



**NURSING 121**  
**College Laboratory Guide**  
**Spring 2015**

## PREPARATION FOR COLLEGE LAB:

NRS 121 students are expected to:

1. Review class notes, reading assignments, lab objectives
2. Review assigned skills
3. Go to Pearson's [mynursingkit.com](http://mynursingkit.com), Student Resources, skills: print out the assigned skills for class
4. Be prepared to practice skills assigned with a partner
5. Bring calculator to class for practice of math
6. Attend all scheduled lab sessions
7. **Arrive on time.** Repeated late arrivals will require intervention by the Course Coordinator.

## **REQUIRED TEXTBOOKS:**

Adams, M.L., Holland, L.N. & Urban, C.Q. (2011) *Pharmacology for Nurses A Pathophysiologic Approach*. (3rd ed.) Upper Saddle River: Pearson

King, S. (2009) *Josie's Story A Mother's Inspiring Crusade to Make Health Care Safe*. New York: Grove Press (ISBN-10: 0802119204. Can be obtained on Amazon used for \$10.33. e Textbook is \$9.99 on Amazon. )

North Carolina Custom Edition, (2011). *Nursing Skills for a Concept-Based Approach to Learning*. New York: Pearson Learning Solutions.

North Carolina Concept-Based Learning Editorial Board. (2011). *Nursing A Concept-Based Approach to Learning, Volumes One & Two*. Upper Saddle River: Pearson.

Nugent, P.M., Vitale, B., & Vitale, B.A. (2012) *Test Success: Test Taking Techniques for Beginning Nursing Students*. (6th ed.) Philadelphia: FA Davis.

Pickar, G.D., Abernethy, A.P. (2013) *Dosage Calculations*. (9th ed.) Clifton Park: Thompson Delmar Learning

Silvestri, L.A, (2013) *Comprehensive Review for the NCLEX-RN Examination*. (6th ed.). St. Louis, MI. Elsevier Saunders.

Simple calculator.

## **Recommended Textbooks:**

American Psychological Association. (2010) *Publication Manual of the American Psychological Association*. (6th ed.). American Psychological Association: Washington D.C.

Carpenito-Moyet, L. J., (2008). *Nursing Diagnosis Application to Clinical Practice*. (12<sup>th</sup> ed.). Philadelphia: J. B. Lippincott.

Deglin, J.H., Vallerand, A.H. & Sanoski, C.A. (2011) *Davis's Drug Guide Nurses*. (12th ed.) Philadelphia: FA Davis. (ISBN-13: 978-0-8036-2308-8)

Doenges, M.E., Moorhouse, M.F., Murr, A.C. (2009) *Nursing Care Plans: Guidelines for Individualizing Client Care Across the Life Span*. (8th ed.) Philadelphia: FA Davis. (ISBN-13: 978-0-8036-2210-4)

Nugent, P.M., Vitale, B.A. (2012). *Fundamentals Success*. (3rd ed.) Philadelphia: F.A. Davis.

## College Lab Week 1

### **WEEKLY COURSE OBJECTIVES:**

1. Identify factors and/or co-morbidities affecting and/or contributing to inflammation, infection or oxygenation alterations.
2. Explain commonly used treatments, identified by standards of care, for patients with conditions that affect inflammation, infection, or oxygenation
3. Explain common physical assessment procedures used to assess inflammation, infection or oxygenation for patients across the life span.
4. Outline diagnostic and laboratory test to determine the patient's inflammation, infection or oxygenation status as it relates to the exemplars presented.
5. Explain the management of inflammation, infection, and oxygenation as it relates to health/wellness and prevention.
6. Demonstrate the nursing process in providing culturally competent and caring interventions across the life span for individuals with conditions that affect inflammation, infection and oxygenation.
7. Identify pharmacologic and non-pharmacologic interventions when caring for a patient with conditions that affect inflammation, infection, or oxygenation

### **Inflammation, Infection, Oxygenation EXEMPLARS:**

1. Perioperative care
2. Appendicitis
3. Cholecystitis
4. Peptic Ulcer Disease
5. Cellulitis
6. Pneumonia/ influenza/TB/  
croup

### **COLLEGE LABORATORY EXPERIENCE:**

**DISCUSSION:** will focus on patient centered care, teamwork and collaboration, evidence-based practice, quality improvement and safety & informatics of patients who are experiencing alterations in inflammation, infection and oxygenation.

Students will discuss **Case Scenarios** provided by instructor specific to patients in the perioperative area:

1. Practice assessing patients applying concepts of comfort with simulated surgical procedures involving postoperative pain
2. Practice preop preparation of clients going to surgery
3. Practice preventative nursing care for postoperative patients
4. Practice assessments identifying patients with complications postoperatively
5. Practice assessments identifying patients across the lifespan with alterations of infection and oxygenation
6. Practice preparation of a child and elderly client for surgical experience
7. Identify how to assess and evaluate therapeutic outcomes, and adverse effects of pharmacologic interventions to clients in the perioperative area

## College Lab Week 1 continued

**SKILLS/Demonstration/Practice:** Students will demonstrate competency in assigned skills.

1. hand hygiene,
2. latex precautions,
3. performing surgical hand antisepsis/scrubs,
4. gowning and gloving, preparing surgical site,
5. preparing client for surgery,
6. pouring from a sterile container,
7. preparing a sterile field,
8. preparing for dressing change,
9. changing a sterile dressing,
10. removing sutures,
11. removing staples,
12. applying ace bandages or abdominal binders

### **COLLEGE LABORATORY SKILLS:**

SOURCE: North Carolina Custom Edition, (2011). *Nursing Skills for a Concept-Based Approach to Learning*. New York: Pearson Learning Solutions.

**CONCEPT INFECTION:** Skill 4.1-4.3: p 157-161; 4.12-4.21: p170-182;

**CONCEPT TISSUE INTEGRITY:** Skill 10.1, 10.2, 10.5, 10.7-10.9: p405,408,413, 418-420

**CHARTING:** Students will PRACTICE charting on the perioperative client using SIM CHART

### **DOSAGE CALCULATIONS**

Students will review/practice dosage calculation problems assigned by instructor

SOURCE: Pickar, G.D., Abernethy, A.P. (2013) *Dosage Calculations*. (9th ed.) Clifton Park: Thompson Delmar Learning

DOSAGE CALCULATION TEST GIVEN IN CLASS THE FIRST DAY COVERS THE FOLLOWING TOPICS

1. Question #1: Converting From one Unit to Another Using the Conversion Factor Method: Pickar p75, Converting within the metric system using the conversion factor method shortcut: Pickar p79, Converting between systems of measurement using the conversion factor method: Pickar p84-85, Practice conversion problems Pickar p 88-89
2. Question #2: Interpreting The Drug order Pickar p 117-132
3. Question #3: Reading Drug Labels Pickar p 133-147
4. Question #4: Oral Dosage of Drugs: Pickar p 171-204
5. Question #5: Injectables including insulin: Pickar p205-240
6. Question #6: Reconstitution of solutions: Pickar p241-284
7. Question #7: Converting pounds to kilograms: Pickar p310-352
8. Question #8: Intravenous solutions calculations of ml/hour and infusion time: Pickar p 355-402
9. Question #9: Intravenous solutions calculations of gtt/min: Pickar p 355-402
10. Question #10: Intravenous solutions calculation of IV antibiotic rate on an infusion pump: Pickar p 355-402

## College Lab week 1 continued

**Practice NCLEX test questions** related to the perioperative client, and alterations of the concept of infection and oxygenation. Exemplars:

1. Perioperative care
2. Appendicitis
3. Cholecystitis
4. Peptic Ulcer Disease
5. Cellulitis
6. Pneumonia/ influenza/TB/croup

Students will learn how to break down NCLEX test questions, identify what the question is asking, how to use test taking strategies to answer the questions.

## College Lab Week 2

### **WEEKLY COURSE OBJECTIVES:**

1. Explain commonly used treatments, identified by standards of care, for patients with conditions that affect metabolism and mobility.
2. Explain common physical assessment procedures used to assess metabolism and mobility for patients across the life span.
3. Outline diagnostic and laboratory test to determine the patient's metabolism and mobility status as it relates to the exemplars presented.  
Explain the management of metabolism and mobility as it relates to health/wellness and prevention.
4. Demonstrate the nursing process in providing culturally competent and caring interventions across the life span for individuals with conditions that affect metabolism and mobility.
5. Identify pharmacologic and non-pharmacologic interventions when caring for a patient with conditions that affect metabolism and mobility.

### **Metabolism and Mobility Exemplars:**

1. osteoporosis
2. osteoarthritis
3. fractures
4. scoliosis
5. amputation

## College Lab week 2 continued

**DISCUSSION:** will focus on patient centered care, teamwork and collaboration, evidence-based practice, quality improvement and safety &informatics of patients who are experiencing alterations metabolism and mobility.

Students will **discuss Case Scenarios** given by the instructor specific to patients with alterations metabolism and mobility.

1. Be able to identify risk factors for development of osteoporosis by interviewing simulated patients.
2. Be able to teach a simulated patient with osteoporosis how to manage medications, how to prevent fractures
3. Be able to teach a simulated patient with osteoarthritis how to manage pain, maintain function, maintain mobility
4. Be able to assess for compartment syndrome, osteomyelitis, fat emboli for a simulated patient with a fracture
5. Be able to assess for complications for a patient who has had a spinal instrumentation for scoliosis
6. Be able to teach a family member discharge care for a patient with scoliosis following surgical correction
7. Be able to differentiate between phantom limb pain and incisional pain in a simulated patient following amputation.
8. Be able to provide wrapping of an amputation stump to promote shrinking
9. Be able to identify therapeutic outcomes for patients with alterations of metabolism and mobility.

### **COLLEGE LABORATORY SKILLS:**

SOURCE: North Carolina Custom Edition, (2011). *Nursing Skills for a Concept-Based Approach to Learning*. New York: Pearson Learning Solutions.

**MOBILITY:** Practice dangling, use of sliding board for transfer,

**MOBILITY SKILL REVIEW:** 6.9-6.10: p232-238;

NEW Skill 6.11 p237

### **SKILLS:**

1. transferring from bed to wheelchair,
2. continuous passive motion device,
3. cast care for child and adult (leg, arm, shoulder); spica: hip spica;
4. traction skin traction (Dunlop, Bucks, Russells), balanced, skeletal, external fixation, halo, cervical traction.

### **PRACTICE:**

1. Assessment and care for a client with an amputation. Be able to wrap an ace bandage around stump.
2. Simulation of patient who has complications of fracture reduction include teaching plan
3. Practice transfer of a patient from bed to wheelchair with a fracture that is casted
4. Identify nursing assessments of a simulated patient in traction
5. Practice developmental appropriate care for a simulated child and elderly patient with alteration of mobility

## College Lab week 2 continued

**PRACTICE** charting using SIM CHART of a client with compartment syndrome

**PRACTICE** Dosage Calculations

1. Converting From one Unit to Another Using the Conversion Factor Method: Pickar p75, Converting within the metric system using the conversion factor method shortcut: Pickar p79, Converting between systems of measurement using the conversion factor method: Pickar p84-85, Practice conversion problems Pickar p 88-89
2. Interpreting The Drug order Pickar p 117-132
3. Reading Drug Labels Pickar p 133-147

**PRACTICE NCLEX STYLE QUESTIONS** related to the perioperative patients, and patients with alterations of mobility and metabolism for the following Exemplars:

1. osteoporosis
2. osteoarthritis
3. fractures
4. scoliosis
5. amputation

Students will learn how to break down NCLEX test questions, identify what the question is asking, how to use test taking strategies to answer the questions.

## College lab week 3

**WEEKLY COURSE OBJECTIVES:**

1. Identify factors and/or co-morbidities affecting and/or contributing to alterations in immunity.
2. Explain commonly used treatments, identified by standards of care, for patients with conditions that affect immunity.
3. Explain common physical assessment procedures used to assess immunity for patients across the life span.
4. Outline diagnostic and laboratory test to determine the patient's immune status as it relates to the exemplars presented.
5. Explain the management of immunity as it relates to health/wellness and prevention.
6. Demonstrate the nursing process in providing culturally competent and caring interventions across the life span for individuals with conditions that affect immunity.
7. Identify pharmacologic and non-pharmacologic interventions when caring for a patient with conditions that affect immunity.

**Immunity Exemplar:**

1. gouty arthritis
2. rheumatoid arthritis

## College Lab week 3 continued

**DISCUSSION:** will focus on patient centered care, teamwork and collaboration, evidence-based practice, quality improvement and safety &informatics of patients who are experiencing alterations of immunity.

Students will discuss Case Scenarios given by the instructor specific to patients with alterations immunity.

1. Student will practice with a simulated patient with gouty arthritis therapeutic outcomes for medication and dietary management
2. Student will implement a teaching plan for a simulated patient with rheumatoid arthritis on how to manage pharmacologic interventions
3. Student will teach a simulated patient how to maintain function with rheumatoid arthritis/arthritis

### **COLLEGE LABORATORY SKILLS:**

SOURCE: North Carolina Custom Edition, (2011). *Nursing Skills for a Concept-Based Approach to Learning*. New York: Pearson Learning Solutions.

ELIMINATION SKILL: 2.10-2.17: p46-64

### **ELIMINATION:**

postoperative elimination care for surgical clients with alterations in mobility

1. urinary catheterization,
2. bladder irrigation,
3. continuous bladder irrigation,
4. suprapubic catheter care,
5. urinary ostomy care,
6. urinary diversion,
7. specimen from ileal conduit

**PRACTICE** charting using SIM CHART for clients with elimination needs and alterations of mobility and immunity

### **PRACTICE** Dosage Calculations

1. Oral Dosage of Drugs: Pickar p 171-204
2. Injectables including insulin: Pickar p205-240
3. Reconstitution of solutions: Pickar p241-284

**PRACTICE NCLEX STYLE QUESTIONS** related to patients with alterations of immunity for the following Exemplars:

1. gouty arthritis
2. rheumatoid arthritis

Students will learn how to break down NCLEX test questions, identify what the question is asking, how to use test taking strategies to answer the questions.

# College Lab Week 4

## **WEEKLY COURSE OBJECTIVES**

1. Identify factors and/or co-morbidities affecting and/or contributing to alterations in immunity.
2. Explain commonly used treatments, identified by standards of care, for patients with conditions that affect immunity.
3. Explain common physical assessment procedures used to assess immunity for patients across the life span.
4. Outline diagnostic and laboratory test to determine the patient's immune status as it relates to the exemplars presented.
5. Explain the management of immunity as it relates to health/wellness and prevention.
6. Demonstrate the nursing process in providing culturally competent and caring interventions across the life span for individuals with conditions that affect immunity.
7. Identify pharmacologic and non-pharmacologic interventions when caring for a patient with conditions that affect immunity.

## **Immunity EXEMPLARS:**

1. HIV (not AIDS)
2. SLE
3. Hypersensitivity

**DISCUSSION:** will focus on patient centered care, teamwork and collaboration, evidence-based practice, quality improvement and safety & informatics of patients who are experiencing alterations of immunity.

Students will discuss Case Scenarios given by the instructor specific to patients with alterations immunity.

1. Identify therapeutic outcomes for simulated patients with HIV specific to pharmacologic interventions and laboratory assessments
2. Simulate teaching of an adolescent patient on how to practice safe sex.
3. Correlate symptoms experienced by patient experiencing hypersensitivity and pharmacologic interventions
4. Identify priority interventions for patient experiencing hypersensitivity
5. Identify how to assess alterations of systems with a patient with Systemic Lupus Erythematosus

## **COLLEGE LABORATORY:**

Simulation patient situations incorporating review of all skills learned applied to patients with alterations of inflammation, infection, mobility, or immunity.

**PRACTICE** charting using SIM CHART based on simulation of patient with alterations of inflammation, infection, mobility, or immunity.

## College Lab week 4 continued

### **PRACTICE** Dosage Calculations

1. Converting pounds to kilograms: Pickar p310-352
2. Intravenous solutions calculations of ml/hour and infusion time: Pickar p 355-402
3. Intravenous solutions calculations of gtts/min: Pickar p 355-402
4. Intravenous solutions calculation of IV antibiotic rate on an infusion pump: Pickar p 355-402

**PRACTICE NCLEX STYLE QUESTIONS:** related to patients with alterations of immunity for the following Exemplars:

### **Immunity EXEMPLAR:**

1. HIV (not AIDS)
2. SLE
3. Hypersensitivity

Students will learn how to break down NCLEX test questions, identify what the question is asking, how to use test taking strategies to answer the questions.

## Week 5

### FINAL EXAM