Mississippi EMS Refresher Objectives

Daily Breakdown

Required Attendance by Day

- Day 1 EMR/EMT/Paramedic
- Day 2 EMR/EMT/Paramedic
- Day 3 EMT/Paramedic
- Day 4 Paramedic
- Providers may attend non-required days for additional CEU's towards recertification.

Day 1

Required for All Levels

AFFECTIVE CHARACTERISTICS

- Appreciate the current issues with disparities in health care in specific populations
- Advocate for improved care in different cultural contexts
- Recognize and exhibit professional behaviors in the 11 characteristic identified in the National EMS Education Standards

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COMMUNICABLE DISEASES

- Understand proper hand washing technique
- Identify appropriate use of alcohol-based hand cleaner
- Discuss the CDC's recommendations of vaccines for healthcare providers
- Describe the risks and prevalence of drug resistant infections
- Understand the transmission of influenza virus
- Discuss the role of the EMS provider in disease and injury surveillance and reporting
- Distinguish between an epidemic and pandemic
- Distinguish between SIRS, sepsis and septic shock

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FIELD TRIAGE

- Recognize the impact that MUCC had on the development of the CDC Field Triage Decision Scheme and SALT
- Identify the triage criteria in the CDC's Field Triage Decision
 Scheme
- Compare and contrast your local trauma triage practices and the CDC's Field Triage Decision Scheme
- Triage patients using the SALT algorithm in a simulated multiple casualty scenario

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TOURNIQUETS

- Weigh the benefits vs. the risks of tourniquet application
- Advocate for the early application of a tourniquet
- Demonstrate rapid application of a tourniquet

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OXYGENATION

- Review physiology related to oxygen transport and metabolism
- Recite the AHA's guidelines on oxygen therapy in the acute coronary syndrome and stroke patient
- Discuss the role of free radicals related to oxygen therapy

VENTILATION

- Discuss the difference between alveolar ventilation and minute ventilation
- Differentiate between adequate and inadequate breathing
- Differentiate between respiratory distress and respiratory failure
- Recognize and manage a patient that requires assisted ventilations
- Discuss the effect of ventilation on venous return and cardiac output
 - Spontaneously breathing patient
 - ❖ Artificially ventilated patient
- Decide when to oxygenate and when to ventilate a patient
- Recognize the use of automated transport ventilators when managing patients
- Discuss the use of padding during ventilation of the pediatric patient
- Understand the AHA's position on routine suctioning of the newborn

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- Differentiate between adequate and inadequate breathing
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- Recognize and manage a patient that requires assisted ventilations
- Articulates the effect of ventilation on venous return and cardiac output
 - ❖ Spontaneously breathing patient
 - ❖ Artificially ventilated patient
- Recognize and discuss the management of a patient that would benefit from CPAP
- Decide when to oxygenate and when to ventilate a patient
- Recognize the use of automated transport ventilators when managing patients
- Justify the use of padding during ventilation of the pediatric patient
- Recite the AHA's position on routine suctioning of the newborn

CENTRAL NERVOUS SYSTEM (CNS) INJURY

- Recognize the signs, symptoms, and the historical findings of a patient with a concussion
- Advocate for patient transport and proper patient education around the effects of concussions

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AT-RISK POPULATIONS

- Recognize the unique characteristics of at-risk populations
- Recall the appropriate actions of EMTs in the presence of atrisk patients
- Recognition of circumstances that may indicate abuse
 - Domestic abuse
 - Human trafficking
 - Non-accidental trauma
- Recall appropriate actions of EMTs in the presence of abused patients

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Day 2

Required for All Levels

ROLE OF RESEARCH

- Define evidenced- based medicine and practice
- Explain the reasons EMS professionals should participate in research
- Discuss how research affects best practice

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- Define evidenced based medicine and practice
- Explain the reasons EMS professionals should participate in research
- Describe the scientific method
- Contrast different types of research methods
- Know the principles of how to conduct a literature review

STROKE

- Using an out-of-hospital stroke assessment tool, identify patients who are possibly experiencing cerebral ischemia
- Discuss the proper administration of oxygen in the presence of cerebral ischemia
- Discuss the importance of determining when the patient was last seen without signs or symptoms
- Identify patients that can benefit from rapid transport most appropriate stroke hospital

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- Identify patients that can benefit from rapid transport most appropriate stroke hospital
- Argue the importance of starting the fibrinolytics check sheet

PSYCHIATRIC EMERGENCIES

- Describe the components of a mental status examination
- Perform effective patient restraint
- Understand the risk factors for suicide
- Identify common synthetic stimulants and natural or synthetic
 THC
 - * Recognize the effects of
 - Synthetic stimulants
 - ❖ Natural and synthetic THC

PSYCHIATRIC EMERGENCIES

- Describe the components of a mental status examination
- Perform effective patient restraint
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IMMUNOLOGICAL DISEASES

- Discuss the physiology related to allergies and anaphylaxis
- Differentiate between a mild/localized allergic reaction and anaphylaxis
- Explain the actions of medications used to treat anaphylaxis
 - Epinephrine
 - ❖ Benadryl®
- Demonstrate the administration of epinephrine for anaphylaxis according to local protocol

CARDIAC ARREST (VENTRICULAR ASSIST DEVICES (VADs))

- Discuss the function of ventricular assist devices (VAD) assessment and care of patients who have VADs
- Discuss the criteria to terminate resuscitation efforts versus the need for continued resuscitation

CARDIAC ARREST

- Review the chain of survival
- Describe the current techniques of one and 2-Rescuer CPR
- Discuss airway issues in cardiac arrest management
- Determine criteria for field termination of cardiac arrest
- Review ALS management of cardiac arrest
 - Airway management
 - Vascular access
 - Pharmacology
- Demonstrate the current techniques of single and 2-Rescuer CPR
- Demonstrate the current techniques of cardiac arrest management

VENTRICULAR ASSIST DEVICES (VADs)

 Discuss the function of ventricular assist devices (VAD) assessment and care of patients who have VADs

POST-RESUSCITATION CARE

- Identify the signs of ROSC
- Describe the principles of optimization of ventilation and oxygenation
- Appreciate the benefits of induced hypothermia in post cardiac arrest management
- Describe systems of care necessary for improving post cardiac arrest outcomes

POST-RESUSCITATION CARE

- Identify the signs of ROSC
- Describe the principles of optimization of ventilation and oxygenation
- Identify signs of hemodynamic instability and state the correct management
- Identify the potential cause of a cardiac arrest, and correctly manage the patient based on that cause (including appropriate destination)
- Appreciate the benefits of induced hypothermia in post cardiac arrest management
- Describe the process of induced hypothermia
- Describe systems of care necessary for improving post cardiac arrest outcomes

Day 3

Required for EMT and Paramedic

CARDIAC RATE DISTURBANCE (PEDIATRIC)

- Recognize abnormally fast and abnormally slow pulse rates in the pediatric patient
- Discuss the cause of abnormally fast or slow pulse rates in the pediatric patient
- Discuss the causes of an irregular pulse in the pediatric patient
- Describe the BLS management of abnormally fast or slow pulse rates in the pediatric patient

PEDIATRIC CARDIAC ARREST

- Describe the current techniques of single and 2-Rescuer
 CPR and AED use in pediatric patients
- Demonstrate the current techniques of single and 2-Rescuer CPR and AED use in pediatric patients

PEDIATRIC CARDIAC ARREST

- Describe the current techniques of single and 2-Rescuer CPR in pediatric patients
- Review ALS management of pediatric cardiac arrest
 - Airway management
 - Vascular access
 - Pharmacology
- Demonstrate the current techniques of single and 2-Rescuer CPR in pediatric patients
- Demonstrate the current techniques of pediatric cardiac arrest management
- Discuss unique causes of pediatric cardiac arrest

CHEST PAIN FROM CARDIOVASCULAR CAUSE

- Review the pathophysiology of cardiac-related chest pain
- Identify a patient with non-traumatic chest pain and determine the likelihood of cardiovascular cause
- Recite the indications and contraindications for the administration of nitroglycerin, aspirin, and oxygen
- Explain the need for reassessment after performing an intervention
- Explain the importance of choosing the most appropriate transport destination for the patient with chest pain of cardiac origin

OB EMERGENCIES

- Understand abnormal presentations present during childbirth
- Discuss the actions the EMT would take when managing a patient with an abnormal presentation during delivery
- Describe a nuchal cord presentation
- Discuss the actions the EMT should take when a nuchal cord is present during delivery
- Recognize the need for neonatal resuscitation during delivery
- Discuss the management principles of neonatal resuscitation
- Discuss the AHA's position on routinely suctioning the airway of a newborn

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ENDOCRINE

- Distinguish between insulin dependent vs. non-insulin dependent diabetes
- Identify commonly prescribed medications used to treat diabetes
- Discuss metabolic syndrome and its comorbidities
- Understand the management of hypo/hyperglycemia
- Discuss patient use of insulin pumps and other glycemic control options
- Demonstrate appropriate use of a glucometer

SPECIAL HEALTHCARE NEEDS

- Identify and describe common special needs patients seen in EMS
- Describe the involvement of caregivers in emergency care of the special needs patient
- Describe the difference in patient assessment when dealing with a special needs patient

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PEDIATRIC TRANSPORT

- Explain how to appropriately secure a child safety restraint to a wheeled ambulance stretcher
- Understand that children need to be properly restrained in an approved child restraint device during transport
- Explain to another provider the characteristics of an approved child restraint system

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Day 4

Required for Paramedic Only

CULTURE OF SAFETY

- Define culture of safety
- Review the six key elements for advancing a culture of safety in EMS
- Identify the role of the EMS provider in establishing a culture of safety within their EMS organization

ACUTE CORONARY SYNDROME (ACS)

- Recognize injury patterns on a 12-lead EKG
- Differentiate STEMI from STEMI imposters

CONGESTIVE HEART FAILURE (CHF)

- Recognize the patient who is experiencing congestive heart failure
- Discriminate appropriate and inappropriate treatment modalities in CHF

FLUID RESUSCITATION

- Explain the concept of permissive hypotension and the dangers of excessive crystalloid administration
- Debate local interpretation of evidence based practice regarding fluid resuscitation

MEDICATION DELIVERY

- Discuss why intramuscular (IM) administration is superior to the subcutaneous (SQ) route
- Compare and contrast the delivery of medication with a nasal atomizer vs. other routes of administration

PAIN MANAGEMENT

- AAP pediatric pain management
- Summarize the position paper published by the National Association of EMS Physicians regarding Prehospital Pain Management
 - (http://www.naemsp.org/Documents/POSITION%20Prehospital PainMgmt.pdf)

ADVANCED AIRWAY MANAGEMENT IN THE PERFUSING PATIENT

- Differentiate between airway management, ventilation, and oxygenation
- Compare and contrast the advantages and disadvantages of various advanced airway adjuncts
- Justify the use of an endotracheal tube to protect a patient's airway
- Recognize correct endotracheal tube placement using clinical assessment techniques
- Analyze the efficacy of endotracheal tube confirmation placement devices
- Demonstrate competency in placing an endotracheal tube in a simulated airway
- Evaluate and report proper endotracheal tube placement using clinical assessment and available devices

CAPNOGRAPHY

- Compare and contrast the difference between ventilation and oxygenation
- Interpret blood oxygenation through the use of a pulse oximeter
- Discuss how ETCO₂ measures ventilation and perfusion
- Break down the phases of the ETCO₂ waveform of a capnography
- Interpret ETCO₂ readings
 - *To assess and monitor proper endotracheal tube placement
 - ❖ To determine and monitor effective ventilation
 - *To determine and monitor effective perfusion
 - To determine and monitor effective diffusion

CENTRAL NERVOUS SYSTEM (CNS) INJURY – EtCO₂

 Discuss using ETCO₂ readings as a guide for altering ventilation rates in head injury patients

CREW RESOURCE MANAGEMENT (CRM)

- Describe crew resource management (CRM) and its benefits to EMS
- Describe the responsibilities of team leaders and team members
- Understand the roles of the team member and team leader
- List the benefits of CRM
- Explain how CRM fits into your local organizational structure
- List the difficulties associated with implementation of CRM in your organization's culture

CREW RESOURCE MANAGEMENT (Application)

- Practice CRM in simulated scenarios (2-3)
- Apply CRM principles to EMS activities and tasks
- Defend the benefits of CRM

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- Defend the benefits of CRM