The goal of these learning activities is to increase knowledge and enhance clinical practice related to pharmacological agents used in the care of children of all ages.

- Each module contains specific learning outcomes / objectives with 35 to 40 questions, and a minimum of 2-year availability to purchase.
- Topics are selected from annual needs assessment surveys.

### Pharmacology: Current Concepts

These modules are published annually and include content which reflects prevention and treatment of common conditions. They are based on the most current and relevant literature with a goal of providing a range of clinical resources and diversity of diagnoses.

### Pharmacology Specialty Content Topics

These modules are published annually and include content which reflects pharmacological agents for special problems spanning both inpatient and outpatient settings. Topics are picked from annual needs assessment surveys. They are based on the most current and relevant literature with a goal of providing a range of clinical resources and diversity of diagnoses.

Content for both Current Concepts and Specialty Content modules will include (but not be limited to):

<table>
<thead>
<tr>
<th>Prescriber Role (30%)</th>
<th>Education (30%)</th>
<th>Monitoring (30%)</th>
<th>Pharmacology (10%)</th>
</tr>
</thead>
</table>
| A. Drug Selection     | A. Education for patient and family:  
  - Drug purpose  
  - Administration  
  - Potential responses to therapy  
B. Specification of dose and form  
C. Specification of schedule & duration  
D. Legal/ethical considerations  
E. Medication Safety  
F. Economic cost | A. Efficacy  
B. Adverse Effects  
C. Interactions:  
  - Drug-drug  
  - Drug-disease  
  - Drug-food  
  - Drug-lab  
D. H & P  
E. Lab and diagnostic  
F. Behavioral issues:  
  - Dependency  
  - Tolerance  
  - Abuse  
  - Self-treatment | A. Pharmacodynamics:  
  - Concentration and individual response  
  - Potency and efficacy  
  - Therapeutic index  
B. Pharmacokinetics:  
  - Absorption  
  - Distribution  
  - Metabolism  
  - Elimination  
C. Pharmacogenomics/genetics |

### Patient Variables:

The following are integrated within all major concepts of the PNP role:
- Developmental Pharmacology
- Gender
- Genetics
- Race/Ethnicity

### Categories:

All pharmacology modules will cover the spectrum of body system conditions as well as:
- Electrolyte and nutritional conditions
- Substance use / abuse
- Complementary and alternative therapies (CAM)
- Ingestions and environmental exposures
- General theory and concept