

**LAST REVIEW: 2009-2010**

**NEXT REVIEW: 2014-2015**

**STATUS: A**

**COURSE TITLE: Paramedic Science III – Medical Emergencies/Special Considerations**

**COMMON COURSE NUMBER: EMS 2635**

**CREDIT HOURS: 3**

**CONTACT HOUR BREAKDOWN**

**CLOCK HOURS:**

*(Voc. Course ONLY)*

Lecture: **48**

Lab: **0**

Clinic: **0**

Other: **0**

**PREREQUISITE(S): EMS 2632, EMS 2633, EMS 2632L, EMS 2641, EMS 2651**

**COREQUISITE(S): EMS 2634, EMS 2634L, EMS 2642, EMS 2652**

**PRE/COREQUISITE(S):**

**COURSE DESCRIPTION :** Topics include Medical Emergencies related to neurology, endocrinology, allergies and anaphylaxis, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, infectious and communicable diseases, behavioral and psychiatric disorders, gynecology, and obstetrics. Special Considerations related to neonatology, pediatrics, geriatrics, abuse and assault, patients with special challenges and acute interventions for the chronic care patient are also included. Material includes U.S. Department of Transportation, (DOT), National Paramedic Curriculum objectives for Module 5, Units 3-14 and Module 6, Units 1-6.

## **UNIT TITLES**

### **MEDICAL EMERGENCIES**

1. Neurology
2. Endocrinology
3. Allergies and Anaphylaxis
4. Gastroenterology
5. Renal / Urology
6. Toxicology
7. Hematology
8. Environmental Conditions
9. Infectious and Communicable Diseases
10. Behavioral and Psychiatric Disorders
11. Gynecology
12. Obstetrics

### **SPECIAL CONSIDERATIONS**

13. Neonatology
14. Pediatrics - Includes SIDS information as req'd by the State of Florida EMS Bureau
15. Geriatrics
16. Abuse and Assault
17. Patients with Special Challenges

**EVALUATION:**

**Grading & Test Guidelines**

- Unit Tests must be passed with a minimum score of 80%.
- Students are allowed to retest on 2 separate Unit Tests.
- If the Student passes a given Retest, regardless of the actual points earned on the Retest, the minimum score of 80% will be entered into the gradebook.
- Failure of a retest results in a failing grade for the course and possible withdrawal from patient clinical contact areas.
- Failure of a 3<sup>rd</sup> Unit Test results in a failing grade for the course and possible withdrawal from patient clinical contact areas. No retest for 3<sup>rd</sup> test failure.
- To sit for the Comprehensive Final Exam, you must have a minimum 80% on your Overall Running Average.
- The Comprehensive Final Exam must be passed with a minimum score of 80%. No retests.
- By the end of the course, your Overall Running Average must be 80%. Homework, quizzes, etc. do not require a minimum of 80%, but they are factored into your course grade. Failure to complete homework, quizzes, etc. or scoring poorly on these items will likely pull your Overall Running Average below 80%, resulting in failure of the course.
- There is no specific “weight” given to any Unit Test, Quiz, Homework, or the Comprehensive Final Exam. For each evaluation device, a percentage is calculated based on “Points Possible” compared to “Points Earned”. The Overall Running Average is calculated in the same manner. Larger exams will affect your Overall Running Average more than smaller Quizzes, but **every point counts**.

Here are some examples of how the grading will be conducted:

Example #1 - This student below has passed each Unit Test with a minimum score of 80%, and has also passed their Comprehensive Final Exam with a minimum score of 80%. They will receive a passing grade for this course.

Example #1			Overall Running Average	Comp Final Exam	Units Tests for Course			
Course Name Listed Here					Test 1	Test 2	Test 3	Test 4
10-Jul-08								
v Student Name v	Final	<b>Points Possible &gt;&gt;</b>	270	100	50	40	40	40
<b>MASTER</b>	Grade	<b>Points Earned &gt;&gt;</b>	226	82	42	34	36	32
Student - <i>John Smith</i>	C	%Score >	83.7%	82.0%	84.0%	85.0%	90.0%	80.0%

Example #2 - This student had to Retest Unit Tests #1 and #4. They passed each Retest and received the minimum score. They also passed their comprehensive Final Exam with a minimum score of 80%. They will receive a passing grade for this course.

Example #2			Overall	Comp				
<b>Course Name Listed Here</b>			Running	Final	Units Tests for Course			
10-Jul-08			Average	Exam	Test 1	Test 2	Test 3	Test 4
v Student Name v	Final	<b>Points Possible &gt;&gt;</b>	270	100	50	40	40	40
<b>MASTER</b>	Grade	<b>Points Earned &gt;&gt;</b>	224	83	40	36	33	32
Student - John Smith	C	%Score >	83.0%	83.0%	80.0%	90.0%	82.5%	80.0%
					Passed			Passed
					ReTest			ReTest

Example #3 - This student failed a 3<sup>rd</sup> Unit Test. They will not receive a passing grade for this course. They will not take any further tests or the Final Exam. They may be withdrawn from patient clinical contact areas.

Example #3			Overall	Comp				
<b>Course Name Listed Here</b>			Running	Final	Units Tests for Course			
10-Jul-08			Average	Exam	Test 1	Test 2	Test 3	Test 4
v Student Name v	Final	<b>Points Possible &gt;&gt;</b>	130		50	40	40	
<b>MASTER</b>	Grade	<b>Points Earned &gt;&gt;</b>	102		40	32	30	
Student - John Smith	D	%Score >	78.5%		80.0%	80.0%	75.0%	
					Passed	Passed	Failed	
					ReTest	ReTest	3rd Test	

Example #4 – This student failed to score 80% on their Comprehensive Final Exam. They will not receive a passing grade for this course. Even though their Overall Running Average was at least 80%, they failed their Comprehensive Final Exam, which shows they did not fully retain their knowledge for the course. They will have to retake this course.

Example #4			Overall	Comp				
<b>Course Name Listed Here</b>			Running	Final	Units Tests for Course			
10-Jul-08			Average	Exam	Test 1	Test 2	Test 3	Test 4
v Student Name v	Final	<b>Points Possible &gt;&gt;</b>	270	100	50	40	40	40
<b>MASTER</b>	Grade	<b>Points Earned &gt;&gt;</b>	217	78	41	33	32	33
Student - John Smith	D	%Score >	80.4%	78.0%	82.0%	82.5%	80.0%	82.5%
					Failed			
					Final		Passed	
					Exam		ReTest	

Example #5 – This student passed all the Unit Tests, but scored poorly on quizzes and did not complete the workbook as required by the instructor. Their Overall Running Average is below 80%. They will not be allowed to sit for the Comprehensive Final Exam, and they will not receive a passing grade for the course.

Example #5			Overall	Comp								
Course Name Listed Here			Running	Final	Units Tests for Course				Quizzes & Homework			
10-Jul-08			Average	Exam	Test 1	Test 2	Test 3	Test 4	Quiz 1	Quiz 2	Quiz 3	Work book
v Student Name v	Final	<b>Points Possible</b> >>>>	220		50	40	40	40	10	10	10	20
<b>MASTER</b>	Grade	<b>Points Earned</b> >>>>	161		41	33	33	33	7	7	7	0
Student - <i>John Smith</i>	D	%Score >>>	73.2%		82.0%	82.5%	82.5%	82.5%	70.0%	70.0%	70.0%	0.0%

**GRADING:**

A = 94 - 100  
B = 87 - 93  
C = 80 - 86

D = 73 - 79  
F = 0 - 72

**Students must pass EMS 2634, 2635, 2634 L, 2642, 2652 with a grade of 'C' or better in order to enter PM 4.**

*\*\*\* Complete the following only if course is seeking general education status \*\*\**

**GENERAL EDUCATION Competencies and Skills \*:**

Please highlight in green font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

1. Read with critical comprehension	
2. Speak and listen effectively	
3. Write clearly and coherently	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: (highlight in green ALL that apply) ( 1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental )	
6. Apply problem solving techniques to real-world experiences	

<b>7. Apply methods of scientific inquiry</b>	
<b>8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings</b>	
<b>9. Demonstrate an understanding of and appreciation for human diversities and commonalities</b>	
<b>10. Collaborate with others to achieve common goals.</b>	
<b>11. Research, synthesize and produce original work</b>	
<b>12. Practice ethical behavior</b>	
<b>13. Demonstrate self-direction and self motivation</b>	
<b>14. Assume responsibility for and understand the impact of personal behaviors on self and society</b>	
<b>15. Contribute to the welfare of the community</b>	

*\* General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*

**Common Course Number:**

**UNITS**

**UNIT TERMINAL OBJECTIVE: Neurology**

5-3 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a neurological problem.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-3.1 Describe the incidence, morbidity and mortality of neurological emergencies. (C-1)
- 5-3.2 Identify the risk factors most predisposing to the nervous system. (C-1)
- 5-3.3 Discuss the anatomy and physiology of the organs and structures related to nervous system. (C-1)
- 5-3.4 Discuss the pathophysiology of non-traumatic neurologic emergencies. (C-1)
- 5-3.5 Discuss the assessment findings associated with non-traumatic neurologic emergencies. (C-1)
- 5-3.6 Identify the need for rapid intervention and the transport of the patient with non-traumatic emergencies. (C-1)
- 5-3.7 Discuss the management of non-traumatic neurological emergencies. (C-1)
- 5-3.8 Discuss the pathophysiology of coma and altered mental status. (C-1)
- 5-3.9 Discuss the assessment findings associated with coma and altered mental status. (C-1)
- 5-3.10 Discuss the management/ treatment plan of coma and altered mental status. (C-1)
- 5-3.11 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for seizures. (C-1)
- 5-3.12 Discuss the pathophysiology of seizures. (C-1)
- 5-3.13 Discuss the assessment findings associated with seizures. (C-1)
- 5-3.14 Define seizure. (C-1)
- 5-3.15 Describe and differentiate the major types of seizures. (C-3)
- 5-3.16 List the most common causes of seizures. (C-1)
- 5-3.17 Describe the phases of a generalized seizure. (C-1)
- 5-3.18 Discuss the pathophysiology of syncope. (C-1)
- 5-3.19 Discuss the assessment findings associated with syncope. (C-1)
- 5-3.20 Discuss the management/ treatment plan of syncope. (C-1)

- 5-3.21 Discuss the pathophysiology of headache. (C-1)
- 5-3.22 Discuss the assessment findings associated with headache. (C-1)
- 5-3.23 Discuss the management/ treatment plan of headache. (C-1)
- 5-3.24 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for neoplasms. (C-1)
- 5-3.25 Discuss the pathophysiology of neoplasms. (C-1)
- 5-3.26 Describe the types of neoplasms. (C-1)
- 5-3.27 Discuss the assessment findings associated with neoplasms. (C-1)
- 5-3.28 Discuss the management/ treatment plan of neoplasms. (C-1)
- 5-3.29 Define neoplasms. (C-1)
- 5-3.30 Recognize the signs and symptoms related to neoplasms. (C-1)
- 5-3.31 Correlate abnormal assessment findings with clinical significance in the patient with neoplasms. (C-3)
- 5-3.32 Differentiate among the various treatment and pharmacological interventions used in the management of neoplasms. (C-3)
- 5-3.33 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with neoplasms. (C-3)
- 5-3.34 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for abscess. (C-1)
- 5-3.35 Discuss the pathophysiology of abscess. (C-1)
- 5-3.36 Discuss the assessment findings associated with abscess. (C-1)
- 5-3.37 Discuss the management/ treatment plan of abscess. (C-1)
- 5-3.38 Define abscess. (C-1)
- 5-3.39 Recognize the signs and symptoms related to abscess. (C-1)
- 5-3.40 Correlate abnormal assessment findings with clinical significance in the patient with abscess. (C-3)
- 5-3.41 Differentiate among the various treatment and pharmacological interventions used in the management of abscess. (C-3)
- 5-3.42 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with abscess. (C-3)
- 5-3.43 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for stroke and intracranial hemorrhage. (C-1)
- 5-3.44 Discuss the pathophysiology of stroke and intracranial hemorrhage. (C-1)
- 5-3.45 Describe the types of stroke and intracranial hemorrhage. (C-1)
- 5-3.46 Discuss the assessment findings associated with stroke and intracranial hemorrhage. (C-1)
- 5-3.47 Discuss the management/ treatment plan of stroke and intracranial hemorrhage. (C-1)
- 5-3.48 Define stroke and intracranial hemorrhage. (C-1)
- 5-3.49 Recognize the signs and symptoms related to stroke and intracranial hemorrhage. (C-1)
- 5-3.50 Correlate abnormal assessment findings with clinical significance in the patient with stroke and intracranial hemorrhage. (C-3)
- 5-3.51 Differentiate among the various treatment and pharmacological interventions used in the management of stroke and intracranial hemorrhage. (C-3)
- 5-3.52 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with stroke and intracranial hemorrhage. (C-3)

- 5-3.53 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for transient ischemic attack. (C-3)
- 5-3.54 Discuss the pathophysiology of transient ischemic attack. (C-1)
- 5-3.55 Discuss the assessment findings associated with transient ischemic attack. (C-1)
- 5-3.56 Discuss the management/ treatment plan of transient ischemic attack. (C-1)
- 5-3.57 Define transient ischemic attack. (C-1)
- 5-3.58 Recognize the signs and symptoms related to transient ischemic attack. (C-1)
- 5-3.59 Correlate abnormal assessment findings with clinical significance in the patient with transient ischemic attack. (C-3)
- 5-3.60 Differentiate among the various treatment and pharmacological interventions used in the management of transient ischemic attack. (C-3)
- 5-3.61 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with transient ischemic attack. (C-3)
- 5-3.62 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for degenerative neurological diseases. (C-1)
- 5-3.63 Discuss the pathophysiology of degenerative neurological diseases. (C-1)
- 5-3.64 Discuss the assessment findings associated with degenerative neurological diseases. (C-1)
- 5-3.65 Discuss the management/ treatment plan of degenerative neurological diseases. (C-1)
- 5-3.66 Define the following: (C-1)
- a. Muscular dystrophy
  - b. Multiple sclerosis
  - c. Dystonia
  - d. Parkinson's disease
  - e. Trigeminal neuralgia
  - f. Bell's palsy
  - g. Amyotrophic lateral sclerosis
  - h. Peripheral neuropathy
  - i. Myoclonus
  - j. Spina bifida
  - k. Poliomyelitis
- 5-3.67 Recognize the signs and symptoms related to degenerative neurological diseases. (C-1)
- 5-3.68 Correlate abnormal assessment findings with clinical significance in the patient with degenerative neurological diseases. (C-3)
- 5-3.69 Differentiate among the various treatment and pharmacological interventions used in the management of degenerative neurological diseases. (C-3)
- 5-3.70 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with degenerative neurological diseases. (C-3)
- 5-3.71 Integrate the pathophysiological principles of the patient with a neurological emergency. (C-3)
- 5-3.72 Differentiate between neurological emergencies based on assessment findings. (C-3)
- 5-3.73 Correlate abnormal assessment findings with the clinical significance in the patient with neurological complaints. (C-3)
- 5-3.74 Develop a patient management plan based on field impression in the patient with neurological emergencies. (C-3)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-3.75 Characterize the feelings of a patient who regains consciousness among strangers. (A-2)
- 5-3.76 Formulate means of conveying empathy to patients whose ability to communicate is limited by their condition. (A-3)

### **UNIT TERMINAL OBJECTIVE:      Endocrinology**

5-4      At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an endocrine problem.

### **COGNITIVE OBJECTIVE**

At the completion of this unit, the paramedic student will be able to:

- 5-4.1 Describe the incidence, morbidity and mortality of endocrinologic emergencies. (C-1)
- 5-4.2 Identify the risk factors most predisposing to endocrinologic disease. (C-1)
- 5-4.3 Discuss the anatomy and physiology of organs and structures related to endocrinologic diseases. (C-1)
- 5-4.4 Review the pathophysiology of endocrinologic emergencies. (C-1)
- 5-4.5 Discuss the general assessment findings associated with endocrinologic emergencies. (C-1)
- 5-4.6 Identify the need for rapid intervention of the patient with endocrinologic emergencies. (C-1)
- 5-4.7 Discuss the management of endocrinologic emergencies. (C-1)
- 5-4.8 Describe osmotic diuresis and its relationship to diabetes. (C-1)
- 5-4.9 Describe the pathophysiology of adult onset diabetes mellitus. (C-1)
- 5-4.10 Describe the pathophysiology of juvenile onset diabetes mellitus. (C-1)
- 5-4.11 Describe the effects of decreased levels of insulin on the body. (C-1)
- 5-4.12 Correlate abnormal findings in assessment with clinical significance in the patient with a diabetic emergency. (C-3)
- 5-4.13 Discuss the management of diabetic emergencies. (C-1)
- 5-4.14 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with a diabetic emergency. (C-3)
- 5-4.15 Differentiate between the pathophysiology of normal glucose metabolism and diabetic glucose metabolism. (C-3)
- 5-4.16 Describe the mechanism of ketone body formation and its relationship to ketoacidosis. (C-1)
- 5-4.17 Discuss the physiology of the excretion of potassium and ketone bodies by the kidneys. (C-1)
- 5-4.18 Describe the relationship of insulin to serum glucose levels. (C-1)
- 5-4.19 Describe the effects of decreased levels of insulin on the body. (C-1)
- 5-4.20 Describe the effects of increased serum glucose levels on the body. (C-1)

- 5-4.21 Discuss the pathophysiology of hypoglycemia. (C-1)
- 5-4.22 Discuss the utilization of glycogen by the human body as it relates to the pathophysiology of hypoglycemia. (C-3)
- 5-4.23 Describe the actions of epinephrine as it relates to the pathophysiology of hypoglycemia. (C-3)
- 5-4.24 Recognize the signs and symptoms of the patient with hypoglycemia. (C-1)
- 5-4.25 Describe the compensatory mechanisms utilized by the body to promote homeostasis relative to hypoglycemia. (C-1)
- 5-4.26 Describe the management of a responsive hypoglycemic patient. (C-1)
- 5-4.27 Correlate abnormal findings in assessment with clinical significance in the patient with hypoglycemia. (C-1)
- 5-4.28 Discuss the management of the hypoglycemic patient. (C-1)
- 5-4.29 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hypoglycemia. (C-3)
- 5-4.30 Discuss the pathophysiology of hyperglycemia. (C-1)
- 5-4.31 Recognize the signs and symptoms of the patient with hyperglycemia. (C-1)
- 5-4.32 Describe the management of hyperglycemia. (C-1)
- 5-4.33 Correlate abnormal findings in assessment with clinical significance in the patient with hyperglycemia. (C-3)
- 5-4.34 Discuss the management of the patient with hyperglycemia. (C-1)
- 5-4.35 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hyperglycemia. (C-3)
- 5-4.36 Discuss the pathophysiology of nonketotic hyperosmolar coma. (C-1)
- 5-4.37 Recognize the signs and symptoms of the patient with nonketotic hyperosmolar coma. (C-1)
- 5-4.38 Describe the management of nonketotic hyperosmolar coma. (C-1)
- 5-4.39 Correlate abnormal findings in assessment with clinical significance in the patient with nonketotic hyperosmolar coma. (C-3)
- 5-4.40 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with nonketotic hyperosmolar coma. (C-3)
- 5-4.41 Discuss the management of the patient with hyperglycemia. (C-1)
- 5-4.42 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hyperglycemia. (C-3)
- 5-4.43 Discuss the pathophysiology of diabetic ketoacidosis. (C-1)
- 5-4.44 Recognize the signs and symptoms of the patient with diabetic ketoacidosis. (C-1)
- 5-4.45 Describe the management of diabetic ketoacidosis. (C-1)
- 5-4.46 Correlate abnormal findings in assessment with clinical significance in the patient with diabetic ketoacidosis. (C-3)
- 5-4.47 Discuss the management of the patient with diabetic ketoacidosis. (C-1)
- 5-4.48 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with diabetic ketoacidosis. (C-3)
- 5-4.49 Discuss the pathophysiology of thyrotoxicosis. (C-1)
- 5-4.50 Recognize signs and symptoms of the patient with thyrotoxicosis. (C-1)

- 5-4.51 Describe the management of thyrotoxicosis. (C-1)
- 5-4.52 Correlate abnormal findings in assessment with clinical significance in the patient with thyrotoxicosis. (C-3)
- 5-4.53 Discuss the management of the patient with thyrotoxicosis. (C-1)
- 5-4.54 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with thyrotoxicosis. (C-3)
- 5-4.55 Discuss the pathophysiology of myxedema. (C-1)
- 5-4.56 Recognize signs and symptoms of the patient with myxedema. (C-1)
- 5-4.57 Describe the management of myxedema. (C-1)
- 5-4.58 Correlate abnormal findings in assessment with clinical significance in the patient with myxedema. (C-3)
- 5-4.59 Discuss the management of the patient with myxedema. (C-1)
- 5-4.60 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with myxedema. (C-3)
- 5-4.61 Discuss the pathophysiology of Cushing's syndrome. (C-1)
- 5-4.62 Recognize signs and symptoms of the patient with Cushing's syndrome. (C-1)
- 5-4.63 Describe the management of Cushing's syndrome. (C-1)
- 5-4.64 Correlate abnormal findings in assessment with clinical significance in the patient with Cushing's syndrome. (C-3)
- 5-4.65 Discuss the management of the patient with Cushing's syndrome. (C-1)
- 5-4.66 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with Cushing's syndrome. (C-3)
- 5-4.67 Discuss the pathophysiology of adrenal Insufficiency. (C-1)
- 5-4.68 Recognize signs and symptoms of the patient with adrenal insufficiency. (C-1)
- 5-4.69 Describe the management of adrenal insufficiency. (C-1)
- 5-4.70 Correlate abnormal findings in assessment with clinical significance in the patient with adrenal insufficiency. (C-3)
- 5-4.71 Discuss the management of the patient with adrenal insufficiency. (C-1)
- 5-4.72 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with adrenal insufficiency. (C-3)
- 5-4.73 Integrate the pathophysiological principles to the assessment of a patient with a endocrinological emergency. (C-3)
- 5-4.74 Differentiate between endocrine emergencies based on assessment and history. (C-3)
- 5-4.75 Correlate abnormal findings in the assessment with clinical significance in the patient with endocrinologic emergencies. (C-3)
- 5-4.76 Develop a patient management plan based on field impression in the patient with an endocrinologic emergency. (C-3)

**AFFECTIVE OBJECTIVES**

None identified for this unit.

**UNIT TERMINAL OBJECTIVE: Allergies and Anaphylaxis**

5-5 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-5.1 Define allergic reaction. (C-1)
- 5-5.2 Define anaphylaxis. (C-1)
- 5-5.3 Describe the incidence, morbidity and mortality of anaphylaxis. (C-1)
- 5-5.4 Identify the risk factors most predisposing to anaphylaxis. (C-1)
- 5-5.5 Discuss the anatomy and physiology of the organs and structures related to anaphylaxis. (C-1)
- 5-5.6 Describe the prevention of anaphylaxis and appropriate patient education. (C-1)
- 5-5.7 Discuss the pathophysiology of allergy and anaphylaxis. (C-1)
- 5-5.8 Describe the common methods of entry of substances into the body. (C-1)
- 5-5.9 Define natural and acquired immunity. (C-1)
- 5-5.10 Define antigens and antibodies. (C-1)
- 5-5.11 List common antigens most frequently associated with anaphylaxis. (C-1)
- 5-5.12 Discuss the formation of antibodies in the body. (C-1)
- 5-5.13 Describe physical manifestations in anaphylaxis. (C-1)
- 5-5.14 Differentiate manifestations of an allergic reaction from anaphylaxis. (C-3)
- 5-5.15 Recognize the signs and symptoms related to anaphylaxis. (C-1)
- 5-5.16 Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis. (C-3)
- 5-5.17 Integrate the pathophysiological principles of the patient with anaphylaxis. (C-3)
- 5-5.18 Correlate abnormal findings in assessment with the clinical significance in the patient with anaphylaxis. (C-3)
- 5-5.19 Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis. (C-3)

### **AFFECTIVE OBJECTIVES**

None identified for this unit.

### *UNIT TERMINAL OBJECTIVE: Gastroenterology*

5-6 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a gastroenterologic problem.

### **COGNITIVE OBJECTIVE**

At the conclusion of this unit, the paramedic student will be able to:

- 5-6.1 Describe the incidence, morbidity and mortality of gastrointestinal emergencies. (C-1)
- 5-6.2 Identify the risk factors most predisposing to gastrointestinal emergencies. (C-1)

- 5-6.3 Discuss the anatomy and physiology of the organs and structures related to gastrointestinal diseases. (C-1)
- 5-6.4 Discuss the pathophysiology of inflammation and its relationship to acute abdominal pain. (C-1)
- 5-6.5 Define somatic pain as it relates to gastroenterology. (C-1)
- 5-6.6 Define visceral pain as it relates to gastroenterology. (C-1)
- 5-6.7 Define referred pain as it relates to gastroenterology. (C-1)
- 5-6.8 Differentiate between hemorrhagic and non-hemorrhagic abdominal pain. (C-3)
- 5-6.9 Discuss the signs and symptoms of local inflammation relative to acute abdominal pain. (C-1)
- 5-6.10 Discuss the signs and symptoms of peritoneal inflammation relative to acute abdominal pain. (C-1)
- 5-6.11 List the signs and symptoms of general inflammation relative to acute abdominal pain. (C-1)
- 5-6.12 Based on assessment findings, differentiate between local, peritoneal and general inflammation as they relate to acute abdominal pain. (C-3)
- 5-6.13 Describe the questioning technique and specific questions the paramedic should ask when gathering a focused history in a patient with abdominal pain. (C-1)
- 5-6.14 Describe the technique for performing a comprehensive physical examination on a patient complaining of abdominal pain. (C-1)
- 5-6.15 Define upper gastrointestinal bleeding. (C-1)
- 5-6.16 Discuss the pathophysiology of upper gastrointestinal bleeding. (C-1)
- 5-6.17 Recognize the signs and symptoms related to upper gastrointestinal bleeding. (C-1)
- 5-6.18 Describe the management for upper gastrointestinal bleeding. (C-1)
- 5-6.19 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with upper GI bleeding. (C-3)
- 5-6.20 Define lower gastrointestinal bleeding. (C-1)
- 5-6.21 Discuss the pathophysiology of lower gastrointestinal bleeding. (C-1)
- 5-6.22 Recognize the signs and symptoms related to lower gastrointestinal bleeding. (C-1)
- 5-6.23 Describe the management for lower gastrointestinal bleeding. (C-1)
- 5-6.24 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with lower GI bleeding. (C-3)
- 5-6.25 Define acute gastroenteritis. (C-1)
- 5-6.26 Discuss the pathophysiology of acute gastroenteritis. (C-1)
- 5-6.27 Recognize the signs and symptoms related to acute gastroenteritis. (C-1)
- 5-6.28 Describe the management for acute gastroenteritis. (C-1)
- 5-6.29 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute gastroenteritis. (C-3)
- 5-6.30 Define colitis. (C-1)
- 5-6.31 Discuss the pathophysiology of colitis. (C-1)
- 5-6.32 Recognize the signs and symptoms related to colitis. (C-1)
- 5-6.33 Describe the management for colitis. (C-1)
- 5-6.34 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with colitis. (C-3)
- 5-6.35 Define gastroenteritis. (C-1)
- 5-6.36 Discuss the pathophysiology of gastroenteritis. (C-1)

- 5-6.37 Recognize the signs and symptoms related to gastroenteritis. (C-1)
- 5-6.38 Describe the management for gastroenteritis. (C-1)
- 5-6.39 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with gastroenteritis. (C-3)
- 5-6.40 Define diverticulitis. (C-1)
- 5-6.41 Discuss the pathophysiology of diverticulitis. (C-1)
- 5-6.42 Recognize the signs and symptoms related to diverticulitis. (C-1)
- 5-6.43 Describe the management for diverticulitis. (C-1)
- 5-6.44 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with diverticulitis. (C-3)
- 5-6.45 Define appendicitis. (C-1)
- 5-6.46 Discuss the pathophysiology of appendicitis. (C-1)
- 5-6.47 Recognize the signs and symptoms related to appendicitis. (C-1)
- 5-6.48 Describe the management for appendicitis. (C-1)
- 5-6.49 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with appendicitis. (C-3)
- 5-6.50 Define peptic ulcer disease. (C-1)
- 5-6.51 Discuss the pathophysiology of peptic ulcer disease. (C-1)
- 5-6.52 Recognize the signs and symptoms related to peptic ulcer disease. (C-1)
- 5-6.53 Describe the management for peptic ulcer disease. (C-1)
- 5-6.54 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with peptic ulcer disease. (C-3)
- 5-6.55 Define bowel obstruction. (C-1)
- 5-6.56 Discuss the pathophysiology of bowel obstruction. (C-1)
- 5-6.57 Recognize the signs and symptoms related to bowel obstruction. (C-1)
- 5-6.58 Describe the management for bowel obstruction. (C-1)
- 5-6.59 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with bowel obstruction. (C-3)
- 5-6.60 Define Crohn's disease. (C-1)
- 5-6.61 Discuss the pathophysiology of Crohn's disease. (C-1)
- 5-6.62 Recognize the signs and symptoms related to Crohn's disease. (C-1)
- 5-6.63 Describe the management for Crohn's disease. (C-1)
- 5-6.64 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with Crohn's disease. (C-3)
- 5-6.65 Define pancreatitis. (C-1)
- 5-6.66 Discuss the pathophysiology of pancreatitis. (C-1)
- 5-6.67 Recognize the signs and symptoms related to pancreatitis. (C-1)
- 5-6.68 Describe the management for pancreatitis. (C-1)
- 5-6.69 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with pancreatitis. (C-3)
- 5-6.70 Define esophageal varices. (C-1)
- 5-6.71 Discuss the pathophysiology of esophageal varices. (C-1)
- 5-6.72 Recognize the signs and symptoms related to esophageal varices. (C-1)
- 5-6.73 Describe the management for esophageal varices. (C-1)

- 5-6.74 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with esophageal varices. (C-3)
- 5-6.75 Define hemorrhoids. (C-1)
- 5-6.76 Discuss the pathophysiology of hemorrhoids. (C-1)
- 5-6.77 Recognize the signs and symptoms related to hemorrhoids. (C-1)
- 5-6.78 Describe the management for hemorrhoids. (C-1)
- 5-6.79 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with hemorrhoids. (C-3)
- 5-6.80 Define cholecystitis. (C-1)
- 5-6.81 Discuss the pathophysiology of cholecystitis. (C-1)
- 5-6.82 Recognize the signs and symptoms related to cholecystitis. (C-1)
- 5-6.83 Describe the management for cholecystitis. (C-1)
- 5-6.84 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with cholecystitis. (C-3)
- 5-6.85 Define acute hepatitis. (C-1)
- 5-6.86 Discuss the pathophysiology of acute hepatitis. (C-1)
- 5-6.87 Recognize the signs and symptoms related to acute hepatitis. (C-1)
- 5-6.88 Describe the management for acute hepatitis. (C-1)
- 5-6.89 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute hepatitis. (C-3)
- 5-6.90 Integrate pathophysiological principles of the patient with a gastrointestinal emergency. (C-3)
- 5-6.91 Differentiate between gastrointestinal emergencies based on assessment findings. (C-3)
- 5-6.92 Correlate abnormal findings in the assessment with the clinical significance in the patient with abdominal pain. (C-3)
- 5-6.93 Develop a patient management plan based on field impression in the patient with abdominal pain. (C-3)

### **AFFECTIVE OBJECTIVES**

None identified for this unit.

### **UNIT TERMINAL OBJECTIVE: Renal / Urology**

- 5-7 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with a renal or urologic problem.

### **COGNITIVE OBJECTIVES**

At the conclusion of this unit, the paramedic student will be able to:

- 5-7.1 Describe the incidence, morbidity, mortality, and risk factors predisposing to urological emergencies. (C-1)
- 5-7.2 Discuss the anatomy and physiology of the organs and structures related to urogenital diseases. (C-1)

- 5-7.3 Define referred pain and visceral pain as it relates to urology. (C-1)
- 5-7.4 Describe the questioning technique and specific questions the paramedic should utilize when gathering a focused history in a patient with abdominal pain. (C-1)
- 5-7.5 Describe the technique for performing a comprehensive physical examination of a patient complaining of abdominal pain. (C-1)
- 5-7.6 Define acute renal failure. (C-1)
- 5-7.7 Discuss the pathophysiology of acute renal failure. (C-1)
- 5-7.8 Recognize the signs and symptoms related to acute renal failure. (C-1)
- 5-7.9 Describe the management for acute renal failure. (C-1)
- 5-7.10 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with acute renal failure. (C-3)
- 5-7.11 Define chronic renal failure. (C-1)
- 5-7.12 Discuss the pathophysiology of chronic renal failure. (C-1)
- 5-7.13 Recognize the signs and symptoms related to chronic renal failure. (C-1)
- 5-7.14 Describe the management for chronic renal failure. (C-1)
- 5-7.15 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with chronic renal failure. (C-3)
- 5-7.16 Define renal dialysis. (C-1)
- 5-7.17 Discuss the common complication of renal dialysis. (C-1)
- 5-7.18 Define renal calculi. (C-1)
- 5-7.19 Discuss the pathophysiology of renal calculi. (C-1)
- 5-7.20 Recognize the signs and symptoms related to renal calculi. (C-1)
- 5-7.21 Describe the management for renal calculi. (C-1)
- 5-7.22 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with renal calculi. (C-3)
- 5-7.23 Define urinary tract infection. (C-1)
- 5-7.24 Discuss the pathophysiology of urinary tract infection. (C-1)
- 5-7.25 Recognize the signs and symptoms related to urinary tract infection. (C-1)
- 5-7.26 Describe the management for a urinary tract infection. (C-1)
- 5-7.27 Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with a urinary tract infection. (C-3)
- 5-7.28 Apply the epidemiology to develop prevention strategies for urological emergencies. (C-2)
- 5-7.29 Integrate pathophysiological principles to the assessment of a patient with abdominal pain. (C-3)
- 5-7.30 Synthesize assessment findings and patient history information to accurately differentiate between pain of a urogenital emergency and that of other origins. (C-3)
- 5-7.31 Develop, execute, and evaluate a treatment plan based on the field impression made in the assessment. (C-3)

**AFFECTIVE OBJECTIVES**

None identified for this unit.

**UNIT TERMINAL OBJECTIVE: Hematology**

5-9 At the completion of this unit, the paramedic student will be able to integrate the pathophysiological principles of the hematopoietic system to formulate a field impression and implement a treatment plan.

**COGNITIVE OBJECTIVES**

At the completion to this unit, the paramedic student will be able to:

- 5-9.1 Identify the anatomy of the hematopoietic system. (C-1)
- 5-9.2 Describe volume and volume-control related to the hematopoietic system. (C-1)
- 5-9.3 Identify and describe the blood-forming organs. (C-1)
- 5-9.4 Describe normal red blood cell (RBC) production, function and destruction. (C-1)
- 5-9.5 Explain the significance of the hematocrit with respect to red cell size and number. (C-1)
- 5-9.6 Explain the correlation of the RBC count, hematocrit and hemoglobin values. (C-1)
- 5-9.7 Define anemia. (C-1)
- 5-9.8 Describe normal white blood cell (WBC) production, function and destruction. (C-1)
- 5-9.9 Identify the characteristics of the inflammatory process. (C-1)
- 5-9.10 Identify the difference between cellular and humoral immunity. (C-1)
- 5-9.11 Identify alterations in immunologic response. (C-1)
- 5-9.12 Describe the number, normal function, types and life span of leukocytes. (C-1)
- 5-9.13 List the leukocyte disorders. (C-1)
- 5-9.14 Describe platelets with respect to normal function, life span and numbers. (C-1)
- 5-9.15 Describe the components of the hemostatic mechanism. (C-1)
- 5-9.16 Describe the function of coagulation factors, platelets and blood vessels necessary for normal coagulation. (C-1)
- 5-9.17 Describe the intrinsic and extrinsic clotting systems with respect to identification of factor deficiencies in each stage. (C-3)
- 5-9.18 Identify blood groups. (C-1)
- 5-9.19 Describe how acquired factor deficiencies may occur. (C-3)
- 5-9.20 Define fibrinolysis. (C-1)
- 5-9.21 Identify the components of physical assessment as they relate to the hematologic system. (C-1)
- 5-9.22 Describe the pathology and clinical manifestations and prognosis associated with: (C-3)
  - 1. Anemia
  - 2. Leukemia
  - 3. Lymphomas
  - 4. Polycythemia
  - 5. Disseminated intravascular coagulopathy
  - 6. Hemophilia
  - 7. Sickle cell disease
  - 8. Multiple myeloma
- 5-9.23 Integrate pathophysiological principles into the assessment of a patient with hematologic disease. (C-3 )

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

### **UNIT TERMINAL OBJECTIVE: Infectious and Communicable Diseases**

5-11 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a management plan for the patient with infectious and communicable diseases.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-11.1 Review the specific anatomy and physiology pertinent to infectious and communicable diseases. (C-1)
- 5-11.2 Define specific terminology identified with infectious / communicable diseases. (C-1)
- 5-11.3 Discuss public health principles relevant to infectious / communicable disease. (C-1)
- 5-11.4 Identify public health agencies involved in the prevention and management of disease outbreaks. (C-1)
- 5-11.5 List and describe the steps of an infectious process. (C-1)
- 5-11.6 Discuss the risks associated with infection. (C-1)
- 5-11.7 List and describe the stages of infectious diseases. (C-1)
- 5-11.8 List and describe infectious agents, including bacteria, viruses, fungi, protozoans, and helminths (worms). (C-1)
- 5-11.9 Describe host defense mechanisms against infection. (C-1)
- 5-11.10 Describe characteristics of the immune system, including the categories of white blood cells, the reticuloendothelial system (RES), and the complement system. (C-1)
- 5-11.11 Describe the processes of the immune system defenses, to include humoral and cell-mediated immunity. (C-1)
- 5-11.12 In specific diseases, identify and discuss the issues of personal isolation. (C-1)
- 5-11.13 Describe and discuss the rationale for the various types of PPE. (C-1)
- 5-11.14 Discuss what constitutes a significant exposure to an infectious agent. (C-1)
- 5-11.15 Describe the assessment of a patient suspected of, or identified as having, an infectious/ communicable disease. (C-1)
- 5-11.16 Discuss the proper disposal of contaminated supplies (sharps, gauze sponges, tourniquets, etc.). (C-1)
- 5-11.17 Discuss disinfection of patient care equipment, and areas in which care of the patient occurred. (C-1)
- 5-11.18 Discuss the following relative to HIV - causative agent, body systems affected and potential secondary complications, modes of transmission, the seroconversion rate after

- direct significant exposure, susceptibility and resistance, signs and symptoms, specific patient management and personal protective measures, and immunization. (C-1)
- 5-11.19 Discuss Hepatitis A (infectious hepatitis), including the causative agent, body systems affected and potential secondary complications, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.20 Discuss Hepatitis B (serum hepatitis), including the causative agent, the organ affected and potential secondary complications, routes of transmission, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.21 Discuss the susceptibility and resistance to Hepatitis B. (C-1)
- 5-11.22 Discuss Hepatitis C, including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.23 Discuss Hepatitis D (Hepatitis delta virus), including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.24 Discuss Hepatitis E, including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.25 Discuss tuberculosis, including the causative agent, body systems affected and secondary complications, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.26 Discuss meningococcal meningitis (spinal meningitis), including causative organisms, tissues affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.27 Discuss other infectious agents known to cause meningitis including streptococcus pneumonia, hemophilus influenza type b, and other varieties of viruses. (C-1)
- 5-11.28 Discuss pneumonia, including causative organisms, body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.29 Discuss tetanus, including the causative organism, the body system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.30 Discuss rabies and hantavirus as they apply to regional environmental exposures, including the causative organisms, the body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.31 Identify pediatric viral diseases. (C-3)
- 5-11.32 Discuss chickenpox, including the causative organism, the body system affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures. (C-1)
- 5-11.33 Discuss mumps, including the causative organism, the body organs and systems affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)

- 5-11.34 Discuss rubella (German measles), including the causative agent, the body tissues and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.35 Discuss measles (rubeola, hard measles), including the causative organism, the body tissues, organs, and systems affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.36 Discuss the importance of immunization, and those diseases, especially in the pediatric population, which warrant widespread immunization (MMR). (C-1)
- 5-11.37 Discuss pertussis (whooping cough), including the causative organism, the body organs affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.38 Discuss influenza, including causative organisms, the body system affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.39 Discuss mononucleosis, including the causative organisms, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.40 Discuss herpes simplex type 1, including the causative organism, the body regions and system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.41 Discuss the characteristics of, and organisms associated with, febrile and afebrile respiratory disease, to include bronchiolitis, bronchitis, laryngitis, croup, epiglottitis, and the common cold. (C-1)
- 5-11.42 Discuss syphilis, including the causative organism, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, stages of signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.43 Discuss gonorrhea, including the causative organism, the body organs and associated structures affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.44 Discuss chlamydia, including the causative organism, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.45 Discuss herpes simplex 2 (genital herpes), including the causative organism, the body regions, tissues, and structures affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.46 Discuss scabies, including the etiologic agent, the body organs affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.47 Discuss lice, including the infesting agents, the body regions affected, modes of transmission and host factors, susceptibility and resistance, signs and symptoms, patient management and protective measures, and prevention. (C-1)
- 5-11.48 Describe lyme disease, including the causative organism, the body organs and systems affected, mode of transmission, susceptibility and resistance, phases of signs and symptoms, patient management and control measures, and immunization. (C-1)

- 5-11.49 Discuss gastroenteritis, including the causative organisms, the body system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization. (C-1)
- 5-11.50 Discuss the local protocol for reporting and documenting an infectious/ communicable disease exposure. (C-1)
- 5-11.51 Articulate the pathophysiological principles of an infectious process given a case study of a patient with an infectious/ communicable disease. (C-3)
- 5-11.52 Articulate the field assessment and management, to include safety considerations, of a patient presenting with signs and symptoms suggestive of an infectious/ communicable disease. (C-3)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-11.53 Advocate compliance with standards and guidelines by role modeling adherence to universal / standard precautions and BSI. (A-1)
- 5-11.54 Value the importance of immunization, especially in children and populations at risk. (A-1)
- 5-11.55 Value the safe management of a patient with an infectious/ communicable disease. (A-2)
- 5-11.56 Advocate respect for the feelings of patients, family, and others at the scene of an infectious / communicable disease. (A-2)
- 5-11.57 Advocate empathy for a patient with an infectious / communicable disease. (A-2)
- 5-11.58 Value the importance of infectious / communicable disease control. (A-2)
- 5-11.59 Consistently demonstrate the use of body substance isolation. (A-2)

### **UNIT TERMINAL OBJECTIVE: Behavioral and Psychiatric Disorders**

- 5-12 At the end of this unit, the paramedic student will be able to describe and demonstrate safe, empathetic competence in caring for patients with behavioral emergencies.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-12.1 Define behavior and distinguish between normal and abnormal behavior. (C-1)
- 5-12.2 Define behavioral emergency. (C-1)
- 5-12.3 Discuss the prevalence of behavior and psychiatric disorders. (C-1)
- 5-12.4 Discuss the factors that may alter the behavior or emotional status of an ill or injured individual. (C-1)
- 5-12.5 Describe the medical legal considerations for management of emotionally disturbed patients. (C-1)
- 5-12.6 Discuss the pathophysiology of behavioral and psychiatric disorders. (C-1)
- 5-12.7 Describe the overt behaviors associated with behavioral and psychiatric disorders. (C-1)
- 5-12.8 Define the following terms: (C-1)
  - a. Affect

- b. Anger
- c. Anxiety
- d. Confusion
- e. Depression
- f. Fear
- g. Mental status
- h. Open-ended question
- i. Posture

- 5-12.9 Describe the verbal techniques useful in managing the emotionally disturbed patient. (C-1)
- 5-12.10 List the reasons for taking appropriate measures to ensure the safety of the patient, paramedic and others. (C-1)
- 5-12.11 Describe the circumstances when relatives, bystanders and others should be removed from the scene. (C-1)
- 5-12.12 Describe the techniques that facilitate the systematic gathering of information from the disturbed patient. (C-1)
- 5-12.13 List situations in which the EMT-P is expected to transport a patient forcibly and against his will. (C-1)
- 5-12.14 Identify techniques for physical assessment in a patient with behavioral problems. (C-1)
- 5-12.15 Describe methods of restraint that may be necessary in managing the emotionally disturbed patient. (C-1)
- 5-12.16 List the risk factors for suicide. (C-1)
- 5-12.17 List the behaviors that may be seen indicating that patient may be at risk for suicide. (C-1)
- 5-12.18 Integrate the pathophysiological principles with the assessment of the patient with behavioral and psychiatric disorders. (C-3)
- 5-12.19 Differentiate between the various behavioral and psychiatric disorders based on the assessment and history. (C-3)
- 5-12.20 Formulate a field impression based on the assessment findings. (C-3)
- 5-12.21 Develop a patient management plan based on the field impressions. (C-3)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-12.22 Advocate for empathetic and respectful treatment for individuals experiencing behavioral emergencies. (A-3)

### **UNIT TERMINAL OBJECTIVE: Gynecology**

- 5-13 At the end of this unit, the paramedic student will be able to utilize gynecological principles and assessment findings to formulate a field impression and implement the management plan for the patient experiencing a gynecological emergency.

### ***COGNITIVE OBJECTIVES***

At the completion of this unit, the paramedic student will be able to:

- 5-13.1 Review the anatomic structures and physiology of the female reproductive system. (C-1)
- 5-13.2 Identify the normal events of the menstrual cycle. (C-1)
- 5-13.3 Describe how to assess a patient with a gynecological complaint. (C-1)
- 5-13.4 Explain how to recognize a gynecological emergency. (C-1)
- 5-13.5 Describe the general care for any patient experiencing a gynecological emergency. (C-1)
  
- 5-13.6 Describe the pathophysiology, assessment, and management of specific gynecological emergencies. (C-1)

### *AFFECTIVE OBJECTIVES*

At the completion of this unit, the paramedic student will be able to:

- 5-13.7 Value the importance of maintaining a patient's modesty and privacy while still being able to obtain necessary information. (A-2)
- 5-13.8 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information. (A-3)
- 5-13.9 Serve as a role model for other EMS providers when discussing or caring for patients with gynecological emergencies. (A-3)

### *UNIT TERMINAL OBJECTIVE:       Obstetrics*

- 5-14    At the completion of this unit, the paramedic student will be able to apply an understanding of the anatomy and physiology of the female reproductive system to the assessment and management of a patient experiencing normal or abnormal labor.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-14.1        Review the anatomic structures and physiology of the reproductive system. (C-1)
- 5-14.2 Identify the normal events of pregnancy. (C-1)
- 5-14.3 Describe how to assess an obstetrical patient. (C-1)
- 5-14.4 Identify the stages of labor and the paramedic's role in each stage. (C-1)
- 5-14.5 Differentiate between normal and abnormal delivery. (C-3)
- 5-14.6 Identify and describe complications associated with pregnancy and delivery. (C-1)
- 5-14.7 Identify predelivery emergencies. (C-1)
- 5-14.8 State indications of an imminent delivery. (C-1)
- 5-14.9 Explain the use of the contents of an obstetrics kit. (C-2)
- 5-14.10 Differentiate the management of a patient with predelivery emergencies from a normal delivery. (C-3)
- 5-14.11       State the steps in the predelivery preparation of the mother. (C-1)
- 5-14.12       Establish the relationship between body substance isolation and childbirth. (C-3)
- 5-14.13       State the steps to assist in the delivery of a newborn. (C-1)
- 5-14.14       Describe how to care for the newborn. (C-1)
- 5-14.15       Describe how and when to cut the umbilical cord. (C-1)
- 5-14.16       Discuss the steps in the delivery of the placenta. (C-1)
- 5-14.17       Describe the management of the mother post-delivery. (C-1)

- 5-14.18 Summarize neonatal resuscitation procedures. (C-1)
- 5-14.19 Describe the procedures for handling abnormal deliveries. (C-1)
- 5-14.20 Describe the procedures for handling complications of pregnancy. (C-1)
- 5-14.21 Describe the procedures for handling maternal complications of labor. (C-1)
- 5-14.22 Describe special considerations when meconium is present in amniotic fluid or during delivery. (C-1)
- 5-14.23 Describe special considerations of a premature baby. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-14.24 Advocate the need for treating two patients (mother and baby). (A-2)
- 5-14.25 Value the importance of maintaining a patient's modesty and privacy during assessment and management. (A-2)
- 5-14.26 Serve as a role model for other EMS providers when discussing or performing the steps of childbirth. (A-3)

### **UNIT TERMINAL OBJECTIVE: Neonatology**

- 6-1.1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a neonatal patient.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-1.2 Define the term newborn.(C-1)
- 6-1.3 Define the term neonate. (C-1)
- 6-1.4 Identify important antepartum factors that can affect childbirth. (C-1)
- 6-1.5 Identify important intrapartum factors that can term the newborn high risk. (C-1)
- 6-1.6 Identify the factors that lead to premature birth and low birth weight newborns. (C-1)
- 6-1.7 Distinguish between primary and secondary apnea. (C-3)
- 6-1.8 Discuss pulmonary perfusion and asphyxia. (C-1)
- 6-1.9 Identify the primary signs utilized for evaluating a newborn during resuscitation. (C-1)
- 6-1.10 Formulate an appropriate treatment plan for providing initial care to a newborn. (C-3)
- 6-1.11 Identify the appropriate use of the APGAR score in caring for a newborn.(C-1)
- 6-1.12 Calculate the APGAR score given various newborn situations. (C-3)
- 6-1.13 Determine when ventilatory assistance is appropriate for a newborn. (C-1)
- 6-1.14 Prepare appropriate ventilation equipment, adjuncts and technique for a newborn. (C-1)
- 6-1.15 Determine when chest compressions are appropriate for a newborn. (C-1)
- 6-1.16 Discuss appropriate chest compression techniques for a newborn. (C-1)
- 6-1.17 Assess patient improvement due to chest compressions and ventilations. (C-1)
- 6-1.18 Determine when endotracheal intubation is appropriate for a newborn. (C-1)
- 6-1.19 Discuss appropriate endotracheal intubation techniques for a newborn. (C-1)
- 6-1.20 Assess patient improvement due to endotracheal intubation. (C-1)
- 6-1.21 Identify complications related to endotracheal intubation for a newborn. (C-1)
- 6-1.22 Determine when vascular access is indicated for a newborn. (C-1)

- 6-1.23 Discuss the routes of medication administration for a newborn. (C-1)
- 6-1.24 Determine when blow-by oxygen delivery is appropriate for a newborn. (C-1)
- 6-1.25 Discuss appropriate blow-by oxygen delivery devices and technique for a newborn. (C-1)
- 6-1.26 Assess patient improvement due to assisted ventilations. (C-1)
- 6-1.27 Determine when an orogastric tube should be inserted during positive-pressure ventilation. (C-1)
- 6-1.28 Discuss the signs of hypovolemia in a newborn. (C-1)
- 6-1.29 Discuss the initial steps in resuscitation of a newborn. (C-1)
- 6-1.30 Assess patient improvement due to blow-by oxygen delivery. (C-1)
- 6-1.31 Discuss the effects maternal narcotic usage has on the newborn. (C-1)
- 6-1.32 Determine the appropriate treatment for the newborn with narcotic depression. (C-1)
- 6-1.33 Discuss appropriate transport guidelines for a newborn. (C-1)
- 6-1.34 Determine appropriate receiving facilities for low and high risk newborns. (C-1)
- 6-1.35 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for meconium aspiration. (C-1)
- 6-1.36 Discuss the pathophysiology of meconium aspiration. (C-1)
- 6-1.37 Discuss the assessment findings associated with meconium aspiration. (C-1)
- 6-1.38 Discuss the management/ treatment plan for meconium aspiration. (C-1)
- 6-1.39 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for apnea in the neonate. (C-1)
- 6-1.40 Discuss the pathophysiology of apnea in the neonate. (C-1)
- 6-1.41 Discuss the assessment findings associated with apnea in the neonate. (C-1)
- 6-1.42 Discuss the management/ treatment plan for apnea in the neonate. (C-1)
- 6-1.43 Describe the epidemiology, pathophysiology, assessment findings, management/ treatment plan for diaphragmatic hernia. (C-1)
- 6-1.44 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for bradycardia in the neonate. (C-1)
- 6-1.45 Discuss the pathophysiology of bradycardia in the neonate. (C-1)
- 6-1.46 Discuss the assessment findings associated with bradycardia in the neonate. (C-1)
- 6-1.47 Discuss the management/ treatment plan for bradycardia in the neonate. (C-1)
- 6-1.48 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for premature infants
- 6-1.49 Discuss the pathophysiology of premature infants. (C-1)
- 6-1.50 Discuss the assessment findings associated with premature infants. (C-1)
- 6-1.51 Discuss the management/ treatment plan for premature infants. (C-1)
- 6-1.52 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for respiratory distress / cyanosis in the neonate. (C-1)
- 6-1.53 Discuss the pathophysiology of respiratory distress/ cyanosis in the neonate. (C-1)
- 6-1.54 Discuss the assessment findings associated with respiratory distress/ cyanosis in the neonate. (C-1)
- 6-1.55 Discuss the management/ treatment plan for respiratory distress/ cyanosis in the neonate.(C-1)
- 6-1.56 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for seizures in the neonate. (C-1)
- 6-1.57 Discuss the pathophysiology of seizures in the neonate. (C-1)
- 6-1.58 Discuss the assessment findings associated with seizures in the neonate. (C-1)
- 6-1.59 Discuss the management/ treatment plan for seizures in the neonate. (C-1)

- 6-1.60 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for fever in the neonate. (C-1)
- 6-1.61 Discuss the pathophysiology of fever in the neonate. (C-1)
- 6-1.62 Discuss the assessment findings associated with fever in the neonate. (C-1)
- 6-1.63 Discuss the management / treatment plan for fever in the neonate. (C-1)
- 6-1.64 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for hypothermia in the neonate. (C-1)
- 6-1.65 Discuss the pathophysiology of hypothermia in the neonate. (C-1)
- 6-1.66 Discuss the assessment findings associated with hypothermia in the neonate. (C-1)
- 6-1.67 Discuss the management / treatment plan for hypothermia in the neonate. (C-1)
- 6-1.68 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for hypoglycemia in the neonate. (C-1)
- 6-1.69 Discuss the pathophysiology of hypoglycemia in the neonate. (C-1)
- 6-1.70 Discuss the assessment findings associated with hypoglycemia in the neonate. (C-1)
- 6-1.71 Discuss the management/ treatment plan for hypoglycemia in the neonate. (C-1)
- 6-1.72 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for vomiting in the neonate (C-1)
- 6-1.73 Discuss the pathophysiology of vomiting in the neonate. (C-1)
- 6-1.74 Discuss the assessment findings associated with vomiting in the neonate. (C-1)
- 6-1.75 Discuss the management/ treatment plan for vomiting in the neonate. (C-1)
- 6-1.76 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for diarrhea in the neonate. (C-1)
- 6-1.77 Discuss the pathophysiology of in diarrhea the neonate. (C-1)
- 6-1.78 Discuss the assessment findings associated with diarrhea in the neonate. (C-1)
- 6-1.79 Discuss the management/ treatment plan for diarrhea in the neonate. (C-1)
- 6-1.80 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for common birth injuries in the neonate. (C-1)
- 6-1.81 Discuss the pathophysiology of common birth injuries in the neonate. (C-1)
- 6-1.82 Discuss the assessment findings associated with common birth injuries in the neonate. (C-1)
- 6-1.83 Discuss the management / treatment plan for common birth injuries in the neonate. (C-1)
- 6-1.84 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for cardiac arrest in the neonate. (C-1)
- 6-1.85 Discuss the pathophysiology of cardiac arrest in the neonate. (C-1)
- 6-1.86 Discuss the assessment findings associated with cardiac arrest in the neonate. (C-1)
- 6-1.87 Discuss the management/ treatment plan for cardiac arrest in the neonate. (C-1)
- 6-1.88 Discuss the pathophysiology of post arrest management of the neonate. (C-1)
- 6-1.89 Discuss the assessment findings associated with post arrest situations in the neonate. (C-1)
- 6-1.90 Discuss the management / treatment plan to stabilize the post arrest neonate. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-1.91 Demonstrate and advocate appropriate interaction with a newborn/ neonate that conveys respect for their position in life. (A-3)

- 6-1.92 Recognize the emotional impact of newborn / neonate injuries / illnesses on parents / guardians. (A-1)
- 6-1.93 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/ guardian and a newborn / neonate. (A-3)
- 6-1.94 Listen to the concerns expressed by parents / guardians. (A-1)
- 6-1.95 Attend to the need for reassurance, empathy and compassion for the parent/ guardian. (A-1)

**UNIT TERMINAL OBJECTIVE: Pediatrics**

- 6-2.1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the pediatric patient.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.2 Discuss the paramedic's role in the reduction of infant and childhood morbidity and mortality from acute illness and injury. (C-1)
- 6-2.3 Identify methods / mechanisms that prevent injuries to infants and children. (C-1)
- 6-2.4 Describe Emergency Medical Services for Children (EMSC). (C-1)
- 6-2.5 Discuss how an integrated EMSC system can affect patient outcome. (C-2)
- 6-2.6 Identify key growth and developmental characteristics of infants and children and their implications. (C-2)
- 6-2.7 Identify key anatomical and physiological characteristics of infants and children and their implications. (C-2)
- 6-2.8 Describe techniques for successful assessment of infants and children. (C-1)
- 6-2.9 Describe techniques for successful treatment of infants and children. (C-1)
- 6-2.10 Identify the common responses of families to acute illness and injury of an infant or child. (C-1)
- 6-2.11 Describe techniques for successful interaction with families of acutely ill or injured infants and children. (C-1)
- 6-2.12 Outline differences in adult and childhood anatomy and physiology. (C-3)
- 6-2.13 Identify "normal" age group related vital signs. (C-1)
- 6-2.14 Discuss the appropriate equipment utilized to obtain pediatric vital signs. (C-1)
- 6-2.15 Determine appropriate airway adjuncts for infants and children. (C-1)
- 6-2.16 Discuss complications of improper utilization of airway adjuncts with infants and children. (C-1)
- 6-2.17 Discuss appropriate ventilation devices for infants and children. (C-1)
- 6-2.18 Discuss complications of improper utilization of ventilation devices with infants and children. (C-1)
- 6-2.19 Discuss appropriate endotracheal intubation equipment for infants and children. (C-1)
- 6-2.20 Identify complications of improper endotracheal intubation procedure in infants and children. (C-1)
- 6-2.21 List the indications and methods for gastric decompression for infants and children. (C-1)
- 6-2.22 Define respiratory distress. (C-1)
- 6-2.23 Define respiratory failure. (C-1)

- 6-2.24 Define respiratory arrest. (C-1)
- 6-2.25 Differentiate between upper airway obstruction and lower airway disease. (C-3)
- 6-2.26 Describe the general approach to the treatment of children with respiratory distress, failure, or arrest from upper airway obstruction or lower airway disease. (C-3)
- 6-2.27 Discuss the common causes of hypoperfusion in infants and children. (C-1)
- 6-2.28 Evaluate the severity of hypoperfusion in infants and children. (C-3)
- 6-2.29 Identify the major classifications of pediatric cardiac rhythms. (C-1)
- 6-2.30 Discuss the primary etiologies of cardiopulmonary arrest in infants and children. (C-1)
- 6-2.31 Discuss age appropriate vascular access sites for infants and children. (C-1)
- 6-2.32 Discuss the appropriate equipment for vascular access in infants and children. (C-1)
- 6-2.33 Identify complications of vascular access for infants and children. (C-1)
- 6-2.34 Describe the primary etiologies of altered level of consciousness in infants and children. (C-1)
- 6-2.35 Identify common lethal mechanisms of injury in infants and children. (C-1)
- 6-2.36 Discuss anatomical features of children that predispose or protect them from certain injuries. (C-1)
- 6-2.37 Describe aspects of infant and children airway management that are affected by potential cervical spine injury. (C-1)
- 6-2.38 Identify infant and child trauma patients who require spinal immobilization. (C-1)
- 6-2.39 Discuss fluid management and shock treatment for infant and child trauma patient. (C-1)
- 6-2.40 Determine when pain management and sedation are appropriate for infants and children. (C-1)
- 6-2.41 Define child abuse. (C-1)
- 6-2.42 Define child neglect. (C-1)
- 6-2.43 Define sudden infant death syndrome (SIDS). (C-1)
- 6-2.44 Discuss the parent/ caregiver responses to the death of an infant or child. (C-1)
- 6-2.45 Define children with special health care needs. (C-1)
- 6-2.46 Define technology assisted children. (C-1)
- 6-2.47 Discuss basic cardiac life support (CPR) guidelines for infants and children. (C-1)
- 6-2.48 Identify appropriate parameters for performing infant and child CPR. (C-1)
- 6-2.49 Integrate advanced life support skills with basic cardiac life support for infants and children. (C-3)
- 6-2.50 Discuss the indications, dosage, route of administration and special considerations for medication administration in infants and children. (C-1)
- 6-2.51 Discuss appropriate transport guidelines for infants and children. (C-1)
- 6-2.52 Discuss appropriate receiving facilities for low and high risk infants and children. (C-1)
- 6-2.53 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for respiratory distress/ failure in infants and children. (C-1)
- 6-2.54 Discuss the pathophysiology of respiratory distress/ failure in infants and children. (C-1)
- 6-2.55 Discuss the assessment findings associated with respiratory distress/ failure in infants and children. (C-1)
- 6-2.56 Discuss the management/ treatment plan for respiratory distress/ failure in infants and children. (C-1)
- 6-2.57 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for hypoperfusion in infants and children. (C-1)
- 6-2.58 Discuss the pathophysiology of hypoperfusion in infants and children. (C-1)

- 6-2.59 Discuss the assessment findings associated with hypoperfusion in infants and children. (C-1)
- 6-2.60 Discuss the management/ treatment plan for hypoperfusion in infants and children. (C-1)
- 6-2.61 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for cardiac dysrhythmias in infants and children. (C-1)
- 6-2.62 Discuss the pathophysiology of cardiac dysrhythmias in infants and children. (C-1)
- 6-2.63 Discuss the assessment findings associated with cardiac dysrhythmias in infants and children. (C-1)
- 6-2.64 Discuss the management/ treatment plan for cardiac dysrhythmias in infants and children. (C-1)
- 6-2.65 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for neurological emergencies in infants and children. (C-1)
- 6-2.66 Discuss the pathophysiology of neurological emergencies in infants and children. (C-1)
- 6-2.67 Discuss the assessment findings associated with neurological emergencies in infants and children. (C-1)
- 6-2.68 Discuss the management/ treatment plan for neurological emergencies in infants and children. (C-1)
- 6-2.69 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for trauma in infants and children. (C-1)
- 6-2.70 Discuss the pathophysiology of trauma in infants and children. (C-1)
- 6-2.71 Discuss the assessment findings associated with trauma in infants and children. (C-1)
- 6-2.72 Discuss the management/ treatment plan for trauma in infants and children. (C-1)
- 6-2.73 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for abuse and neglect in infants and children. (C-1)
- 6-2.74 Discuss the pathophysiology of abuse and neglect in infants and children. (C-1)
- 6-2.75 Discuss the assessment findings associated with abuse and neglect in infants and children. (C-1)
- 6-2.76 Discuss the management/ treatment plan for abuse and neglect in infants and children, including documentation and reporting. (C-1)
- 6-2.77 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for SIDS infants. (C-1)
- 6-2.78 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for children with special health care needs including technology assisted children. (C-1)
- 6-2.79 Discuss the pathophysiology of children with special health care needs including technology assisted children. (C-1)
- 6-2.80 Discuss the assessment findings associated for children with special health care needs including technology assisted children. (C-1)
- 6-2.81 Discuss the management / treatment plan for children with special health care needs including technology assisted children. (C-1)
- 6-2.82 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for SIDS infants. (C-1)
- 6-2.83 Discuss the pathophysiology of SIDS in infants. (C-1)
- 6-2.84 Discuss the assessment findings associated with SIDS infants. (C-1)
- 6-2.85 Discuss the management/ treatment plan for SIDS in infants. (C-1)

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.86 Demonstrate and advocate appropriate interactions with the infant/ child that conveys an understanding of their developmental stage. (A-3)
- 6-2.87 Recognize the emotional dependence of the infant / child to their parent/ guardian. (A-1)
- 6-2.88 Recognize the emotional impact of the infant / child injuries and illnesses on the parent/ guardian. (A-1)
- 6-2.89 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/ guardian of a special needs child (A-3)
- 6-2.90 Demonstrate the ability to provide reassurance, empathy and compassion for the parent/ guardian. (A-1)

**UNIT TERMINAL OBJECTIVE: Geriatrics**

- 6-3 At the completion of this unit, the paramedic student will be able to integrate the pathophysiological principles and the assessment findings to formulate and implement a treatment plan for the geriatric patient.

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-3.1 Discuss population demographics demonstrating the rise in elderly population in the U.S. (C-1)
- 6-3.2 Discuss society's view of aging and the social, financial, and ethical issues facing the elderly. (C-1)
- 6-3.3 Assess the various living environments of elderly patients. (C-3)
- 6-3.4 Describe the local resources available to assist the elderly and create strategies to refer at risk patients to appropriate community services. (C-3)
- 6-3.5 Discuss issues facing society concerning the elderly. (C-1)
- 6-3.6 Discuss common emotional and psychological reactions to aging to include causes and manifestations. (C-1)
- 6-3.7 Apply the pathophysiology of multi-system failure to the assessment and management of medical conditions in the elderly patient. (C-2)
- 6-3.8 Discuss the problems with mobility in the elderly and develop strategies to prevent falls. (C-1)
- 6-3.9 Discuss the implications of problems with sensation to communication and patient assessment. (C-2)
- 6-3.10 Discuss the problems with continence and elimination and develop communication strategies to provide psychological support. (C-3)
- 6-3.11 Discuss factors that may complicate the assessment of the elderly patient. (C-1)
- 6-3.12 Describe principles that should be employed when assessing and communicating with the elderly. (C-1)
- 6-3.13 Compare the assessment of a young patient with that of an elderly patient. (C-3)
- 6-3.14 Discuss common complaints of elderly patients. (C-1)
- 6-3.15 Compare the pharmacokinetics of an elderly patient to that of a young adult. (C-2)
- 6-3.16 Discuss the impact of polypharmacy and medication non-compliance on patient assessment and management. (C-1)
- 6-3.17 Discuss drug distribution, metabolism, and excretion in the elderly patient. (C-1)

- 6-3.18 Discuss medication issues of the elderly including polypharmacy, dosing errors and increased drug sensitivity. (C-1)
- 6-3.19 Discuss the use and effects of commonly prescribed drugs for the elderly patient. (C-1)
- 6-3.20 Discuss the normal and abnormal changes with age of the pulmonary system. (C-1)
- 6-3.21 Describe the epidemiology of pulmonary diseases in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies for patients with pneumonia, chronic obstructive pulmonary diseases and pulmonary embolism. (C-1)
- 6-3.22 Compare and contrast the pathophysiology of pulmonary diseases in the elderly with that of a younger adult, including pneumonia, chronic obstructive pulmonary diseases, and pulmonary embolism. (C-3)
- 6-3.23 Discuss the assessment of the elderly patient with pulmonary complaints, including pneumonia, chronic obstructive pulmonary diseases, and pulmonary embolism. (C-1)
- 6-3.24 Identify the need for intervention and transport of the elderly patient with pulmonary complaints. (C-1)
- 6-3.25 Develop a treatment and management plan of the elderly patient with pulmonary complaints, including pneumonia, chronic obstructive pulmonary diseases, and pulmonary embolism. (C-3)
- 6-3.26 Discuss the normal and abnormal cardiovascular system changes with age. (C-1)
- 6-3.27 Describe the epidemiology for cardiovascular diseases in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies for patients with myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension. (C-1)
- 6-3.28 Compare and contrast the pathophysiology of cardiovascular diseases in the elderly with that of a younger adult, including myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension. (C-3)
- 6-3.29 Discuss the assessment of the elderly patient with complaints related to the cardiovascular system, including myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension. (C-1)
- 6-3.30 Identify the need for intervention and transportation of the elderly patient with cardiovascular complaints. (C-1)
- 6-3.31 Develop a treatment and management plan of the elderly patient with cardiovascular complaints, including myocardial infarction, heart failure, dysrhythmias, aneurism and hypertension. (C-3)
- 6-3.32 Discuss the normal and abnormal changes with age of the nervous system. (C-1)
- 6-3.33 Describe the epidemiology for nervous system diseases in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies for patients with cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease. (C-1)
- 6-3.34 Compare and contrast the pathophysiology of nervous system diseases in the elderly with that of a younger adult, including cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease. (C-3)
- 6-3.35 Discuss the assessment of the elderly patient with complaints related to the nervous system, including cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease. (C-1)
- 6-3.36 Identify the need for intervention and transportation of the patient with complaints related to the nervous system. (C-1)

- 6-3.37 Develop a treatment and management plan of the elderly patient with complaints related to the nervous system, including cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease. (C-3)
- 6-3.38 Discuss the normal and abnormal changes of the endocrine system with age. (C-1)
- 6-3.39 Describe the epidemiology for endocrine diseases in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies for patients with diabetes and thyroid diseases. (C-1)
- 6-3.40 Compare and contrast the pathophysiology of diabetes and thyroid diseases in the elderly with that of a younger adult. (C-3)
- 6-3.41 Discuss the assessment of the elderly patient with complaints related to the endocrine system, including diabetes and thyroid diseases. (C-1)
- 6-3.42 Identify the need for intervention and transportation of the patient with endocrine problems. (C-1)
- 6-3.43 Develop a treatment and management plan of the elderly patient with endocrine problems, including diabetes and thyroid diseases. (C-3)
- 6-3.44 Discuss the normal and abnormal changes of the gastrointestinal system with age. (C-1)
- 6-3.45 Discuss the assessment of the elderly patient with complaints related to the gastrointestinal system. (C-1)
- 6-3.46 Identify the need for intervention and transportation of the patient with gastrointestinal complaints. (C-1)
- 6-3.47 Develop and execute a treatment and management plan of the elderly patient with gastrointestinal problems. (C-3)
- 6-3.48 Discuss the assessment and management of an elderly patient with GI hemorrhage and bowel obstruction. (C-1)
- 6-3.49 Compare and contrast the pathophysiology of GI hemorrhage and bowel obstruction in the elderly with that of a young adult. (C-3)
- 6-3.50 Discuss the normal and abnormal changes with age related to toxicology. (C-1)
- 6-3.51 Discuss the assessment of the elderly patient with complaints related to toxicology. (C-1)
- 6-3.52 Identify the need for intervention and transportation of the patient with toxicological problems. (C-1)
- 6-3.53 Develop and execute a treatment and management plan of the elderly patient with toxicological problems. (C-3)
- 6-3.54 Describe the epidemiology in the elderly, including the incidence, morbidity/ mortality, risk factors, and prevention strategies, for patients with drug toxicity. (C-1)
- 6-3.55 Compare and contrast the pathophysiology of drug toxicity in the elderly with that of a younger adult. (C-3)
- 6-3.56 Discuss the assessment findings common in elderly patients with drug toxicity. (C-1)
- 6-3.57 Discuss the management/ considerations when treating an elderly patient with drug toxicity. (C-1)
- 6-3.58 Describe the epidemiology for drug and alcohol abuse in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies. (C-1)
- 6-3.59 Compare and contrast the pathophysiology of drug and alcohol abuse in the elderly with that of a younger adult. (C-3)
- 6-3.60 Discuss the assessment findings common in elderly patients with drug and alcohol abuse. (C-1)
- 6-3.61 Discuss the management/ considerations when treating an elderly patient with drug and alcohol abuse. (C-1)

- 6-3.62 Discuss the normal and abnormal changes of thermoregulation with age. (C-1)
- 6-3.63 Discuss the assessment of the elderly patient with complaints related to thermoregulation. (C-1)
- 6-3.64 Identify the need for intervention and transportation of the patient with environmental considerations. (C-1)
- 6-3.65 Develop and execute a treatment and management plan of the elderly patient with environmental considerations. (C-3)
- 6-3.66 Compare and contrast the pathophysiology of hypothermia and hyperthermia in the elderly with that of a younger adult. (C-3)
- 6-3.67 Discuss the assessment findings and management plan for elderly patients with hypothermia and hyperthermia. (C-1)
- 6-3.68 Discuss the normal and abnormal psychiatric changes of age. (C-1)
- 6-3.69 Describe the epidemiology of depression and suicide in the elderly, including incidence, morbidity / mortality, risk factors, and prevention strategies. (C-1)
- 6-3.70 Compare and contrast the psychiatry of depression and suicide in the elderly with that of a younger adult. (C-3)
- 6-3.71 Discuss the assessment of the elderly patient with psychiatric complaints, including depression and suicide. (C-1)
- 6-3.72 Identify the need for intervention and transport of the elderly psychiatric patient. (C-1)
- 6-3.73 Develop a treatment and management plan of the elderly psychiatric patient, including depression and suicide. (C-3)
- 6-3.74 Discuss the normal and abnormal changes of the integumentary system with age. (C-1)
- 6-3.75 Describe the epidemiology for pressure ulcers in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies. (C-1)
- 6-3.76 Compare and contrast the pathophysiology of pressure ulcers in the elderly with that of a younger adult. (C-3)
- 6-3.77 Discuss the assessment of the elderly patient with complaints related to the integumentary system, including pressure ulcers. (C-1)
- 6-3.78 Identify the need for intervention and transportation of the patient with complaints related to the integumentary system. (C-1)
- 6-3.79 Develop a treatment and management plan of the elderly patient with complaints related to the integumentary system, including pressure ulcers. (C-3)
- 6-3.80 Discuss the normal and abnormal changes of the musculoskeletal system with age. (C-1)
- 6-3.81 Describe the epidemiology for osteoarthritis and osteoporosis, including incidence, morbidity/ mortality, risk factors, and prevention strategies. (C-1)
- 6-3.82 Compare and contrast the pathophysiology of osteoarthritis and osteoporosis with that of a younger adult. (C-3)
- 6-3.83 Discuss the assessment of the elderly patient with complaints related to the musculoskeletal system, including osteoarthritis and osteoporosis. (C-1)
- 6-3.84 Identify the need for intervention and transportation of the patient with musculoskeletal complaints. (C-1)
- 6-3.85 Develop a treatment and management plan of the elderly patient with musculoskeletal complaints, including osteoarthritis and osteoporosis. (C-3)
- 6-3.86 Describe the epidemiology for trauma in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies for patients with orthopedic injuries, burns and head injuries. (C-1)

- 6-3.87 Compare and contrast the pathophysiology of trauma in the elderly with that of a younger adult, including orthopedic injuries, burns and head injuries. (C-3)
- 6-3.88 Discuss the assessment findings common in elderly patients with traumatic injuries, including orthopedic injuries, burns and head injuries. (C-1)
- 6-3.89 Discuss the management/ considerations when treating an elderly patient with traumatic injuries, including orthopedic injuries, burns and head injuries. (C-1)
- 6-3.90 Identify the need for intervention and transport of the elderly patient with trauma. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-3.91 Demonstrate and advocate appropriate interactions with the elderly that conveys respect for their position in life. (A-3)
- 6-3.92 Recognize the emotional need for independence in the elderly while simultaneously attending to their apparent acute dependence. (A-1)
- 6-3.93 Recognize and appreciate the many impediments to physical and emotional well being in the elderly. (A-2)
- 6-3.94 Recognize and appreciate the physical and emotional difficulties associated with being a caretaker of an impaired elderly person, particularly the patient with Alzheimer's disease. (A-3)

### **UNIT TERMINAL OBJECTIVE: Abuse and Assault**

- 6-4 At the completion of this unit, the paramedic student will be able to integrate the assessment findings to formulate a field impression and implement a treatment plan for the patient who has sustained abuse or assault.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-4.1 Discuss the incidence of abuse and assault. (C-1)
- 6-4.2 Describe the categories of abuse. (C-1)
- 6-4.3 Discuss examples of spouse abuse. (C-1)
- 6-4.4 Discuss examples of elder abuse. (C-1)
- 6-4.5 Discuss examples of child abuse. (C-1)
- 6-4.6 Discuss examples of sexual assault. (C-1)
- 6-4.7 Describe the characteristics associated with the profile of the typical abuser of a spouse. (C-1)
- 6-4.8 Describe the characteristics associated with the profile of the typical abuser of the elder. (C-1)
- 6-4.9 Describe the characteristics associated with the profile of the typical abuser of children. (C-1)
- 6-4.10 Describe the characteristics associated with the profile of the typical assailant of sexual assault. (C-1)
- 6-4.11 Identify the profile of the "at-risk" spouse. (C-1)
- 6-4.12 Identify the profile of the "at-risk" elder. (C-1)

- 6-4.13 Identify the profile of the "at-risk" child. (C-1)
- 6-4.14 Discuss the assessment and management of the abused patient. (C-1)
- 6-4.15 Discuss the legal aspects associated with abuse situations. (C-1)
- 6-4.16 Identify community resources that are able to assist victims of abuse and assault. (C-1)
- 6-4.17 Discuss the documentation associated with abused and assaulted patient. (C-1)

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-4.18 Demonstrate sensitivity to the abused patient. (A-1)
- 6-4.19 Value the behavior of the abused patient. (A-2)
- 6-4.20 Attend to the emotional state of the abused patient. (A-1)
- 6-4.21 Recognize the value of non-verbal communication with the abused patient. (A-1)
- 6-4.22 Attend to the needs for reassurance, empathy and compassion with the abused patient. (A-1)
- 6-4.23 Listen to the concerns expressed by the abused patient. (A-1)
- 6-4.24 Listen and value the concerns expressed by the sexually assaulted patient. (A-2)

### **UNIT TERMINAL OBJECTIVE: Patients with Special Challenges**

- 6-5 At the completion of this unit the paramedic student will be able to integrate pathophysiological and psychosocial principles to adapt the assessment and treatment plan for diverse patients and those who face physical, mental, social and financial challenges.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-5.1 Describe the various etiologies and types of hearing impairments. (C-1)
- 6-5.2 Recognize the patient with a hearing impairment. (C-1)
- 6-5.3 Anticipate accommodations that may be needed in order to properly manage the patient with a hearing impairment. (C-3)
- 6-5.4 Describe the various etiologies of visual impairments. (C-1)
- 6-5.5 Recognize the patient with a visual impairment. (C-1)
- 6-5.6 Anticipate accommodations that may be needed in order to properly manage the patient with a visual impairment. (C-3)
- 6-5.7 Describe the various etiologies and types of speech impairments. (C-1)
- 6-5.8 Recognize the patient with a speech impairment. (C-1)
- 6-5.9 Anticipate accommodations that may be needed in order to properly manage the patient with a speech impairment. (C-3)
- 6-5.10 Describe the various etiologies of obesity. (C-1)
- 6-5.11 Anticipate accommodations that may be needed in order to properly manage the patient with obesity. (C-3)
- 6-5.12 Describe paraplegia/ quadriplegia. (C-1)
- 6-5.13 Anticipate accommodations that may be needed in order to properly manage the patient with paraplegia/ quadriplegia. (C-3)
- 6-5.14 Define mental illness. (C-1)
- 6-5.15 Describe the various etiologies of mental illness. (C-1)

- 6-5.16 Recognize the presenting signs of the various mental illnesses. (C-1)
- 6-5.17 Anticipate accommodations that may be needed in order to properly manage the patient with a mental illness. (C-3)
- 6-5.18 Define the term developmentally disabled. (C-1)
- 6-5.19 Recognize the patient with a developmental disability. (C-1)
- 6-5.20 Anticipate accommodations that may be needed in order to properly manage the patient with a developmental disability. (C-3)
- 6-5.21 Describe Down's syndrome. (C-1)
- 6-5.22 Recognize the patient with Down's syndrome. (C-1)
- 6-5.23 Anticipate accommodations that may be needed in order to properly manage the patient with Down's syndrome. (C-3)
- 6-5.24 Describe the various etiologies of emotional impairment. (C-1)
- 6-5.25 Recognize the patient with an emotional impairment. (C-1)
- 6-5.26 Anticipate accommodations that may be needed in order to properly manage the patient with an emotional impairment. (C-3)
- 6-5.27 Define emotional/ mental impairment (EMI). (C-1)
- 6-5.28 Recognize the patient with an emotional or mental impairment. (C-1)
- 6-5.29 Anticipate accommodations that may be needed in order to properly manage patients with an emotional or mental impairment. (C-3)
- 6-5.30 Describe the following diseases/ illnesses: (C-1)
- a. Arthritis
  - b. Cancer
  - c. Cerebral palsy
  - d. Cystic fibrosis
  - e. Multiple sclerosis
  - f. Muscular dystrophy
  - g. Myasthenia gravis
  - h. Poliomyelitis
  - i. Spina bifida
  - j. Patients with a previous head injury
- 6-5.31 Identify the possible presenting sign(s) for the following diseases/ illnesses: (C-1)
- a. Arthritis
  - b. Cancer
  - c. Cerebral palsy
  - d. Cystic fibrosis
  - e. Multiple sclerosis
  - f. Muscular dystrophy
  - g. Myasthenia gravis
  - h. Poliomyelitis
  - i. Spina bifida
  - j. Patients with a previous head injury
- 6-5.32 Anticipate accommodations that may be needed in order to properly manage the following patients: (C-3)
- a. Arthritis
  - b. Cancer
  - c. Cerebral palsy
  - d. Cystic fibrosis

- e. Multiple sclerosis
- f. Muscular dystrophy
- g. Myasthenia gravis
- h. Poliomyelitis
- i. Spina bifida
- j. Patients with a previous head injury

6-5.33 Define cultural diversity. (C-1)

6-5.34 Recognize a patient who is culturally diverse. (C-1)

6-5.35 Anticipate accommodations that may be needed in order to properly manage a patient who is culturally diverse. (C-3)

6-5.36 Identify a patient that is terminally ill. (C-1)

6-5.37 Anticipate accommodations that may be needed in order to properly manage a patient who is terminally ill. (C-3)

6-5.38 Identify a patient with a communicable disease. (C-1)

6-5.39 Recognize the presenting signs of a patient with a communicable disease. (C-1)

6-5.40 Anticipate accommodations that may be needed in order to properly manage a patient with a communicable disease. (C-3)

6-5.41 Recognize sign(s) of financial impairments. (C-1)

6-5.42 Anticipate accommodations that may be needed in order to properly manage the patient with a financial impairment. (C-3)