

## WVOEMS Approved PARAMEDIC Refresher (NCCP standards)

### Module I

4 hours

<b>TOPIC – Airway, Respiration, Ventilation and Neurological Management</b>	<b>TIME LINE</b>
Ventilation ETCO2 Automated Transport Ventilators	2 Hours
Oxygenation CPAP	30 Min.
Capnography	1 Hour
Neurological Seizures / CNS	30 Min.

#### **Required Objectives:**

1. Differentiate between adequate and inadequate breathing
2. Differentiate between respiratory distress and failure
3. Explain when to oxygenate and when to ventilate a patient
4. Identify the use of automated transport ventilators when managing patients
5. Demonstrate effective BVM ventilation at a proper rate and depth
6. Discuss advantages and disadvantages of various advanced airway adjuncts
7. Define altered mental status
8. State common causes of altered mental status
9. Define status epilepticus/seizures
10. Explain complications associated with seizures

**Module II****4 hours**

<b>TOPIC – <i>Cardiovascular</i></b>	<b>TIME LINE</b>
Stroke	1.5 Hours
Pediatric cardiac Arrest	2.5 Hours

**Required Objectives:**

1. Identify the options for out-of-hospital stroke assessment tools
2. Explain oxygen administration during a stroke emergency
3. Discuss the importance of knowing a timeline of stroke events
4. Identify patients needing rapid transport to the most appropriate stroke hospital
5. Discuss the importance of starting the fibrinolytics check sheet
6. Consider causes of pediatric cardiac arrests
7. Demonstrate ALS management skills during a pediatric cardiac arrest for:
  - a. Airway management
  - b. Vascular access
  - c. Pharmacology

**Module III****4.5 hours**

<b>TOPIC – Cardiovascular</b>	<b>TIME LINE</b>
VAD ( <i>Ventricular Assist Devices</i> )	30 Min.
Congestive Heart Failure	30 Min.
Acute Coronary Syndrome	1 Hour
Adult Cardiac Arrest	2 Hours
Post-Resuscitation Care	30 Min.

**Required objectives:**

1. Understand the function of Ventricular Assist Devices
2. Describe assessment/management of patients with VAD's
3. Discuss pathophysiology of congestive heart failure
4. Discuss s/s and treatment of congestive heart failure
5. Discuss the assessment and management of coronary disease and angina
6. List the s/s of acute MI
7. Identify injury patterns on a 12-lead ECG
8. Differentiate STEMI from STEMI imposters
9. Explain the procedure for managing an acute MI including STEMI and non-STEMI presentations
10. Understand the benefits of reperfusion techniques in patients with AMI or suspected AMI
11. Demonstrate the current techniques of cardiac arrest management
12. Discuss airway issues in cardiac arrest management
13. Determine criteria for terminating cardiac arrest in the out-of-hospital setting
14. Identify signs associated with Return of Spontaneous Circulation
15. Describe how to effectively manage hemodynamic instability
16. List possible causes of cardiac arrest
17. Make appropriate treatment choices
18. Make appropriate destination decision

**Module IV****3.5 hours**

<b>TOPIC – Trauma</b>	<b>TIME LINE</b>
Trauma Triage	1 Hour
Central Nervous System Injury	1 Hour
Acute Abdomen	30 Min.
Hemorrhage Control	30 Min.
Fluid Resuscitation	30 Min.

**Required Objectives:**

1. Identify the triage criteria in the CDC's Field Triage Decision Scheme
2. State the four steps of the CDC's Field Triage Decision Scheme
3. Review local protocols
4. Identify s/s of a patient with a traumatic brain injury
5. Explain the use of ETCO<sub>2</sub> as a guide for ventilating head injury patients
6. Define primary and secondary spinal cord injury.
7. Discuss various cord syndromes and their s/s
8. Discuss s/s of neurogenic shock and spinal shock
9. Describe how to investigate the chief complaint of a patient with a gastrointestinal disorder, including how to take the patient's history.
10. Discuss the management and treatment of various gastrointestinal disorders
11. Identify and treat severe hemorrhage
12. Differentiate among indications, effects, and contraindications for the use of:
  - a. Tourniquets
  - b. Junctional Tourniquets
  - c. Hemostatic agents
  - d. TXA
13. Explain the concept of permissive hypotension
14. Discuss the dangers of excessive fluid administration
15. Describe Mean Arterial Pressure (MAP) as a tool to better evaluate perfusion

**Module V****4 hours**

<b>TOPIC – <i>Medical Emergencies I</i></b>	<b>TIME LINE</b>
Endocrine/Diabetic Emergencies	1 Hour
Toxicological/Opioid Emergencies	30 Min.
Immunological Emergencies Allergic Reaction Anaphylaxis	30 Min.
Pharmacology/Medication Delivery	1 Hour
Pain Management	1 Hour

**Required Objectives:**

1. Explain the role glucose plays on the cells
2. Explain the role of insulin
3. Discuss s/s commonly associated with hypo/hyperglycemia
4. Identify commonly prescribed medications used to treat diabetes
5. Explain the management of hypo/hyperglycemia
6. Discuss metabolic syndrome
7. Discuss the functions of different insulin pumps
8. Discuss common synthetic stimulants and natural or synthetic THC
  - a. Recognize the effects
  - b. Synthetic stimulants
  - c. Natural and synthetic THC
9. Discuss common opioids
10. Explain common treatment options for a person experiencing opioid overdose
11. Discuss the causes of an allergic reaction/anaphylaxis
12. Differentiate between a mild/localized allergic reaction and anaphylaxis
13. Explain the actions of medications used to treat anaphylaxis
  - a. Benadryl
  - b. Epinephrine
14. Discuss the different routes of delivery of medications and the rates of absorption for those routes
  - a. IM
  - b. SQ
  - c. IN
  - d. IV
15. Discuss pharmacological and non-pharmacological pain management options
16. Determine the differences between acute and chronic pain management
17. Discuss the role of QA/QI, medical direction involvement and the importance of documentation of pain management.
18. Discuss reassessment/re-evaluation of pain and management

**Module VI****4 hours**

<b>TOPIC – <i>Medical Emergencies II</i></b>	<b>TIME LINE</b>
Psychiatric/Behavioral Emergencies	1 Hour
Infectious Disease	30 Min.
Special Healthcare Needs	2 Hours
OB Emergencies	30 Min.

**Required Objectives:**

1. Discuss the potential causes of behavioral emergencies
2. Define normal, abnormal, overt, and covert behavior.
3. Describe the assessment process for patients with psychiatric emergencies, including safety guidelines
4. Discuss the general management of a patient with a psychiatric emergency
5. Describe restraint methods, both chemical and physical forms and when to apply each
6. Describe care for the psychotic patient
7. State risk factors for suicide
8. Describe drug resistant infections
9. Compare epidemic to pandemic
10. Describe the role of the EMS provider in disease reporting
11. State the differences between sepsis and septic shock
12. Identify common special needs patients seen in EMS
13. Describe the relationship between the caregiver and the EMS provider in caring for the special needs patient.
14. Describe patient assessment of a special needs patient
15. Discuss abnormal presentations present during childbirth
16. Describe nuchal cord presentation
17. Recognize the need for and discuss the management of the principals of neonatal resuscitation
18. Describe the routine care of the newborn not requiring resuscitation
19. Discuss management of a patient with an abnormal presentation during delivery

**Module VII****4 hours**

<b>TOPIC – Operations I</b>	<b>TIME LINE</b>
EMS Provider Hygiene, Safety, and Vaccinations	30 Min.
EMS Culture and Safety	30 Min.
Crew Resource Management	1 Hour
Ambulance Safety	30 Min.
Pediatric Transport	30 Min.
Field Triage – Disasters/MCIs	1 Hour

**Required Objectives:**

1. Describe proper hand washing techniques
2. Describe appropriate use of alcohol-based hand cleaner
3. Discuss the CDC's recommendations of vaccines for healthcare providers
4. Assess eye safety indications and measures
5. Define culture of safety
6. Identify and explain the six core elements necessary to advance an EMS Culture of Safety
7. Identify the role of the EMS providers in establishing a culture of safety within EMS organizations
8. Define Crew Resource Management
9. Explain the benefits of Crew Resource Management to EMS
10. State the guiding principles of Crew Resource Management, briefly explaining each
11. Explain the concept of communication in the team environment using advocacy/inquiry or appreciative inquiry.
12. State the characteristics of effective team members/leaders
13. Explain how the use of CRM can reduce errors in patient care
14. Discuss federal initiatives developed to monitor and analyze ground ambulance crashes
15. Identify the significance of ambulance crashes through the use of national data
16. Evaluate the policies and procedures at each participant's own EMS service related to protecting patient and provider safety during ground ambulance transport.
17. Explain how to appropriately secure a child safety restraint to a wheeled ambulance stretcher
18. Determine the NHTSA safe recommendations for safe ambulance transport of children based on the condition of the child.
19. Discuss the on-going initiatives to increase the safety of children during ambulance transport
20. Discuss the limitations of the current recommendations
21. Discuss the National Implementation of the MUCC (Model Uniform Core Criteria) for Mass Casualty Incident Triage 2013.
22. Discuss the triage methods:
  - a. SALT
  - b. START
  - c. JumpSTART

**Module VIII****4 hours**

<b>TOPIC – <i>Operations II</i></b>	<b>TIME LINE</b>
At Risk Populations/Pediatrics	1.5 Hours
Geriatrics	1 Hour
EMS Research	1 Hour
Evidence Based Guidelines	30 Min.

**Required Objectives:**

1. Define training resources for special populations
  - a. Human trafficking
  - b. Domestic violence
2. Recognize the unique characteristics of at-risk populations
3. Discuss the appropriate actions of EMS professionals in the presence of at-risk patients
4. Recognize circumstances that may indicate abuse
  - a. Domestic abuse
  - b. Human trafficking
  - c. Non-accidental trauma
5. Describe the steps in the primary assessment for providing emergency care to a geriatric patient, including the elements of the GEMS diamond.
6. Discuss special considerations when performing the patient assessment process on a geriatric patient
7. Describe the pathophysiology of most common medical conditions including s/s, and the emergency medical care strategies used in the management of each for the geriatric patient.
8. Describe special considerations for a geriatric patient who has experienced trauma
9. Discuss elder abuse and neglect, and its implications in assessment and management of the patient
10. Identify national initiatives and resources that promote and enable EMS research
11. Explain the practical use of research in EMS care
12. Explain the scientific method
13. Define the differences between quantitative and qualitative research methods
14. Explain the process of conducting a literature review
15. Define evidence based medicine and practice
16. Identify resources available through NASEMSO to aid states and agencies in developing evidence based guidelines.
17. Explain the benefits of EBG to patients