



## **ADVANCED PHARMACOLOGY CONTINUING EDUCATION COURSE FOR FURNISHING**

These revised guidelines are established for CE Providers who offer advanced pharmacology courses in order to meet newly established Furnishing requirements. These new guidelines must be in evidence within one year of Board approval date. These guidelines may also be utilized by approved advance practice programs for furnishing purposes.

### **MINIMUM COURSE OFFERINGS**

- A post-RN licensure advanced pharmacology course based on the RN's previous knowledge of pharmacology and pharmacotherapeutics.
- A three (3) semester units or five (5) quarter units academic course.

OR

- A forty- five hour (45) continuing education (CE) course. The course must include a written test of knowledge to demonstrate comprehension of the course objectives

### **KEY POINTS:**

The CE course must include:

- The mechanism for ongoing communication between the student and course instructor.
- The requirements for approved standardized procedures to be in place prior to beginning practice.
- The requirement to furnish drugs/devices pursuant to a standardized procedure.
- The furnishing responsibility for Schedule III, IV, V controlled substances that are to be furnished with a patient-specific protocol in compliance with Health and Safety Code section 11000 for NPs.
- The furnishing responsibility for Schedule II, III, IV and V controlled substances that are to be furnished with a patient specific protocol in compliance with Health and Safety Code 11056 for CNMs.
- The Pharmacy Rules and Regulations for NPs and CNMs, Health & Safety Codes and OBRA 1990 Section 483-40, Federal Register.

### **COURSE OBJECTIVES:**

1. Uses the data base obtained from the health assessment of the client to identify an appropriate therapeutic regimen, including drugs and/or devices
2. Uses knowledge of pharmacokinetics when developing a therapeutic regimen that maximizes the therapeutic effectiveness while minimizing adverse reactions.
3. Uses knowledge of pharmacodynamics to observe the effects of drugs and/or devices on a client; to predict the client's response; and to understand the effects of the drugs and/or devices.
4. Evaluates the response and compliance of the client to the drugs and/or devices and implement appropriate action.
5. Provides appropriate client education regarding the furnished drugs and/or devices.
6. Furnishes drugs and/or devices pursuant to standardized procedures and in conformance with applicable laws, codes and/or regulations. Includes knowledge of Pharmacy rules and regulations, Health & Safety Code and Federal Register.
7. Examines appropriate guidelines for the pharmacological management of selected health care syndromes/diseases commonly encountered with awareness of client's nutrition, culture, ethnicity and socioeconomic status.
8. Uses knowledge and awareness of the role of herbal and natural remedies while treating disease states.

Advanced Pharmacology Enabling Objectives have been developed through public input and are available upon request.

## **FACULTY QUALIFICATIONS**

It is the responsibility of each approved CE provider to use qualified faculty, which may include Directors and instructors; all stated qualifications must be met by faculty.

- Current, valid and clear license to practice in the appropriate discipline.
- Demonstrates expertise in the theoretical and clinical aspects of pharmacology/pharmacotherapeutics.
- Possesses at least two years of experience in the teaching of advanced pharmacology.
- Includes a faculty member who has completed a doctoral level pharmacology/pharmacotherapeutics degree.
- Demonstrates evidence of advanced clinical practice within the past five years applying the principles of advanced pharmacology.

## **ADVANCED PHARMACOLOGY ENABLING OBJECTIVES**

- Defines and verbalizes an understanding of the terminology of advanced pharmacology. (Vocabulary list to be included)
- Identifies sources of drugs and provides examples of drugs from each drug source.
- Describes the “targets” of drugs.
- Describes the pharmacokinetic process of absorption, distribution, metabolism, and excretion.
- Identifies factors that alter the processes of absorption, distribution, metabolism, and excretion.
- Analyzes how the body’s acid base environment affects the pharmacokinetic process of absorption, distribution, metabolism, and excretion of drugs.
- Describes variables that determine the correct dosages of drugs.
- Defines half-life and explains the importance of a drug’s half-life in a therapeutic drug regimen.
- Describes factors that influence a drug’s half-life.
- Analyzes the relationship between drugs and their physiological and pathophysiological responses.
- Understands the pharmacokinetic and pharmacodynamic effects of broad categories of drugs, i.e., antibiotics, antiarrhythmics, antihypertensives contraceptives, etc. used in specific treatment regimens.
- Uses data obtained during a client’s H&P to identify appropriate drug choice/s and herbs, vitamins, minerals, and trace elements regimen/s, and recognizes the role of herbal and natural remedies in the treatment of health and disease states.
- Based upon the principles of pharmacokinetics and pharmacodynamics, identifies the indications, rationale, and mechanism of action for drugs and contrasts drugs used to treat specific conditions.
- Understands the potential interactions between drugs and herbs, vitamins, minerals, and trace elements.
- Performs appropriate monitoring before, during, and after specific drug regimens.
- Monitors efficacy of drug/s evaluates the response and compliance of the client to the drugs/devices and provides interventions for side effects, and manages adverse events that may occur.
- Identifies drugs with narrow therapeutic range.
- Identifies appropriate methods to write and transmit prescriptions.
- Furnishes drugs pursuant to legal requirements, standardized procedures, ethical standards, and in compliance with health and safety codes.
- Identifies resources for drug information and uses the resources to maintain clinical competency for furnishing.
- Describes the essential components of client education re: medications including: name of medication/s frequency/time of doses, correct dosage/s to take, how to take the medication/s i.e., with or without food, what to do if a dose of a medication is missed, side effects to expect, and adverse event/s to report to the prescriber.
- Identifies factors that influence medication compliance.
- Provides comprehensive and appropriate client and family education re: drugs of choice and alternatives and involves the client and family in the decision making process re: drug treatments.
- Chooses most appropriate drug for a disease base upon client’s symptomatology, health status, and lifestyle.