

**Western Technical College**

**10531919 Paramedic Medical Emergencies**

**Course Outcome Summary**

**Course Information**

<b>Description</b>	This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint.
<b>Career Cluster</b>	Law, Public Safety, Corrections and Security
<b>Instructional Level</b>	Associate Degree Courses
<b>Total Credits</b>	4
<b>Total Hours</b>	72

**Textbooks**

*Bundle: Paramedic Care: Principles & Practice Volume 1-5 plus Access Card - 2017, Anatomy and Physiology for Health Professions plus Access Card – 2016, and EMStesting.com Paramedic Student Access Card – 2nd Edition, Platinum Planner: Paramedic – Access Card – 2016.* 5th Edition. Copyright 2017. Bledose, Bryan, Robert Porter and Richard Cherry. Publisher: Pearson. **ISBN-13:**978-0-13-523667-3. Required.

*531-911 Paramedic Student Reference Guide, Skills Check Sheets and Paramedic Clinical and Field 1.* Western. Publisher: Western. Required.

**Learner Supplies**

Program Clothing. **Vendor:** To be discussed in class. Required.

**Program Outcomes**

1. Prepare for incident response and EMS operations.
2. Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
3. Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
4. Communicate effectively with others.
5. Demonstrate professional behavior.
6. Meet state and national competencies listed for paramedic certification(s).

## Course Competencies

### 1. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of neurological conditions.

#### Assessment Strategies

- 1.1. Oral, Written or Graphic Assessment

#### Criteria

*You will know you are successful when:*

- 1.1. you answer questions related to the learning objectives on a test.
- 1.2. you achieve the threshold identified by your Training Center on the assessment.

#### Learning Objectives

- 1.a. Discuss the morbidity/mortality, preventative strategies, and pathophysiology of neurological conditions.
- 1.b. Discuss the anatomy and physiology of the nervous system.
- 1.c. Discuss potential normal and abnormal findings from a neurological assessment of a patient.
- 1.d. Discuss general management conditions for patients with a neurological emergency.
- 1.e. Discuss the epidemiology, pathophysiology, potential assessment findings, and management of commonly encountered neurological emergencies.
- 1.f. Identify differences in neurological emergencies affecting pediatric and geriatric patients.
- 1.g. Discuss communication and documentation considerations for patients with neurological emergencies.
- 1.h. Discuss transport considerations for patients with neurological emergencies.
- 1.i. Discuss patient education and prevention of complications or future neurological emergencies.

### 2. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of abdominal and gastrointestinal disorders.

#### Assessment Strategies

- 2.1. Oral, Written or Graphic Assessment

#### Criteria

*You will know you are successful when:*

- 2.1. you answer questions related to the learning objectives on a test.
- 2.2. you achieve the threshold identified by your Training Center on the assessment.

#### Learning Objectives

- 2.a. Discuss the morbidity/mortality, risk factors, and preventative strategies associated with abdominal and gastrointestinal disorders.
- 2.b. Discuss the pathophysiology of abdominal pain.
- 2.c. Discuss assessment findings as related to the patient with an abdominal or gastrointestinal emergency.
- 2.d. Discuss the management and treatment of patients with an abdominal or gastrointestinal emergency.
- 2.e. Discuss the pathophysiology, potential assessment findings, and management of commonly encountered abdominal and gastrointestinal emergencies.
- 2.f. Identify differences in abdominal and gastrointestinal emergencies affecting pediatric and geriatric patients.
- 2.g. Discuss communication and documentation considerations for patients with abdominal and gastrointestinal emergencies.
- 2.h. Discuss transport considerations for patients with abdominal and gastrointestinal emergencies.
- 2.i. Discuss patient education and prevention of complications or future abdominal or gastrointestinal emergencies.

### 3. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of infectious diseases.

#### Assessment Strategies

- 3.1. Oral, Written or Graphic Assessment

#### Criteria

*You will know you are successful when:*

- 3.1. you answer questions related to the learning objectives on a test.

- 3.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 3.a. Discuss public health principles relevant to infectious/communicable diseases.
- 3.b. Identify public health agencies involved in the prevention and management of disease outbreaks.
- 3.c. Discuss the pathophysiology of infectious disease.
- 3.d. Discuss techniques employed by paramedics to limit or prevent the spread of infectious diseases.
- 3.e. Discuss the pathophysiology, potential assessment findings, and management of commonly encountered infectious disease emergencies.
- 3.f. Identify differences in infectious disease emergencies affecting pediatric and geriatric patients.
- 3.g. Discuss communication and documentation considerations for patients with infectious disease emergencies.
- 3.h. Discuss transport considerations and procedures for patients with infectious disease emergencies.
- 3.i. Discuss patient and family member education and prevention of complications or future infectious disease emergencies.
- 3.j. Discuss the legal requirements for reporting of communicable or infectious diseases or conditions.

### **4. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of endocrine disorders.**

#### **Assessment Strategies**

- 4.1. Oral, Written or Graphic Assessment

#### **Criteria**

*You will know you are successful when:*

- 4.1. you answer questions related to the learning objectives on a test.
- 4.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 4.a. Discuss the anatomy and physiology of the endocrine glands, including the hormones produced within the various glands.
- 4.b. Discuss the morbidity/mortality, preventative strategies, pathophysiology, assessment findings, and management of endocrine emergencies.
- 4.c. Identify differences in endocrine emergencies affecting pediatric and geriatric patients.
- 4.d. Discuss communication and documentation considerations for patients with endocrine emergencies.
- 4.e. Discuss transport considerations for patients with endocrine emergencies.
- 4.f. Discuss patient education and prevention of complications or future endocrine emergencies.

### **5. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of psychiatric disorders.**

#### **Assessment Strategies**

- 5.1. Oral, Written or Graphic Assessment

#### **Criteria**

*You will know you are successful when:*

- 5.1. you answer questions related to the learning objectives on a test.
- 5.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 5.a. Discuss the prevalence of behavioral and psychiatric disorders, the medical legal considerations for the management of patients with such disorders, and the importance of ensuring safety (patient, providers, and others) while assisting these patients.
- 5.b. Discuss the pathophysiology of behavioral and psychiatric disorders.
- 5.c. Define different types of behaviors.
- 5.d. Discuss the pathophysiology, signs and symptoms, and prehospital management of acute psychosis.
- 5.e. Discuss the pathophysiology, risk factors, signs and symptoms, and management of agitated delirium.
- 5.f. Differentiate between different behavioral/psychiatric disorders.
- 5.g. Discuss potential assessment findings for behavioral/psychiatric patients.
- 5.h. Discuss techniques for providing empathetic and respectful management of patients experiencing a behavioral emergency.
- 5.i. Discuss medications used in the management of behavioral/psychiatric disorders, problems associated

- with non-compliance, and those available for emergency use by paramedics.
- 5.j. Identify differences in behavioral emergencies affecting pediatric and geriatric patients.
- 5.k. Discuss communication and documentation considerations for patients with behavioral emergencies.
- 5.l. Discuss transport considerations for patients with behavioral emergencies.

**6. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of toxicological conditions.**

**Assessment Strategies**

- 6.1. Oral, Written or Graphic Assessment

**Criteria**

*You will know you are successful when:*

- 6.1. you answer questions related to the learning objectives on a test.
- 6.2. you achieve the threshold identified by your Training Center on the assessment.

**Learning Objectives**

- 6.a. Discuss the epidemiology of toxicology, including types of emergencies, pharmacokinetics, and routes of exposure.
- 6.b. Discuss the pathophysiology, incidence, risk factors, methods of transmission, complications, assessment findings, and patient management considerations associated with toxic syndromes.
- 6.c. Discuss the pathophysiology, incidence, risk factors, morbidity/mortality, complications, assessment findings, and patient management considerations associated with alcoholism.
- 6.d. Discuss potential chemicals, assessment findings, and symptoms, and management considerations associated with chemical poisoning and exposures.
- 6.e. Discuss potential agents, assessment findings and symptoms, and management considerations associated with household poison/chemical exposures.
- 6.f. Discuss the pathophysiology, incidence, risk factors, complications, assessment findings, and patient management considerations associated with a medication overdose.
- 6.g. Discuss general treatment modalities for poisoning emergencies.
- 6.h. Discuss communication and documentation considerations for patients with toxicological emergencies.
- 6.i. Discuss transport considerations for patients with toxicological emergencies.
- 6.j. Identify differences in toxicological emergencies affecting pediatric and geriatric patients.
- 6.k. Discuss patient education and prevention of complications or future toxicological emergencies.

**7. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of hematological disorders.**

**Assessment Strategies**

- 7.1. Oral, Written or Graphic Assessment

**Criteria**

*You will know you are successful when:*

- 7.1. you answer questions related to the learning objectives on a test.
- 7.2. you achieve the threshold identified by your Training Center on the assessment.

**Learning Objectives**

- 7.a. Discuss the incidence and morbidity/mortality of hematological emergencies.
- 7.b. Describe the anatomy and physiology of the circulatory system as it relates to hematology.
- 7.c. Discuss common general assessment findings and symptoms for hematological conditions or emergencies.
- 7.d. Discuss the general prehospital management of a patient with a hematological emergency or condition.
- 7.e. Discuss the pathophysiology, mortality/morbidity, and management of a sickle cell crisis.
- 7.f. Describe the pathophysiology, mortality/morbidity, complications, assessment findings and symptoms, and specific management considerations for various hematological conditions or emergencies.
- 7.g. List blood transfusion complications.
- 7.h. Identify differences in hematological conditions or emergencies affecting pediatric and geriatric patients.
- 7.i. discuss patient education and prevention of complications or future hematological emergencies.

**8. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of genitourinary/renal disorders.**

### **Assessment Strategies**

8.1. Oral, Written or Graphic Assessment

#### **Criteria**

*You will know you are successful when:*

- 8.1. you answer questions related to the learning objectives on a test.
- 8.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 8.a. Describe the general anatomy and functions of the urinary system.
- 8.b. Discuss the pathophysiology, incidence, morbidity/mortality, assessment findings, symptoms, and management of renal disease emergencies.
- 8.c. Discuss the pathophysiology, incidence, assessment findings, symptoms, and management of urinary system emergencies.
- 8.d. Discuss the pathophysiology, incidence, assessment findings, symptoms, and management of male genital tract conditions or emergencies.
- 8.e. Identify differences in genitourinary/renal conditions or emergencies affecting pediatric and geriatric patients.
- 8.f. Discuss communication and documentation considerations for patients with genitourinary/renal conditions or emergencies.
- 8.g. Discuss transport considerations for patients with genitourinary/renal conditions or emergencies.
- 8.h. Discuss patient education and prevention of complications or future genitourinary/renal conditions or emergencies.

## **9. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of non-traumatic musculoskeletal disorders.**

### **Assessment Strategies**

9.1. Oral, Written or Graphic Assessment

#### **Criteria**

*You will know you are successful when:*

- 9.1. you answer questions related to the learning objectives on a test.
- 9.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 9.a. Discuss the incidence and morbidity/mortality of non-traumatic musculoskeletal disorders.
- 9.b. Discuss general assessment findings and symptoms associated with non-traumatic musculoskeletal disorders.
- 9.c. Discuss the general management of a patient with a non-traumatic musculoskeletal disorder or emergency.
- 9.d. Discuss the pathophysiology, assessment findings, and management of common non-traumatic musculoskeletal conditions or emergencies.
- 9.e. Identify differences in non-traumatic musculoskeletal conditions or emergencies affecting pediatric and geriatric patients.
- 9.f. Discuss patient education and prevention of complications or future non-traumatic musculoskeletal conditions or emergencies.

## **10. Analyze the morbidity/mortality, risk factors, preventative strategies, assessment findings, and pathophysiology of diseases of the eyes, ears, nose, and throat.**

### **Assessment Strategies**

10.1. Oral, Written or Graphic Assessment

#### **Criteria**

*You will know you are successful when:*

- 10.1. you answer questions related to the learning objectives on a test.
- 10.2. you achieve the threshold identified by your Training Center on the assessment.

#### **Learning Objectives**

- 10.a. Discuss the incidence and morbidity/mortality of diseases affecting the eyes, ears, nose, and throat.

- 10.b. Discuss general assessment findings and symptoms for diseases affecting the eyes, ears, nose, and throat.
- 10.c. Discuss the general prehospital management of patients with diseases affecting the eyes, ears, nose, and throat.
- 10.d. Discuss the pathophysiology, complications, assessment findings, and management of diseases affecting the eyes, ears, nose, and throat.
- 10.e. Discuss differences in diseases affecting the eyes, ears, nose, and throat in pediatric patients.
- 10.f. Discuss patient education and prevention of complications or future diseases of the eyes, ears, nose, or throat.