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
EMT OBJECTIVES

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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• Advocate for improved care in different cultural contexts
• Recognize and exhibit professional behaviors in the 11 characteristics identified in the National EMS Education Standards
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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• Distinguish between an epidemic and pandemic
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EMT OBJECTIVES

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
**PARAMEDIC OBJECTIVES**

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EMT OBJECTIVES

TOURNIQUETS

• Weigh the benefits vs. the risks of tourniquet application
• Advocate for the early application of a tourniquet
• Demonstrate rapid application of a tourniquet
PARAMEDIC OBJECTIVES

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EMT OBJECTIVES

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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

VENTILATION

• Differentiate 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
• 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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

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
EMT OBJECTIVES

AT-RISK POPULATIONS

• Recognize the unique characteristics of at-risk populations
• Recall the appropriate actions of EMTs in the presence of at-risk 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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• Recognize the unique characteristics of at-risk populations
• Recall the appropriate actions of EMTs in the presence of at-risk 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
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
ROLE OF RESEARCH

- 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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

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
• Argue the importance of starting the fibrinolytics check sheet
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

PSYCHIATRIC EMERGENCIES

• Describe the components of a mental status examination
• Perform effective patient restraint
• Understand the risk factors for suicide
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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

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
PARAMEDIC OBJECTIVES

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
EMT OBJECTIVES

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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

PEDEATRIC 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
EMT OBJECTIVES

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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EMT OBJECTIVES

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
EMT OBJECTIVES

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
SPECIAL HEALTHCARE NEEDS
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• 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
EMT OBJECTIVES

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
PARAMEDIC OBJECTIVES

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
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%20PrehospitalPainMgmt.pdf)
PARAMEDIC OBJECTIVES

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
CREW RESOURCE MANAGEMENT (Application)

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- Apply CRM principles to EMS activities and tasks
- Defend the benefits of CRM