

# **PSAP-VII • PEDIATRICS**

## **MODULE I LEARNING OBJECTIVES**

### **PHARMACOGENOMICS AND PEDIATRIC PHARMACOTHERAPY**

1. Apply basic genomic and pharmacogenomic principles to therapeutic decision-making in children.
2. Account for the influence of genomic variation when estimating drug exposure and response.
3. Evaluate factors influencing the clinical utility of a pharmacogenomic test and judge when testing is warranted in an individual patient.
4. Apply the principles of developmental pharmacogenomics in the interpretation of genomic information.
5. Design a patient-specific treatment plan using genomic data.
6. Critically analyze data from candidate gene and genome-wide association studies.

### **SICKLE CELL DISEASE**

1. Distinguish the underlying causes of sickle cell disease (SCD) and their relationships to patient signs and symptoms.
2. Develop a care plan for a child with SCD that may decrease the incidence of complications.
3. Assess the increased risk of morbidity and mortality associated with stroke in a child with SCD.
4. Design a treatment plan for iron chelation for a child maintained on chronic transfusion therapy.
5. Evaluate a plan of care for a pediatric patient with acute complications of SCD.
6. Construct a pharmacotherapy plan for health maintenance in a child with SCD, including immunizations, antimicrobials, nutritional supplements, pain management, and hydroxyurea.

### **POISONING AND ENVENOMATION**

1. Analyze epidemiologic trends in pediatric poisonings using data from the National Poison Data System.
2. Evaluate in detail the pediatric patient with a known or suspected toxic exposure or envenomation.
3. Develop an appropriate plan for decontamination of the poisoned pediatric patient based on the drug or substance involved.
4. Discover the impact of nonprescription drugs in pediatric poisonings.
5. Design therapeutic plans for the management of common toxic ingestions or envenomations in children.