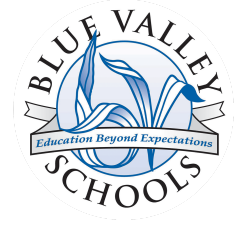


Introduction to Emergency Medical Services (EMS)



UNIT 1: The History of EMS

ESSENTIAL QUESTION

BIG IDEAS

What is the history and evolution of EMS?

Students will:

- Explain the origins of EMS
- Explain the evolution of EMS
- Explain the various aspects of professional development in EMS
- Explain how various aspects of Legislation has advanced EMS
- Explain the future of EMS

GUIDING QUESTIONS

- **Content**
 - What is Napoleon's Chief Physician's development?
 - How did prehospital medical trauma advance during wartime?
 - How has EMS evolved (ambulance services, air ambulance, 911)?
 - How have various pieces of legislation (Highway Safety Act, TCSDA, Ryan White Act, HIPAA, COBRA) impacted EMS?
- **Process**
 - How do Automatic External Defibrillators (AEDs) function?
 - How was CPR developed and how has it evolved to what we use today?
 - How do first Mobile Intensive Care ambulances (Medic-1) operate?
 - What are the ten components of the EMS Technical Assessment program?
- **Reflective**
 - What has the impact of pop culture and media been on EMS?
 - What impact do professional organizations (ex. NREMT, NAEMT, NAEMSE) have on EMS?
 - How does the "Agenda for the Future" impact the future of EMS?

FOCUS STANDARDS

- **Benchmark 1.0: Explore and Discuss the History of EMS**
 - 1.1 Describe Napoleon’s Chief Physician’s development of prehospital triage and transport.
 - 1.2 Discuss how prehospital medical and trauma care has advanced during war time (including each U.S. war).
 - 1.3 Identify the history of ambulance services in the United States.
 - 1.4 Discuss the history of air ambulances.
 - 1.5 List some of the specifications and inventory of modern ambulances and their equipment .
 - 1.6 Discuss when and why the 911 system came about and its evolution.
 - 1.7 Discuss how CPR developed from the first chest compression to what we now practice.
 - 1.8 Describe the evolution of Automatic External Defibrillators (AED), and the first people saved through defibrillation.
 - 1.9 Discuss “Injury in America: A Continuing Public Health Problem” published by the National Research Council.
 - 1.10 Describe the first Mobile Intensive Care ambulance (Medic-1).
 - 1.11 Describe the EMS for Children program and Emergency Medical Services for Children.
 - 1.12 Describe the impact of the television show Emergency had on modern EMS.
 - 1.13 Know what the “Agenda for the Future” is and how it will affect the future of EMS.
- **Benchmark 2.0: Identify, Describe, and Discuss Professional Development in Emergency Medical Services**
 - 2.1 Describe the importance of professional organizations (eg. NREMT, NAEMT, NAEMSE).
 - 2.2 Discuss the specialty courses available (eg. BLS, ACLS, PALS, PHTLS, AMLS, BTLS).
 - 2.3 Describe the Star of Life and describe it’s six points.
 - 2.4 Identify the ten components of the Statewide EMS Technical Assessment program implemented by NHTSA.
- **Benchmark 3.0: Analyze and Discuss Various Aspects of Legislation in the Advancement of Emergency Medical Services in the U.S.**
 - 3.1 Discuss the Highway Safety Act of 1966 and how it revolutionized modern day EMS
 - 3.2 Explain the Emergency Medical Services Systems Act and how it continues to affect EMS today
 - 3.3 Discuss the Trauma Care Systems and Development Act (TCSDA)
 - 3.4 Describe the impact on EMS when Congress did not reauthorize funding of the TCSDA
 - 3.5 Describe how the Ryan White Act affects EMS providers as well as the affect of losing that provision
 - 3.6 Explain what HIPAA (Health Information Portability and Accountability Act) is and how to use it appropriately
 - 3.7 Explain the importance of the Omnibus Budget Reconciliation Act (and COBRA)

Introduction to Emergency Medical Services (EMS)

UNIT 2: Introduction to Medical Terminology

ESSENTIAL QUESTION

What are the various concepts of medical terminology and how is it applied to EMS?

BIG IDEAS

Students will:

- Explain the concept of medical terminology as a new vocabulary
- Understand the roots of medical terminology
- Explain how various word parts are used in medical terminology

GUIDING QUESTIONS

- **Content**
 - What is medical terminology and how is it used in EMS?
- **Process**
 - How is medical terminology used to describe anatomy?
- **Reflective**
 - How do the combining of individual word meanings form medical terminology?

FOCUS STANDARDS

- **Benchmark 4.0: Analyze Various Concepts and Demonstrate an Understanding of Medical Terminology in Emergency Medical Services**
 - 4.1 Discuss the concept of medical terminology as a whole new vocabulary.
 - 4.2 Explain medical terminology's roots in ancient Greece and Rome.
 - 4.3 Define medical terminology as used to describe anatomy (structure) and physiology (function).
 - 4.4 Differentiate word parts in medical terminology (eg. prefixes, roots, suffixes and combining forms).
 - 4.5 Discuss the etymology of other kinds of medical terms (acronyms, anonyms, eponyms etc.).
 - 4.6 Summarize the combining of individual word meanings to form medical terms.

Introduction to Emergency Medical Services (EMS)

UNIT 3: Introduction to Patient Care in the EMS Setting

ESSENTIAL QUESTION

How are concepts in human anatomy and physiology used to understand the human body and assess patients in EMS?

BIG IDEAS

Students will:

- Analyze various concepts in human anatomy and physiology
- Demonstrate an understanding of the organization of the human body
- Use the concepts of human anatomy and physiology and the organization of the human body to understand how to assess, triage and care for patients

GUIDING QUESTIONS

- **Content**
 - What are the anatomical and physiological concepts of the human body?
 - What are diseases and pathology within the human body systems?
 - What are the anatomical planes and directional terms used in EMS?
 - What is the makeup of the human body (cells, tissue, organs, systems, etc.)?
- **Process**
 - How do body substance isolation and scene safety impact patient care in EMS?
 - How do you perform a general assessment of a patient?
 - How is the process of patient documentation provided in EMS?
- **Reflective**
 - How is termination of resuscitation and determination of death determined in EMS?

FOCUS STANDARDS

- **Benchmark 5.0: Analyze Various Concepts and Demonstrate an Understanding of Anatomy & Physiology in Emergency Medical Services**
 - 5.1 Describe anatomical systems of the human body (the component parts of each system).
 - 5.2 Describe physiological systems of the human body (the function and interaction of different systems).
 - 5.3 Examine individual systems of the body (skeletal, muscular, nervous, cardiovascular, respiratory, integumentary).
 - 5.4 Discuss disease and pathology within human bodily systems.
- **Benchmark 6.0: Analyze Various Concepts and Demonstrate an Understanding of Organization of the Human Body**
 - 6.1 Examine different branches of science pertaining to the study of the human body.
 - 6.2 Describe the makeup of the human body (eg. cells, tissue, organs, systems, etc.).
 - 6.3 Discuss anatomical planes (eg. frontal, sagittal, transverse). Kansas State Department of Education | www.ksde.org Approved:
 - 6.4 Discuss directional terms (eg. inferior/superior, distal/proximal, adduction/abduction, etc.).
 - 6.5 Differentiate bodily cavities (eg, abdomen, cranium, thoracic, pelvis, vertebrae).
 - 6.6 Describe other regions of the body (eg. abdomen, spinal column, etc.).
- **Benchmark 7.0: Analyze Various Concepts and Demonstrate an Understanding of Patient Assessment Triage and Care**
 - 7.1 Discuss the concepts of Body Substance Isolation (BSI) and Scene Safety.
 - 7.2 Review the General Assessment for adults and pediatrics.
 - 7.3 Articulate the difference between a medical patient and a trauma patient.
 - 7.4 Differentiate among the different levels of triage (green, yellow, red, blue, black, and orange).
 - 7.5 Cover the various mnemonics in patient assessment and history (eg. SAMPLE, OPQRSTI, DCAPBTLS etc.).
 - 7.6 Complete a set of vital signs (eg, blood pressure, heart rate, respiratory rate, O2 saturation, etc.).
 - 7.7 Review the steps for CPR and defibrillation of a cardiac arrest patient.
 - 7.8 Discuss patient refusal and declination of care.
 - 7.9 Discuss determination of death and termination of resuscitation.
 - 7.10 Describe patient documentation.