it may be caused by other bacteria or viruses.

Upper respiratory infections can lead to epiglottitis.

Medicines or diseases that weaken the immune system can make adults more prone to epiglottitis.

Epiglottitis is most common in children between 2 and 6 years old.

Respiratory Syncytial Virus (RSV) is a very common virus that leads to mild, cold-like symptoms in adults and older healthy children.

It can be more serious in young babies, especially to those in certain high-risk groups.

RSV is the most common germ that causes lung and airway infections in infants and young children.

Most infants have had this infection by two years of age.

Outbreaks of RSV infections typically begin in the fall and run into the spring.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Primary Assessment
 - i. XABCDE Format
 - m. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - n. Airway
 - i. Assessment
 - ii. Correction
 - o. Breathing
 - i. Assessment
 - ii. Correction
 1. Ineffective Resp effort
 2. Ventilate per Assessment.
 3. ALS
 - p. Circulation
 - i. Assessment
 - ii. Correction

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1. Need for CPR.
 - q. Disability
 - i. Assessment
 - ii. Correction
 - r. Exposure
 - i. Assessment
 - ii. Correction
 - s. Position of comfort – usually upright.
 - t. Place on Cardiac Monitor and 12 EKG.
 - u. IV Access
 - v. If Stridor is present and Croup is Suspected patient is older than 1 year
 - i. Dexamethasone 0.6 mg/kg IV/IM/PO to max dose of 10 mg
 - w. If Critical Respiratory Distress
 - i. **Medical Control**
 1. Epinephrine 1:1,000 5 ml (volume dose) via nebulizer
 - ii. Spontaneous Respiratory Effort
 1. Provide BVM assistance
 - iii. If unresponsive
 1. BVM with Airway Adjunct
 - x. Blood Glucose Level
 - i. If less than 60mg/dl
 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 1. Refer to the Hyperglycemia 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. Frequently assess for shock
 - c. BVM
 - d. Obtain Temperature
 - e. Pulse Ox Measurement – may not work due to cold extremity/poor perfusion.

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- f. Oxygen/Ventilation based on Assessment.
- g. Blood Glucose Level
- h. Demonstrates the appropriate transport mode and destination.
- i. Transport as soon as safe to do so to the proper destination.

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OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 – **Pediatric General Medical Emergencies – ALS - Medical –Respiratory Distress/Asthma/ COPD/Croup/Reactive Airway - (Respiratory Distress – Croup/Epiglottitis)**

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

Pediatric General Medical Emergencies - ALS

Medical – Seizure

OVERVIEW:

A **seizure** is a period of altered neurologic function caused by abnormal neuronal electrical discharges.

Generalized seizures begin with an abrupt loss of consciousness.

If motor activity is present, it usually symmetrically involves all four extremities.

Episodes that develop over minutes to hours are less likely to be seizures; most seizures only last 1 - 2 minutes.

Patients with seizure disorders tend to have stereotype, or similar, seizures with each episode and are less likely to have inconsistent or highly variable attacks.

True seizures are usually not provoked by emotional stress.

Most seizures are followed by a postictal state of lethargy and confusion.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - p. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%
 - q. Circulation

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- i. Assessment
 - ii. Correction
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. If the patient is having a seizure
 - i. Suction airway as needed based on assessment.
 - ii. Place Nasal airway per assessment (contraindicated in Head Trauma)
 - iii. Ventilate with BVM as needed per assessment.
 - iv. Do Not restrain the patient.
 - 1. Protect the patient from injury.
 - v. IV Access
 - vi. Cardiac Monitor
 - vii. Benzodiazepine per current protocol
- u. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Hyperglycemia Protocol.
- v. Obtain Patient Temperature
 - i. If temperature greater than 106°F/41°C
 - 1. Pediatric Hypothermia Protocol
 - a. Begin Passive Cooling
 - i. Removing layers of clothing/constrictive clothing
 - ii. Be careful to not remove too many layers.
- w. If Hypoperfusion/Shock is suspected
 - i. Refer to the Pediatric Shock Protocol
- x. Consider positioning the patient in the Recovery Position.

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2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 1. Warm to touch/Flushed skin
 2. Temperature Assessment
 - iii. All major body parts/systems
 - iv. Vital Signs / Documentation
 - b. Pulse Ox Measurement
 - c. Placement of Nasal Airway
 - d. Placement in Recovery Position
 - e. Oxygen/Ventilation based on Assessment.
 - f. Demonstrates the appropriate transport mode and destination.
 - g. 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

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 – **Pediatric General Medical Emergencies – ALS - Medical – Seizure**

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

Pediatric General Medical Emergencies - ALS

Medical – Hypotension/Shock (Non-trauma)

OVERVIEW:

Shock is defined as a state of inadequate tissue perfusion.

This may result in acidosis, derangements of cellular metabolism, potential end-organ damage, and death.

Early in the shock process, patients are able to compensate for decreased perfusion by increased stimulation of the sympathetic nervous system, leading to tachycardia and tachypnea.

Later, compensatory mechanisms fail, causing a decreased mental status, hypotension, and death.

Early cellular injury may be reversible if definitive therapy is delivered promptly.



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction
 - p. Breathing
 - i. Assessment
 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 1. Administer Oxygen per Assessment
 2. Pulse Ox at least 94%

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- q. Circulation
 - i. Assessment
 - ii. Correction
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. If Hypoperfusion/Shock is suspected
 - i. Signs and symptoms of Shock
 - 1. Restless
 - 2. AMS
 - 3. Cool/Pale/Moist Skin
 - 4. Delayed Capillary Refill
 - 5. Rapid/Weak/ pulse
 - 6. Tachypnea
 - 7. Hypotension
 - 8. Thirst
 - 9. Nausea
 - ii. IV Access a second site if time permits.
 - 1. Maintain SBP
 - a. Less than 30 days
 - i. 60 mm/hg.
 - b. 1 month to 1 year
 - i. greater than 70 mm/hg.
 - c. Greater than 1 year of age
 - i. $70 + (2 \times \text{Age}(\text{years}))$ mm/hg.
 - 2. Bolus 20 ml/kg. reevaluate
 - a. No improvement repeat bolus 1 time
- u. Positioning the patient Supine Position.
- v. Keep Patient warm
- w. Frequent Reassessment

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2. Demonstrates the following skills.
 - a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 1. Temperature Assessment
 - iii. All major body parts/systems
 - iv. Vital Signs / Documentation
 - b. Pulse Ox Measurement
 - c. Placement in Supine Position
 - 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.

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



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

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 – **Pediatric General Medical Emergencies – ALS - Medical – Hypotension/Shock (Non-trauma)**

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

Pediatric General Medical Emergencies - ALS

Medical – AMS/Syncope/Unconscious

OVERVIEW:

Although each of these presentations has unique considerations, prehospital treatment is similar. The unconscious patient is one of the most difficult patient-management problems in pre-hospital care.

Causes range from benign problems to potentially life-threatening cardiopulmonary or central nervous system disorders.

In the usual clinical approach to a patient, the provider first obtains a history, performs a physical examination, and then administers treatment.

However, this sequence must be altered for patients that are unconscious or with an altered level of consciousness.

Simple syncope may be the result of a wide variety of medical problems, although the major cause of syncope is a lack of oxygenated blood to the brain. In this situation, it is quickly remedied when the patient collapses, improving circulation to the brain.

Altered LOC is such a major variance from a normal neurological function that immediate supportive efforts may be required.

Efforts should be made to obtain as much of an HPI as possible from family members or bystanders.



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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 CO₂
 - j. Place on Cardiac Monitor/Obtain 12 lead EKG.
 - k. IV Access
 - l. Determine Relevant Differentials based on Assessment.
 - m. Primary Assessment
 - i. XABCDE Format
 - n. Life Threat Bleeding
 - i. Assessment
 - ii. Correction
 - o. Airway
 - i. Assessment
 - ii. Correction



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

- p. Breathing
 - i. Assessment
 - 1. If Respiratory Distress Noted
 - a. Pediatric Respiratory Protocol
 - b. ALS
 - c. Transport as Soon as Possible
 - ii. Correction
 - 1. Administer Oxygen per Assessment
 - 2. Pulse Ox at least 94%
 - 3. If the patient is over 44 lbs./20 kg.
 - a. Ineffective Resp effort
 - b. Ventilate per Assessment.
 - c. If Opiates are suspected
 - i. Narcan IN 2 mg. may repeat 1 time.
- q. Circulation
 - i. Assessment
 - ii. Correction
- r. Disability
 - i. Assessment
 - ii. Correction
- s. Exposure
 - i. Assessment
 - ii. Correction
- t. Blood Glucose Level
 - i. If less than 60mg/dl
 - 1. Refer to the Hypoglycemia Protocol.
 - ii. If greater than 300 mg/dl
 - 1. Refer to the Hyperglycemia Protocol.
- u. If Hypoperfusion/Shock is suspected



OLD DOMINION EMERGENCY MEDICAL SERVICES ALLIANCE

- i. Signs and symptoms of Shock
 1. Restless
 2. AMS
 3. Cool/Pale/Moist Skin
 4. Delayed Capillary Refill
 5. Rapid/Weak/ pulse
 6. Tachypnea
 7. Hypotension
 8. Thirst
 9. Nausea
 - ii. IV/IO Access
 1. If hypotensive refer to Pediatric Shock Protocol
 - iii. Place on a cardiac monitor
 - iv. Provide oxygen per assessment to maintain pulse ox 94%-99%
 - v. Positioning the patient Supine Position.
 - w. Keep Patient warm
 - x. Frequent Reassessment
2. Demonstrates the following skills.
- a. Proper Physical Exam
 - i. Pediatric Assessment Triangle.
 1. Across the Room Assessment
 - ii. Head to toe format/Foot to Head
 1. Temperature Assessment
 - iii. All major body parts/systems
 - iv. Vital Signs / Documentation
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Competency – ODEMSA – Regional Protocols – **Pediatric General Medical Emergencies** – ALS – Medical – **AMS/Syncope/Unconscious**

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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