





# Emergency Medical Services Wisconsin Curriculum

## **Emergency Medical Responder**

Description

Prepares students to perform emergency medical care sanctioned by the Wisconsin Department of Health Services, EMS Section 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 the National Registry EMR written examination.

## **External Standards**

Title EMR NEMS Scope of Practice 2019

Title NEMS EMR Education Standards 2021

Title WI EMR Scope of Practice 2023

<sup>\*</sup> 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 Emergency Medical Services (EMS) System

#### **Assessment Strategies**

1.1. Oral, Written, Graphic and/or Skill Assessment

Criteria

1.1. Explain the EMS System's 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
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 explain the EMR scope of practice
- 2.6. Analyze the emotional aspects of Emergency Care
- 2.7. Explain the importance of EMR/EMT physical wellness
- 2.8. Explain the importance of EMR/EMT psychological wellness analyze safety precautions used while working on and near roadways analyze disease transmission safety protocols
- 2.9. Analyze EMR responsibilities related to public health
- 2.10. Select appropriate PPE for a variety of responses
- 2.11. Demonstrate correct use of chosen PPE
- 2.12. Identify common immunizations
- 2.13. Identify immunizations that should be obtained by the EMR/EMT

## 3. Apply EMR/EMT Operational Procedures

#### **Assessment Strategies**

3.1. Oral, Written, Graphic and/or Skill Assessment Criteria

#### 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
- 3.10. Meet WI weapons of mass destruction training requirement

## 4. Apply EMR/EMT 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/EMT 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

## 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 Explain
- 7.5. 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 anatomica
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- 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. Identify components of the endocrine system
- 8.11. Explain the purpose of the endocrine system
- 8.12. Identify components of the reproductive system
- 8.13. Explain the purpose of the reproductive system
- 8.14. Identify components of the integumentary system
- 8.15. Explain the purpose of the integumentary system
- 8.16. Identify components of the digestive system
- 8.17. Explain the purpose of the digestive system
- 8.18. Identify components of the lymphatic system
- 8.19. 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
- 10.2. Names\* 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. 11.3. 11.4. 11.5. 11.6. 11.7. 11.8. 11.9. 11.10. 11.11.	Integrate medication safety* Use universal precautions during medication delivery Identify right patient for drug administration* Identify right dosage for drug administration* Identify right medication for drug administration* Identify right route for drug administration* Identify time rights for drug administration* Identify right documentation for drug administration* Reassess patient after medication administration* Apply medication cross-check safety principles* Use resources for safe administration of weight-based dosing*				
	e Anatomy of the Airway to Airway Management				
	ent Strategies				
12.1.	Oral, Written, Graphic and/or Skill Assessment				
Criteria					
12.1.	Explain patency of the airway Analyze respiratory compromise				
12.2. 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				
10.6	inadequate airway Identify the anatomical structures of the airway				
12.6.					
Relate the	e Anatomy of the Airway to the Process of Respiration				
	ent Strategies				
13.1.	Oral, Written, Graphic and/or Skill Assessment				
Criteria					
13.1.	Identify reasons for inadequate respiration				
13.2. 13.3.	Examine vascular structures that support respiration  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 ventilation and respiration				
13.8. 13.9.	Differentiate between adequate and inadequate respiration and ventilation				
13.9.	Describe management of a patient with adequate vs inadequate ventilation				
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Apply Airway Management Techniques					
	ent Strategies				
14.1.	Oral, Written, Graphic and/or Skill Assessment				
Criteria					
14.1.	Identify oxygen concentration for oxygen delivery devices*				
14.2. 14.3.	Identify reasons for interruption of ventilation				
14.3. 14.4.	Examine the physiology and pathophysiology of ventilation Demonstrate techniques of a tracheobronchial suctioning				
14.5.	Demonstrate techniques of a tracheoproneinal suctioning  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. 14.10.	Demonstrate insertion and use of non-visualized airways*  Deomonstrate the removal of a non-visualized airway*				
14.10. 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				

12.

13.

14.

	14.16. 14.17. 14.18. 14.19. 14.20. 14.21. 14.22.	Demonstrate the use of nasopharyngeal or oropharyngeal airway devices Identify techniques of upper airway suctioning Explain oxygen safety considerations Demonstrate safe oxygen cylinder handling Use an oxygen cylinder Demonstrate the ventilation of a patient Demonstrate use of oxygen delivery devices			
15.	Apply Patient Assessment Process				
	Assessmo	ent Strategies Oral, Written, Graphic and/or Skill Assessment			
	Criteria 15.1. 15.2. 15.3. 15.4. 15.5. 15.6. 15.7. 15.8. 15.9. 15.10. 15.11. 15.12. 15.13.	Identify common scene hazards Obtain patient history Identify chief complaint Determine if critical life-saving interventions are needed Apply components of a primary assessment/survey Perform a primary assessment Determine if age-related assessment considerations apply Modify assessment based on patient age Obtain vital signs Perform reassessment Perform secondary assessment Apply ECG monitoring patches Apply ECG monitoring patches Apply ECG monitoring patches for obtaining acquisition and transmission of 12, 15, and 18-lead ECGs Apply end-tiday (ETCO2) CO2 monitoring equipment if used for a non-visualized or advanced airway Monitor blood glucose*			
16.	Apply Fundamental Medical Care within the Scope of EMR Practice				
	Assessm	ent Strategies			
	16.1.	Oral, Written, Graphic and/or Skill Assessment			
	Criteria 16.1. 16.2. 16.3. 16.4. 16.5. 16.6. 16.7. 16.8. 16.9. 16.10. 16.11. 16.12. 16.13.	Administer age-appropriate treatment Address any altered mental status Address Abdominal and Gastrointestinal emergencies Address infectious disease emergencies Address endocrine disorder emergencies Address psychiatric disorder emergencies Address cardiovascular emergencies Address toxicological emergencies Address toxicological emergencies Address Immunology Emergencies Address non-traumatic musculoskeletal emergencies Address emergencies related to eyes, ears, nose, and throat Administer appropriate medications (scope specific)*			
17.	Apply Fundamental Trauma Care within the EMR Scope of Practice				
		ent Strategies			
	17 1	Oral Written Granhic and/or Skill Assessment			

## 17.

Oral, Written, Graphic and/or Skill Assessment

## Criteria

- Modify assessment as needed for trauma patient(s) 17.1.
- Provide age-appropriate treatment for trauma patient(s) 17.2.
- Address bleeding 17.3.
- Address chest trauma 17.4.
- Address abdominal and genitourinary trauma 17.5.
- Address orthopedic Trauma 17.6.

	17.7. 17.8. 17.9. 17.10. 17.11. 17.12. 17.13. 17.14.	Address soft tissue trauma Address head, facial, neck and spine trauma Address special considerations in trauma Address environmental emergencies Address multi-system trauma Address burn trauma Analyze the spinal stabilization assessment Apply pharmacological treatments based on trauma emergencies*			
18.	Address Special Considerations in Patient Treatment				
	Assessn 18.1.	nent Strategies Oral, Written, Graphic and/or Skill Assessment			
	Criteria 18.1. 18.2. 18.3. 18.4. 18.5. 18.6. 18.7. 18.8.	Modify assessment for patients with special challenges Modify treatment for patients with special challenges Identify home health care equipment that informs of patient status and care Address gynecological emergencies Address obstetric emergencies Address labor and delivery emergencies Address newborn emergencies Apply pharmacological treatments*			
19.	Address Shock				
	Assessn 19.1. Criteria 19.1. 19.2. 19.3. 19.4. 19.5. 19.6.	Oral, Written, Graphic and/or Skill Assessment  Identify shock signs and symptoms Identify patient in shock Characterize stages of shock Identify types of shock Apply treatment(s) based on the shock type Apply pharmacological treatments based upon type of shock*			
20.		itate Patient			
	20.1. Criteria 20.1. 20.2. 20.3. 20.4.	Oral, Written, Graphic and/or Skill Assessment  Treat cardiac arrest through use of external defibrillation devices Perform appropriate BLS by current AHA guidelines Perform appropriate age-related CPR to current AHA guidelines Apply CCR techniques*			