

BRUNNER & SUDDARTH'S

TEXTBOOK OF

Medical-Surgical

Nursing

15TH EDITION

Janice L. Hinkle
Kerry H. Cheever
Kristen Overbaugh

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*To our fellow nurses who provide comfort and care,
and who instill hope for a healthier world . . .*

*To our nursing faculty colleagues who nurture,
guide, and steer the future of our profession . . .*

*To nursing students who challenge themselves with
courage and conviction . . .*

You inspire us!

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Preface

Since 1964, when Lillian Sholtis Brunner and Doris Smith Suddarth introduced the first edition of the *Textbook of Medical-Surgical Nursing*, the practice of nursing has flexed, changed, evolved, and advanced to meet changing health needs and expectations for health care. With each subsequent edition of this textbook, Lillian and Doris, and their successors, Suzanne Smeltzer and Brenda Bare (and eventually we, the current authors), admirably updated and revised content to reflect changes and challenges that shaped the practice of nursing, considering complex and interconnected influences and maintaining a focus upon salient social, cultural, economic, and environmental factors. Never have we, nor our distinguished and capable predecessors, had to revise and update seminal medical-surgical nursing concepts, principles, and practices during a global pandemic—until now. Most assuredly, this has been a daunting task. Yet, compared to what many of our phenomenally creative, determined, and resilient professional colleagues have had to confront and contend with as a result of this pandemic, our work was much less onerous. We would also like to recognize the long overdue and growing awareness of structural racism within healthcare and the impact of systemic racism on perpetuating stereotypes and health disparities. We encourage nurse educators and students to thoughtfully consider and discuss these issues when exploring epidemiological factors of specific disorders and nursing care throughout the textbook. Now that we have sent this edition to print and have time to reflect upon our work, we find ourselves humbled to call ourselves your peers and so proud of the important and sacred work that you do today and every day. We have decided to break with a long tradition in this textbook that tends to not provide dedications. To YOU our fellow nurses, nursing faculty, and nursing students, we dedicate this book.

Organization

Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 15th Edition, is organized into 16 units. These units mirror those found in previous editions with the incorporation of some changes. Content was

updated throughout all units, with cross-references to specific chapters included as appropriate. Units 1 through 3 cover foundational principles and core concepts related to medical-surgical nursing practice. Units 4 through 15 discuss adult health conditions that are treated medically or surgically. Unit 16 describes community-based challenges that affect medical-surgical nursing practice.

Units 4 through 15 are structured in the following way to better facilitate comprehension:

- The first chapter in the unit covers assessment and includes a review of normal anatomy and physiology of the body system being discussed.
- Subsequent chapters in the unit cover management of specific disorders. Pathophysiology, clinical manifestations, assessment and diagnostic findings, medical management, and nursing management are presented. Nursing Process sections, provided for select conditions, clarify and expand on the nurse's role in caring for patients with these conditions.

There are fewer chapters in this edition than in the past several editions; however, the seminal content within the deleted chapters remains, and is updated and revised. Notably, core content in previous-edition chapters that focused exclusively on *therapeutic modalities* has now been incorporated into chapters focused on health conditions and disorders, where its application dovetails seamlessly into nursing management and the nursing process. Thus, the application of these modalities to medical-surgical nursing practice is readily apparent.

Special Features

When caring for patients, nurses assume many different roles, including practitioner, educator, advocate, and researcher. Many of the features in this textbook have been developed to help nurses fulfill these varied responsibilities. Key updates to practice-oriented features in the 15th edition include new unit-opening Case Studies with QSEN Competency Focus—a feature that highlights a competency from the Quality and Safety Education for Nurses (QSEN) Institute that is applicable to the case study and poses questions for students to consider about relevant knowledge, skills, and attitudes (KSAs). Quality and Safety Nursing Alerts, Genetics in Nursing Practice charts, Ethical Dilemma charts, and Home Care Checklist charts offer updated information.

Plans of Nursing Care, provided for select disorders, illustrate how the nursing process is applied to meet the patient’s health care and nursing needs. New to the 15th edition, nursing diagnoses used in the Plans of Nursing Care and throughout the textbook are those devised and validated by the International Council of Nurses in the *International Classification for Nursing Practice (ICNP) Catalogue*. (Please note that because of the global foci of these nursing diagnoses, select terms in these diagnoses are spelled in the British manner.)

A new addition to the textbook this cycle is a chapter focused exclusively on the unique health care needs of persons who identify as lesbian, gay, bisexual, transgender, and/or queer (LGBTQ). As is the case with other chapters of this textbook, the roles of the professional nurse as a practitioner, educator, advocate, and researcher when providing care for persons who are LGBTQ provide the framework for this new chapter.

In addition, two new features in this edition highlight content related to COVID-19 and care of veterans. *COVID-19 Considerations* sections identify evidence-based information at the time this material was written related to the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or the nursing care of patients with coronavirus disease 2019 (COVID-19). *Veterans Considerations* sections include information applicable to the special care needs of military veterans. Veterans—who may include persons from all age groups, genders, races, and socioeconomic strata—may have unique health risks based upon dates of service and assignment locale.

The textbook also provides pedagogical features developed to help readers engage and learn critical content. Concept Mastery Alerts continue to clarify fundamental nursing concepts to improve the reader’s understanding of potentially confusing topics, as identified by Misconception Alerts in Lippincott’s Adaptive Learning Powered by PrepU. An enhanced suite of online, interactive multimedia resources is also highlighted with icons placed in text near relevant topics. Unfolding Patient Stories (case study vignettes) based on vSim for Nursing patients are part of this suite of resources.

Read the User’s Guide that follows the Preface for a full explanation and visual representation of all special features. See also the “Special Charts in This Book” and “Case Studies in This Book” sections of this front matter for the location of these items in the text.

A Comprehensive Package for Teaching and Learning

To further facilitate teaching and learning, a carefully designed ancillary package has been developed to assist faculty and students.

Instructor Resources

Tools to assist you with teaching your course are available upon adoption of this text on **thePoint** at <http://thepoint.lww.com/Brunner15e>.

- An **e-Book** on **thePoint** gives you access to the book's full text and images online.
- A thoroughly revised and augmented **Test Generator** contains more than 2900 NCLEX-style questions mapped to chapter learning outcomes.
- An extensive collection of materials is provided for each book chapter:
 - **Lesson Plans** outline learning outcomes and identify relevant resources from the robust instructor and student resource packages to help you prepare for your class.
 - **Pre-Lecture Quizzes** (and answers) allow you to check students' reading.
 - **PowerPoint Presentations** provide an easy way to integrate the textbook with your students' classroom experience; multiple-choice and true/false questions are included to promote class participation.
 - **Guided Lecture Notes** are organized by outcome and provide corresponding PowerPoint slide numbers to simplify preparation for lecture.
 - **Discussion Topics** (and suggested answers) can be used in the classroom or in online discussion boards to facilitate interaction with your students.
 - **Assignments** (and suggested answers) include group, written, clinical, and Web assignments to engage students in varied activities and assess their learning.
 - **Case Studies** with related questions (and suggested answers) give students an opportunity to apply their knowledge to a client case similar to one they might encounter in practice.

- Sample **Syllabi** are provided for one- and two-semester courses.
- A **QSEN Competency Map** identifies content and special features in the book related to competencies identified by the QSEN Institute.
- An **Image Bank** lets you use the photographs and illustrations from this textbook in your course materials.
- Access to all **Student Resources** is provided so that you can understand the student experience and use these resources in your course as well.

Student Resources

An exciting set of free learning resources is available on **thePoint** to help students review and apply vital concepts in medical-surgical nursing. Multimedia engines have been optimized so that students can access many of these resources on mobile devices. Students can access all these resources at <http://thepoint.lww.com/Brunner15e> using the codes printed in the front of their textbooks.

- **NCLEX-Style Review Questions** for each chapter, totaling more than 1800 questions, help students review important concepts and practice for NCLEX.
- Interactive learning resources appeal to a variety of learning styles. Icons in the text direct readers to relevant resources:
 -  **Concepts in Action Animations** bring physiologic and pathophysiologic concepts to life.
 -  **Practice & Learn Case Studies** present case scenarios and offer interactive exercises and questions to help students apply what they have learned.
 -  **Watch & Learn Video Clips** reinforce skills from the textbook and appeal to visual and auditory learners.
- **Procedural Guidelines charts** review key nursing interventions and rationales for specific patient care situations.
- **Appendix A, Diagnostic Studies and Interpretation**, provides reference ranges and lab values for common laboratory tests.

- **Journal Articles** offer access to current articles relevant to each chapter and available in Wolters Kluwer journals to familiarize students with nursing literature.

Study Guide

A comprehensive study aid for reviewing key concepts, *Study Guide for Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 15th Edition*, has been thoroughly revised and presents a variety of exercises, including case studies and practice NCLEX-style questions, to reinforce textbook content and enhance learning.

vSim for Nursing

Available for separate purchase, vSim for Nursing, jointly developed by Laerdal Medical and Wolters Kluwer, offers innovative scenario-based learning modules consisting of Web-based virtual simulations, course learning materials, and curriculum tools designed to develop critical thinking skills and promote clinical confidence and competence. vSim for Nursing | Medical-Surgical includes 10 virtual simulations based on the National League for Nursing Volume I Complex patient scenarios. Students can progress through suggested readings, pre- and postsimulation assessments, documentation assignments, and guided reflection questions, and will receive an individualized feedback log immediately upon completion of the simulation. Throughout the student learning experience, the product offers remediation back to trusted Lippincott resources, including *Brunner & Suddarth's Textbook of Medical-Surgical Nursing*, as well as Lippincott Nursing Advisor and Lippincott Nursing Procedures—two online, evidence-based, clinical information solutions used in health care facilities throughout the United States. This innovative product provides a comprehensive patient-focused solution for learning and integrating simulation into the classroom.

Contact your Wolters Kluwer sales representative or visit <http://thepoint.lww.com/vsim> for options to enhance your medical-surgical nursing course with vSim for Nursing.

Lippincott DocuCare

Available for separate purchase, Lippincott DocuCare combines Web-based academic EHR simulation software with clinical case scenarios, allowing students to learn how to use an EHR in a safe, true-to-life

setting, while enabling instructors to measure their progress. Lippincott DocuCare's nonlinear solution works well in the classroom, simulation lab, and clinical practice.

Contact your Wolters Kluwer sales representative or visit <http://thepoint.lww.com/DocuCare> for options to enhance your medical-surgical nursing course with DocuCare.

A Comprehensive, Digital, Integrated Course Solution

Lippincott® CoursePoint+ is an integrated, digital curriculum solution for nursing education that provides a completely interactive experience geared to help students understand, retain, and apply their course knowledge and be prepared for practice. The time-tested, easy-to-use, and trusted solution includes engaging learning tools, evidence-based practice, case studies, and in-depth reporting to meet students where they are in their learning, combined with the most trusted nursing education content on the market to help prepare students for practice. This easy-to-use digital learning solution of *Lippincott® CoursePoint+*, combined with unmatched support, gives instructors and students everything they need for course and curriculum success!

Lippincott® CoursePoint+ includes:

- Leading content provides a variety of learning tools to engage students of all learning styles.
- A personalized learning approach gives students the content and tools they need at the moment they need it, giving them data for more focused remediation and helping to boost their confidence and competence.
- Powerful tools, including varying levels of case studies, interactive learning activities, and adaptive learning powered by PrepU, help students learn the critical thinking and clinical judgment skills to help them become practice-ready nurses.
- Preparation for Practice tools improve student competence, confidence, and success in transitioning to practice.
 - vSim for Nursing: Co-developed by Laerdal Medical and Wolters Kluwer, vSim for Nursing simulates real nursing scenarios and allows students to interact with virtual patients in a safe, online environment.

- Lippincott Advisor for Education: With over 8500 entries covering the latest evidence-based content and drug information, Lippincott Advisor for Education provides students with the most up-to-date information possible, while giving them valuable experience with the same point-of-care content they will encounter in practice.
- Unparalleled reporting provides in-depth dashboards with several data points to track student progress and help identify strengths and weaknesses.
- Unmatched support includes training coaches, product trainers, and nursing education consultants to help educators and students implement CoursePoint+ with ease.

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User's Guide

Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 15th Edition, has been revised and updated to reflect the complex nature of nursing practice today. This textbook includes many features to help you gain and apply the knowledge that you need to pass NCLEX and successfully meet the challenges and opportunities of clinical practice. In addition, features have been developed specifically to help you fulfill the varied roles that nurses assume in practice.

Opening Features That Start with the End in Mind

Unit-opening features put the patient first and highlight competent nursing as well as application of the nursing process.

- **All new! A Case Study with QSEN Competency Focus** opens each unit and provides discussion points focusing on one competency from the QSEN Institute: patient-centered care, interdisciplinary teamwork and collaboration, evidence-based practice, quality improvement, safety, or informatics. This feature helps you consider the KSAs required for the delivery of safe, quality patient care. For your convenience, a list of these case studies, along with their location in the book, appears in the “Case Studies in This Book” section later in this front matter.

**UNIT
5**

Cardiovascular and Circulatory Function

Case Study USING TECHNOLOGY TO PREVENT MEDICATION ERRORS



An 85-year-old male presents to the emergency department with complaints of substernal chest pressure rated 9 on a 0–10 pain scale with pain radiating to his left arm. Other signs and symptoms include nausea, dizziness, shortness of breath (SOB), diaphoresis, and a feeling of “something bad is happening to me.” He is emergently sent for cardiac catheterization; a 90% distal and 85% proximal stenosis of the right coronary artery was detected. He subsequently underwent a percutaneous coronary intervention with balloon angioplasty and placement of stents. Once recovered from anesthesia he is admitted to the cardiac step-down unit where you work. When receiving report you notice in the electronic health record (EHR) that the patient should have received the first dose of two medications in the cardiac catheterization lab following the procedure. However, these medications were not administered as prescribed and you notify the interventional cardiologist about this error.

QSEN Competency Focus: Informatics

The competencies inherent in today’s health care system requires nurses to demonstrate integration of specific interdisciplinary knowledge competencies. These competencies are aligned at ensuring the delivery of safe, quality patient care (Institute of Medicine, 2009). The Quality and Safety Education for Nurses project (Cronenwett, Sherwood, Barnsteiner, et al., 2007; QSEN, 2020) provides a framework for the knowledge, skills, and attitudes (KSAs) required for nurses to demonstrate competency in these key areas, which include patient-centered care, interdisciplinary teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics.

Informatics Definition: Use information and technology to communicate, manage knowledge, mitigate error, and support decision-making.

SELECT PRE-LICENSURE KSAs	APPLICATION AND REFLECTION
Knowledge	
Explain why information and technology skills are essential for safe patient care	Describe how the use of the EHR and other technology can relay information to the nurse to prevent medication errors.
Skills	
Apply technology and information management tools to support safe processes of care	Describe the type of training needed to navigate the EHR and identify how you can utilize technology to ensure effective communication, manage medication administration, and prevent errors.
Attitudes	
Value technologies that support clinical decision-making, error prevention, and care coordination	Reflect on how you value technologies that support clinical decision-making, error prevention, and care coordination. Do these values have the potential to create barriers to effective use of technology to prevent errors in your workplace?

Cronenwett, L., Sherwood, G., Barnsteiner, J., et al. (2007). Quality and safety education for nurses. *Nursing Outlook*, 55(2), 122–131. Institute of Medicine. (2009). *Health professions education: A bridge to quality*. Washington, DC: National Academies Press. QSEN Institute. (2020). QSEN competencies: Definitions and pre-licensure KSAs: Informatics. Retrieved on 15/2/2020 at: qsen.org/competencies/pre-licensure-ksas/#informatics

- **Learning Outcomes**, succinctly focused and condensed in this edition, provide an overview of each chapter and identify what you will be able to do after completing the material, to help focus reading and studying.
- **NEW! Nursing Concepts** listed at the beginning of each chapter make clear how content applies to Concepts-based curricula.
- A **Glossary** provides a list of key terms and definitions at the beginning of each chapter, providing a review of vocabulary words before reading the material and a useful reference and study tool.

54

Assessment and Management of Patients Who Are LGBTQ

LEARNING OUTCOMES

On completion of this chapter, the learner will be able to:

1. Describe the importance of providing inclusive health-care environments for people who are lesbian, gay, bisexual, transgender, and queer.
 2. Use inclusive terminology when communicating and conducting an assessment with a person who is lesbian, gay, bisexual, transgender, and queer.
 3. Explain and demonstrate the proper techniques to perform a health history and physical assessment and discriminate between normal and abnormal findings
- identified in the patient who is lesbian, gay, bisexual, transgender, and queer.
4. Describe the various medical procedures and hormone treatments available for the person who is undergoing gender reassignment.
 5. Compare and contrast surgical procedures available to people seeking gender reassignment in terms of indications and preoperative and postoperative complications.
 6. Use the nursing process as a framework for care of the patient who undergoes gender reassignment surgery.

NURSING CONCEPTS

Assessment	Family	Sexuality
Communication	Identity	
Development/Human Development	Professionalism/Professional Behaviors	

GLOSSARY

bisexual: people who are romantically, emotionally, or sexually attracted to both male and female genders
cisgender: people who identify with the gender that matches the sex assigned to them at birth
gay: people who are romantically, emotionally, or sexually attracted to the same gender, such as men attracted to men
gender: set of socially constructed norms and behaviors that are taught to women and men
gender dysphoria: distress a person feels due to a mismatch between their gender identity and sex assigned at birth

questioning: a person who is unsure or is still exploring their sexual orientation or is concerned about applying a social label to themselves
sex: refers to the physical or biological characteristics that distinguish women and men, such as chromosomes, genitals, and hormones
sexual orientation: umbrella term that refers to romantic, emotional, or sexual attraction to persons of the opposite gender, the same gender, or to both or more than one gender
third-person pronouns: a way of referencing a person

Features to Develop the Nurse as Practitioner

One of the central roles of the nurse is to provide holistic care to patients and their families, both independently and through collaboration with other health care professionals. Special features throughout chapters are designed to assist readers with clinical practice.

- **Nursing Process sections** are organized according to the nursing process framework—the basis for all nursing practice—and help clarify the nurse's responsibilities in caring for patients with select disorders.

NURSING PROCESS

The Patient with an Arrhythmia

Assessment

Major areas of assessment include possible causes of the arrhythmia, contributing factors, and the arrhythmia's effect on the heart's ability to pump an adequate blood volume. When cardiac output is reduced, the amount of oxygen reaching the tissues and vital organs is diminished. This diminished oxygenation produces the signs and symptoms associated with arrhythmias. If these signs and symptoms are severe or if they occur frequently, the patient may experience significant distress and disruption of daily life.

- **Plans of Nursing Care**, provided for select disorders, illustrate how the nursing process is applied to meet the patient's health care and nursing needs.

Chart 45-4			PLAN OF NURSING CARE
			Care of the Patient with Hypothyroidism
			NURSING DIAGNOSIS: Impaired breathing associated with depressed ventilation GOAL: Improved respiratory status and maintenance of normal breathing pattern
Nursing Interventions	Rationale	Expected Outcomes	
1. Assess respiratory rate, depth, pattern, pulse oximetry, and arterial blood gases.	1. Identifies patient's baseline to monitor further changes and evaluate effectiveness of interventions.	• Shows improved respiratory status and normal respiratory rate, depth, and pattern	
2. Encourage deep breathing, coughing, and the use of incentive spirometry.	2. Prevents atelectasis and promotes adequate ventilation.	• Takes deep breaths, coughs and uses incentive spirometry	
3. Verify with the provider orders to administer any hypnotic and sedative until euthyroid state achieved. If these medications are needed, monitor for adverse side effects.	3. Patients with hypothyroidism are susceptible to respiratory depression with the use of hypnotics and sedatives.	• Explains rationale for cautious use of medications	
4. Maintain patient airway through suction and ventilator support if needed (see Chapter 19 for care of patients requiring mechanical ventilation).	4. The use of artificial airway and ventilator support may be necessary.	• Maintains adequate oxygenation	

- **Assessment charts** focus on data that should be collected as part of the assessment step of the nursing process.

Chart
35-3



ASSESSMENT

Assessing for Peripheral Nerve Function

Assessment of peripheral nerve function has two key elements: evaluation of sensation and evaluation of motion. The nurse may perform one or all of the following during a musculoskeletal assessment.

Nerve	Test of Sensation	Test of Movement
Peroneal	Prick the skin midway between the great and second toe.	Ask the patient to dorsiflex the foot and extend the toes.



- **Risk Factors charts** outline factors that can impair health and should be considered in the context of social determinants of health and systemic racism.

**Chart
49-1**



RISK FACTORS

Urinary Tract Infection

- Contributing conditions such as:
 - Female gender
 - Diabetes
 - Pregnancy
 - Neurologic disorders
 - Gout
 - Altered states caused by incomplete emptying of the bladder and urinary stasis
- Decreased natural host defenses or immunosuppression
- Inability or failure to empty the bladder completely
- Inflammation or abrasion of the urethral mucosa
- Instrumentation of the urinary tract (e.g., catheterization, cystoscopic procedures)
- Obstructed urinary flow caused by:
 - Congenital abnormalities
 - Urethral strictures
 - Contracture of the bladder neck
 - Bladder tumors
 - Calculi (stones) in the ureters or kidneys
 - Compression of the ureters

- **Genetics in Nursing Practice charts** summarize and highlight nursing assessments and management issues related to the role of genetics in select disorders.

**Chart
8-1****GENETICS IN NURSING PRACTICE****Genetics Concepts and the Older Adult**

Genetic conditions in the older adult may occur from a specific gene mutation or arise as a result of a genetic predisposition combined with other factors (multifactorial). The following are examples of some adult-onset genetic conditions:

- Colon cancer
- Hemochromatosis
- Huntington disease
- Polycystic kidney disease
- Alzheimer's disease

The following are some examples of diseases with multifactorial components, which may include a genetic predisposition, in the older adult:

- Diabetes
- Emphysema
- Heart disease

Nursing Assessments

Refer to Chapter 4, Chart 4-2: Genetics in Nursing Practice: Genetic Aspects of Health Assessment

Family History Assessment Specific to the Older Adult

- Collect and assess family history on both maternal and paternal sides of the family for three generations.
- Determine whether genetic testing has occurred with other family members.
- Assess for individual and family perceptions and beliefs around topics related to genetics.

Patient Assessment Specific to the Older Adult and Genetic Illness

- Assess older adult patient's knowledge and understanding of genetics, genetic testing, and gene-based therapies.

- Assess the patient's understanding of genetic information and decipher health literacy needs.
- Perform cultural, social, and spiritual assessment.
- Assess patient's communication capacities so that communication strategies about genetics are tailored to their needs and abilities.
- Identify patient's support system.

Management Issues Specific to Genetics and the Older Adult

- Refer for further genetic counseling and evaluation as warranted so that family members can discuss inheritance, risk to other family members, and availability of genetic testing and gene-based interventions.
- Offer appropriate genetic information and resources that take into consideration older patient's literacy needs.
- Evaluate older patient's understanding before, during, and after the introduction of genetic information and services.
- Take the time to clearly explain the concepts of genetic testing to older patients and provide written information that reinforces the topic of discussion.
- Participate in the management and coordination of care of older patients with genetic conditions and individuals predisposed to develop or pass on a genetic condition.

Genetics Resources

See Chapter 6, Chart 6-7: Components of Genetic Counseling for additional resources.

- **Pharmacology charts and tables** display important considerations related to administering medications and monitoring drug therapy.

TABLE 42-2

Medications Prescribed to Treat Obesity

Medication	Adverse Effects	Nursing Considerations*
Gastrointestinal Lipase Inhibitor		
Orlistat <i>Note: Also available in lower dosages over-the-counter</i>	Diarrhea Flatus Oily stools Fecal incontinence	Patients may have associated problems with malabsorption of nutrients; advise them to take a concomitant daily multivitamin. Caution in patients with known history of renal insufficiency, liver disease, or gallbladder disease as concomitant use is associated with renal calculi, liver failure, and cholelithiasis. Do not administer with cyclosporine.
Selective Serotonin Receptor Agonist		
Lorcasertin	Fatigue Dizziness Nausea Headaches Cough Dry mouth Constipation	Encourage patient to stay well hydrated. Can be associated with deficits in attention or memory; administer with caution in patients who drive or work with hazardous equipment when first prescribed until effects are realized. Can cause hypoglycemia in patients with diabetes. Contraindicated for patients taking antidepressants or migraine medications due to synergistic effects. Discontinue in patients who express suicidal ideation. Rarely, serotonin syndrome may develop—be alert for high fevers, brisk reflexes, agitation, and diarrhea; notify primary provider immediately and hold medication if these occur.

- **Updated! Quality and Safety Nursing Alerts** offer tips for best clinical practice and red-flag safety warnings to help avoid

common mistakes.

 **Quality and Safety Nursing Alert**

Any signed form required for surgery is placed in a prominent place on the patient's medical record and accompanies the patient to the OR.

- **NEW! COVID-19 Considerations sections** identify evidence-based information at the time this material was written related to the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or the nursing care of patients with coronavirus disease 2019 (COVID-19).



COVID-19 Considerations

The coronavirus disease 2019 (COVID-19) pandemic began in Wuhan, China, in late 2019. Since that time, several risks for both severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and pathogenesis to coronavirus disease (COVID-19) have been posed. Epidemiologic findings from early data in China suggest that having a history of hypertension could be an important risk factor for becoming infected with SARS-CoV-2 as well as for being hospitalized to manage COVID-19 (Guo, Huang, Lin, et al., 2020;

- **NEW! Veterans Considerations sections** highlight information applicable to the special care needs of veterans of the military. Veterans—who may include persons from all age groups, genders, races, and socioeconomic strata—may have unique health risks, based upon dates of service and assignment locale.



Veterans Considerations

Many American veterans who served in Iraq and Afghanistan are experiencing respiratory disorders as a result of exposure to pollutants in situations such as sand storms and car bombings. Their illnesses can range from a new onset of asthma to constrictive bronchiolitis (Harrington, Schmidt, Szema, et al., 2017). These veterans could also have been exposed to organic contamination within the sand that could further irritate airways. When providing care to a veteran, it is important to assess exposure to airway irritants, particularly when the patient is complaining of chronic respiratory symptoms.

- **Critical Care icons** identify nursing considerations for the patient who is critically ill.



Pulmonary Edema

Pulmonary edema is an acute event, reflecting a breakdown of physiologic compensatory mechanisms; hence, it is sometimes referred to as acute decompensated heart failure. It can occur following acute MI or as an exacerbation of chronic HF. When the left ventricle begins to fail, blood backs up into the pulmonary circulation, causing pulmonary interstitial edema. This may occur quickly in some patients, a condition sometimes called *flash pulmonary edema*. Pulmonary edema can also develop slowly, especially when it is caused by noncardiac disorders such as kidney injury and other conditions that cause fluid overload. The left ventricle cannot handle the volume overload, and blood volume and pressure build up in the left atrium. The rapid increase in atrial pressure results in an acute increase in pulmonary venous pressure, which produces an increase in hydrostatic pressure that forces fluid out of the pulmonary capillaries and into the interstitial spaces and alveoli (Norris, 2019).

- **Obesity Considerations icons** identify content related to obesity or to the nursing care of patients with obesity.



Obesity contributes to back strain by overtaxing the relatively weak back muscles in the absence of abdominal muscle support. Exercises are less effective and more difficult to perform when the patient is overweight. Weight reduction through diet modification is important to minimize recurrence of back pain. A sound nutritional plan that includes a change in eating habits and low-impact activities is vital. Noting achievement of weight reduction and providing positive reinforcement facilitate adherence. Back

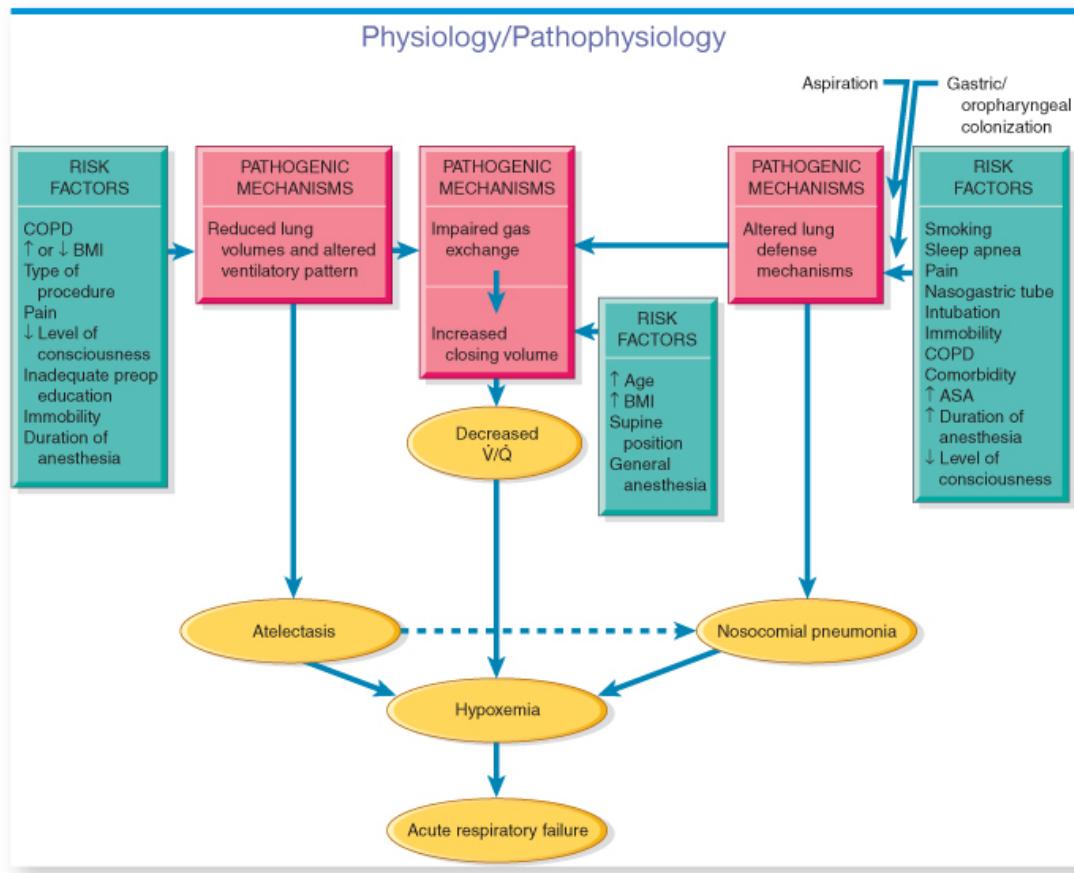
- **Gerontologic Considerations icons** highlight information that pertains specifically to the care of the older adult patient. In the United States, older adults comprise the fastest-growing segment of the population.



Gerontologic Considerations

During the normal aging process, the nervous system undergoes many changes and is more vulnerable to illness. Age-related changes in the nervous system vary in degree and must be distinguished from those due to disease. It is important for clinicians not to attribute abnormality or dysfunction to aging without appropriate investigation. For example, although diminished strength and agility are a normal part of aging, localized weakness can only be attributed to disease.

- **Physiology/Pathophysiology figures** include illustrations and algorithms describing normal physiologic and pathophysiologic processes.



Features to Develop the Nurse as Educator

Health education is a primary responsibility of the nursing profession. Nursing care is directed toward promoting, maintaining, and restoring health; preventing illness; and helping patients and families adapt to the residual effects of illness. Patient education and health promotion are central to all of these nursing activities.

- **Patient Education charts and sections** help the nurse prepare the patient and family for procedures, assist them in understanding the patient's condition, and explain to them how to provide self-care.



PATIENT EDUCATION

Breathing Exercises

General Instructions

The nurse instructs the patient to:

- Breathe slowly and rhythmically to exhale completely and empty the lungs completely.
- Inhale through the nose to filter, humidify, and warm the air before it enters the lungs.
- Breathe more slowly by prolonging the exhalation time when feeling out of breath.
- Keep the air moist with a humidifier.

Diaphragmatic Breathing

Goal: To use and strengthen the diaphragm during breathing
The nurse instructs the patient to:

- Place one hand on the abdomen (just below the ribs) and the other hand on the middle of the chest to increase the awareness of the position of the diaphragm and its function in breathing.
- Breathe in slowly and deeply through the nose, letting the abdomen protrude as far as possible.
- Breathe out through pursed lips while tightening (contracting) the abdominal muscles.
- Press firmly inward and upward on the abdomen while breathing out.
- Repeat for 1 min; follow with a rest period of 2 min.

- Gradually increase duration up to 5 min, several times a day (before meals and at bedtime).

Pursed-Lip Breathing

Goal: To prolong exhalation and increase airway pressure during expiration, thus reducing the amount of trapped air and the amount of airway resistance

The nurse instructs the patient to:

- Inhale through the nose while slowly counting to 3—the amount of time needed to say “Smell a rose.”
- Exhale slowly and evenly against pursed lips while tightening the abdominal muscles. (Pursing the lips increases intratracheal pressure; exhaling through the mouth offers less resistance to expired air.)
- Count to 7 slowly while prolonging expiration through pursed lips—the length of time to say “Blow out the candle.”
- While sitting in a chair:
Fold arms over the abdomen.
Inhale through the nose while counting to 3 slowly.
Bend forward and exhale slowly through pursed lips while counting to 7 slowly.
- While walking:
Inhale while walking two steps.
Exhale through pursed lips while walking four or five steps.

- **Health Promotion charts** review important points that the nurse should discuss with the patient to prevent common health problems from developing.



HEALTH PROMOTION

American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention

Individual Choices

Achieve and Maintain a Healthy Weight Throughout Life

- Be as lean as possible throughout life without being underweight.
- Avoid excessive weight gain at all ages. For those who are currently overweight or have obesity, losing even a small amount of weight has health benefits and is a good place to start.
- Engage in regular physical activity and limit consumption of high-calorie foods and beverages as key strategies for maintaining a healthy weight.

Adopt a Physically Active Lifestyle

- Adults should engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity each week, or an equivalent combination, preferably spread throughout the week.
- Children and adolescents should engage in at least 1 hour of moderate- or vigorous-intensity physical activity each day, with vigorous-intensity activity at least 3 days each week.
- Limit sedentary behavior such as sitting, lying down and watching television, and other forms of screen-based entertainment.
- Doing any intentional physical activity above usual activities, no matter what one's level of activity, can have many health benefits.

Consume a Healthy Diet, with an Emphasis on Plant Sources

- Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
- Limit consumption of processed meat and red meats.
- Eat at least 2½ cups of vegetables and fruits each day.
- Choose whole grains in preference to processed (refined) grains.

If You Drink Alcoholic Beverages, Limit Consumption

- Drink no more than one drink per day for women or two per day for men.

Community Action

Public, private, and community organizations should work collaboratively at national, state, and local levels to implement policy environmental changes that:

- Increase access to affordable, healthy foods in communities, worksites, and schools, and decrease access to and marketing of foods and beverages of low nutritional value, particularly to youth.
- Provide safe, enjoyable, and accessible environments for physical activity in schools and worksites, and for transportation and recreation in communities.

Adapted from American Cancer Society. (2019i). ACS guidelines on nutrition and physical activity for cancer. Retrieved on 9/28/2018 at: [Prevention www.cancer.org/healthy/eat-healthy/get-active/acs-guidelines-nutrition-physical-activity-cancer-prevention.html](http://www.cancer.org/healthy/eat-healthy/get-active/acs-guidelines-nutrition-physical-activity-cancer-prevention.html).

- **Home Care Checklists** review points that should be covered as part of home care education prior to discharge from the health care facility.

Chart
41-9



HOME CARE CHECKLIST Managing Ostomy Care

At the completion of education, the patient and/or caregiver will be able to:

- Name the procedure that was performed and identify changes in anatomic structure or function as well as changes in ADLs, IADLs, roles, relationships, and spirituality.
 - Describe the frequency and character of effluent.
- Identify sources for obtaining ostomy care/appliance supplies.
- State the name, dose, side effects, frequency, and schedule for all medications.
- Demonstrate ostomy care, including wound cleansing, irrigation, and appliance changing.
- Describe the importance of assessing and maintaining peristomal skin integrity.
- Identify dietary restrictions (foods that can cause diarrhea and constipation), process for reintroduction of foods, as well as foods that may be encouraged.
- Identify measures to be used to promote fluid and electrolyte balance.
- Describe potential complications and necessary actions to be taken if complications occur.
- Relate how to reach primary provider with questions or complications.
 - Identify how to contact wound-ostomy-continence or home health nurse.
- State time and date of follow-up medical appointments, therapy, and testing.
- Identify sources of support (e.g., friends, relatives, faith community, ostomy support, caregiver support).
- Identify the need for health promotion, disease prevention, and screening activities.

ADLs, activities of daily living; IADLs, instrumental activities of daily living.

Features to Develop the Nurse as Patient Advocate

Nurses advocate for patients by protecting their rights (including the right to health care) and assisting patients and their families in making informed decisions about health care.

- **All new! Ethical Dilemma charts** provide a clinical scenario, discussion points, and questions to help analyze fundamental ethical principles related to the dilemma.

Chart
48-9



ETHICAL DILEMMA

How Can Patient Rights Be Discerned during a Pandemic?

Case Scenario

B.J. is a 74-year-old widow with chronic kidney disease (CKD) managed with HD three times weekly in an outpatient dialysis center. She is admitted to the medical unit where you work as a staff nurse with fluid retention and dyspnea. It is reported that B.J. had been a "no show" at the dialysis center for at least the past week. As part of her therapeutic plan, she is supposed to be dialyzed while in the hospital. As you enter her room to prepare her for transport to the hospital's dialysis center, you find B.J. humming to herself, clapping her hands, and smiling. When you explain to her that she is going to be transported to the dialysis center, she says "Honey, I am not going anywhere. I want to see Jesus. It is my time and I am ready to see the Lord." You have heard from the medical social worker that this is not B.J.'s first admission to the hospital for poor adherence to her outpatient dialysis treatment. During past hospitalizations, her three adult daughters would visit her together and effectively cajole her into receiving dialysis treatments. Reportedly, the daughters have a loving and supportive relationship with each other and their mother. However, there is an outbreak of coronavirus disease 2019 (COVID-19) within your community and the hospital has responded with a no-visitor policy throughout the facility, so B.J.'s daughters may not visit her.

Discussion

The principle of autonomy is considered sacrosanct. Patients have the right to refuse treatments, even if those treatments are life-saving. However, in this particular instance, B.J. could be delirious as a manifestation of her poorly managed CKD. If she is delirious, it may be determined that she lacks the capacity to

make her own decisions. Her daughters might be her surrogates and legally responsible to make health care decisions for her. However, her daughters' prohibition to visit her while she is hospitalized hampers their ability to discuss her options with her and gain her assent for treatment.

Analysis

- Describe the ethical principles that are in conflict in this case (see Chapter 1, Chart 1-7). Can the principle of beneficence and wishing to "do good" for B.J. trump her autonomous right to refuse treatment? Can she be forced to undergo dialysis?
- What if it is determined that B.J. lacks the capacity to make informed decisions? On the contrary, what if it is determined that B.J. is not delirious and has the capacity to refuse to be dialyzed? Describe methods that you might employ to engage B.J.'s daughters so that they might be able to communicate with her and with each other as a family unit.
- What resources might be mobilized to be of assistance to B.J., her daughters, and the health care team so that a treatment plan that preserves B.J.'s dignity during this pandemic might be devised?

References

Hulkower, A. (2020). Learning from COVID. *Hastings Center Report*, 50(3), 16–17.

Resources

See Chapter 1, Chart 1-10 for Steps of an Ethical Analysis and Ethics Resources.

Features to Develop the Nurse as Researcher

Nurses identify potential research problems and questions to increase nursing knowledge and improve patient care. The use and evaluation of research findings in nursing practice are essential to further the science of nursing.

- **All new and in every chapter! Nursing Research Profiles** identify the implications and applications of nursing research findings for evidence-based nursing practice.

Chart 30-2  **NURSING RESEARCH PROFILE**
Fatigue and Sleep Disturbances in Adults with Acute Leukemia

Purpose
Patients newly diagnosed with acute leukemia require hospitalization, typically for 4 to 6 weeks, for managing aggressive induction therapy and its toxicities. These symptoms can greatly impact the patient's quality of life and ability to perform activities of daily living. The purpose of this study was to evaluate global, physical, and mental health symptoms in adults with newly diagnosed acute leukemia.

Design
This was a prospective, longitudinal study with a total of 49 adult participants, including 36 males and 13 females. Data were collected at time of hospitalization (baseline), then weekly until discharge from hospital. Evaluation tools for data included: the Patient-Reported Outcomes Measurement Information System (PROMIS) to determine several self-reported quality-of-life measures such as fatigue, anxiety, depression, pain, sleep disturbances, and global physical and mental health; the Functional Assessment of Cancer Therapy-Leukemia (FACT-Leu) to measure symptom concerns that are leukemic specific; Karnofsky Performance Status Scale (KPS) to measure function; and the Timed Up and Go Test (TUG) to measure physical mobility.

Findings
This study was the largest, to date, to evaluate the symptoms and quality of life of patients newly diagnosed with acute leukemia during hospitalization. All participants had one or more comorbidities, as well as a group mean body mass index of 30.8 ($SD = 6.7$), indicative of being overweight or having obesity, at time of hospitalization. No significant differences were seen in global mental health, pain, or KPS during hospitalization. There were significant decreases in fatigue ($p < 0.001$), anxiety ($p < 0.001$), depression ($p = 0.004$), and sleep disturbance ($p = 0.005$) from baseline to hospital discharge. Also significant were a decrease in leukemic symptoms ($p < 0.001$), indicating improved leukemic outcomes, which is the goal of therapy.

Nursing Implications
Nurses need to be aware of factors that can impact sleep in patients with cancer, both during and following treatment. As fatigue plays a major role in sleep disturbances, the nurse needs to assess for and develop strategies to address both concerns, especially while the patient is in the hospital. Poor sleep, fatigue, and pain can all contribute to the increased risk for falls, so safety issues should also be addressed with the patient and the patient's family. The nurse should encourage the patient to exercise and have some physical activity as part of the daily routine, to decrease fatigue while enhancing sleep. Additionally, the nurse should have a good understanding of the symptoms common to patients with leukemia and interventions to manage them as they occur.

Features to Facilitate Learning

In addition to practice-oriented features, special features have been developed to help readers learn key information.

- **Concept Mastery Alerts** highlight and clarify fundamental nursing concepts to improve understanding of difficult topics, as identified by Misconception Alerts in Lippincott's Adaptive Learning Powered by PrepU, an adaptive quizzing platform.



Concept Mastery Alert

It is important to remember the different types of cholesterol and the role of each as a risk factor for heart disease. HDL is the “good cholesterol,” and higher levels are better; LDL is the “bad cholesterol,” and lower levels are better.

- **Unfolding Patient Stories**, written by the National League for Nursing, are an engaging way to begin meaningful conversations in the classroom. These vignettes, which appear throughout the text near related content, feature patients from Wolters Kluwer’s vSim for Nursing | Medical-Surgical (co-developed by Laerdal Medical) and DocuCare products; however, each Unfolding Patient Story in the book stands alone, not requiring purchase of these products. For your convenience, a list of these case studies, along with their location in the book, appears in the “Case Studies in This Book” section later in this front matter.

Unfolding Patient Stories: Doris Bowman • Part 2



Recall from Chapter 12 **Doris Bowman**, who is undergoing a total abdominal hysterectomy with bilateral salpingo-oophorectomy. What are potential postoperative complications that the nurse should consider? What assessments and interventions are done by the nurse to monitor for early detection or to prevent these complications? Describe the discharge education provided by the nurse on self-care monitoring required of the patient at home and what should be reported to the health care provider.

Care for Doris and other patients in a realistic virtual environment: **vSim for Nursing** (thepoint.lww.com/vSimMedicalSurgical). Practice documenting these patients’ care in DocuCare (thepoint.lww.com/DocuCareEHR).

- Interactive learning tools available online enrich learning and are identified with icons in the text:



Concepts in Action Animations bring physiologic and pathophysiologic concepts to life.



Practice & Learn Case Studies present case scenarios and offer interactive exercises and questions to help you apply what you have learned.



Watch & Learn Video Clips reinforce skills from the textbook and appeal to visual and auditory learners.

- **All new! Critical Thinking Exercises** foster critical thinking and challenge you to apply textbook knowledge to clinical scenarios. Evidence-based practice (EBP) questions encourage you to apply best evidence from research findings to nursing interventions. Prioritization (PQ) questions ask you to consider the priorities for nursing care for specific patients and conditions. Interprofessional collaboration (IPC) exercises challenge you to identify the roles and responsibilities of the professional nurse and of interprofessional colleagues in collaboratively delivering quality patient-centered care.

CRITICAL THINKING EXERCISES

- 1 ipc** You are caring for a 53-year-old woman in the outpatient clinic where you work; she is newly diagnosed with urinary incontinence. What type of referrals might be appropriate for this patient? What members of the interprofessional health care team do you anticipate as being integral to the care of this patient?
- 2 ebp** You notice an increase in the number of CAUTIs among patients on the medical-surgical unit where you work. What are the evidence-based management techniques used in CAUTI prevention? Identify the criteria used to evaluate the strength of the evidence for these practices. How will you individualize these techniques for your unit?
- 3 pq** A 65-year-old man is admitted to the medical-surgical nursing unit where you work with bladder cancer. He is scheduled for a radical cystectomy with an orthotopic neobladder reconstruction. Identify the priorities, approach, and techniques you would use to provide care for this patient in the preoperative phase of care. How will your priorities, approach, and techniques differ in the postoperative phase of care?

References cited are listed at the end of each chapter and include

- updated, current sources.
- **Resources** lists at the end of each chapter include sources of additional information, Web sites, agencies, and patient education materials.

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*Asterisk indicates nursing research.

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Resources

- American Association of Poison Control Centers (AAPCC), www.aapcc.org
- American College of Emergency Physicians (ACEP), www.acep.org
- American College of Surgeons (ACS), Injury Prevention and Control, www.facs.org/quality-programs/trauma/ipc
- American Heart Association, www.heart.org
- American Trauma Society (ATS), www.amtrauma.org/default.aspx
- American Red Cross, Prepare for Emergencies, www.redcross.org/get-help/prepare-for-emergencies/types-of-emergencies
- Divers Alert Network (DAN), www.diversalertnetwork.org
- Emergency Nurses Association (ENA), www.ena.org
- National Capital Poison, Poison Control Center, poison.org
- National Center on Elder Abuse (NCEA), ncea.acl.gov
- National Center for Health Statistics (NCHS), cdc.gov/nchs
- National Human Trafficking Hotline, www.humantraffickinghotline.org

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Special Issues for the Nurse in End-of-Life Care
Medically Administered Nutrition and Hydration
Palliative Sedation at the End-of-Life
Clinicians' Attitudes toward Death
Patient and Family Concerns
Professional Caregiver Issues
Supporting Ourselves

UNIT 3 Perioperative Concepts and Nursing Management

14 Preoperative Nursing Management

Perioperative Nursing
Advances in Surgical and Anesthesia Approaches
Surgical Classifications
Preadmission Testing
Special Considerations during the Perioperative Period
Gerontologic Considerations
Bariatric Patients
Patients with Disability
Patients Undergoing Ambulatory Surgery

Patients Undergoing Emergency Surgery
Required Preoperative Documents
Preoperative Assessment
Nutritional and Fluid Status
 Dentition
 Drug or Alcohol Use
 Respiratory Status
 Cardiovascular Status
 Hepatic and Renal Function
 Endocrine Function
 Immune Function
 Previous Medication Use
Psychosocial Factors
 Spiritual and Cultural Beliefs
Preoperative Nursing Interventions
 Providing Patient Education
 Providing Psychosocial Interventions
 Maintaining Patient Safety
 Managing Nutrition and Fluids
 Preparing the Bowel
 Preparing the Skin
Immediate Preoperative Nursing Interventions
 Administering Medication
 Maintaining the Preoperative Record
 Preoperative Patient Warming
 Attending to Family Needs
Expected Patient Outcomes

15 Intraoperative Nursing Management

The Surgical Team
 The Patient
 The Circulating Nurse
 The Scrub Role
 The Surgeon
 The Registered Nurse First Assistant
 The Anesthesiologist and CRNA
Safety and Infection Prevention
 The Surgical Environment
 Prevention of OR Fires
 Surgical Attire
 Principles of Surgical Asepsis and Sterile Technique
 Health Hazards Associated with the Surgical Environment

Robotics
The Surgical Experience
 Types of Anesthesia and Sedation
Potential Intraoperative Complications
 Anesthesia Awareness
 Nausea and Vomiting
 Anaphylaxis
 Hypoxia and Other Respiratory Complications
 Hypothermia
 Malignant Hyperthermia
 Pathophysiology
 Clinical Manifestations
 Medical Management
 Nursing Management
• *Nursing Process: The Patient during Surgery*

16 Postoperative Nursing Management

Care of the Patient in the Postanesthesia Care Unit
 Phases of Postanesthesia Care
 Admitting the Patient to the Postanesthesia Care Unit
 Nursing Management in the Postanesthesia Care Unit
 Preparing the Postoperative Patient for Direct Discharge
Care of the Hospitalized Postoperative Patient
 Receiving the Patient in the Clinical Unit
 Nursing Management After Surgery
• *Nursing Process: The Hospitalized Patient Recovering from Surgery*

UNIT 4 Gas Exchange and Respiratory Function

17 Assessment of Respiratory Function

Anatomic and Physiologic Overview
 Anatomy of the Respiratory System
 Function of the Respiratory System
 Gerontologic Considerations
Assessment
 Health History
 Physical Assessment of the Respiratory System
 Assessment of Respiratory Function in the Patient Who Is Acutely or Critically Ill
Diagnostic Evaluation
 Pulmonary Function Tests
 Arterial Blood Gas Studies

- Venous Blood Gas Studies
- Pulse Oximetry
- End-Tidal Carbon Dioxide
- Cultures
- Sputum Studies
- Imaging Studies
- Endoscopic Procedures
- Biopsy

18 Management of Patients with Upper Respiratory Tract Disorders

Upper Airway Infections

Rhinitis

- Pathophysiology
- Clinical Manifestations
- Medical Management
- Nursing Management

Viral Rhinitis (Common Cold)

- Clinical Manifestations
- Medical Management
- Nursing Management

Rhinosinusitis

- Acute Rhinosinusitis
- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Complications
- Medical Management
- Nursing Management

Chronic Rhinosinusitis and Recurrent Acute Rhinosinusitis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Complications
- Medical Management
- Nursing Management

Pharyngitis

- Acute Pharyngitis
- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management

Nursing Management
Chronic Pharyngitis
Clinical Manifestations
Medical Management
Nursing Management

Tonsillitis and Adenoiditis
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Peritonsillar Abscess
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Laryngitis
Clinical Manifestations
Medical Management
Nursing Management

- *Nursing Process: The Patient with Upper Airway Infection*

Obstruction and Trauma of the Upper Respiratory Airway

Obstructive Sleep Apnea
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Epistaxis
Medical Management
Nursing Management

Nasal Obstruction
Medical Management
Nursing Management

Fractures of the Nose
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Laryngeal Obstruction
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

Cancer of the Larynx
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
• *Nursing Process: The Patient Undergoing Laryngectomy*

19 Management of Patients with Chest and Lower Respiratory Tract Disorders

Inflammatory and Infectious Pulmonary Disorders

Atelectasis
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Management
Acute Tracheobronchitis
Pathophysiology
Clinical Manifestations
Medical Management
Nursing Management

Pneumonia
Classification
Pathophysiology
Risk Factors
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Medical Management
Gerontologic Considerations
COVID-19 Considerations
Complications

• *Nursing Process: The Patient with Bacterial Pneumonia*

Aspiration
Pathophysiology
Prevention

Pulmonary Tuberculosis
Transmission and Risk Factors
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Gerontologic Considerations
Medical Management

Nursing Management

Lung Abscess

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Prevention

Medical Management

Nursing Management

Sarcoidosis

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Pleural Disorders

Pleurisy

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Pleural Effusion

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Empyema

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Acute Respiratory Failure

Pathophysiology

Clinical Manifestations

Medical Management

Nursing Management

- *Nursing Process: The Patient Receiving Mechanical Ventilation*

Acute Respiratory Distress Syndrome

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management
Nursing Management
COVID-19 Considerations

Pulmonary Vascular Disorders

Pulmonary Edema (Noncardiogenic)
Pulmonary Hypertension
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management
Pulmonary Heart Disease (Cor Pulmonale)

Pulmonary Embolism

Occupational Lung Disease: Pneumoconioses

Veterans Considerations

Chest Tumors

Lung Cancer (Bronchogenic Carcinoma)
Pathophysiology
Classification and Staging
Risk Factors
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Surgical Management: Thoracotomy
Nursing Management of the Patient Having a Thoracotomy
Radiation Therapy
Chemotherapy
Immunotherapy
Palliative Care
Complications
Nursing Management
Gerontologic Considerations

Tumors of the Mediastinum
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

Chest Trauma

Blunt Trauma
Pathophysiology
Assessment and Diagnostic Findings
Medical Management

Sternal and Rib Fractures

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

Flail Chest

Pathophysiology
Medical Management

Pulmonary Contusion

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

Penetrating Trauma

Medical Management

Pneumothorax

Types of Pneumothorax
Clinical Manifestations
Medical Management

Cardiac Tamponade

Subcutaneous Emphysema

20 Management of Patients with Chronic Pulmonary Disease

Chronic Obstructive Pulmonary Disease

Pathophysiology
Risk Factors
Clinical Manifestations
Assessment and Diagnostic Findings
Complications
Medical Management
Nursing Management

Bronchiectasis

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Asthma

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Complications

Medical Management
Nursing Management

Status Asthmaticus

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Cystic Fibrosis

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

UNIT 5 Cardiovascular and Circulatory Function

21 Assessment of Cardiovascular Function

Anatomic and Physiologic Overview

Anatomy of the Heart
Function of the Heart
Gerontologic Considerations
Gender Considerations

Assessment of the Cardiovascular System

Health History
Physical Assessment

Diagnostic Evaluation

Laboratory Tests
Chest X-Ray and Fluoroscopy
Electrocardiography
Cardiac Stress Testing
Radionuclide Imaging
Additional Imaging
Echocardiography
Cardiac Catheterization
Electrophysiologic Testing
Hemodynamic Monitoring

22 Management of Patients with Arrhythmias and Conduction Problems

Arrhythmias

Normal Electrical Conduction

Influences on Heart Rate and Contractility

The Electrocardiogram

Obtaining an Electrocardiogram

Components of the Electrocardiogram

Analyzing the Electrocardiogram Rhythm Strip

Determining Heart Rate from the Electrocardiogram

Determining Heart Rhythm from the Electrocardiogram

Normal Sinus Rhythm

Types of Arrhythmias

Sinus Node Arrhythmias

Atrial Arrhythmias

Junctional Arrhythmias

Ventricular Arrhythmias

Conduction Abnormalities

• *Nursing Process: The Patient with an Arrhythmia*

Adjunct Modalities and Management

Cardioversion and Defibrillation

Electrical Cardioversion

Defibrillation

Electrophysiology Studies

Pacemaker Therapy

Pacemaker Design and Types

Pacemaker Generator Functions

Complications of Pacemaker Use

Pacemaker Surveillance

Implantable Cardioverter Defibrillator

Nursing Management

23 Management of Patients with Coronary Vascular Disorders

Coronary Artery Disease

Coronary Atherosclerosis

Pathophysiology

Clinical Manifestations

Risk Factors

Prevention

Gender

Angina Pectoris

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

- *Nursing Process: The Patient with Angina Pectoris*
 Acute Coronary Syndrome and Myocardial Infarction
 - Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Cardiac Rehabilitation
 - *Nursing Process: The Patient with Acute Coronary Syndrome*
- Invasive Coronary Artery Procedures**
- Percutaneous Coronary Interventions
- Percutaneous Transluminal Coronary Angioplasty
 - Coronary Artery Stent
 - Complications
 - Postprocedure Care
- Surgical Procedures: Coronary Artery Revascularization
- Traditional Coronary Artery Bypass Graft
 - Alternative Coronary Artery Bypass Graft Techniques
 - Complications of Coronary Artery Bypass Graft
 - Nursing Management

24 Management of Patients with Structural, Infectious, and Inflammatory Cardiac Disorders

Valvular Disorders

- Mitral Valve Prolapse
- Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management

- Mitral Regurgitation
- Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management

- Mitral Stenosis
- Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Prevention
 - Medical Management

- Aortic Regurgitation
- Pathophysiology

- Clinical Manifestations
- Assessment and Diagnostic Findings
- Prevention
- Medical Management

Aortic Stenosis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Prevention
- Medical Management

Nursing Management: Valvular Heart Disorders

Surgical Management: Valve Repair and Replacement Procedures

Valvuloplasty

- Commissurotomy
- Annuloplasty
- Leaflet Repair

Valve Replacement

- Mechanical Valves
- Tissue Valves

Nursing Management: Valvuloplasty and Valve Replacement

- Cardiomyopathy
- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Surgical Management

- *Nursing Process: The Patient with Cardiomyopathy*

Infectious Diseases of the Heart

Rheumatic Endocarditis

Infective Endocarditis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Prevention
- Medical Management
- Surgical Management
- Nursing Management

Myocarditis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management

Nursing Management

Pericarditis

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

- *Nursing Process: The Patient with Pericarditis*

25 Management of Patients with Complications from Heart Disease

Heart Failure

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Gerontologic Considerations

- *Nursing Process: The Patient with Heart Failure*

Complications from Heart Disease

Cardiogenic Shock

Thromboembolism

Pericardial Effusion and Cardiac Tamponade

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Cardiac Arrest

Clinical Manifestations

Emergency Assessment and Management: Cardiopulmonary Resuscitation

26 Assessment and Management of Patients with Vascular Disorders and Problems of Peripheral Circulation

Anatomic and Physiologic Overview

Anatomy of the Vascular System

Function of the Vascular System

Pathophysiology of the Vascular System

Gerontologic Considerations

Assessment of the Vascular System

Health History

Physical Assessment

Diagnostic Evaluation

Doppler Ultrasound Flow Studies

Exercise Testing

Duplex Ultrasonography
Computed Tomography Scanning
Angiography
Magnetic Resonance Angiography
Contrast Phlebography (Venography)
Lymphoscintigraphy

Arterial Disorders

- Arteriosclerosis and Atherosclerosis
 - Pathophysiology
 - Risk Factors
 - Prevention
 - Clinical Manifestations
 - Medical Management
 - Nursing Management
- Peripheral Artery Disease
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
- Nursing Care of the Postoperative Patient
- Upper Extremity Arterial Disease
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
- Aortoiliac Disease
 - Medical Management
 - Nursing Management
- Aneurysms
 - Thoracic Aortic Aneurysm
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Abdominal Aortic Aneurysm
 - Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Gerontologic Considerations
 - Medical Management
 - Nursing Management
 - Other Aneurysms
- Aortic Dissection

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Arterial Embolism and Arterial Thrombosis
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Raynaud's Phenomenon and Other Acrosyndromes
Clinical Manifestations
Medical Management
Nursing Management

Venous Disorders

Venous Thromboembolism
COVID-19 Considerations
Pathophysiology
Deep Vein Thrombosis
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Medical Management
Nursing Management
Pulmonary Embolism
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Chronic Venous Insufficiency/Postthrombotic Syndrome
Clinical Manifestations
Complications
Management

Leg Ulcers
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
• *Nursing Process: The Patient with Leg Ulcers*

Varicose Veins
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention and Medical Management
Nursing Management

Lymphatic Disorders

Lymphangitis and Lymphadenitis
Lymphedema
Medical Management
Nursing Management

Cellulitis

Pathophysiology
Clinical Manifestations
Medical Management
Nursing Management

27 Assessment and Management of Patients with Hypertension

Hypertension
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
• *Nursing Process: The Patient with Hypertension*
Hypertensive Crises
Hypertensive Emergency
Hypertensive Urgency

UNIT 6 Hematologic Function

28 Assessment of Hematologic Function and Treatment Modalities

Anatomic and Physiologic Overview
Bone Marrow
Blood
Reticuloendothelial System (RES)
Hemostasis
Gerontologic Considerations

Assessment
Health History
Physical Assessment

Diagnostic Evaluation
Hematologic Studies
Bone Marrow Aspiration and Biopsy

Therapeutic Approaches to Hematologic Disorders
Splenectomy
Therapeutic Apheresis
Hematopoietic Stem Cell Transplantation
Therapeutic Phlebotomy
Blood Component Therapy

Procuring Blood and Blood Products
Blood Donation
Directed Donation
Standard Donation
Autologous Donation
Intraoperative Blood Salvage
Hemodilution
Complications of Blood Donation
Blood Processing

Transfusion
Pretransfusion Assessment
Patient Education
Transfusion Procedures
Complications
Nursing Management of Transfusion Reactions
Pharmacologic Alternatives to Blood Transfusions

29 Management of Patients with Nonmalignant Hematologic Disorders

Anemia
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Gerontologic Considerations
• *Nursing Process: The Patient with Anemia*

Hypoproliferative Anemias
Iron Deficiency Anemia
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Anemias in Renal Disease

Anemia of Inflammation
Aplastic Anemia
 Pathophysiology
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management
Megaloblastic Anemias
 Pathophysiology
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Hemolytic Anemias
 Sickle Cell Disease
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management

• *Nursing Process: The Patient with Sickle Cell Crisis*

 Thalassemias
 Glucose-6-Phosphate Dehydrogenase Deficiency
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management
 Immune Hemolytic Anemias
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Hereditary Hemochromatosis
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Polycythemia
 Secondary Polycythemia
 Management

Neutropenia
 Clinical Manifestations
 Medical Management
 Nursing Management

Lymphopenia

Bleeding Disorders

Clinical Manifestations

Medical Management

Nursing Management

Thrombocytopenia

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Immune Thrombocytopenic Purpura

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Platelet Defects

Clinical Manifestations

Medical Management

Nursing Management

Inherited Bleeding Disorders

Hemophilia

Clinical Manifestations

Medical Management

Nursing Management

Gerontologic Considerations

von Willebrand Disease

Clinical Manifestations

Assessment and Diagnostic Findings

Management

Acquired Bleeding Disorders

Liver Disease

Vitamin K Deficiency

Heparin-Induced Thrombocytopenia

Disseminated Intravascular Coagulation

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Secondary Thrombocytosis

Thrombotic Disorders

Hyperhomocysteinemia
Antithrombin Deficiency
Protein C Deficiency
Protein S Deficiency
Activated Protein C Resistance and Factor V Leiden Mutation
Antiphospholipid Antibody Syndrome
Malignancy
 Medical Management
 Nursing Management

30 Management of Patients with Hematologic Neoplasms

Clonal Stem Cell Disorders

Leukemia

Acute Myeloid Leukemia
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Complications
 Nursing Management

Chronic Myeloid Leukemia
 Clinical Manifestations
 Medical Management
 Nursing Management

Acute Lymphocytic Leukemia
 Clinical Manifestations
 Medical Management
 Nursing Management

Chronic Lymphocytic Leukemia
 Veterans Considerations
 Pathophysiology
 Clinical Manifestations
 Medical Management
 Nursing Management

• *Nursing Process: The Patient with Acute Leukemia*

MYELODYSPLASTIC SYNDROMES (MDSs)

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Myeloproliferative Neoplasms

Polycythemia Vera
 Clinical Manifestations

Assessment and Diagnostic Findings

Complications

Medical Management

Nursing Management

Essential Thrombocythemia

Clinical Manifestations

Assessment and Diagnostic Findings

Complications

Medical Management

Nursing Management

Primary Myelofibrosis

Medical Management

Nursing Management

Lymphoma

Hodgkin Lymphoma

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Non-Hodgkin Lymphomas

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

MULTIPLE MYELOMA

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Complications

Gerontologic Considerations

Nursing Management

UNIT 7 Immunologic Function

31 Assessment of Immune Function

Anatomic and Physiologic Overview

Anatomy of the Immune System

Function of the Immune System

Advances in Immunology

Genetic Engineering

Stem Cells
Cancer and Immunotherapy
Assessment of the Immune System
Health History
Physical Assessment
Diagnostic Evaluation
Nursing Management

32 Management of Patients with Immune Deficiency Disorders

PRIMARY IMMUNE DEFICIENCIES DISEASES

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Medical Management
Nursing Management

Acquired Immune Deficiency

HIV Infection and AIDS

Epidemiology
HIV Transmission
Gerontologic Considerations
Prevention of HIV Infection
Reducing the Risk of Transmission to Health Care Providers
Pathophysiology
Stages of HIV Infection
Assessment and Diagnostic Findings in HIV Infection
Treatment of HIV Infection
Clinical Manifestations
Medical Management
Complementary, Alternative, and Integrative Health Therapies
Supportive Care
• *Nursing Process: The Patient with HIV Infection*
Emotional and Ethical Concerns

33 Assessment and Management of Patients with Allergic Disorders

Physiologic Overview

Function of Immunoglobulins
Function of Antigens
Function of Chemical Mediators
Hypersensitivity

Assessment

Diagnostic Evaluation

- Complete Blood Count with Differential
- Eosinophil Count
- Total Serum Immunoglobulin E Levels
- Skin Tests
- Provocative Testing
- Serum-Specific IgE Test

Allergic Disorders

Anaphylaxis

- Pathophysiology
- Clinical Manifestations
- Prevention
- Medical Management
- Nursing Management

Allergic Rhinitis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management

- *Nursing Process: The Patient with Allergic Rhinitis*

Contact Dermatitis

- Clinical Manifestations
- Assessment and Diagnostic Findings

Atopic Dermatitis

- Medical Management
- Nursing Management

Drug Hypersensitivity

- Pseudoallergic Drug Reactions

Urticaria and Angioedema

Hereditary Angioedema

- Clinical Manifestations
- Medical Management

Cold Urticaria

- Clinical Manifestations
- Medical Management
- Nursing Management

Food Allergy

- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Latex Allergy

- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

34 Assessment and Management of Patients with Inflammatory Rheumatic Disorders

Rheumatic Diseases

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management
- Gerontologic Considerations

Diffuse Connective Tissue Diseases

Rheumatoid Arthritis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Systemic Lupus Erythematosus

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Primary Sjögren's Syndrome

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Scleroderma

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Polymyositis

- Pathophysiology
- Clinical Manifestations

- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management
- Polymyalgia Rheumatica and Giant Cell Arteritis**
 - Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
- Spondyloarthropathies**
 - Ankylosing Spondylitis
 - Reactive Arthritis (Reiter's Syndrome)
 - Psoriatic Arthritis
 - Medical Management
 - Nursing Management
- Metabolic and Endocrine Diseases Associated with Rheumatic Disorders**
 - Gout
 - Pathophysiology
 - Clinical Manifestations
 - Medical Management
 - Nursing Management
 - Fibromyalgia
 - Pathophysiology
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
 - Miscellaneous Disorders

UNIT 8 Musculoskeletal Function

35 Assessment of Musculoskeletal Function

- Anatomic and Physiologic Overview
 - Structure and Function of the Skeletal System
 - Structure and Function of the Articular System
 - Structure and Function of the Skeletal Muscle System
 - Gerontologic Considerations
- Assessment
 - Health History
 - Physical Assessment
- Diagnostic Evaluation
 - X-Ray Studies

- Computed Tomography
- Magnetic Resonance Imaging
- Arthrography
- Bone Densitometry
- Bone Scan
- Arthroscopy
- Arthrocentesis
- Electromyography
- Biopsy
- Laboratory Studies

36 Management of Patients with Musculoskeletal Disorders

Low Back Pain

- Gerontologic Considerations
- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Common Upper Extremity Disorders

- Bursitis and Tendonitis
- Loose Bodies
- Impingement Syndrome
- Carpal Tunnel Syndrome
- Ganglion
- Dupuytren Disease
- Nursing Management of the Patient Undergoing Surgery of the Hand or Wrist

Common Foot Problems

- Callus
- Corn
- Hammer Toe
- Onychocryptosis
- Pes Cavus
- Hallux Valgus
- Morton Neuroma
- Pes Planus
- Plantar Fasciitis
- Nursing Management of the Patient Undergoing Foot Surgery

Osteoarthritis (Degenerative Joint Disease)

- Pathophysiology
- Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

The Patient Undergoing Arthroplasty

Preoperative and Intraoperative Nursing Management

Total Hip Arthroplasty

Nursing Management

Total Knee Arthroplasty

Nursing Management

Metabolic Bone Disorders

Osteoporosis

Prevention

COVID-19 Considerations

Gerontologic Considerations

Pathophysiology

Risk Factors

Assessment and Diagnostic Findings

Medical Management

• *Nursing Process: The Patient with a Spontaneous Vertebral Fracture*

Related to Osteoporosis

Osteomalacia

Pathophysiology

Gerontologic Considerations

Assessment and Diagnostic Findings

Medical Management

Paget Disease of the Bone

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Gerontologic Considerations

Musculoskeletal Infections

Osteomyelitis

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Prevention

Medical Management

• *Nursing Process: The Patient with Osteomyelitis*

Septic (Infectious) Arthritis

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Bone Tumors

Benign Bone Tumors

Malignant Bone Tumors

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

37 **Management of Patients with Musculoskeletal Trauma**

Contusions, Strains, and Sprains

Management

Joint Dislocations

Medical Management

Nursing Management

Injuries to the Tendons, Ligaments, and Menisci

Rotator Cuff Tears

Lateral and Medial Epicondylitis

Lateral and Medial Collateral Ligament Injury

Medical Management

Nursing Management

Cruciate Ligament Injury

Meniscal Injuries

Rupture of the Achilles Tendon

Fractures

Types of Fractures

Clinical Manifestations

Emergency Management

Medical Management

Nursing Management

Fracture Healing and Complications

The Patient with a Cast, Splint, or Brace

Casts

Splints and Braces

Nursing Management

Nursing Management of the Patient with an Immobilized Upper Extremity

Nursing Management of the Patient with an Immobilized Lower Extremity

Nursing Management of the Patient with a Body or Spica Cast

The Patient with an External Fixator
Management

The Patient in Traction

Principles of Effective Traction

Types of Traction

Skin Traction

Skeletal Traction

Nursing Management of the Patient in Traction

Fractures of Specific Sites

Clavicle

Humeral Neck

Humeral Shaft

Elbow

Proximal Radius

Radial and Ulnar Shafts

Wrist

Hand

Pelvis

Acetabulum

Hip

Clinical Manifestations

Gerontologic Considerations

Medical Management

Nursing Management

Femoral Shaft

Assessment and Diagnostic Findings

Management

Tibia and Fibula

Assessment and Diagnostic Findings

Management

Rib

Gerontologic Considerations

Thoracolumbar Spine

Sports-Related Musculoskeletal Injuries

Management

Occupation-Related Musculoskeletal Disorders

Occupation-Related Musculoskeletal Disorders in Nursing Personnel

Amputation

Level of Amputation

Complications

Medical Management

Rehabilitation

- *Nursing Process: The Patient Undergoing an Amputation*

UNIT 9 Digestive and Gastrointestinal Function

38 Assessment of Digestive and Gastrointestinal Function

Anatomic and Physiologic Overview

Function of the Digestive System

Gerontologic Considerations

Assessment of the Gastrointestinal System

Health History

Physical Assessment

Diagnostic Evaluation

Serum Laboratory Studies

Stool Tests

Breath Tests

Abdominal Ultrasonography

Genetic Testing

Imaging Studies

Endoscopic Procedures

Manometry and Electrophysiologic Studies

Gastric Analysis, Gastric Acid Stimulation Test, and pH Monitoring

Laparoscopy (Peritoneoscopy)

39 Management of Patients with Oral and Esophageal Disorders

Disorders of the Oral Cavity

Dental Plaque and Caries

Prevention

Dental Health and Disease

Periapical Abscess

Clinical Manifestations

Medical Management

Nursing Management

Disorders of the Jaw

Temporomandibular Disorders

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Jaw Disorders Requiring Surgical Management

Nursing Management

Disorders of the Salivary Glands

Parotitis

Sialadenitis
Salivary Calculus (Sialolithiasis)
Neoplasms

Cancer of the Oral Cavity and Pharynx

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Human Papillomavirus Prevention
Medical Management
Nursing Management

Nursing Management of the Patient With Disorders of the Oral Cavity

Promoting Mouth Care
Ensuring Adequate Food and Fluid Intake
Supporting a Positive Self-Image
Minimizing Pain and Discomfort
Preventing Infection
Promoting Home, Community-Based, and Transitional Care

Neck Dissection

- *Nursing Process: The Patient Undergoing a Neck Dissection*

Delivering Nutrition Enterally

Nursing Management
Gastrostomy and Jejunostomy
• *Nursing Process: The Patient with a Gastrostomy or Jejunostomy*

Disorders of the Esophagus

Achalasia
Clinical Manifestations
Assessment and Diagnostic Findings
Management

Esophageal Spasm
Clinical Manifestations
Assessment and Diagnostic Findings
Management

Hiatal Hernia
Clinical Manifestations
Assessment and Diagnostic Findings
Management

Diverticulum
Clinical Manifestations
Assessment and Diagnostic Findings
Management

Perforation

Clinical Manifestations
Assessment and Diagnostic Findings
Management

Foreign Bodies

Chemical Burns

Gastroesophageal Reflux Disease

Clinical Manifestations
Assessment and Diagnostic Findings
Management

Barrett Esophagus

Clinical Manifestations
Assessment and Diagnostic Findings
Management

Benign Tumors of the Esophagus

- *Nursing Process: The Patient with a Noncancerous Disorder of the Esophagus*

Cancer of the Esophagus

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

40 **Management of Patients with Gastric and Duodenal Disorders**

Gastritis

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Peptic Ulcer Disease

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

- *Nursing Process: The Patient with Peptic Ulcer Disease*

Gastric Cancer

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Gerontologic Considerations

- *Nursing Process: The Patient with Gastric Cancer*

Tumors of the Small Intestine

Clinical Manifestations

Assessment and Diagnostic Findings

Management

41 Management of Patients with Intestinal and Rectal Disorders

Abnormalities of Fecal Elimination

Constipation

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Complications

Gerontologic Considerations

Medical Management

Nursing Management

Diarrhea

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Complications

Gerontologic Considerations

Medical Management

Nursing Management

Fecal Incontinence

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Irritable Bowel Syndrome (IBS)

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Disorders of Malabsorption

Celiac Disease

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings
Medical Management
Nursing Management

Acute Abdomen

Peritonitis

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Appendicitis

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Complications
Gerontologic Considerations
Medical Management
Nursing Management

Diverticular Disease

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Gerontologic Considerations
Medical Management
Nursing Management

Intestinal Obstruction

Small Bowel Obstruction
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Large Bowel Obstruction

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Inflammatory Bowel Disease

Crohn's Disease (Regional Enteritis)

Pathophysiology
Clinical Manifestations

Assessment and Diagnostic Findings
Complications
Ulcerative Colitis
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Complications
Management of Inflammatory Bowel Disease
Medical Management
• *Nursing Process:* Management of the Patient with Inflammatory Bowel Disease

Delivering Nutrition Parenterally

Nursing Management
• *Nursing Process:* The Patient Receiving Parenteral Nutrition

Management of the Patient Requiring an Ostomy

Preoperative Nursing Management
Postoperative Nursing Management

Colorectal Neoplasms

Colorectal Cancer
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Complications
Gerontologic Considerations
Prevention
Medical Management
• *Nursing Process:* The Patient Having Surgery for Colorectal Cancer

Polyps of the Colon and Rectum

Disorders of the Anorectum

Proctitis
Anorectal Abscess
Anal Fistula
Anal Fissure
Hemorrhoids
Pilonidal Sinus or Cyst
Nursing Management of Patients with Anorectal Disorders

UNIT 10 Metabolic and Endocrine Function

42 Assessment and Management of Patients with Obesity

Obesity

Epidemiology of Obesity

- Obesity Risks
- Pathophysiology
- Assessment of Obesity
- Diagnostic Evaluation
- Medical Management
- Gerontologic Considerations
- Veterans Considerations
- COVID-19 Considerations
- Nursing Management

The Patient Undergoing Bariatric Surgery

- Surgical Procedures

- *Nursing Process: The Patient Undergoing Bariatric Surgery*

43 Assessment and Management of Patients with Hepatic Disorders

Assessment of the Liver

- Anatomic and Physiologic Overview
 - Anatomy of the Liver
 - Functions of the Liver
 - Gerontologic Considerations

Assessment

- Health History
- Physical Assessment

Diagnostic Evaluation

- Liver Function Tests
- Liver Biopsy
- Other Diagnostic Tests

Manifestations of Hepatic Dysfunction

Jaundice

- Hemolytic Jaundice
- Hepatocellular Jaundice
- Obstructive Jaundice
- Hereditary Hyperbilirubinemia

Portal Hypertension

Ascites

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Esophageal Varices

- Pathophysiology

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Surgical Management
Nursing Management

Hepatic Encephalopathy and Coma
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Other Manifestations of Hepatic Dysfunction
Edema and Bleeding
Vitamin Deficiency
Metabolic Abnormalities
Pruritus and Other Skin Changes

Viral Hepatitis

Hepatitis A Virus
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Medical Management
Nursing Management

Hepatitis B Virus
Gerontologic Considerations
Clinical Manifestations
Assessment and Diagnostic Findings
Prevention
Medical Management
Nursing Management

Hepatitis C Virus

Hepatitis D Virus

Hepatitis E Virus

Hepatitis G Virus and GB Virus-C

Nonviral Hepatitis

Toxic Hepatitis

Drug-Induced Hepatitis

Acute Liver Failure

Hepatic Cirrhosis

Pathophysiology
Clinical Manifestations

Assessment and Diagnostic Findings
Medical Management
Nursing Management

Cancer of the Liver

Primary Liver Tumors
Liver Metastases
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Surgical Management
Nursing Management

Liver Transplantation

Surgical Procedure
Complications
Nursing Management

Liver Abscesses

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

44 Management of Patients with Biliary Disorders

Anatomic and Physiologic Overview

The Gallbladder
The Pancreas
The Exocrine Pancreas
The Endocrine Pancreas
Endocrine Control of Carbohydrate Metabolism
Gerontologic Considerations

Disorders of the Gallbladder

Cholecystitis
Cholelithiasis
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
• *Nursing Process: The Patient Undergoing Surgery for Gallbladder Disease*

Disorders of the Pancreas

Acute Pancreatitis
Gerontologic Considerations

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Chronic Pancreatitis

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

Pancreatic Cysts

Cancer of the Pancreas

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Tumors of the Head of the Pancreas

Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Pancreatic Islet Tumors

Surgical Management
Nursing Management

Hyperinsulinism

Ulcerogenic Tumors

45 Assessment and Management of Patients with Endocrine Disorders

Assessment of the Endocrine System

Anatomic and Physiologic Overview
Glands of the Endocrine System
Function and Regulation of Hormones
Classification and Action of Hormones

Assessment

Health History
Physical Assessment

Diagnostic Evaluation

Blood Tests
Urine Tests
Additional Diagnostic Studies

The Pituitary Gland

Anatomic and Physiologic Overview

- Anterior Pituitary
- Posterior Pituitary
- Pathophysiology**
 - Anterior Pituitary
 - Posterior Pituitary
- Pituitary Tumors**
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
- Diabetes Insipidus**
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
- Syndrome of Inappropriate Antidiuretic Hormone Secretion**
 - Medical Management
 - Nursing Management

The Thyroid Gland

- Anatomic and Physiologic Overview**
 - Thyroid Hormone
 - Calcitonin
- Pathophysiology**
- Assessment**
 - Physical Examination
- Diagnostic Evaluation**
 - Thyroid Tests
 - Nursing Implications
- Hypothyroidism**
 - Clinical Manifestations
 - Medical Management
 - Nursing Management
 - Gerontologic Considerations
- Hyperthyroidism**
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Gerontologic Considerations
- ***Nursing Process: The Patient with Hyperthyroidism***
- Thyroid Tumors**
 - Endemic (Iodine-Deficient) Goiter
 - Nodular Goiter

Thyroid Cancer

Assessment and Diagnostic Findings

Medical Management

Nursing Management

The Parathyroid Glands

Anatomic and Physiologic Overview

Pathophysiology

Hyperparathyroidism

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Complications: Hypercalcemic Crisis

Hypoparathyroidism

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

The Adrenal Glands

Anatomic and Physiologic Overview

Adrenal Medulla

Adrenal Cortex

Pheochromocytoma

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Adrenocortical Insufficiency (Addison's Disease)

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Cushing's Syndrome

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

• *Nursing Process: The Patient with Cushing's Syndrome*

Primary Aldosteronism

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Corticosteroid Therapy

Side Effects

Therapeutic Uses of Corticosteroids

Dosage

Tapering

Nursing Management

46 Management of Patients with Diabetes

Diabetes

Epidemiology

Classification

COVID-19 Considerations

Pathophysiology

Prevention

Clinical Manifestations

Assessment and Diagnostic Findings

Gerontologic Considerations

Medical Management

Nursing Management

Acute Complications of Diabetes

Hypoglycemia (Insulin Reactions)

Gerontologic Considerations

Clinical Manifestations

Assessment and Diagnostic Findings

Management

Diabetic Ketoacidosis

Pathophysiology

Prevention

Clinical Manifestations

Assessment and Diagnostic Findings

Management

Hyperglycemic Hyperosmolar Syndrome

Clinical Manifestations

Assessment and Diagnostic Findings

Management

- *Nursing Process: The Patient with Diabetic Ketoacidosis or Hyperglycemic Hyperosmolar Syndrome*

Long-Term Complications of Diabetes

Macrovascular Complications

Role of Diabetes in Macrovascular Diseases

Management

Microvascular Complications

- Diabetic Retinopathy**
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
- Nephropathy**
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Management
- Diabetic Neuropathies**
 - Peripheral Neuropathy**
 - Clinical Manifestations
 - Management
 - Autonomic Neuropathies**
 - Clinical Manifestations
 - Management
- Foot and Leg Problems**
 - Medical Management
 - Nursing Management

Special Issues in Diabetes Care

- Patients with Diabetes Who Are Undergoing Surgery**
- Management of Patients with Diabetes Who Are Hospitalized**
 - Self-Care Issues
 - Hyperglycemia During Hospitalization
 - Hypoglycemia During Hospitalization
 - Common Alterations in Diet
 - Hygiene
 - Stress
 - Gerontologic Considerations
 - Nursing Management

UNIT 11 Kidney and Urinary Tract Function

47 Assessment of Kidney and Urinary Function

Anatomic and Physiologic Overview

- Anatomy of the Kidney and Urinary Systems
- Physiology of the Kidney and Urinary Systems
- Gerontologic Considerations

Assessment of the Kidney and Urinary Systems

- Health History
- Physical Assessment

Diagnostic Evaluation

- Urinalysis and Urine Culture
- Specific Gravity
- Osmolality
- Renal Function Tests
- Diagnostic Imaging
- Urologic Endoscopic Procedures
- Biopsy

48 Management of Patients with Kidney Disorders

Fluid and Electrolyte Imbalances in Kidney Disorders

- Clinical Manifestations
- Gerontologic Considerations

Kidney Disorders

- Chronic Kidney Disease
 - Pathophysiology
 - Stages of Chronic Kidney Disease
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Gerontologic Considerations

Nephrosclerosis

- Pathophysiology
- Assessment and Diagnostic Findings
- Medical Management

Primary Glomerular Diseases

- Acute Nephritic Syndrome
 - Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Complications
 - Medical Management
 - Nursing Management

Chronic Glomerulonephritis

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management
- Nursing Management

Nephrotic Syndrome

- Pathophysiology
- Clinical Manifestations
- Assessment and Diagnostic Findings

Complications

Medical Management

Nursing Management

Polycystic Kidney Disease

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Renal Cancer

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Kidney Disease

Acute Kidney Injury

COVID-19 Considerations

Pathophysiology

Classifications of Acute Kidney Injury

Categories of Acute Kidney Injury

Phases of Acute Kidney Injury

Clinical Manifestations

Assessment and Diagnostic Findings

Prevention

Gerontologic Considerations

Medical Management

Nursing Management

End-Stage Kidney Disease or Chronic Kidney Disease

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Complications

Medical Management

Nursing Management

Gerontologic Considerations

Renal Replacement Therapy (RRT)

Dialysis

Hemodialysis (HD)

Dialyzers

Vascular Access

Complications

COVID-19 Considerations

Nursing Management

Continuous Renal Replacement Therapy
Continuous Venovenous Hemofiltration
Continuous Venovenous Hemodialysis
Peritoneal Dialysis (PD)
Procedure
Complications
Approaches
Nursing Management
Special Considerations: Nursing Management of the Patient on Dialysis Who Is Hospitalized

Kidney Surgery

Management of Patients Undergoing Kidney Surgery
Preoperative Considerations
Perioperative Concerns
Postoperative Management
Nursing Management

Kidney Transplantation

Preoperative Management
Medical Management
Nursing Management
Postoperative Management
Medical Management
COVID-19 Considerations
Nursing Management

Renal Trauma

Medical Management
Nursing Management

49 Management of Patients with Urinary Disorders

Infections of the Urinary Tract

Lower Urinary Tract Infections
Pathophysiology
Clinical Manifestations
Gerontologic Considerations
Assessment and Diagnostic Findings
Medical Management

- **Nursing Process: The Patient with a Lower Urinary Tract Infection**

Upper Urinary Tract Infections

Acute Pyelonephritis
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Chronic Pyelonephritis

Clinical Manifestations
Assessment and Diagnostic Findings
Complications
Medical Management
Nursing Management

Adult Voiding Dysfunction

Urinary Incontinence
Types of Urinary Incontinence
Gerontologic Considerations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Urinary Retention
Pathophysiology
Assessment and Diagnostic Findings
Complications
Nursing Management

Neurogenic Bladder
Pathophysiology
Assessment and Diagnostic Findings
Complications
Medical Management

Urinary Catheters
Indwelling Catheters
Suprapubic Catheters
Nursing Management

Urolithiasis and Nephrolithiasis

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

- *Nursing Process: The Patient with Renal Calculi*

Genitourinary Trauma

Specific Injuries
Ureteral Trauma
Bladder Trauma
Urethral Trauma
Medical Management
Nursing Management

Urinary Tract Cancers

Cancer of the Bladder
Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Urinary Diversions

Ileal Conduit

Complications

Nursing Management

Orthotopic Neobladder

Surgical Management

Complications

Nursing Management

Other Continent Urinary Diversion Procedures

- *Nursing Process: The Patient Undergoing Urinary Diversion Surgery*

UNIT 12 Reproductive Function

50 Assessment and Management of Patients with Female Physiologic Processes

CHALLENGES in Women's Health

Assessment of the Female Reproductive System

Anatomic and Physiologic Overview

Anatomy of the Female Reproductive System

Function of the Female Reproductive System

Assessment

Health History

Physical Assessment

Diagnostic Evaluation

Cytologic Test for Cancer (Pap Smear)

Colposcopy and Cervical Biopsy

Cryotherapy and Laser Therapy

Cone Biopsy and Loop Electrosurgical Excision Procedure

Endometrial (Aspiration) Biopsy

Dilation and Curettage

Endoscopic Examinations

Other Diagnostic Procedures

Management of Female Physiologic Processes

Menstruation

Psychosocial Considerations

Cultural Considerations

Menstrual Disorders

Premenstrual Syndrome

Clinical Manifestations

Medical Management

Nursing Management

Dysmenorrhea

- Assessment and Diagnostic Findings
- Management

Amenorrhea

Abnormal Uterine Bleeding

Dyspareunia

Contraception

- Contraindications
- Abstinence
- Long-Acting Reversible Contraceptive (LARC) Methods
- Sterilization
- Hormonal Contraception
- Mechanical Barriers
- Coitus Interruptus or Withdrawal
- Fertility Awareness-Based Methods
- Emergency Contraception

Nursing Management

Abortion

- Spontaneous Abortion
- Habitual Abortion
 - Medical Management
 - Nursing Management
- Induced Abortion
 - Medical Management
 - Nursing Management

Infertility

- Diagnostic Findings
- Medical Management
- Nursing Management

Preconception/Periconception Health Care

Ectopic Pregnancy

- Clinical Manifestations
- Assessment and Diagnostic Findings
- Medical Management

- *Nursing Process: The Patient with an Ectopic Pregnancy*

Perimenopause

Nursing Management

Menopause

- Postmenopausal Bleeding
- Clinical Manifestations
- Psychological Considerations

Medical Management
Nursing Management

51 **Management of Patients with Female Reproductive Disorders**

Vulvovaginal Infections

Candidiasis

Clinical Manifestations
Medical Management

Bacterial Vaginosis

Clinical Manifestations
Medical Management

Trichomoniasis

Clinical Manifestations
Medical Management

Gerontologic Considerations

- *Nursing Process: The Patient with a Vulvovaginal Infection*

Human Papillomavirus

Pathophysiology
Medical Management
Prevention

Herpes Virus Type 2 Infection (Herpes Genitalis, Herpes Simplex Virus)

Pathophysiology
Clinical Manifestations
Medical Management

- *Nursing Process: The Patient with a Genital Herpes Infection*

Endocervicitis and Cervicitis

Chlamydia and Gonorrhea
Medical Management
Nursing Management

Pelvic Inflammatory Disease

Pathophysiology
Clinical Manifestations
Complications
Medical Management
Nursing Management

Human Immune Deficiency Virus Infection and Acquired Immune Deficiency Syndrome

Structural Disorders

Fistulas of the Vagina

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Pelvic Organ Prolapse: Cystocele, Rectocele, Enterocoele

Clinical Manifestations

Medical Management

Uterine Prolapse

Medical Management

Nursing Management

Benign Disorders

Vulvitis and Vulvodynia

Medical Management

Vulvar Cysts

Medical Management

Vulvar Dystrophy

Medical Management

Nursing Management

Ovarian Cysts

Medical Management

Benign Tumors of the Uterus: Fibroids (Leiomyomas, Myomas)

Clinical Manifestations

Medical Management

Endometriosis

Pathophysiology

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Chronic Pelvic Pain

Adenomyosis

Endometrial Hyperplasia

Malignant Conditions

Cancer of the Cervix

Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Cancer of the Uterus (Endometrium)

Pathophysiology

Assessment and Diagnostic Findings

Medical Management

Cancer of the Vulva

Clinical Manifestations

Medical Management
Nursing Management

Cancer of the Vagina

Medical Management

Cancer of the Fallopian Tubes

Cancer of the Ovary

Epidemiology
Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Hysterectomy

Preoperative Management
Postoperative Management

- **Nursing Process: The Patient Undergoing a Hysterectomy**

Radiation Therapy

Methods of Radiation Therapy
Nursing Considerations for Radiation Safety

52 Assessment and Management of Patients with Breast Disorders

Breast Assessment

Anatomic and Physiologic Overview

Assessment

Health History
Physical Assessment: Female Breast
Physical Assessment: Male Breast

Diagnostic Evaluation

Breast Self-Examination
Mammography
Contrast Mammography
Ultrasonography
Magnetic Resonance Imaging
Procedures for Tissue Analysis

Conditions Affecting the Nipple

Nipple Discharge
Fissure

Breast Infections

Mastitis
Lactational Abscess

Benign Conditions of the Breast

Breast Pain

Nursing Management

Cysts

Fibroadenomas

Benign Proliferative Breast Disease

Atypical Hyperplasia

Lobular Carcinoma In Situ

Other Benign Conditions

Malignant Conditions of the Breast

Types of Breast Cancer

Ductal Carcinoma In Situ

Medical Management

Invasive Cancer

Risk Factors

Protective Factors

Breast Cancer Prevention Strategies in the Patient Who Is at High Risk

Clinical Manifestations

Assessment and Diagnostic Findings

Staging

Prognosis

Surgical Management

Nursing Management

• *Nursing Process: The Patient Undergoing Surgery for Breast Cancer*

Radiation Therapy

Side Effects

Nursing Management

Systemic Treatments

Chemotherapy

Side Effects

Nursing Management

Hormonal Therapy

Targeted Therapy

Treatment of Recurrent and Metastatic Breast Cancer

Nursing Management

Reconstructive Procedures After Mastectomy

Tissue Expander Followed by Permanent Implant

Tissue Transfer Procedures

Nipple–Areola Reconstruction

Prosthetics

Special Issues in Breast Cancer Management

Implications of Genetic Testing

Pregnancy and Breast Cancer
Quality of Life and Survivorship
Gerontologic Considerations
Breast Health of Women with Disability

Reconstructive Breast Surgery

Reduction Mammoplasty
Augmentation Mammoplasty
Mastopexy

Diseases of the Male Breast

Gynecomastia
Male Breast Cancer

53 Assessment and Management of Patients with Male Reproductive Disorders

Assessment of the Male Reproductive System

Anatomic and Physiologic Overview
Gerontologic Considerations
Assessment
Health History
Physical Assessment

Diagnostic Evaluation
Prostate-Specific Antigen Test
Ultrasonography
Prostate Fluid or Tissue Analysis
Tests of Male Sexual Function

Disorders of Male Sexual Function

Erectile Dysfunction
Assessment and Diagnostic Findings
Medical Management
Nursing Management

Disorders of Ejaculation

Infections of the Male Genitourinary Tract

Prostatic Disorders

Prostatitis
Clinical Manifestations
Medical Management
Nursing Management

Benign Prostatic Hyperplasia (Enlarged Prostate)

Pathophysiology
Clinical Manifestations
Assessment and Diagnostic Findings
Medical Management

- Cancer of the Prostate
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
- The Patient Undergoing Prostate Surgery
 - Surgical Procedures
 - Complications
- *Nursing Process: Patient Undergoing Prostatectomy*
- Disorders Affecting the Testes and Adjacent Structures**
 - Orchitis
 - Epididymitis
 - Pathophysiology
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
 - Testicular Torsion
 - Testicular Cancer
 - Classification of Testicular Tumors
 - Risk Factors
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Medical Management
 - Nursing Management
 - Hydrocele
 - Varicocele
 - Vasectomy
 - Nursing Management
 - Vasovasostomy (Sterilization Reversal)
 - Semen Cryopreservation (Sperm Banking)
- Disorders Affecting the Penis**
 - Phimosis
 - Cancer of the Penis
 - Clinical Manifestations
 - Assessment and Diagnostic Findings
 - Prevention
 - Medical Management
 - Priapism
 - Peyronie Disease
 - Urethral Stricture
 - Circumcision

54 Assessment and Management of Patients Who Are LGBTQ

Sexuality and Gender Identity

 Sexuality

 Gender Identity

Statistics on LGBTQ Populations

Health Risks

Assessment

 Gerontologic Considerations

Assessment and Management of Patients Seeking Gender

 Reassignment

 Medical Management

- *Nursing Process: The Patient Undergoing Gender Reassignment Surgery*

UNIT 13 Integumentary Function

55 Assessment of Integumentary Function

Anatomic and Physiologic Overview

 Anatomy of the Skin, Hair, Nails, and Glands of the Skin

 Functions of the Skin

 Gerontologic Considerations

Assessment

 Health History

 Physical Assessment

 Skin Consequences of Select Systemic Diseases

Diagnostic Evaluation

 Skin Biopsy

 Patch Testing

 Skin Scrapings

 Tzanck Smear

 Wood Light Examination

 Clinical Photographs

 Nursing Implications

56 Management of Patients with Dermatologic Disorders

Skin Care

 Protecting the Skin

 Preventing Secondary Infection

 Wound Dressing Care

 Autolytic Débridement

 Categories of Dressings

Medical Management

Nursing Management

Pressure Injury

- *Nursing Process: The Patient with Pressure Injury*

Pruritus

General Pruritus

Gerontologic Considerations

Pathophysiology

Medical Management

Nursing Management

Perineal and Perianal Pruritus

Management

Secretory Disorders

Hidradenitis Suppurativa

Pathophysiology

Clinical Manifestations

Management

Seborrheic Dermatitis

Clinical Manifestations

Medical Management

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Acne Vulgaris

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Clinical Manifestations

Assessment and Diagnostic Findings

Medical Management

Nursing Management

Infectious Dermatoses

Bacterial Skin Infections

Impetigo

Clinical Manifestations

Medical Management

Nursing Management

Folliculitis, Furuncles, and Carbuncles

Medical Management

Nursing Management

Viral Skin Infections

Herpes Zoster

Clinical Manifestations

Medical Management

Nursing Management

Herpes Simplex

COVID-19 Considerations
Fungal (Mycotic) Skin Infections
Parasitic Skin Infestations
 Pediculosis: Lice Infestation
 Clinical Manifestations
 Medical Management
 Nursing Management
 Scabies
 Clinical Manifestations
 Gerontologic Considerations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Noninfectious Inflammatory Dermatoses

Irritant Contact Dermatitis
 Clinical Manifestations
 Management
 COVID-19 Considerations

Psoriasis
 Pathophysiology
 Clinical Manifestations
 Complications
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Generalized Exfoliative Dermatitis
 Clinical Manifestations
 Assessment and Diagnostic Findings
 Medical Management
 Nursing Management

Blistering Diseases

Pemphigus Vulgaris
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