LEARNING OBJECTIVES

On completion of the chapter, the reader will be able to:

1. List the four fundamental steps to providing optimal nutrition support.
2. Discuss indications for parenteral nutrition in infants, children, and adults.
3. Calculate amounts of fluid, calories, protein, nitrogen, and carbohydrate provided by a given parenteral nutrition regimen.
4. Define conditionally essential amino acids and list three reported in pediatric or adult patients.
5. Discuss content and caloric concentration of IV fat emulsion.
6. Describe the mechanism for essential fatty acid deficiency and requirements for prevention.
7. Discuss considerations for use of peripheral and central parenteral nutrition.
8. Calculate the osmolarity of a parenteral nutrition regimen.
9. Given gram amounts of protein and dextrose and calculate volumes of dextrose, crystalline amino acids, and water required to compound a parenteral nutrition solution.
10. Discuss considerations for determining the method of administration (continuous or intermittent infusion) of a parenteral nutrition solution.
11. List an example of each of the three types of complications associated with parenteral nutrition.
12. Discuss the prevention and treatment of complications associated with parenteral nutrition therapy.
13. Describe characteristics of the refeeding syndrome and outline a plan to minimize the risk of occurrence.
15. Discuss considerations for personalizing parenteral nutrition therapy.