

RSPT 53B: ADVANCED RESPIRATORY THERAPY PHARMACOLOGY

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2022
Units:	2
Hours:	2 lecture per week (24 total per quarter)
Prerequisite:	RSPT 53A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Identify anti-infective agents.
- Compare and contrast the effects of sedatives, hypnotics, anti-anxiety agents, anti-psychotics, and analgesics.
- Student can identify cardiac drugs and their uses

Description

An in-depth study of drug groups commonly encountered in intensive respiratory care. Intended for students in the Respiratory Therapy Program; enrollment is limited to students accepted in the program.

Course Objectives

The student will be able to:

- Identify anti-infective agents.
 - Describe treatment for tuberculosis.
- Identify and describe appropriate neuromuscular blocking agents.
- Identify and describe appropriate CNS drugs.
 - Identify a barbiturate overdose from a narcotic overdose.
 - Compare and contrast the effects of sedatives, hypnotics, anti-anxiety agents, anti-psychotics, and analgesics (narcotic and non-narcotic).
- Identify and describe appropriate cardiovascular agents.
- Evaluate the patient's need for various diuretic agents.
- Evaluate the patient's need for selected respiratory therapy agents.
- Calculate the pediatric dosage for various respiratory care drugs.

Course Content

- Anti-infective agents
 - Antibiotics
 - Mode of action
 - Penicillins
 - Cephalosporins
 - Amino glycosides
 - Tetracyclines

- Miscellaneous antibiotic and anti-infective agents
 - Sulfonamides
- Antifungal agents
 - Antituberculosis agents
 - Antiviral agents
 - Aerosolized anti-infectives
- Skeletal muscle relaxants
 - Physiology of the neuromuscular junction
 - Neuromuscular blocking agents
 - Non-depolarizing agents
 - Depolarizing agents
 - Drugs affecting the central nervous system
 - The central nervous system
 - Sedatives and hypnotics
 - Barbiturates
 - Mechanism of action
 - Clinical uses
 - Overdose
 - Nonbarbiturate hypnotics and minor tranquilizers
 - Antipsychotic drugs
 - Neuroleptics
 - Antidepressants
 - Lithium
 - Analgesics
 - Narcotic analgesics
 - Pharmacologic properties of morphine
 - Therapeutic uses of narcotics
 - Overdose of morphine and its derivatives
 - Narcotic antagonists
 - Non-narcotic analgesics
 - Salicylates
 - Aniline derivatives
 - Pyrazole derivatives
 - Nonsteroidal anti-inflammatory drugs
 - Respiratory stimulants
 - Cardiovascular agents
 - The heart (cardiac drugs)
 - Cardiac glycosides
 - Antiarrhythmic agents
 - Cardiac stimulants
 - The circulatory system (drugs affecting circulation)
 - Antihypertensive agents
 - Coronary vasodilators
 - Vasoconstricting agents
 - Anticoagulants
 - Diuretic agents
 - Renal structure and function
 - Acid base balance
 - Diuretic groups
 - Osmotic diuretics
 - Carbonic anhydrase inhibitors
 - Thiazide diuretics
 - Loop diuretics
 - Potassium-sparing diuretics

6. Selected agents used in respiratory disease
7. Pediatric respiratory care pharmacology
 - a. Factors affecting drug therapy in the young
 - i. Pharmaceutic factors
 - ii. Pharmacokinetic factors
 - iii. Pharmacodynamic factors
 - b. Calculating pediatric dosages
 - c. Aerosolized drug delivery in neonates and children

Lab Content

Not applicable.

Special Facilities and/or Equipment

When taught online, students must have access to a computer with internet access.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Quizzes
Midterm
Final examination

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture

Representative Text(s) and Other Materials

Gardenhire. [Rau's Respiratory Care Pharmacology, 10th ed.](#). 2019.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

Assigned reading from textbook, approximately one chapter per week, averaging 30-40 pages.

Discipline(s)

Respiratory Technologies