Chapter: Fluids and Electrolytes
Learning Objectives
1. Demonstrate an understanding of the composition of body fluids, fluid regulation, and fluid requirements in pediatric patients.
2. Assess laboratory data and physical signs and symptoms in the evaluation of fluid status and dehydration.
3. Devise intravenous fluid regimens for pediatric patients on the basis of age, clinical status, and identified needs.
4. Evaluate electrolyte status and recommend appropriate treatment for electrolyte abnormalities in pediatric patients.

Chapter: Parenteral Nutrition
Learning Objectives
1. Account for challenges such as drug shortages and pharmacy education deficits in providing optimal parenteral nutrition (PN) for pediatric patients.
2. Design PN for patients with inborn errors of metabolism or on the ketogenic diet.
3. Evaluate the use of newer intravenous lipid emulsions (ILEs), outsourced solutions, and/or commercially available products in providing optimal PN for pediatric patients.
4. Justify safe practices within the electronic health record and the use of standardized starter PN solutions in the provision of PN.
5. Assess the impact of the revised USP <797> and new USP <800> chapters, including consideration of updated filtration requirements and repackaging ILEs on the provision of PN in pediatric patients.

Chapter: Nutrition in Critically and Chronically Ill Patients
Learning Objectives
1. Discuss the challenges in providing optimal nutrition to critically ill patients.
2. Develop a management strategy for a patient with chylothorax.
3. Recommend a lock regimen for a patient with recurrent central line-associated bloodstream infections.
4. Discuss strategies for preventing intestinal failure–associated liver disease (IFALD) in parenteral nutrition-dependent patients.
5. Give the rationale for using novel lipid emulsions in IFALD prevention and treatment.
Clinical and Practice Updates I (Module 2) – Credit Hours: 3.0

Chapter: Guideline Review: Nutrition Support in the Critically Ill Pediatric Patient
Learning Objectives
1. Evaluate the impact of nutritional status on outcomes in critically ill children.
2. Determine the recommended energy requirement for critically ill children.
3. Assess protein delivery strategies in the pediatric ICU, and justify how the goals should be determined for any individual patient.
4. Determine when enteral versus parenteral nutritional support is recommended and when it should be initiated.

Chapter: Ordering and Compounding Parenteral Nutrition
Learning Objectives
1. Design a parenteral nutrition (PN) order that is consistent with current safety recommendations.
2. Perform calculations (calories, glucose infusion rate, osmolarity) necessary to order appropriate PN formulations based on patient specific factors (e.g., age, venous access, disease state).
3. Develop a standard procedure for PN order writing and verification and PN compounding that ensures calcium and phosphate solubility.
4. Demonstrate safe PN compounding and administration practices.

Clinical and Practice Updates II (Module 3) – Credit Hours: 3.5

Chapter: Enteral Nutrition
Learning Objectives
1. Analyze the different types of enteral nutrition (EN) used in pediatric patients.
2. Justify use of special enteral formulas and the settings in which such formulas are used.
3. Evaluate appropriate situations in which additives are indicated as part of the EN regimen.
4. Assess the safety concerns involved with EN.

Chapter: Pediatric Obesity
Learning Objectives
1. Detect health care–related risk factors for childhood obesity, including medication therapy and disease states that may cause weight gain.
2. Evaluate for obesity and the need for weight management in pediatric patients.
3. Justify the role of behavioral therapy in the management of pediatric obesity.
4. Design a treatment plan for a child with obesity.
5. Distinguish the adverse effects of pharmacologic management of pediatric obesity.