National EMS Education Standard Competencies

**Medicine**
Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

**Endocrine Disorders**
Awareness that
 › Diabetic emergencies cause altered mental status (pp 729, 735–736, 740–741)
Anatomy, physiology, pathophysiology, assessment, and management of
 › Acute diabetic emergencies (pp 727–741)

**Hematology**
Anatomy, physiology, pathophysiology, assessment, and management of
 › Sickle cell crisis (pp 742, 744–745)
 › Clotting disorders (pp 742–745)

**Knowledge Objectives**
1. Describe the anatomy and physiology of the endocrine system and its main function in the body. (p 727)
2. Discuss the role of glucose as a major source of energy for the body and its relationship to insulin. (p 728)
3. Define the terms diabetes mellitus, hyperglycemia, and hypoglycemia (pp 728–730)
4. Describe the differences and similarities between hyperglycemic and hypoglycemic diabetic emergencies, including their onset, signs and symptoms, and management considerations. (pp 729–730)
5. Distinguish between the individual types of diabetes and how their onset and presentations are different. (pp 730–732)
6. Describe the interventions for providing emergency medical care to both a conscious and unconscious patient with an altered mental status and a history of diabetes who is having symptomatic hyperglycemia. (p 733)
7. Describe the interventions for providing emergency medical care to both a conscious and unconscious patient with an altered mental status and a history of diabetes who is having symptomatic hypoglycemia. (pp 733–734)
8. Explain the process for assessing and managing the airway of a patient with an altered mental status, including ways to differentiate a hyperglycemic patient from a hypoglycemic patient. (pp 733–735, 741)
9. Explain some age-related considerations when managing a pediatric patient who is experiencing symptomatic hypoglycemia. (p 734)
10. Discuss the steps the EMT should follow when conducting a primary and secondary assessment of a patient with an altered mental status who is suspected of having diabetes. (pp 734–736)
11. Explain when it is appropriate to obtain medical direction when providing emergency medical care to a patient with diabetes. (p 737)
12. Explain some age-related considerations when managing an older patient who has undiagnosed diabetes. (p 737)
13. Provide the forms, dose, administration, indications, and contraindications for giving oral glucose to a patient with a decreased level of consciousness who has a history of diabetes. (p 738)
14. Discuss the composition and functions of blood. (pp 741–742)
15. Describe the pathophysiology of sickle cell disease, complications, and management of sickle cell disease. (pp 742, 745)
16. Describe two types of blood clotting disorders, and the risk factors, characteristics, and management of each. (pp 742–745)

**Skills Objectives**
1. Demonstrate the assessment and care of a patient with hypoglycemia and a decreased level of consciousness. (pp 729–730, 734–741)
2. Demonstrate how to administer oral glucose paste to a patient who is experiencing a low glucose level. (p 739, Skill Drill 19-1)