

# **OSDH – EMS PARAMEDIC**

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## **Recommended Training Hours for National Education Standard**

**OSDH  
2011**

## INTRODUCTION:

Oklahoma is committed to the implementation of the EMS Education Agenda for the Future:

## HISTORY:

The *EMS Education for the Future: A Systems Approach* establishes a system of EMS education that more closely parallels that of other health care professions. As part of this systems approach, the *National EMS Scope of Practice Model* calls for the reconfiguration of EMS provider levels in the United States. Oklahoma has opted to follow the *Scope of Practice Model*, as published by the National Highway Traffic Safety Administration's (NHTSA) Office of Emergency Medical Services. Therefore we have adopted the *National EMS Education Standards* which have been published by NHTSA in conjunction with the above. You may download the *Standard* and accompanying *Instructor Guidelines* at <ems.gov>.

**Name Change:** The only change is that NREMT-P will no longer be used. The correct abbreviation will be "NRP" for Nationally Registered Paramedic. The "EMT" is now a single licensure level.

Current Level	New Level
Paramedic [NREMT-P]	Paramedic [NRP]

## CURRENT CHANGES TO National Registry TESTING

Levels	When do updated exams start?	Last date course based on NSC could finish	Last NREMT exam given
Paramedic	January 1, 2013	September 30, 2012	December 31, 2012

The Paramedic training modalities are mostly the same as the current curriculum. You can 'download' the National Education Standard and the accompanying "Paramedic Instructional Guidelines" [IGs] from the National Highway Traffic Safety Administration web site <http://ems.gov/education/nationalstandardandncs.html>

It will be a requirement that you have a copy of the "Instructor Guidelines" for this level of training! You as an Instructor will use this for entry level classes [Paramedic] and the "Transition Courses".

If you have any questions, please feel free to contact us at (405)271- 4027 or by email at <[roberti@health.ok.gov](mailto:roberti@health.ok.gov)>

# PARAMEDIC

## Paramedic:

The Paramedic is an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients who access the emergency medical system. This individual possesses the complex knowledge and skills necessary to provide patient care and transportation. Paramedics function as part of a comprehensive EMS response, under medical oversight. Paramedics perform interventions with the basic and advanced equipment typically found on an ambulance. The Paramedic is a link from the scene into the health care system.

## Teach to this Standard:

### Preparatory

## EMS Systems

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which is intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. History of EMS
- II. EMS Systems
- III. Roles/Responsibilities/Professionalism of EMS Personnel
- IV. Quality Improvement
- V. Patient Safety

### Preparatory

## Research

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Research Principles to Interpret Literature and Advocate Evidence-Based Practice

## Preparatory

# Workforce Safety and Wellness

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Provider Safety and Well-Being
- II. Standard safety precautions
- III. Personal Protective Equipment
- IV. Stress Management
- V. Prevention of Work-Related Injuries
- VI. Lifting and moving patients
- VII. Disease Transmission
- VIII. Wellness Principles

## Preparatory

# Documentation

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Principles of medical documentation and report writing

## Preparatory

# EMS System Communication

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. EMS Communication System
- II. Communicating with other health care professionals
- III. Team communication and dynamics

## Preparatory

# Therapeutic Communication

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Principles of communicating with patients in a manner that achieves a positive relationship

## Preparatory

# Medical/Legal and Ethics

Integrates comprehensive knowledge of EMS systems, safety/well being of the paramedic, and medical/legal and ethical issues, which are intended to improve the health of EMS personnel, patients, and the community.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Consent/Refusal of Care
- II. Confidentiality
- III. Advanced Directives
- IV. Tort and Criminal Actions
- V. Statutory Responsibilities
- VI. Mandatory Reporting
- VII. Health Care Regulation
- VIII. Patient Rights/Advocacy
- IX. End of Life Issues
- X. Ethical Principles/Moral Obligations
- XI. Ethical Tests and Decision Making
- XII. Employment Law

# Anatomy and Physiology

## **Anatomy and Physiology**

Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Anatomical Terms
- II. Planes and sections of the body
- III. Anatomical Topography
- IV. Organ Systems
- V. Anatomic Cavities
- VI. Organization
- VII. Cell Structure and Function
- VIII. Tissue Level of Organization and Membranes
- IX. Skeletal System
- X. Muscular System
- XI. Respiratory System
- XII. Circulatory
- XIII. Nervous System
- XIV. Integumentary System
- XV. Digestive System
- XVI. Endocrine System
- XVII. Renal System
- XVIII. Reproductive System
- XIX. Lymphatic and Immune System
- XX. Nutrition, Metabolism and Body Temperature

# Medical Terminology

## **Medical Terminology**

Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Medical Terminology

## Pathophysiology

# Pathophysiology

Integrates comprehensive knowledge of pathophysiology of major human systems.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Introduction
- II. Basic Cellular Review
- III. Alterations in Cells and Tissues
- IV. The Cellular Environment
- V. Genetics and Familial Diseases
- VI. Hypoperfusion
- VII. Self-Defense Mechanisms
- VIII. Inflammation
- IX. Variances in Immunity and Inflammation

## Life Span Development

# Life Span Development

Integrates comprehensive knowledge of life span development.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Infancy (birth to 1 year)
- II. Toddler (12 to 36 months) and pre-school age (3 to 5 years)
- III. School age children (6 to 12 years)
- IV. Adolescence - (13 to 18 years)
  - A. Physiological
- V. Early adulthood (20 to 40 years) VI. Middle adulthood (41 to 60 years) VII. Late adulthood (61 years and older)

## Public Health

# Public Health

Applies fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level, PLUS the following material:

- I. Basic Principles of Public Health

## Pharmacology

# Principles of Pharmacology

Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Medication Safety
- II. Medication Legislation
- III. Naming
- IV. Classifications
- V. Schedules
- VI. Drug Storage and Security
- VII. Phases of Medication Activity
- VIII. Medication Interactions
- IX. Toxicity
- X. Drug Terminology
- XI. Sources of Drugs
- XII. Pharmacological concepts



## Pharmacology

# Medication Administration

Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Routes of Administration
- II. Administration of Medication to a Patient
- III. Standardization of Drugs

## Pharmacology

# Emergency Medications

Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

*The paramedic must know (to a complex depth) the names, mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose, and any specific administration considerations, for all of the following emergency medications and intravenous fluids. Individual training programs have the authority to add any medication used locally by paramedic.*

- I. Specific Medications

## Airway Management, Respiration, and Artificial Ventilation

# Airway Management

Integrates complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Airway Anatomy
- II. Airway Assessment
- III. Techniques of assuring a patent airway

#### IV. Consider age-related variations in pediatric and geriatric patients

## Airway Management, Respiration, and Artificial Ventilation

### **Respiration**

Integrates complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Anatomy of the Respiratory System
- II. Physiology of Respiration
- III. Pathophysiology of Respiration
- IV. Assessment of Adequate and Inadequate Respiration
- V. Management of Adequate and Inadequate Respiration
- VI. Supplemental Oxygen Therapy
- VII. Age-Related Variations in Pediatric and Geriatric Patients

## Airway Management, Respiration, and Artificial Ventilation

### **Artificial Ventilation**

Integrates complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Comprehensive ventilation assessment
- II. Review of ventilation devices used by EMRs, EMTs and AEMTs
- III. Assisting patient ventilations
- IV. Age Related Variations in Pediatric and Geriatric Patients

## Patient Assessment

# Scene Size-Up

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Scene Safety
- II. Scene management

## Patient Assessment

# Primary Assessment

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Primary Survey/Primary Assessment
- II. Integration of treatment/procedures needed to preserve life
- III. Evaluating priority of patient care and transport

## Patient Assessment

# History Taking

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Components of the patient history
- II. Interviewing Techniques
- III. Components of the patient history

- VI. Integration of therapeutic communication, history taking techniques, patient presentation and assessment findings -- Development of field impression
- VII. Treatment Plan -- Modify initial treatment plan
- VIII. Age-related considerations

## Patient Assessment

# Secondary Assessment

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Techniques of Physical Examination
- II. Physical examination techniques will vary from patient to patient depending on the chief complaint, present illness, and history
- III. Physical examination – approach and overview
- IV. Mental Status
- V. Techniques of Physical Exam: General Survey
- VI. Vital Signs
- VII. Examination by anatomical region or system
- VIII. Modifying the assessment for the patient with a life threatening emergency

## Patient Assessment

# Monitoring Devices

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Continuous ECG monitoring
- II. 12-Lead ECG Interpretation
- III. Carbon Dioxide Monitoring
- IV. Basic Blood Chemistry
- V. Other Monitoring Devices

## Patient Assessment

# Reassessment

Integrates scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. How and When to Reassess
- II. Patient Evaluation: Reassessment
- III. Documentation
- IV. Age-related Considerations

## Medicine

# Medical Overview

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Assessment Factors
- II. Major components of the patient assessment
- III. Forming a Field Impression

## Medicine

# Neurology

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction—overview of neurological conditions
- II. Central Nervous System

- III. Neurological assessment- normal and abnormal findings
- IV. General management considerations
- V. Neurological conditions
- VI. Age-related variations
- VII. Communication and documentation
- VIII. Transport decisions
- IX. Patient education and prevention of complications or future neurological emergencies.

## Medicine

# Abdominal and Gastrointestinal Disorders

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General pathophysiology, assessment and management
- III. Specific Injuries/ illness: causes, assessment findings and management for each condition
- IV. Consider age-related variations
- V. Communication and documentation
- VI. Transport decisions
- VII. Patient education and prevention

## Medicine

# Immunology

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Pathophysiology
- III. Assessment
- IV. Anaphylactoid Reaction
- V. Managing an allergic reaction
- VI. Collagen vascular disease

- VII. Transplant-related problems
- VIII. Consider age-related variations in pediatric and geriatric patients
- IX. Communication and documentation
- X. Transport decisions
- XI. Patient education and prevention

## Medicine

# Infectious Diseases

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Public health principles and agencies responsible for public health
- II. Pathophysiology of Infectious Disease
- III. Standard Precautions, personal protective equipment, and cleaning and disposing of
- IV. Specific diseases and conditions
- V. Consider age-related variations in pediatric and geriatric patients
- VI. Communication and documentation for a patient with a communicable or infectious
- VIII. Patient and family teaching regarding communicable or infectious diseases and their spread.
- IX. Legal requirements regarding reporting communicable or infectious diseases/conditions

## Medicine

# Endocrine Disorders

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Overview of endocrine conditions
- II. Pathophysiology, causes, Incidence, morbidity, and mortality, assessment findings, management for endocrine conditions
- III. Consider age-related variations
- IV. Communication and documentation
- V. Transport decisions
- VI. Patient education and prevention

## Medicine

# Psychiatric

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Pathophysiology
- III. Understanding Behavior
- IV. Acute psychosis
- V. Agitated delirium
- VI. Specific Behavioral/Psychiatric Disorders
- VII. Assessment findings for behavioral/psychiatric patients
- VIII. Providing Empathetic and Respectful Management
- IX. Medications
- X. Consider age-related variations in pediatric and geriatric patients
- XI. Communication to medical facility and documentation
- XII. Transport decisions

## Medicine

# Cardiovascular

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Anatomy of the Cardiovascular System
- II. Physiology
- III. Electrophysiology
- IV. Epidemiology
- V. Primary survey for cardiovascular assessment
- VI. History and physical/ SAMPLE format
- VII. Secondary survey for cardiovascular assessment
- VIII. Electrocardiographic (ECG) monitoring
- IX. Management of the patient with an arrhythmia
- XI. Acute myocardial infarction/Angina
- XII. Heart failure



- XIII. Non-Traumatic Cardiac tamponade
- XIV. Hypertensive emergencies
- XV. Cardiogenic shock
- XVI. Cardiac arrest
- XVII. Vascular disorders
- XVIII. Aortic Aneurysm/Dissection
- XX. Congenital Heart Disease
- XXI. Valvular Heart Disease
- XXII. Coronary Artery Disease
- XXIII. Infectious Diseases of the Heart
- XXIV. Cardiomyopathy
- XXV. Specific Hypertensive Emergencies
- XXVI. Infectious Diseases of the Heart
- XXVII. Congenital Abnormalities and Age-Related Variations
- XXVIII. Integration

## Medicine

# Toxicology

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Epidemiology of toxicology emergencies
- II. Toxic syndromes (Toxidromes) including drugs of abuse
- III. Alcoholism
- VI. Medication overdose-- Introduction--Pathophysiology, incidence, toxic agents, risk
- VII. General Treatment modalities for Poisonings
- VIII. Communication and documentation for patients with toxicological emergencies
- IX. Transport decisions with toxicological emergencies
- X. Age-related variations for pediatric and geriatric patients
- XI. Patient education and prevention of toxicological emergencies and drug and alcohol abuse

# Medicine

## **Respiratory**

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General system pathophysiology, assessment and management
- III. Specific illness/injuries: causes, assessment findings and management for each condition
- IV. Consider age-related variations
- V. Communication and documentation for patients with a respiratory condition or emergency
- VI. Transport decisions
- VII. Patient education and prevention of complications or future respiratory emergencies.

# Medicine

## **Hematology**

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General assessment findings and symptoms
- III. General management for a patient with a hematological condition or emergency
- IV. Sickle Cell Disease
- V. Hematological conditions
- VI. Blood Transfusion Complications
- VII. Consider age-related variations in pediatric and geriatric patients
- VIII. Patient education and prevention

## Medicine

# Genitourinary/Renal

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Renal Diseases
- III. Urinary System Conditions
- IV. Male genital tract conditions
- V. Consider age-related variations for pediatric and geriatric patients
- VI. Communication and documentation
- VII. Transport decisions
- VIII. Patient education and prevention

## Medicine

# Gynecology

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Physiology
- III. Symptoms and Assessment findings
- IV. General management
- V. Vaginal Bleeding
- VI. Sexual Assault
- VII. Infection (including Pelvic inflammatory disease, Bartholin's abscess, and vaginitis/
- VIII. Ovarian cyst and ruptured ovarian cyst
- IX. Ovarian torsion
- X. Endometriosis
- XI. Dysfunctional uterine bleeding
- XII. Prolapsed uterus
- XIII. Vaginal foreign body
- XIV. Age-related variations
- XV. Communication and documentation

## Medicine

# **Non-Traumatic Musculoskeletal Disorders**

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General assessment findings and symptoms
- III. General Management for a patient with a common or major non-traumatic
- IV. Non-traumatic musculoskeletal conditions
- V. Consider age-related variations in pediatric and geriatric patients
- VI. Patient education and prevention

## Medicine

# **Diseases of the Eyes, Ears, Nose, and Throat**

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General assessment findings and symptoms
- III. General Management
- IV. Diseases of the eyes, ears, nose, and throat.
- V. Consider age-related variations in pediatric and geriatric patients
- VI. Patient education and prevention

## Shock and Resuscitation

# Shock and Resuscitation

Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates a comprehensive knowledge of the causes and pathophysiology into the management of shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Ethical Issues in Resuscitation
- II. Pre-Morbid Conditions
- III. Anatomy and physiology review
- IV. Physiology of normal blood flow
- V. Physiology of blood flow during CPR
- VI. Cardiac Arrest
- VII. Resuscitation
- VIII. Automated external defibrillation (Refer to current American Heart Association guidelines)
- IX. Advanced Life Support - Refer to the current American Heart Association guidelines
- X. Special arrest and peri-arrest situations - Refer to the current American Heart Association guidelines
- XI. Postresuscitation support - Refer to the current American Heart Association guidelines
- XII. Shock

## Trauma

# Trauma Overview

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Identification and Categorization of Trauma Patients
- II. Incidence/significance of Trauma
- III. Trauma System
- IV. Types of Injury
- V. Trauma Assessment
- VI. Role of Documentation in Trauma
- VII. Trauma Scoring Scales
- VIII. Trauma Center Designations
- IX. Transfer of patients to the most appropriate hospital

# Trauma

## Bleeding

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence
- II. Anatomy and function
- III. Pathophysiology
- IV. Assessment consideration in Shock
- V. Shock Management strategies and considerations
- VI. Bleeding considerations

# Trauma

## Chest Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence of chest trauma
- II. Traumatic Aortic Disruption
- III. Pulmonary Contusions
- IV. Blunt Cardiac Injury
- V. Hemothorax
- VI. Pneumothorax
- VII. Cardiac Tamponade
- VIII. Rib fractures
- IX. Flail Chest
- X. Commotio cordis
- XI. Tracheobronchial disruption
- XII. Diaphragmatic rupture
- XIII. Traumatic asphyxia
- XIV. Pediatric considerations in chest trauma

## Trauma

# Abdominal and Genitourinary Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence
- II. Vascular injury
- III. Solid and hollow organ injuries
- IV. Blunt vs. Penetrating Abdominal Injury
- V. Evisceration
- VI. Retroperitoneal injury
- VII. Injuries to external genitalia
- VIII. Age-related variations

## Trauma

# Orthopedic Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence
- II. Pediatric fractures
- III. Tendon lacerations/transection/rupture (Achilles and patellar)
- IV. Open fractures
- V. Closed fractures
- VI. Dislocations
- VII. Compartment syndrome

## Trauma

# Soft Tissue Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence of soft tissue injury
- II. Anatomy and Physiology of soft tissue injury
- III. Pathophysiology of wound healing
- IV. Wounds
- V. Burns
- VI. High-pressure injection wounds

## Trauma

# Head, Facial, Neck, and Spine Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Unstable Facial Fractures
- III. Orbital Fractures
- IV. Perforated tympanic membrane
- V. Skull fractures
- VI. Penetrating neck trauma (non-cord involvement)
- VII. Laryngeotracheal injuries
- VIII. Spine trauma (non-CNS involvement)
- IX. Mandibular fractures



## Trauma

# Nervous System Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence
- II. Cauda equine syndrome
- III. Nerve root injury (To be reviewed for inclusion later)
- IV. Peripheral nerve injury
- V. Traumatic brain injury
- VI. Spinal cord injury
- VII. Spinal shock

## Trauma

# Special Considerations in Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Trauma in Pregnancy
- II. Pediatric Trauma
- III. Geriatric Trauma
- IV. Cognitively impaired patient

## Trauma

# Environmental Emergencies

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Incidence

- II. Submersion incidents
- III. Temperature-related illness
- IV. Bites and Envenomations
- V. Electrical injury – Lightning strikes
- VI. High altitude illness

## Trauma

# Multi-System Trauma

Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Kinematics of trauma
- II. Multi-System Trauma
- III. Specific injuries related to multi system trauma

## Special Patient Population

# Obstetrics

Integrates assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. Physiology
- III. General system physiology, assessment, and management of the obstetrical patient.
- IV. Complications Related to Pregnancy
- V. High Risk Pregnancy: pathophysiology, assessment, complications, management
- VI. Complications of Labor: pathophysiology, assessment, complications, management
- VII. Complications of Delivery: pathophysiology, assessment, complications, management

## Special Patient Population

# Neonatal Care

Integrates assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Introduction
- II. General pathophysiology, assessment and management
- III. Specific situations

## Special Patient Population

# Pediatrics

Integrates assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Pediatric Anatomical Variations and Assessment
- II. Growth and Development
- III. Pediatrics: Specific Pathophysiology, Assessment, and Management
- IV. Abuse and Neglect
- V. Sudden Infant Death Syndrome

## Special Patient Population

# Geriatrics

Integrates assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Normal and Abnormal Changes associated with aging

- II. Sensory changes
- III. Pharmacokinetic change
- IV. Polypharmacy
- V. Psychosocial and economic aspects
- VI. Specific conditions that occur more frequently in the elderly

## Special Patient Population

# Patients with Special Challenges

Integrates assessment findings with principles of pathophysiology and knowledge of psychosocial needs to formulate a field impression and implement a comprehensive treatment/disposition plan for patients with special needs.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Abuse and neglect
- II. Homelessness/Poverty
- III. Bariatric Patients
- IV. Technology Assisted/Dependent
- V. Hospice Care and Terminally Ill
- VI. Tracheostomy care/Dysfunction
- VII. Technology Assisted Patients
- VIII. Pediatrics Developmental Disabilities
- IX. Emotionally impaired
- X. Physical Needs/Challenges
- XI. Patients with Communicable Diseases
- XII. Terminally Ill Patients
- XIII. Mental Needs/Challenges
- XIV. Specific Challenges Created by Chronic Conditions

## EMS Operations

# Principles of Safely Operating a Ground Ambulance

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

The Instructional Guidelines in this section include all the topics and material at the AEMT level. The intent of this section is to give an overview of emergency response to ensure EMS personnel, patient, and other's safety during EMS operations. This does not prepare the entry level student to be an experienced and competent driver. Information related to the clinical management of the patient during emergency response is found in the clinical sections of the National EMS Education Standards and Instructional

Guidelines for each personnel level. The Paramedic Instructional Guidelines in this section include all the topics and material at the EMR and EMT levels.

## EMS Operations

# Incident Management

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

Information related to the clinical management of the patient within components of the Incident Management System (IMS) is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level.

I. Establish and Work Within the Incident Management System

1. ICS-100: Introduction to ICS, or equivalent
2. FEMA IS-700: NIMS, An Introduction

This can be done as a Co requisite or Prerequisite or as part of the entry-level course. If the student already has these courses they do not have to re-take IMS.

## EMS Operations

# Multiple Casualty Incidents

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

The intent of this section is to give an overview of operating during a multiple casualty incident when a multiple casualty incident plan is activated.

Information related to the clinical management of the patients during a multiple casualty incident is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level. The Paramedic Instructional Guidelines in this section include all the topics and material at the EMR and EMT levels.

## EMS Operations

# Air Medical

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

The intent of this section is to give an overview of operating safely in and around a landing zone during air medical operations and transport. Information related to the clinical management of the patients during air

medical operations is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level.

The Paramedic Instructional Guidelines in this section include all the topics and material at the AEMT level PLUS the following material:

- I. Medical Risks/Needs/Advantages

## EMS Operations

# Vehicle Extrication

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

The intent of this section is to give an overview of vehicle extrication to ensure EMS personnel and patient safety during extrication operations. This does not prepare the entry-level student to become a vehicle extrication expert or technician. Information related to the clinical management of the patient being cared for during vehicle extrication is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level.

- I. Safe Vehicle Extrication
- II. Use of Simple Hand Tools
- III. Special Considerations for Patient Care

## EMS Operations

# Hazardous Materials Awareness

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

Information related to the clinical management of the patient exposed to hazardous materials is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level.

- I. Risks and Responsibilities of Operating in a Cold Zone at a Hazardous Material or Other Special Incident
  - A. Entry-Level Students Need to Be Certified in:
    1. Hazardous Waste Operations and Emergency Response (HAZWOPER) standard, 29 CFR 1910.120 (q)(6)(i) -First Responder Awareness Level
  - B. This can be done as a Co requisite or Prerequisite or as part of the entry-level courses. If the student already has these courses they do not have to re-take Awareness course.

## EMS Operations

# Mass Casualty Incidents due to Terrorism and Disaster

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

The intent of this section is to give an overview of operating during a terrorist event or during a natural or manmade disaster.

Information related to the clinical management of patients exposed to a terrorist event is found in the clinical sections of the National EMS Education Standards and Instructional Guidelines for each personnel level.

### I. Risks and Responsibilities of Operating on the Scene of a Natural or Man-Made Disaster

**END OF NATIONAL EDUCATION STANDARD TOPICS .....**

These hours are recommended hours only. The program should be based on successful completion of all Paramedic competencies.

**PARAMEDIC**

<u>SUBJECT</u>	<u>CLASS</u>	<u>LAB</u>	<u>TOTAL</u>	<u>COMMENTS:</u>
<b><u>Preparatory</u></b>	<b><u>9</u></b>	<b><u>2</u></b>	<b><u>11</u></b>	
EMS Systems	1	0	1	
Research	2	0	2	
Workforce Safety and Wellness	1	2	3	
Documentation	1	0	1	Recommend on-line reporting
EMS System Communication	1	0	1	
Therapeutic Communication	2	0	2	
Medical/Legal and Ethics	1	0	1	
<b><u>Anatomy and Physiology</u></b>	<b><u>N/A</u></b>	<b><u>N/A</u></b>		Pre or co-requisite A&P course
<b><u>Medical Terminology</u></b>	<b><u>2</u></b>	<b><u>0</u></b>	<b><u>2</u></b>	Highly recommend a medical terminology pre-course class
<b><u>Pathophysiology</u></b>	<b><u>24</u></b>	<b><u>8</u></b>	<b><u>32</u></b>	
<b><u>Life Span Development</u></b>	<b><u>4</u></b>	<b><u>0</u></b>	<b><u>4</u></b>	
<b><u>Public Health</u></b>	<b><u>1</u></b>	<b><u>0</u></b>	<b><u>1</u></b>	
<b><u>Pharmacology</u></b>	<b><u>52</u></b>	<b><u>32</u></b>	<b><u>84</u></b>	
Principles of Pharmacology	12	0	12	
Medication Administration	24	24	48	
Emergency Medications	16	8	24	
<b><u>Airway Management, Respiration and Artificial Ventilation</u></b>	<b><u>16</u></b>	<b><u>16</u></b>	<b><u>32</u></b>	Capnography must be taught
Airway Management				
Respiration				
Artificial Ventilation				

<b><u>Assessment</u></b>	<b><u>13.5</u></b>	<b><u>11.5</u></b>	<b><u>25</u></b>	
Scene Size-Up	0.5	0	.5	
Primary Assessment	0.5	1	1.5	
History Taking	2	2	4	
Secondary Assessment	8	6	14	
Monitoring Devices	2	2	4	
Reassessment	0.5	0.5	1	
<b><u>Medicine</u></b>	<b><u>153.5</u></b>	<b><u>93.5</u></b>	<b><u>247</u></b>	
Medical Overview	0.5	0.5	1	



Neurology	4	2	6	Emphasize Stroke Centers
Abdominal and Gastrointestinal Disorders	4	2	6	
Immunology	4	0	4	
Infectious Diseases	4	0	4	
Endocrine Disorders	2	0	2	
Psychiatric	4	0	4	
Cardiovascular	100	80	180	Emphasize STEMI level of care decision
Toxicology	6	2	8	
Respiratory	12	4	16	
Hematology	2	0	2	
Genitourinary/Renal	3	1	4	
Gynecology	4	2	6	
Non-Traumatic Musculoskeletal Disorders	2	0	2	
Diseases of Eyes, Ears, Nose & Throat	2	0	2	

<b><u>Shock and Resuscitation</u></b>	<b><u>12</u></b>	<b><u>4</u></b>	<b><u>16</u></b>	
<b><u>Trauma</u></b>	<b><u>57</u></b>	<b><u>32</u></b>	<b><u>89</u></b>	
Trauma Overview	3	0	3	CDC/OK trauma triage guidelines
Bleeding	4	2	6	
Chest Trauma	4	4	8	
Abdominal and Genitourinary Trauma	4	2	6	
Orthopedic Trauma	2	4	6	
Soft Tissue Trauma	8	8	16	
Head, Facial, Neck, and Spine Trauma	4	0	4	
Nervous System Trauma	4	0	4	
Environmental Emergencies	4	0	4	
Multi-System Trauma	8	8	16	PHTLS or equivalent
<b><u>Special Patient Populations</u></b>	<b><u>68</u></b>	<b><u>22</u></b>	<b><u>90</u></b>	
Obstetrics	4	4	8	
Neonatal Care	8	4	12	
Pediatrics	32	12	44	PALS
Geriatrics	16	0	16	GEMS; *LTC tour/rotation recommended
Patients with Special Challenges	8	2	10	Palliative Care Unit
<b><u>EMS Operations</u></b>	<b><u>14</u></b>	<b><u>14</u></b>	<b><u>28</u></b>	
Principles of Safely Operating a Ground Ambulance	<u>2</u>	<u>2</u>	<u>4</u>	
Incident Management	<u>4</u>	<u>4</u>	<u>8</u>	NIMS

Multiple Casualty Incidents	<u>2</u>	<u>4</u>	<u>6</u>	CDC/OK Trauma Triage Training
Air Medical	<u>1</u>	<u>0</u>	<u>1</u>	
Vehicle Extrication	<u>0</u>	<u>4</u>	<u>4</u>	
Hazardous Materials Awareness	<u>1</u>	<u>0</u>	<u>1</u>	HAZWOPER Awareness Prerequisites
Mass Casualty Incidents due to Terrorism and Disaster	<u>4</u>	<u>0</u>	<u>4</u>	
<b><u>TOTAL</u></b>	<b><u>426</u></b>	<b><u>235</u></b>	<b><u>661</u></b>	
<b><u>Clinical Hours</u></b>			<b><u>392</u></b>	
<b><u>TOTAL Paramedic</u></b>			<b><u>1,053</u></b>	



**PARAMEDIC****OKLAHOMA PARAMEDIC COMPETENCIES**

<b>Skill - Airway/Ventilation/Oxygenation</b>	<b>Date</b>	<b>Approved</b>
Airway - Blind Insertion Airway Device (BIAD)		
Airway – oral		
Airway-nasal		
Bag-valve-mask (BVM)		
Cricoid pressure (Sellick's Maneuver)		
Head tilt - chin lift		
Jaw-thrust		
Jaw-thrust - Modified (trauma)		
Mouth-to-Barrier		
Mouth-to-Mask (with one-way valve)		
Obstruction/FBAO – Manual		
Oxygen tank use/safety/administration		
Oxygen therapy – Nasal Cannula Non-rebreather Mask Partial rebreather mask Simple face mask Venturi mask		
Automated transport ventilators (ATV)		
Suctioning – Upper Airway Rigid tip Flexible tip		
Pulse oximetry		
*BiPAP/CPAP		
Demand valve (manual & triggered) *PEEP – therapeutic		
*End tidal CO2 monitoring		
*Capnography – Wave form (recording)		
*Intubation- nasotracheal (with capnography)		
*Intubation – orotracheal (with capnography)		

<b>**Skill-Cardiovascular/Circulation/Trauma</b>	<b>Date</b>	<b>Approved</b>
Cardiopulmonary resuscitation (CPR)		
Defibrillation – automated / semi-automated		
Hemorrhage control – direct pressure		
Hemorrhage control – tourniquet		
Bandaging		
Shock Treatment		
Trauma Patient Assessment		

*Cardiac Monitoring (3 and 12 lead ECG application only)		
*Mechanical CPR device		
*Chest Injury treatments Blunt trauma Penetrating		
Abdominal injury treatments		
Nose bleeds		
Impaled objects		
<b>**Skill Immobilization</b>	<b>Date</b>	<b>Approved</b>
Spinal immobilization – cervical collar		
Spinal immobilization – long board		
Spinal immobilization – manual		
Spinal immobilization – seated patient (KED, etc.)		
Spinal immobilization – rapid manual extrication		
Extremity stabilization - manual		
Extremity splinting		
Splinting -traction		
Mechanical patient restraints		
*Pelvic splint		
Emergency moves for endangered patients		
Cervical Immobilization Device (CID)		
<b>**Skill-Medication Administration - Routes</b>	<b>Date</b>	<b>Approved</b>
Assisting a Patient with His/Her Own Prescribed Medications (Aerosolized/Nebulized)		
Aerosolized/nebulized (beta agent) (per protocols)		
*Buccal		
Endotracheal tube		
Inhaled – self-administered (nitrous oxide)		
Intramuscular (epinephrine or glucagon)		
Intranasal (naloxone)		
Intravenous push (dextrose 50%)		
Auto-Injector (self or peer care)		
Oral -glucose		
Oral - Aspirin		
Auto-injector (patient’s own prescribed meds)		
Subcutaneous epinephrine		
*Nitro assist (patient’s own prescribed medication) (per protocol)		

<b>**Skill – IV Initiation/Maintenance of Fluids</b>	<b>Date</b>	<b>Approved</b>
Intravenous – maintenance of non-medicated IV fluids		
Intraosseous – initiation (adult and pediatric)		
Intravenous access (venous blood draw)		
Intravenous access (peripheral)		
<b>**Skill - Miscellaneous</b>	<b>Date</b>	<b>Approved</b>
Assisted delivery (normal childbirth)		
Assisted delivery (abnormal childbirth) (breech, limb, etc.)		
Blood glucose monitoring		
Blood pressure automated		
Blood pressure – manual		
Eye irrigation		
Eye irrigation-Morgan lens		
*Hand washing		
Patient Assessment Primary assessment Secondary assessment		
History taking skills (SAMPLE/OPQRST)		
Vital Signs		
*Landing Zone (Live helicopter lab recommended, classroom session required)		
Medical Assessment		
Lifting and Moving Urgent Non-urgent		
Personal protective equipment/body substance isolation use		
Pre-hospital Stroke assessment (Cincinnati, LA, etc.)		
E.V.O.C. (optional)		

**\*\***These should include adult, child and pediatrics skills.

\*These are items added to the National Standard Guidelines.

*Note: These competencies are very broad and should be broken down into more specific or individual competencies for initial training purposes.*