Emergency Medical Services

Wisconsin Curriculum
Emergency Medical Responder

Background

Wisconsin revised its emergency medical services (EMS) curricula for all levels between 2011 and 2013 following release of the National EMS Education Standards in 2009.
EMS, however, continually evolves. The National Highway Traffic Safety Administration published a revision of the National EMS Education Standards in 2021 incorporating developments from the past decade. The Wisconsin Department of Health Services (DHS), upon recommendation from the Physicians Advisory Committee, also made multiple additions to the Wisconsin EMS scope of practice since 2013 not in the previous curriculum. DHS and the Wisconsin Technical College System therefore launched a curriculum revision project in 2020 to align curriculum with the new National EMS Education Standards and the current Wisconsin EMS Scope of Practice. Through this partnership, EMS educators across the state participated in the development of new curricula for the emergency medical responder (EMR), emergency medical technician (EMT), and advanced emergency medical technician (AEMT) levels.

The new curricula restore alignment with the National EMS Education Standards and Wisconsin Scope of Practice. The new curriculum contains most of the medications, invasive procedures, and other higher risk skills for the EMR level. Inclusion of specific advanced skills involved balancing the need to ensure new students are adequately trained and an effort to minimize additional content impacts to students and service providers. While these decisions were not taken lightly, the changes ensure Wisconsin training centers continue to provide high quality EMS education to our next generation of EMS personnel.

The format of the new EMR curriculum differs from the previous curriculum. The new curriculum does not break down content to the same degree as the previous curriculum. Where the previous curriculum used a complex code to designate depth and breadth within the cognitive, affective, and psychomotor domains, the new curriculum designates depth and breadth within the domains using specific verbs. For example, use of "analyze" for a particular topic indicates greater depth and breadth within the cognitive domain than the use of "identify." The new curriculum is also less prescriptive in details of classroom activities, lesson planning, and other similar functions. These are left for individual training centers and instructors to develop. These changes result in a curriculum shorter and more focused than the previous version.

Description

Prepares students to perform emergency medical care sanctioned by the DHS scope of practice for the EMR/EMT. Includes foundational knowledge and skill application for both EMR/ EMT in the following areas: the EMS system, EMR/EMT responsibilities, legal and ethical standards, patient movement techniques, pathophysiology, body systems and functions, patient assessment and treatment, pharmacology, shock and resuscitation, age-specific patient considerations, special medical considerations, medication administration, airway anatomy and management. Successful completion prepares the learner for Wisconsin EMR Certification and, if desired, the National Registry EMR written examination.

External Standards

EMR NEMS Scope of Practice 2019 (correlation matrix available)
NEMS EMR Education Standards 2021 (correlation matrix available)
WI EMR Scope of Practice 2023 (correlation matrix available)

* This curriculum is designed to address all three sets of external standards listed above. Each competency or criteria that is identified with an asterix is considered an advanced skill of the curriculum, based upon "optional" skills, equipment or medications from the Wisconsin EMR Scope of Practice. For EMR, these include: Airway – Non-visualized; Oxygen Therapy – Nebulizer; Oxygen Therapy – Nasal Cannula; Oxygen Therapy – Non-Rebreather Mask; Hemorrhage Control – Wound Packing; Aerosolized, Nebulized Medication Administration; Intramuscular Medication Administration; Intranasal Medication Administration; Blood Glucose Monitoring; and the following medications - Albuterol, Aspirin, Epinephrine (1:1,000), Glucose, Naloxone, and Oxygen.

Course Competencies

1. Analyze the EMS System

Assessment Strategies

1.1. Oral, written, graphic, and/or skill assessment

Criteria

1.1. Explain the EMS Systems structure(s)
1.2. Explain the role the National Highway Traffic Safety administration (NHTSA) plays in the system
1.3. Explain Access to the Emergency Medical Services
1.4. Detail the education required for EMR credentialing licensing
1.5. Detail the education required for EMT licensing*
1.6. Analyze Authorization to Practice requirements
1.7. Differentiate between quality improvement and quality assurance in the EMS system
1.8. Analyze the roles of medical oversight in the EMS system
1.9. Explain culture of safety in the EMS system

2. Evaluate EMR/EMT responsibilities

Assessment Strategies

2.1. Oral, written, graphic, and/or skill assessment

Criteria

2.1. Categorize EMS professional roles
2.2. Explain EMR/EMT role responsibilities
2.3. Characterize professional EMR/EMT behavior
2.4. Explain EMR/EMT role in quality improvement
2.5. Analyze the impact of Research on emergency medical care
2.6. Explain the EMR scope of practice
2.7. Analyze the emotional aspects of Emergency Care
2.8. Explain the importance of EMR/EMT physical wellness
2.9. Explain the importance of EMR/EMT psychological wellness
2.10. Analyze safety precautions used while working on and near roadways
2.11. Analyze disease transmission safety protocols
2.12. Analyze EMR responsibilities related to public health
2.13. Select appropriate personal protective equipment (PPE) for a variety of responses
2.14. Demonstrate correct use of chosen PPE
2.15. Identify common immunizations
2.16. Identify immunizations that should be obtained by the EMR/EMT

3. Apply EMR operational procedures

Assessment Strategies

3.1. Oral, written, graphic, and/or skill assessment

Criteria

3.1. Analyze field operations
3.2. Analyze ambulance operations
3.3. Analyze patient extrication operations
3.4. Analyze hazardous materials operations
3.5. Analyze multiple casualty incident operations
3.6. Analyze air medical operations
3.7. Analyze incident management
3.8. Analyze EMS response to terrorism
3.9. Apply decontamination procedures
3.10. Meet WI weapons of mass destruction training requirement

4. Apply EMR legal requirements and ethical standards

Assessment Strategies

4.1. Oral, written, graphic, and/or skill assessment

Criteria

4.1. Explain legal aspect of EMS scope of practice
4.2. Characterize advance directives
4.3. Explain the ethical issues related to starting and stopping resuscitation
4.4. Explain legal aspects of consent for various populations
4.5. Explain legal aspects of right of refusal requirements
4.6. Identify other legal considerations for the EMS professions
4.7. Apply confidentiality laws
4.8. Explain mandatory reporting laws
4.9. Explain the legal aspects of patient restraint
4.10 Document minimum data set
4.11 Complete pre-hospital care report
4.12. Document patient refusal

5. Apply EMR communication principles

Assessment Strategies

5.1. Oral, written, graphic, and/or skill assessment

Criteria

5.1. Use foundational medical terminology
5.2. Apply therapeutic communication techniques
5.3. Apply positive relationship building techniques
5.4. Use interviewing techniques
5.5. Apply verbal diffusing techniques
5.6. Apply special situation interview techniques
5.7. Identify communication technology components
5.8. Use technology-specific communication techniques
5.9. Apply accepted principles of documentation
5.10. Apply Diversity Equity and Inclusion communication principles
5.11. Use foundational medical terminology

6. Apply correct patient movement techniques

Assessment Strategies

6.1. Oral, written, graphic, and/or skill assessment

Criteria

6.1. Define body mechanics
6.2. Distinguish between urgent and non-urgent patient movement techniques
6.3. Apply patient positioning guidelines
6.4. Apply correct restraint techniques*
6.5. Apply patient movement guidelines
6.6. Use patient movement equipment safely

7. Analyze pathophysiology principles

Assessment Strategies

7.1. Oral, written, graphic, and/or skill assessment

Criteria

7.1. Explain components of ambient air
7.2. Explain airway patency
7.3. Explain obstructions at various anatomic levels
7.4. Characterize respiratory changes associated with respiratory compromise
7.5. Explain minute ventilation
7.6. Explain alveolar ventilation
7.7. Discuss alterations in regulation of respiration due to medical or traumatic conditions.
7.8. Characterize perfusion and shock
7.9. Identify the composition of blood
7.10. Convert imperial measurements to metric measurements

8. Identify body system functions

Assessment Strategies

8.1. Oral, written, graphic, and/or skill assessment

Criteria

8.1. Explain the different anatomical positions
8.2. Identify components of the musculoskeletal system
8.3. Explain the purpose of the musculoskeletal system
8.4. Identify components of the respiratory system
8.5. Explain the purpose of the respiratory system
8.6. Identify components of the circulatory system
8.7. Explain the purpose of the circulatory system
8.8. Identify components of the nervous system
8.9. Explain the purpose of the nervous system
8.10. Explain the different anatomical positions
8.11. Identify components of the endocrine system
8.12. Explain the purpose of the endocrine system

8.13. Identify components of the reproductive system
8.14. Explain the purpose of the reproductive system
8.15. Identify components of the integumentary system
8.16. Explain the purpose of the integumentary system
8.17. Identify components of the digestive system
8.18. Explain the purpose of the digestive system
8.19. Identify components of the lymphatic system
8.20. Explain the purpose of the lymphatic system

9. Characterize human development stages

Assessment Strategies

9.1. Oral, written, graphic, and/or skill assessment

Criteria

9.1. Analyze infant development
9.2. Analyze toddler development
9.3. Analyze pre-school aged child development
9.4. Analyze school-aged child development
9.5. Analyze adolescent development
9.6. Analyze early-adulthood development
9.7. Analyze middle adulthood development
9.8. Analyze late adulthood development

10. Analyze EMR medication profiles

Assessment Strategies

10.1. Oral, written, graphic, and/or skill assessment

Criteria

10.1. Identify drug trade and generic names*
10.2. Identify drug indications*
10.3. Identify drug actions*
10.4. Identify drug classifications*
10.5. Identify drug contraindications*
10.6. Identify drug side effects*
10.7. Identify drug dosages*
10.8. Identify drug routes*

11. Administer medications safely

Assessment Strategies

11.1. Oral, written, graphic, and/or skill assessment

Criteria

11.1. Apply safe medication administration practices
11.2. Integrate medication safety*
11.3. Use universal precautions during medication delivery
11.4. Identify the six rights of drug administration*
11.5. Reassess patient after medication administration*
11.6. Apply medication cross-check safety principles*
11.7. Use resources for safe administration of weight-based dosing*

12. Relate the anatomy of the airway to airway management

Assessment Strategies

12.1. Oral, written, graphic, and/or skill assessment

Criteria

12.1. Explain patency of the airway
12.2. Analyze respiratory compromise
12.3. Explain age-related variations in pediatric patients
12.4. Differentiate between an adequate and inadequate airway
12.5. Compare/contrast the signs and symptoms of a patient with an adequate and inadequate airway
12.6. Identify the anatomical structures of the airway

13. Relate the anatomy of the airway to the process of respiration

Assessment Strategies

13.1. Oral, written, graphic, and/or skill assessment

Criteria

13.1. Identify reasons for inadequate respiration
13.2. Examine vascular structures that support respiration
13.3. Analyze how the diaphragm and accessory muscles aid in ventilation
13.4. Explain tidal volumes related to the ventilation process
13.5. Explain dead space volumes related to the ventilation process
13.6. Explain the physiology and pathophysiology of oxygenation
13.7. Differentiate between adequate and inadequate respiration and ventilation
13.8. Describe management of a patient with adequate vs inadequate ventilation

14. Apply airway management techniques

Assessment Strategies

14.1. Oral, written, graphic, and/or skill assessment

Criteria

14.1. Identify oxygen concentration for oxygen delivery devices*
14.2. Identify reasons for interruption of ventilation
14.3. Examine the physiology and pathophysiology of ventilation
14.4. Demonstrate techniques of a tracheobronchial suctioning
14.5. Demonstrate techniques of upper airway suctioning
14.6. Explain anatomy as it relates to the use of non-visualized airways*
14.7. Identify components of non-visualized airways*
14.8. Outline indications and contraindications for use of non-visualized airways*
14.9. Demonstrate insertion and use of non-visualized airways*
14.10. Demonstrate the removal of a non-visualized airway*
14.11. Identify gastric distention
14.12. Demonstrate gastric decompression with the usage of an advanced airway*
14.13. Demonstrate head tilt-chin lift method
14.14. Demonstrate modified jaw thrust method
14.15. Demonstrate the need for either nasopharyngeal or oropharyngeal airway devices
14.16. Demonstrate the use of nasopharyngeal or oropharyngeal airway devices
14.17. Identify techniques of upper airway suctioning
14.18. Explain oxygen safety considerations
14.19. Demonstrate safe oxygen cylinder handling
14.20. Use an oxygen cylinder
14.21. Demonstrate the ventilation of a patient
14.22. Demonstrate use of oxygen delivery devices

15. Apply the patient assessment process

Assessment Strategies

15.1. Oral, written, graphic, and/or skill assessment

Criteria

15.1. Identify common scene hazards
15.2. Obtain patient history
15.3. Identify chief complaint
15.4. Determine if critical life-saving interventions are needed
15.5. Apply components of a primary assessment/survey
15.6. Perform a primary assessment
15.7. Determine if age-related assessment considerations apply
15.8. Modify assessment based on patient age
15.9. Obtain vital signs
15.10. Perform reassessment
15.11. Perform secondary assessment

15.12. Apply ECG monitoring patches*
15.13. Apply ECG monitoring patches for obtaining acquisition and transmission of 12, 15, and 18-lead ECGs*
15.14. Apply end-tiday (ETCO2) CO2 monitoring equipment if used for a non-visualized or advanced airway

16. Apply fundamental medial care within the scope of EMR practice

Assessment Strategies

16.1. Oral, written, graphic, and/or skill assessment

Criteria

16.1. Administer age-appropriate treatment
16.2. Address any altered mental status
16.3. Address Abdominal and Gastrointestinal emergencies
16.4. Address infectious disease emergencies
16.5. Address endocrine disorder emergencies
16.6. Address psychiatric disorder emergencies
16.7. Address cardiovascular emergencies
16.8. Address toxicological emergencies
16.9. Address respiratory emergencies
16.10. Address Immunology Emergencies
16.11. Address Non-Traumatic Musculoskeletal emergencies
16.12. Address emergencies related to Eyes, Ears, Nose, and Throat
16.13. Administer appropriate medications (scope specific)*

17. Apply fundamental trauma care within the EMR scope of practice

Assessment Strategies

17.1. Oral, written, graphic, and/or skill assessment

Criteria

17.1. Modify assessment as needed for trauma patient(s)
17.2. Provide age-appropriate treatment for trauma patient(s)
17.3. Address bleeding
17.4. Address chest trauma
17.5. Address Abdominal and Genitourinary Trauma
17.6. Address Orthopedic Trauma
17.7. Address Soft Tissue Trauma
17.8. Address Head, Facial, Neck and Spine Trauma

17.9. Address Special Considerations in Trauma
17.10. Address Environmental Emergencies
17.11. Address Multi-System Trauma
17.12. Address burn trauma
17.13. Analyze the spinal stabilization assessment
17.14. Apply pharmacological treatments based on trauma emergencies*

18. Address special considerations in patient treatment

Assessment Strategies

18.1. Oral, written, graphic, and/or skill assessment

Criteria

18.1. Modify assessment for patients with special challenges
18.2. Modify treatment for patients with special challenges
18.3. Identify home healthcare equipment that informs patient status and care
18.4. Address gynecological emergencies
18.5. Address obstetric emergencies
18.6. Address labor and delivery emergencies
18.7. Address newborn emergencies
18.8. Apply pharmacological treatments*

19. Address shock

Assessment Strategies

19.1. Oral, written, graphic, and/or skill assessment

Criteria

19.1. Identify shock signs and symptoms
19.2. Identify patient in shock
19.3. Characterize stages of shock
19.4. Identify types of shock
19.5. Apply treatment(s) based on the shock type
19.6. Apply pharmacological treatments based upon type of shock*

20. Resuscitate patient

Assessment Strategies

20.1. Oral, written, graphic, and/or skill assessment

Criteria

20.1. Treat cardiac arrest through use of external defibrillation devices
20.2. Perform appropriate BLS by current AHA guidelines

20.3. Perform appropriate age-related CPR to current AHA guidelines
20.4. Apply CCR techniques*