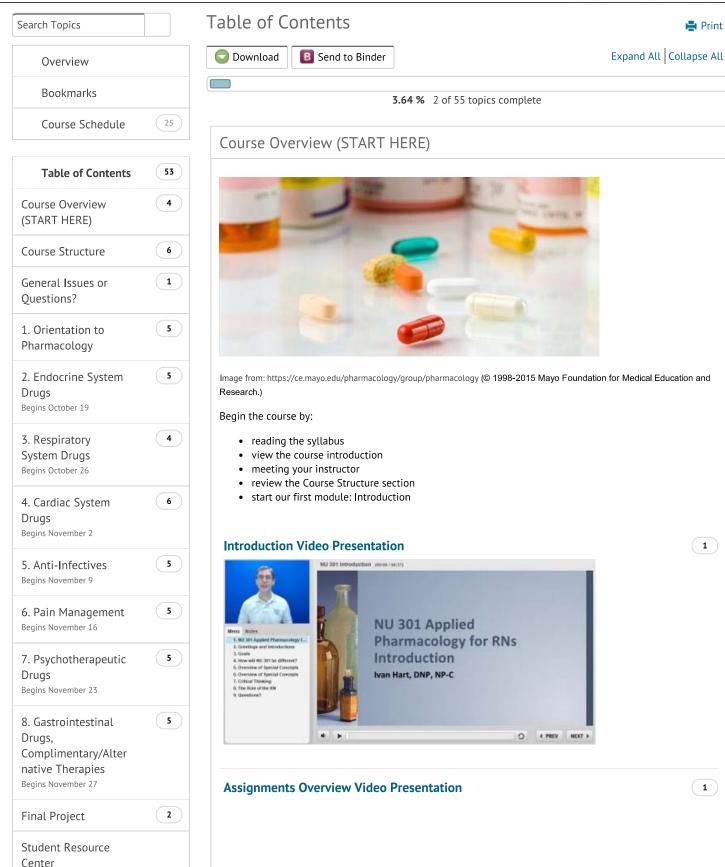
# NU-301-VA - Applied Pharmacology for RNs - 2016 Fall



Print

**(1**)

**(1**)





## **Syllabus**

1

Please take time to completely review the syllabus for this course. *There is some information that is only included in the syllabus.* The RN-to-BSN Student Handbook is also included here for your reference.

#### **Custom E-Book**

1

The textbook for this course is Lehne's Pharmacology for Nursing Care, 9th.



Burchum, J. & Rosenthal, L. (2016). *Lehne's Pharmacology for Nursing Care*, 9<sup>th</sup> *Edition*. St. Louis, Mo: Saunders. ISBN: 9780323321907

You have different options for obtaining this text:

- Purchase complete textbook (@ aprox 105 dollars, Amazon).
- Rent the textbook (@ aprox \$22 dollars, Amazon) .
- Purchase the custom e-book directly from the publisher (\$69.00, 2 yr access).
   Directions for purchasing the custom e-book are provided below.

## Status in the Program

You are currently here in the program:

Course Number	Course Name	Mentor
NU103	Power Up (Orientation) (1)	K. Rocci
IL170	Library Research Strategies (1)	G. Wilson
NU321	Professional Transformation (1)	K. Ure
NU300	Academic Writing for Nurses (1)	S. Morrison
NU301	Applied Pharmacology for RNs (2)	I.Hart
NU317	Health Assessment I (2)	J. Owen
NU323	Pathophysiology I (2)	S. Wangler
NU319	Health Assessment II (2)	J.Owen
NU327	Pathophysiology II. (2)	S. Wangler
NU329	Informatics (2)	L. Shriver
NU341	EB Nursing (2)	S. Morrison
NU451	Leadership & Health Policy (2)	H. Aranda
NU463	Quality & Safety (2)	J.Unruh
NU467	Prev. & Pop. Mgmt. (4)	J. Toerber-Clark
	45 hrs.	
NU494	Leadership Capstone (4)	H. Aranda
	45 hrs.	J. Toerber-Clark
		J. Unruh

#### Meet the Instructor



**Dr. Ivan Hart, DNP, NP-C** Adjunct Faculty

ivan.hart@washburn.edu

(785) 813-1177 (Please only call for urgent/emergent needs. Please do not call after 9 pm CST).

I prefer you address me as Dr. Hart.

The best way to contact me is via e-mail.

**Expectations for communication and feedback:** 

I will generally respond within 24 hours.

## Course Structure

#### **Course Outcomes**

At the end of this course, students will be able to:

- C1. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs.
- C2. Apply general concepts of pharmacokinetic and pharmacodynamic processes and their application in drug therapy and the nursing process.
- C3. Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs.
- C4. Analyze the mechanisms that are necessary to assure safety and quality in medication administration.
- C5. Define the effects of the local and global environment on pharmacology principles.

#### **Course Outcomes to Modules Mapping**

Each module has its own outcomes. The table below outlines the general topic for each module and how it maps back to the overall course outcomes.

Module	Outcome	<b>C1</b>	C2	<b>C</b> 3	C4	<b>C</b> 5
1	Introduction	Х				
2	Endocrine System Drugs	Х	Х	Х	Х	
3	Respiratory System Drugs	Х	Х	Х	Х	
4	Cardiac System Drugs	Х	Х	Х	Х	
5	Anti-Infectives	Х	Х	Х	Х	
6	Pain Management Drugs	Х	Х	Х	Х	
7	Psychotherapeutic Drugs	Х	Х	Х	Х	
8	Gastrointestinal System Drugs	Х	Х	Х	Х	Х

## **Course Expectations**



#### **Course Grading Policy**

Your work in this course will be evaluated in these areas:

Grade Category	%	Points
Unfolding Case Scenarios	47	210

Class Participation	20	90
Guided Reflections	24	105
Written Assignments	9	40
TOTAL	100%	445

Grading Scale	Points	Grade
91 - 100%	405-445	А
83 - 90.99%	369-404	В
75 - 82.99%	334-368	С
66 - 74.99%	294-333	D
< 66%	< 294	F

# **Tracking Your Progress**

There are several opportunities for you to track your progress throughout the course. There are a variety of activities planned each week. Below is a complete outline. You can also check your progress in the Grade Book (Assessments | Grades from the main menu).

Activity	Due Date	Pts.	Category Total	%
Jnfolding Case Scenarios	·			
Endocrine Case 2.1	30-Oct	10	)	
Endocrine Case 2.2	30-Oct	10	i	
Endocrine Case 2.3	30-Oct	10	Ì	
Respiratory Case 3.1	6-Nov	10	Ì	
Respiratory Case 3.2	6-Nov	10	i	
Respiratory Case 3.3	6-Nov	10		
Cardiac Case 4.1	13-Nov	10		
Cardiac Case 4.2	13-Nov	10		
Cardiac Case 4.3	13-Nov	10		
Anti-infectives Case 5.1	13-Nov	10		
Anti-infectives Case 5.2	20-Nov	10		
Anti-infectives Case 5.3	20-Nov	10		
Pain Management Case 6.1	27-Nov	10		
Pain Management Case 6.2	27-Nov	10		
Pain Management Case 6.3	27-Nov	10	)	
Psych Case 7.1	4-Dec	10	)	
Psych Case 7.2	4-Dec	10	)	
Psych Case 7.3	4-Dec	10		
GI Case 8.1	11-Dec	10		
Gl Case 8.2	11-Dec	10	)	
GI Case 8.3	11-Dec	10	210	47%
Class participation	<u> </u>	'	'	
Ice-breaker discussion - Module 1	19-Oct	10	)	
Article Selection - Module 1	23-Oct	10	)	
Open Discussion on case - Endocrine	26-Oct	10	)	
Open Discussion on case - Respiratory	2-Nov	10	)	
Open Discussion on case - Cardiac	9-Nov	10	)	
Open Discussion on case - Anti-infectives	16-Nov	10	)	
Open Discussion on case - Pain Management	23-Nov	10	)	
Open Discussion on case - Psych	30-Nov	10		
Open Discussion on case - Gl	7-Dec	10	90	20%
Guided Reflections				
Guided Reflection - Endocrine	26-Oct	15		
Guided Reflection - Respiratory	2-Nov	15		1

#### Table of Contents - NU-301-VA - Applied Pharmacology for RNs - 2016 Fall

	Guided Reflection - Cardiac	9-Nov	15		
	Guided Reflection - Anti-Infectives	16-Nov	15		
	Guided Reflection - Pain Management	23-Nov	15		
	Guided Reflection - Psych	30-Nov	15		
	Guided Reflection - GI	7-Dec	15	105	24%
Writ	ten assignments	·			
	K-W-WE Reflection	23-Oct	10		
	Final Project - Student Article Review	11-Dec	30	40	9%
TOT	AL		445	445	

This is the amount of time students are expected to spend in this course as compared to other School of Nursing courses:

#### **Credit Hour Analysis**

NU-301 60 Average 53 Min 23 Max 121

## **Copyright Notice & Disclaimer**

Content for this course includes supplemental materials from the textbook publisher. These materials are copyrighted and not intended for use outside of this course.

• Images at the beginning of each module (if not given another citation)

Burchum, J. & Rosenthal, L. (2016). Lehne's Pharmacology for Nursing Care,  $9^{th}$  Edition. St. Louis, Mo: Saunders. ISBN: 9780323321907

## General Issues or Questions?

If at any time during this course you have any general issues or questions, please post them here.

## **General Issues or Questions?**

# 1. Orientation to Pharmacology

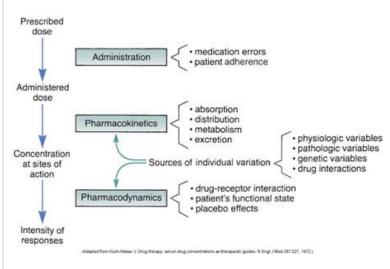


Image from textbook (Burchum & Rosenthal, 2016).

#### **Module 1 Video Presentation**



#### **Module Outcomes**

- M1.1 Describe the role pharmacology plays in your current practice.
- M1.2 Reflect on how applied pharmacology can improve your practice.

Component	Activity	M1.1	M1.2
Knowledge	Read Chapters	Х	
Understand	View Presentation	Х	
Interact	Ice-Breaker Discussion	Х	
Understand	Article Search & Discussion	Х	Х
Self-Reflect	K-W-WE Exercise		Х
Assessment	Ice-Breaker Discussion Rubric	Х	

#### Required Readings & Materials

(Links for e-book provided)

- Chapter 1 Orientation to Pharmacology
- Chapter 2 Application of Pharmacology in Nursing Practice

## **Student Interaction**

1

1

Week one's discussion will cover two topics. First, I would like for everyone to introduce themselves. Please, tell us something about yourself. How long have you been in practice? What specialty of nursing do you practice? What are your goals for obtaining your BSN? How are you balancing work, family, and school?

Second, I would like to know what role pharmacology plays in your current practice. Do you feel comfortable with administering medications? What areas of pharmacology would you like to improve on? What role does technology play in pharmacology where you work, and are you comfortable with this technology?

Your initial post is due by Wednesday.

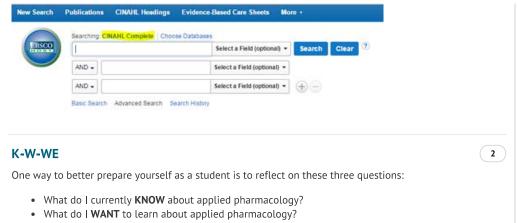
## **Learning Activities**

**1** 

Throughout this course, you'll be asked to support your views and opinions with citations from different sources. One of the best resources for you to use is the CINAHL Complete database repository available from the Mabee Library.

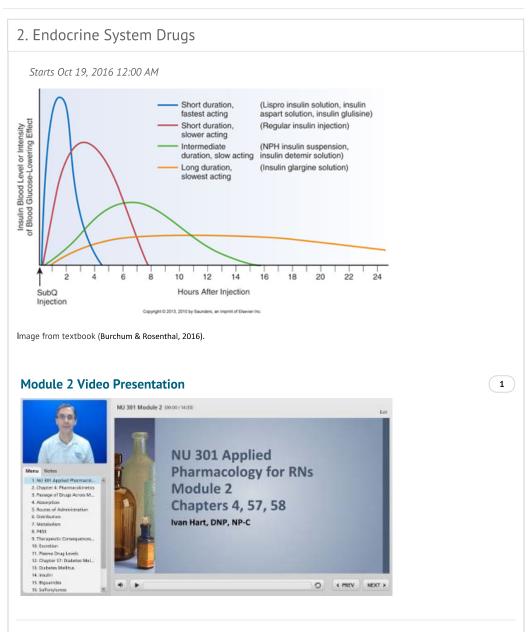
For this activity, visit the CINAHL database

(http://www.washburn.edu/mabee/find\_it/databases/nursing.html) and identify two articles that are peer reviewed and are related to pharmacology. Post how you would reference and cite these two articles in APA format in the Discussion Forum below.



• Given the scope of this course, **WHAT ELSE** do I learn on my own related to applied pharmacology to improve my practice?

Below is a template you can use to document your responses. When you are done, upload the document o to the dropbox below.



#### **Module Outcomes**

- M2.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to the endocrine system.
- M2.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their
  application in drug therapy and the nursing process in regards to endocrine system drugs.
- M2.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for the endocrine system.
- M2.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in endocrine system drugs.
- M2.5 Discuss and summarize various interpretations of a endocrine system case study.
- M2.6 Reflect on and demonstrate evidence and understanding of endocrine system drugs as it
  applies to professional practice.

Component	Activity	M2.1	M2.2	M2.3	M2.4	M2.5	M2.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 2.1	Х					
Apply	Case Scenario 2.2		Х				
Analyze/Examine	Case Scenario 2.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
Assessment	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Х

(Links to e-book provided)

- Chapter 4 Pharmacokinetics
- Chapter 57 Diabetes Mellitus
- Chapter 58 Thyroid Disorders

## Case Scenario 2.1

2

This is a 42-year-old male coming to you in a primary care setting with the chief complaint of rising blood sugars and fatigue. The patient states he checks his blood sugar infrequently, perhaps once or twice a month. Over the last month and a half he has noted his blood sugars to be consistently above 300 and sometimes as high as 400. He has a history of high blood pressure, diabetes, and a previous provider told him several years ago that he had renal disease. He does not see a provider frequently, and he receives his medications through a free clinic in another part of town. Other than the occasional finger stick for checking his blood glucose he has not had any lab work for at least two years. His medications are as follows:

- Metformin, 1000 mg, one tablet twice a day
- · Lisinopril, 20 mg, one tablet once a day
- Atorvastatin, 40 mg, one tablet once a day

## Define/describe/identify:

- 1. What would your concerns be regarding your new patient?
- 2. Identify potential problems.

Document your responses based on the rubric and upload them to the dropbox below.



http://www.truongthopharma.com/vi/shops/Tim-mach-tieu-duong/Meliformin-1000-mg-29/(@ 2012 thuộc về Công Ty Cổ Phần Dược Phẩm Trường Thọ)

https://www.buy-pharma.com/Generic-Zestril-Lisinopril-Tablet-p-58.html

http://www.buypharma1.com/Generic-Lipitor-Atorvastatin-p-24.html

## **Student Interaction**

1

Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

Initial post due by Wednesday.

#### **Guided Reflection**



- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.

Initial post due by Wednesday.

# 3. Respiratory System Drugs

Starts Oct 26, 2016 12:00 AM

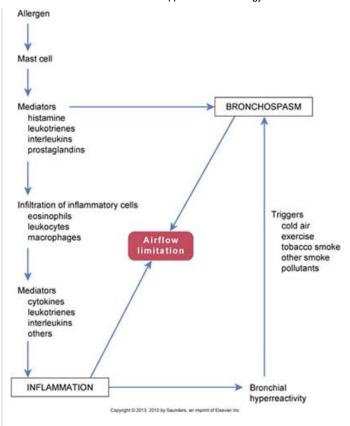


Image from textbook (Burchum & Rosenthal, 2016).

## **Module 3 Video Presentation**

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NU 301 Applied Pharmacol.
2 Capter 1: Memocodyn.
3 Days Response Residenting
4 Days Response That Do B.
7 That special vides
8 Chapter 5, 76, 77
Ivan Hart, DNP, NP-C

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12. Archivolinosys Chag
13. Chron Chapter 1: Allerge (Med. 13. Days (Response)
13. Chron Chapter 1: Allerge (Med. 13. Days (Response)
14. Chron Chapter 1: Allerge (Med. 13. Days (Response)
15. Days (Response)
16. Cald Remedia

## **Module Outcomes**

- M3.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to the respiratory system.
- M3.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their
  application in drug therapy and the nursing process in regards to respiratory system drugs.
- M3.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for the respiratory system.
- M3.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in respiratory system drugs.
- M3.5 Discuss and summarize various interpretations of a respiratory system case study.
- M3.6 Reflect on and demonstrate evidence and understanding of respiratory system drugs as it
  applies to professional practice.

Component	Activity	M3.1	M3.2	M3.3	M3.4	M3.5	M3.6
Knowledge	Read Chapters	Х	Х	Х	Х		

1

Understand	View Presentation	Х					
Understand	Case Scenario 3.1	Х					
Apply	Case Scenario 3.2		Х				
Analyze/Examine	Case Scenario 3.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
Assessment	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Χ

- Chapter 5 Pharmacodynamics
- Chapter 76 Asthma
- Chapter 77 Allergic Rhinitis, Cough, and Cold

#### Case Scenario 3.1

**1** 

This is a 19-year-old female presenting for increasing asthma symptoms. She has a history of asthma and states she just moved to the area to go to college. After moving here she noted that her inhaler use increased significantly. Before the move she used her inhaler once or twice a month. Now, she is using her albuterol inhaler almost daily. She is also experiencing increased watery eyes and rhinorrhea. She feels as if the albuterol is not as effective as it was before her move. Upon auscultation she is wheezing in all fields. She presents with a mildly increased work of breathing. Albuterol is her only prescribed medication. She does not smoke.

#### Define/describe/identify:

- 1. What would your concerns be regarding your new patient?
- 2. Identify potential problems.

Document your responses based on the rubric and upload them to the dropbox below.



Image from: http://inhalerdosage.com/wp-content/uploads/2011/11/Albuterol-Inhaler.jpg

#### Student Interaction

1

Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

#### **Guided Reflection**

**1** 

• Reflect on how this week's topic applies to your professional practice with your peers.

- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.

## 4. Cardiac System Drugs

Starts Nov 2, 2016 12:00 AM

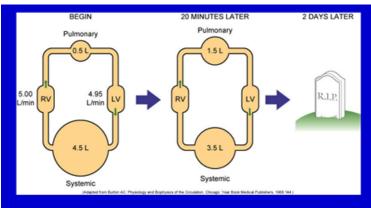


Fig. 43–6. Systemic-pulmonary imbalance that develops when the output of the left and right ventricles is not identical.

Image from textbook (Burchum & Rosenthal, 2016).

#### **Module Outcomes**

- M4.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to the cardiac system.
- M4.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their
  application in drug therapy and the nursing process in regards to cardiacy drugs.
- M4.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for the cardiac system.
- M4.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in cardiac drugs.
- M4.5 Discuss and summarize various interpretations of a cardiac case study.
- M4.6 Reflect on and demonstrate evidence and understanding of cardiac drugs as it applies to professional practice.

Component	Activity	M4.1	M4.2	M4.3	M4.4	M4.5	M4.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 4.1	Х					
Apply	Case Scenario 4.2		Х				
Analyze/Examine	Case Scenario 4.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
Assessment	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Х

## **Required Readings & Materials**

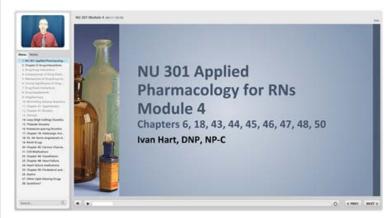
(Links to e-book provided)

- Chapter 6 Drug Interactions
- Chapter 18 Adrenergic Antagonists
- Chapter 43 Review of Hemodynamics
- Chapter 44 Drugs Acting on the Renin-Angiotensis-Aldosterone
- Chapter 45 Calcium Channel Blockers
- Chapter 46 Vasodilators
- Chapter 47 Drugs for Hypertension
- Chapter 48 Drugs for Heart Failure
- Chapter 49 Antidysrhythmic Drugs
- Chapter 50 Prophylaxis of Atherosclerotic Cardiovascular Disease: Drugs That Help Normalize Cholesterol and Triglyceride Levels
- Chapter 51 Drugs for Angina Pectoris
- Chapter 52 Anticoagulant, Antiplatelet, and Thrombolytic Drugs

Don't panic. My recommendation is to read chapters 6 and 43 in their entirety. They are both brief. Then read the key points and summary of major nursing implications for the remaining chapters. When you go over chapter 18, focus on those sections that pertain to cardiology. If you don't understand something, post in the open discussion in case someone else has the same question and/or ask me. Most of these chapters are brief and there is some overlap in material. For example calcium channel blockers (CCBs) are discussed in chapters 45, 46, and 47. Chapter 47 is an overview of hypertension medications and repeats information from other chapters

#### **Cardiac Presentation**

2



## Case Scenario 4.1

1

You are a nurse on a telemetry floor taking care of a 56-year-old female who was admitted a few hours ago to the hospital for chronic obstructive pulmonary disease (COPD) exacerbation. Initially, she presented to the emergency room complaining of shortness of breath and chest pain. The patient has a history of heavy smoking, hypertension, coronary artery bypass graft (CABG), diabetes, and dyslipidemia. Her COPD was only recently diagnosed. The report given to you by the emergency room RN indicated that the patient is a poor historian. For example, she was unable to remember the date of her heart surgery, and she was unsure of her current medications. Further, as her COPD diagnosis is recent she does not have a full grasp of the illness and its management. Her pharmacy was consulted and her medications were determined to be the following:

- lisinopril/htz, 20/12.5, one tablet every day
- propranolol, 60 mg, one tablet twice a day
- · atorvastatin, 40 mg, one tablet every day
- metformin, 1000 mg, one tablet twice a day
- aspirin, 81 mg, one tablet every day
- tiotropium (Spiriva) inhaled, 18 mcg (one cap) every day
- albuterol, 2.5 mg via nebulizer, every 4-6 hours as needed.

## Define/describe/identify:

- 1. What would your concerns be regarding your new patient?
- 2. Identify potential problems.

Document your responses and upload them to the dropbox below.



http://dailymed.nlm.nih.gov/dailymed/archives/image.cfm? archiveid=77056 & type=img & name=lisinopril-and-hydrochlorothiazide-4.jpg

 $http:\!//dailymed.nlm.nih.gov/dailymed/archives/fdaDrugInfo.cfm? archiveid = 60808$ 

http://www.myhealthybucks.com/images/products/185.jpg

 $http://eurasiapharmaceuticals.com/image/cache/data/ls\_images/PULMONARY/spiriva-inh-kaps-18-mcg-30-stk-800x800-lineary. A substitution of the control of th$ 

500x500.jpg (Eurasia Pharmaceuticals Since 1976 © 2014-2015)

) http://inhaler dosage.com/wp-content/uploads/2011/11/Albuterol-Inhaler.jpg

http://www.buypharma1.com/Generic-Lipitor-Atorvastatin-p-24.html

# **Student Interaction**

Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

## **Guided Reflection**

1

**1** 

- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.

#### Mid-Term Feedback

1

How are things going? Give use some feedback so we can make this a great experience for you!

## 5. Anti-Infectives

Starts Nov 9, 2016 12:00 AM



Image from textbook (Burchum & Rosenthal, 2016).

#### **Antimicrobials Presentation**



#### **Module Outcomes**

- M5.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to anit-infectives.
- M5.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their
  application in drug therapy and the nursing process in regards to anti-infective drugs.
- M5.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for anti-infection.
- M5.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in anti-infective drugs.
- M5.5 Discuss and summarize various interpretations of a anti-infective case study.
- M5.6 Reflect on and demonstrate evidence and understanding of anti-infective drugs as it applies to professional practice.

Component	Activity	M5.1	M5.2	M5.3	M5.4	M5.5	M5.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 5.1	Х					
Apply	Case Scenario 5.2		Х				
Analyze/Examine	Case Scenario 5.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х

2

Assessment	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Х

- Chapter 7 Adverse Drug Reactions and Medication Errors
- Chapter 83 Basic Principles of Antimicrobial Therapy
- Chapter 84 Drugs that Weaken the Bacterial Cell Wall I: Penicillins
- Chapter 85 Drugs that Weaken the Bacterial Cell Wall II: Cephalosporins, Carbapenems, Vancomycin, Telavancin, Aztreonam, and Fosfomycin
- Chapter 86 Bacteriostatic Inhibitors of Protein Synthesis: Tetracyclines, Macrolides, and Others
- Chapter 87 Aminoglycosides: Bactericidal Inhibitors of Protein Synthesis
- Chapter 88 Sulfonamides and Trimethoprim
- Chapter 89 Drug Therapy and Urinary Tract Infections
- Chapter 90 Antimycobacterial Agents: Drugs for Tuberculosis, Leprosy, and Mycobacterium avium Complex Infection
- Chapter 91 Miscellaneous Antibacterial Drugs: Fluoroquinolones, Metronizdazole, Daptomycin, Rifampin, Rifaximin, Bacitracin, and Polymyxins
- Chapter 92 Antifungal Agents
- Chapter 93 Antiviral Agents I: Drugs for Non-HIV Infection and Related Opportunistic Infections
- Chapter 94 Antiviral Agents II: Drugs for HIV Infection and Related Opportunistic Infections
- Chapter 95 Drug Therapy of Sexually Transmitted Diseases
- Chapter 96 Antiseptics and Disinfectants

Please read chapters 7 and 83 in their entirety. The concepts in these chapters are important.

Unit 16 (Chemotherapy of Infectious Diseases) includes chapters 83 through 96. While I want you to read chapter 83 all the way through, the remaining chapters are for your reference only and are *not* part of the reading assignment. Having said that, if there are certain classes of antibiotics that you see in your work environment, then I recommend that you review the chapter(s) that addresses those medications. additionally, you are encouraged to use your drug guide or the text for specific drug information for antimicrobials referenced in this weeks case study.

## Case Scenario 5.1

1

This is a 42-year-old female in her primary care provider's office with the complaint of diarrhea, nausea, abdominal pain/cramping, and muscle aches for two days. The patient has a history of high blood pressure and dyslipidemia that has been well controlled with medications. One week ago she was seen at an urgent care for cough and prescribed clarithromycin. She has no allergies to medications. She has no environmental allergies. She denies recent travel. No one at home is experiencing similar symptoms. Surgical history includes complete hysterectomy and appendectomy. She denies having any urinary symptoms such as dysuria or urinary frequency. She has no rashes, and she is fully immunized. Her medications include:

- Simvastatin: 20 mg, one tablet every day.
- Losartan 100 mg, one tablet every day.
- Clarithromycin, 500 mg, one tablet every 12 hours for seven days (she is on day six).

#### Define/describe/identify:

- 1. What would your concerns be regarding your patient?
- 2. Identify potential problems.

Document your responses and upload them to the dropbox below.







http://static1.framar.bg/product/simvastatin-genericon.jpg (© 2007 - 2016 Аптеки Фрамар. )

https://www.adlershop.ch/p9727/4320/losartan-actavis-filmtabl-100-mg-98-stk-800x800.jpg

 $http://www.sz-produkte.de/\_images/packshots/gross/Clarithromycin\_500mg\_Filmtbl.JPG$ 

#### Student Interaction

1

Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

#### **Guided Reflection**

1

- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.

## 6. Pain Management

Starts Nov 16, 2016 12:00 AM



No Hurt



Hurts

Little Bit



Hurts

Little More



Hurts

Even More



Whole Lot

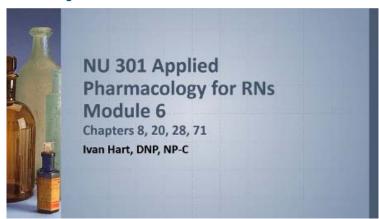


Hurts Worst

Image from textbook (Burchum & Rosenthal, 2016).

#### **Pain Management Presentation**

2



## **Module Outcomes**

- M6.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to pain management.
- M6.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their
  application in drug therapy and the nursing process in regards to pain management drugs.
- M6.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for pain management.

- M6.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in pain management drugs.
- M6.5 Discuss and summarize various interpretations of a pain management case study.
- M6.6 Reflect on and demonstrate evidence and understanding of pain management drugs as it applies to professional practice.

Component	Activity	M6.1	M6.2	M6.3	M6.4	M6.5	M6.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 6.1	Х					
Apply	Case Scenario 6.2		Х				
Analyze/Examine	Case Scenario 6.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
Assessment	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Х

Please read the following chapters:

- Chapter 8 Individual Variation in Drug Response
- Chapter 20 Introduction to Central Nervous System Pharmacology
- Chapter 28 Opioid Analgesics, Opioid Antagonist, and Nonopioid Centrally Acting Analgesics
- Chapter 71 Cyclooxygenase Inhibitors: Nonsteroidal Antiinflammatory Drugs and Acetaminophen

Read chapters 8 and 20 in their entirety. Then review chapters 20 and 28.

#### Case Scenario 6.1

1

A 68 year old male is in the office today for increased falls over the past two weeks primarily at night. These have all been ground level falls onto carpet with no resulting injury. The majority of these falls have been at night. He has a past medical history of hypertension, dyslipidemia, mild chronic obstructive pulmonary disease (COPD), and insomnia. Insomnia was diagnosed six months ago, and the patient was prescribed medication to help with sleep. Patient is normally robust and active. He states he does not wear oxygen, and his COPD does not limit his activities. He denies shortness of breath or chest pain. Spouse reports that patient has recently been self-medicating dental pain with left over hydrocodone/acetaminophen (5/325) that he was prescribed a year ago for low back pain. Medications are as follows.

- olmesartan, 20 mg, one tab every day
- simvastatin 20 mg, one tab every day
- albuterol/ipratropium (Duoneb) nebulizer, one nebule every 4-6 hours as needed
- · zolpidem, 10 mg, one tab every night at bed time
- hydrocodone/acetaminophen, 5mg/325mg, 1-2 tablets every 4-6 hours a needed

Currently he denies any pain or injury from falls. He does still have some minor dental pain

#### Define/describe/identify:

- 1. What would your concerns be regarding your new patient?
- 2. Identify potential problems.

Document your responses and upload them to the dropbox below.



http://www.buckadaypharmacy.com/i/product/large/OLMETEC\_20MG.jpg

http://static1.framar.bg/product/simvastatin-genericon.jpg (© 2007 - 2016 Аптеки Фрамар. )

http://images.medscape.com/pi/features/drugdirectory/octupdate/A067230Z.jpg

http://www.accesslakechapala.com/wp-content/uploads/2012/06/ambienmexico.jpg

http://medlibrary.org/lib/images-rx/hydrocodone-bitartate-and-acetaminophen-3/hydrocodonelabel.jpg

#### **Student Interaction**

1

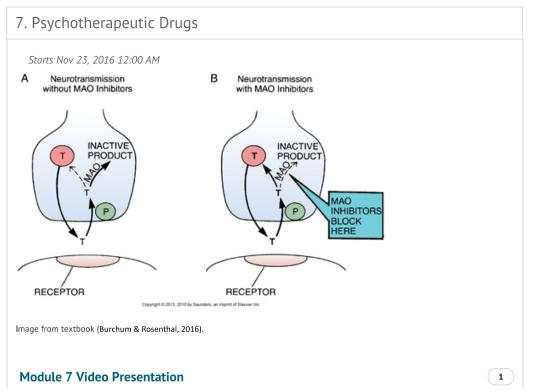
Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

#### **Guided Reflection**

1

- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.





#### **Module Outcomes**

- M7.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to psychiatric problems.
- M7.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their application in drug therapy and the nursing process in regards to psychotherapeutic drugs.
- M7.3 Examine what is involved in each step of the nursing process as it relates to drug administration of select drugs for psychiatric disorders.
- M7.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in psychotherapeutic drugs.
- M7.5 Discuss and summarize various interpretations of a psychotherapeutic case study.
- M7.6 Reflect on and demonstrate evidence and understanding of psychotherapeutic drugs as it
  applies to professional practice.

Component	Activity	M7.1	M7.2	M7.3	M7.4	M7.5	M7.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 7.1	Х					
Apply	Case Scenario 7.2		Х				
Analyze/Examine	Case Scenario 7.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
Assessment	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Х	
	Guided Reflection Rubric						Х

#### Required Readings & Materials

Please read the following article: "The Prescribing Cascade". A PDF file is attached below.

Review the following chapters (links to e-book provided):

- Chapter 32 Antidepressants
- Chapter 34 Sedative-Hypnotic Drugs
- Chapter 35 Management of Anxiety Disorders
- Chapter 36 Central Nervous System Stimulants

Please review the Key Points and Summary of Major Nursing Implications at the end of the chapters. Read any chapter sections that need clarification and ask any questions you have in the Open Discussion section of Module 7

Kalisch, L. M., Caughey, G. E., Roughead, E. E., & Gilbert, A. L. (2011). The prescribing cascade. Aust Prescr, 34(6), 162-6.

1

#### Case Scenario 7.1

This is a 29 year old female presenting to your office today to establish primary care. She has a past medical history of asthma that is well controlled with daily inhaled steroids, attention deficit disorder (ADD), anxiety, chronic back pain due to a sports injury, insomnia, and chronic constipation. Her medications currently include:

- fluticasone inhaled, two puffs twice a day
- albuterol inhaled, 1-2 puffs every 4-6 hours as needed
- sertraline, 100 mg, one tablet every day
- dextroamphetamine/amphetamine (Adderall) 20 mg, one tablet twice a day
- hydrocodone/acetaminophen 7.5 mg/325 mg, one tablet every 6 hours as needed
- zolpidem, 5 mg, one tablet every night at bedtime
- colace, 50 mg, one tablet twice a day as needed

Patient states she experienced a back injury while playing soccer in college. She has not received any physical therapy or other non-pharmacological management of her back. She was diagnosed as having ADD in graduate school and placed on dextroamphetamine/amphetamine at that time. Both her anxiety and insomnia developed and were diagnosed just after graduate school. She has never seen or been evaluated by a therapist.

## Define/describe/identify:

- 1. What would your concerns be regarding your new patient?
- 2. Identify potential problems.
- 3. Is there any possibility of a prescribing cascade? Is so then explain.

Document your responses and upload them to the dropbox below.















#### Images from:

https://d4fuqqd5l3dbz.cloudfront.net/products/tms/Package\_17779JPG
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## **Student Interaction**

1

1

1

#### **Guided Reflection**



- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.

• Respond to two or more of your classmates.

# 8. Gastrointestinal Drugs, Complimentary/Alternative Therapies Starts Nov 27, 2016 12:00 AM ULCERS GASTRITIS HEALTHY AGGRESSIVE DEFENSIVE **FACTORS FACTORS** H. pylori Mucus **NSAIDs** Bicarbonate Acid Blood flow Pepsin Prostaglandins Smoking Image from textbook (Burchum & Rosenthal, 2016). **Module 8 Video Presentation** 1 NU 301 Applied Pharmacology for RNs Module 8 (Ch. 78, 108, handout) Ivan Hart, DNP, NP-C

#### **Module Outcomes**

 M8.1 Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug-drug interactions associated with selected drugs related to the gastrointestinal system and drugs that considered complimentary/alternative therapies.

O CPREY NEXT >

- M8.2 Apply general concepts of pharmacokinetic and pharmacodynamic processes and their application in drug therapy and the nursing process in regards to gastrointestinal system/complimentary-alternative drugs.
- M8.3 Examine what is involved in each step of the nursing process as it relates to drug
  administration of select drugs for the gastrointestinal system and complimentary/alternative
  therapies.
- M8.4 Analyze the mechanisms that are necessary to assure safety and quality in medication administration in gastrointestinal system drugs and complimentary/alternative therapies.
- M8.5 Discuss and summarize various interpretations of a gastrointestinal system case study.
- M8.6 Reflect on and demonstrate evidence and understanding of gastrointestinal system drugs/complimentary-alternative therapies as it applies to professional practice.

Component	Activity	M8.1	M8.2	M8.3	M8.4	M8.5	M8.6
Knowledge	Read Chapters	Х	Х	Х	Х		
Understand	View Presentation	Х					
Understand	Case Scenario 8.1	Х					
Apply	Case Scenario 8.2		Х				
Analyze/Examine	Case Scenario 8.3			Х	Х		
Interact	Open Discussion					Х	
Reflection	Guided Reflection Discussion						Х
Assessment	Case Scenario Rubric x.1	Х					
	Case Scenario Rubric x.2		Х				
	Case Scenario Rubric x.3			Х	Х		
	Open Discussion Rubric					Χ	
	Guided Reflection Rubric						Х

**(1**)

- Chapter 78 Drugs for Peptic Ulcer Disease
- Chapter 108 Complementary and Alternative Therapy

Please read the attached article "The Use of Smartphones in Clinical Practice".

Then read the following chapters:

Chapter 78: Drugs for Peptic Ulcer Disease

Chapter 108: Complementary and Alternative Therapy

Please review the Key Points and Summary of Major Nursing Implications at the end of the chapters. Read any chapter sections that need clarification and ask any questions you have in the Open Discussion section of Module 8.

Moore, S., & Jayewardene, D. (2014). THE USE OF SMARTPHONES IN CLINICAL PRACTICE. *Nursing Management - UK*, *21*(4), 18-22. doi:10.7748/nm.21.4.18.e1225

#### Case Scenario 8.1



A 57 year old male is a patient being admitted for an overnight observation for chest pain. He presented earlier today to the emergency room (ER) with sub-sternal chest pain. He is from Egypt. He has a history of a previous myocardial infarction (MI). Other than the MI, the patient has a history of high blood pressure and dyslipidemia. His current medications are:

- Clatex, 75 mg, one tablet every day
- Amosar 100 mg, one tablet every day
- Ator, 40 mg, one tablet every day
- CoQ-10, 100mg, one capsule a day

The patient speaks English well, but is not sure of the American drug equivalents. He knows that Clatex was prescribed after his MI, that Amosar is for his blood pressure, and that Ator is for his cholesterol. He takes the supplement CoQ10 which he purchases online. He was advised to do this by his provider because he takes Ator.

#### Define/describe/identify:

- 1. Identify potential problems regarding the patient's medication list.
- 2. How does this **global** aspect of pharmacology add to the complexity of the patient?

Document your responses and upload them to the dropbox below.



http://www.amoun.com/leap-portfolio-project/amosar/ (© 2015 Amoun)

#### **Student Interaction**

1

Discuss the case with your classmates:

- Discuss and summarize with your classmate the various interpretations of the case study. What are the issues involved?
- How can you support your view with 2 or more citations?
- Interact by responding to two or more classmates.

#### **Guided Reflection**

**1** 

- Reflect on how this week's topic applies to your professional practice with your peers.
- Demonstrate support for your view with 2 or more citations.
- Respond to two or more of your classmates.

# Final Project

Your final project is a writing assignment worth 30 points. Please use a database or the library to find two to three articles that relates to a pharmacological topic. You can choose any topic that is of interest to you as long as it relates to pharmacology. If your nursing specialty has a focus on a particular area of pharmacology that is a great place to start your search. You have some flexibility in the approach of your topic. You may compare and contrast current research or synthesize findings from related articles. Please choose articles that are current and not more than three years old. You are highly encouraged to use the library and all of its resources. This paper will need to follow APA format. Please double space and use appropriate APA style citations. You will need a cover page and a reference page. The cover and reference pages are not included in the page count. Please note that you will lose points if your paper is too short or long. Also, this paper does not need an abstract.

Purdue University has an excellent website for academic writing. It is called the Purdue Online Writing Lab (OWL). This source has information about proper paragraph development and APA style. You may find the Purdue OWL at this location:

https://owl.english.purdue.edu/owl/

Reference the rubric below for more information.

#### **Student Article Review**

Overdue - Dec 11, 2016 6:00 PM

## **Final Project Rubric**

## Student Resource Center



Visit the School of Nursing Student Resource Center in D2L to learn more about these topics:

**Technology Support** - getting answers to your technology questions.

- Information Technology Services
  - Password resets
  - Access to MyWashburn & Banner
  - Setting up e-mail on your phone
  - Using Office 365
  - Name changes
  - Technical Support questions
- Online Education Support
  - Questions related to D2L

Accessibility - learn more about your options at Washburn and obtain help.

Academic Support Services - services to help you with your academic studies.

- Mabee Library
- Meet Your Librarian
- Center for Student Success
- Tutoring & Writing Center
- APA Resources

Student Services - services to help you personally.

- School of Nursing Advising
- Financial Aid
- Student Organizations
- Counseling
- Career Services