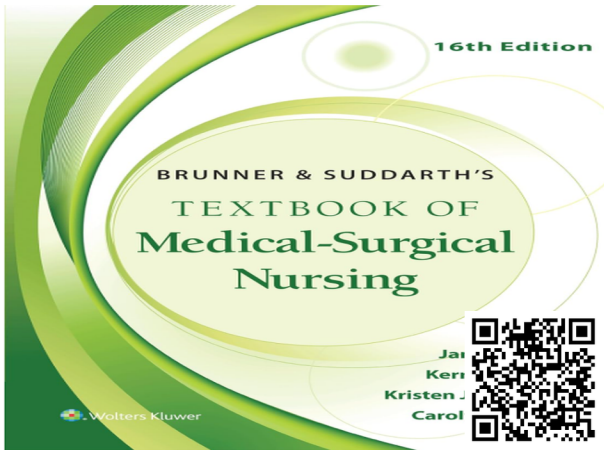


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16th Edition

BRUNNER & SUDDARTH'S
TEXTBOOK OF
Medical-Surgical
Nursing

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BRUNNER & SUDDARTH'S TEXTBOOK OF Medical-Surgical Nursing

16TH EDITION

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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 immensely to meet changing health needs and expectations for health care. With each subsequent edition of this textbook, Lillian and Doris and their successors, Suzanne C. Smeltzer and Brenda Bare (and eventually we, the current authors), 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. This latest edition focuses on incorporating issues related to diversity, equity, and inclusion as well as social determinants of health as appropriate to the content. In this context, we recognize people have diverse identities and have striven, to the extent possible, to use inclusive language unless it is clinically appropriate to use a less inclusive term, for example, when referring to a person's sex. However, when describing or referencing study populations used in prior research, we use the terminology reported by the sources cited to maintain fidelity to the research.

Organization

Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 16th 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 is one additional chapter in this edition than in the 15th edition. The comprehensive and lengthy Chapter 19 in the 15th edition that focused on disorders of the chest and lower respiratory tract is now split into two chapters. The first of these chapters, Chapter 19 in this edition, focuses on acute disorders while the second, Chapter 20, focuses on nonacute disorders of the chest and lower respiratory tract and pulmonary vascular disorders.

Cited references and resources are updated to include the most relevant and recent sources for each chapter. Many of these are web-based and may be in a state of flux. References note retrieval dates; however, resources only note the websites, some of which may remain active, while others may migrate or be unavailable. Rest assured that at the time of writing each chapter, the resource websites were active and vetted as valuable resources for students to review.

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 16th edition focus on highlighting the Clinical Judgment Measurement Model (CJMM). The CJMM is introduced in Chapter 1 and has been integrated into all other chapters with the inclusion of relevant Clinical Judgment Alerts and *new* Clinical Judgment Exercises at the end of each chapter. Clinical Judgment Alerts indicate which step(s) in the CJMM (i.e., recognize cues, analyze cues, prioritize hypotheses, generate solutions, take actions, and evaluate outcomes) are addressed in the context of the highlighted content. The Clinical Judgment Exercises provide situation-based questions that ask students to apply their knowledge to patient care and support clinical decision making.

Nursing Research Profile charts, Genetics in Nursing Practice charts, Ethical Dilemma charts, and Patient Education charts offer updated information.

The Nursing Process continues to serve as the framework for discussion of nursing management of patients with various disorders, as it has for numerous editions. Whenever salient nursing diagnoses are identified, the diagnoses used are those devised and validated by the International Council of Nursing in the *International Classification for Nursing Practice (ICNP) Catalogue*. Because of the global foci of these nursing diagnoses, they are spelled in the British English manner. American spellings of other terms are used in every other context within the textbook.

The 16th edition has two *Considerations* sections. *Gerontologic Considerations* sections highlight information that pertains specifically to the care of the older adult patient. *Veterans Considerations* sections include information applicable to the special care needs of military veterans.

The textbook also provides pedagogical features developed to help readers engage and learn critical content. Unfolding Patient Stories (case study vignettes) based on vSim for Nursing patients continue as a feature.

Read the User's Guide that follows the Preface for a full explanation and visual representation of all special features.

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 at thepoint.lww.com/Brunner16e.

- An **e-Book** gives you access to the book's full text and images online.
- A thoroughly revised and augmented **Test Bank** contains more than 2,900 NCLEX-style questions mapped to chapter learning outcomes.
- An extensive collection of materials is provided for each book chapter:
 - **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.

- 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.
- **Journal Articles** offer access to current articles relevant to each chapter and available in Wolters Kluwer journals to familiarize students with nursing literature.
- Sample **Syllabi** are provided for one- and two-semester courses.
- An **Image Bank** lets you use the photographs and illustrations from this textbook in your course materials.

Study Guide

A comprehensive study aid for reviewing key concepts, *Study Guide for Brunner & Suddarth’s Textbook of Medical-Surgical Nursing, 16th 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 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 electronic health record (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 thepoint.lww.com/DocuCare for options to enhance your medical–surgical nursing course with DocuCare.

Lippincott® CoursePoint+

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 the following:

- 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: Codeveloped 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 8,500 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 opportunities for improvement.
- 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, 16th 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 manage the varied roles that nurses assume in practice.

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 Impaired Physical Mobility

Problems commonly associated with immobility include weakened muscles, joint contracture, and deformity. Each joint of the body has a normal range of motion; if the range is limited, the functions of the joint and the muscles that move the joint are impaired, and painful deformities may develop. The nurse must identify patients at risk for such complications. The nurse needs to assess, plan, and intervene to prevent complications of immobility.

Another frequent challenge in rehabilitation nursing is an altered ambulatory/mobility pattern. Patients may be either temporarily or permanently unable to walk independently and unaided. The nurse assesses the mobility of the patient and designs care that promotes independent mobility within the prescribed therapeutic limits. If a patient cannot exercise and move their joints through a full range of motion, contractures may develop. A contracture is a shortening of the muscle and tendon that leads to deformity and limits joint mobility. When the contracted joint is moved, the patient experiences pain; in addition, more energy is required to move when joints are contracted.

Disability brings change to the patient and family unit as well as adjustments in lifestyle, mobility, and interactions as members of a community. Whether temporary or permanent, patients grieve the loss of health and need to process the loss as part of the adaptation process and plan of care (Taylor et al., 2023).

Assessment

Impaired mobility is related to pain, paralysis, loss of muscle strength, systemic disease, an immobilizing device (e.g., cast, brace), or prescribed limits to promote healing. Assessment of mobility includes positioning, ability to move, muscle strength and tone, joint function, and the prescribed mobility limits. Nurses must collaborate with physical therapists or other team members to assess mobility.

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

**Chart
2-6**

Assessment

Assessing the Home Environment

The following items may be part of an assessment of the home environment.

Exterior environment assessment may include:

- Walks, driveway, curbs, steps, hand rails, and porch
- Threshold/entry into home
- Residence numbers visible from street
- Lighting at all walks, entry
- Litter
- Noise
- Overgrown shrubs
- Doorbell or notification system

Interior environment assessment may include:

- Adequate width of halls and doors, considering knobs and hinges/doorswing
- Level of floor surfaces and thresholds
- Stairs and hand rails
- Clutter and trash management
- Sleeping arrangements and equipment

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

**Chart
11-5**

Risk Factors **Distributive Shock**

Septic Shock

- Chronic illness
- Emergent and multiple surgeries
- Extremes of age (<1 and >65 years)
- Immunosuppression
- Invasive procedures
- Malnourishment

Neurogenic Shock

- Depressant action of medications
- Lack of glucose (e.g., insulin reaction)
- Spinal anesthesia
- Spinal cord injury

- **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 select adult-onset genetic conditions:

- Alzheimer disease and other types of dementia
- Many types of cancer (see Chapter 12, Chart 12-1)
- Hemochromatosis
- Huntington disease
- Polycystic kidney 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 person 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 people predisposed to develop or pass on a genetic condition.

Genetics Resources

See Chapter 6, Chart 6-5: Components of Genetic Counseling for additional resources.

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

Most patients with angina pectoris self-administer nitroglycerin on an as-needed basis. A key nursing role in such cases is educating patients about the medication and how to take it. Sublingual nitroglycerin comes in tablet and spray forms.

- Instruct the patient to moisten the tablet with saliva, and place it under the tongue, allowing it to completely dissolve before swallowing.
- Explain that nitroglycerin is volatile and inactivated by heat, moisture, air, light, and time and therefore should be stored securely in its original container (e.g., capped dark glass bottle in a cool place); tablets should never be removed and carried in an unapproved container (e.g., clear plastic pillbox) or in a pocket close to the body.
- Advise the patient to keep the medication with them at all times and to renew the nitroglycerin supply every 3–6 months.
- Inform the patient that the medication should be taken prior to any activity that may produce pain. Because nitroglycerin increases tolerance for exercise and stress when taken prophylactically (i.e., before angina-producing activity, such as exercise, stair-climbing, or sexual activity), it is best taken before pain develops.

- **New! Clinical Judgment Alerts** identify key steps in the Clinical Judgment Measurement Model (CJMM) that the nurse takes to support clinical decision making and evidence-based practice and to avoid making errors.

Clinical Judgment Alert

Take Actions

Inadvertent removal of an ET tube can cause laryngeal swelling, hypoxemia, bradycardia, hypotension, and even death. Nurses should implement measures in accordance with evidence-based practice to minimize the risk of premature or inadvertent removal.

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

Veterans Considerations

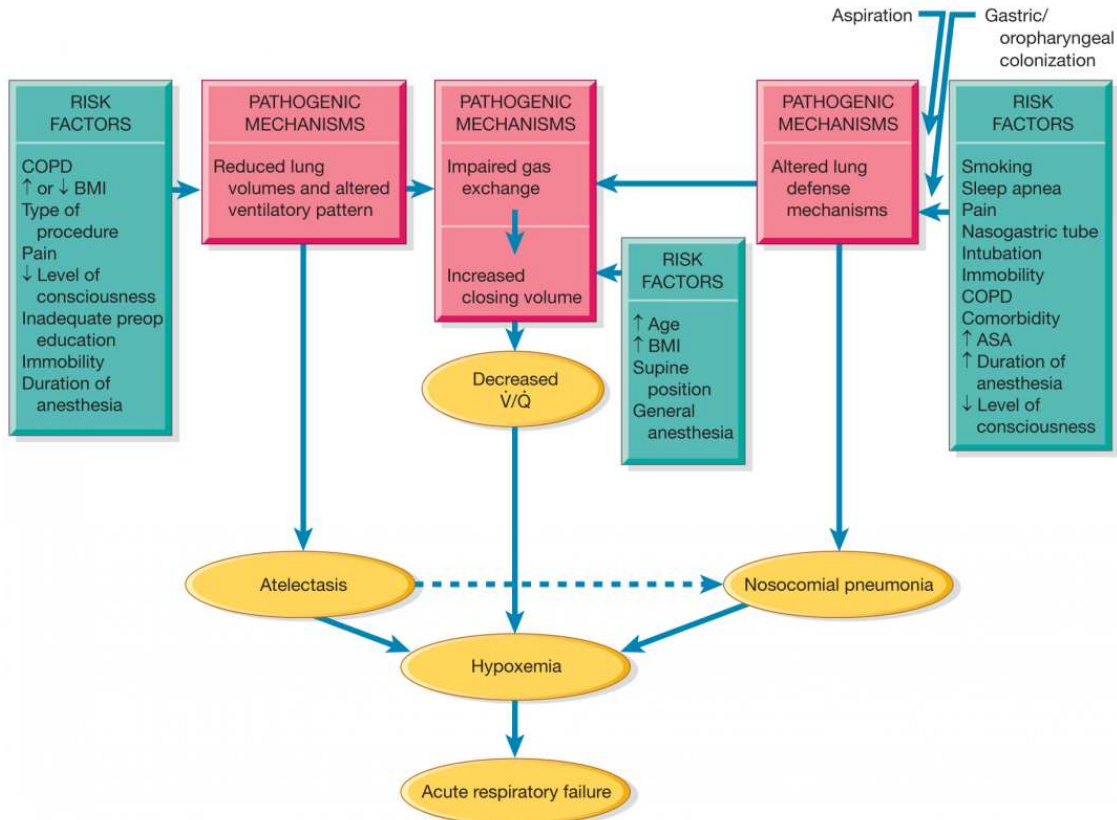
When conducting a health assessment, a key part of the nurse's role is to ask all adult patients if they have served in the U.S. military, and if so, their branch of service, length of service, and assigned duty stations (i.e., geographic locations and type of assignments). Patients who are veterans should specifically be asked about their experiences with violence and war, regardless of their ages, genders, lengths of service, and assignments. Asking about violent experiences works best when treated as a normal and natural part of the nursing assessment. The nurse's approach to gathering this information should be similar to that used when asking patients about sleep or activity difficulties or dietary or sexual concerns.

- **Gerontologic Considerations sections** 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

Effective health care for older adults requires assessment of sexual health (Weber & Kelley, 2022). Older adults may be stereotyped by misconceptions that they are not able to have sexual intercourse or are not interested in sex (Eliopoulos, 2022); however, sexual activity continues in later life. Literature supports that people remain sexually active for a long time into older age, and that sexuality and intimacy are positively associated with satisfaction with life (Buczak-Stec et al., 2021). However, the frequency of intercourse may diminish and age-related changes can impact the sexual function of older adults (Eliopoulos, 2022). For many people, sexuality encompasses more than the physical act of sexual intercourse. This includes sharing and the intimate exchanges of words and touches between partners (Eliopoulos, 2022).

- **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** 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.

The Patient With Peptic Ulcer Disease

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

- State the impact of peptic ulcer disease on physiologic functioning, ADLs, IADLs, roles, relationships, and spirituality.
- Explain the importance and necessity of adherence to prescribed medication regimen.
- Demonstrate methods of keeping track of the medication regimen and storage of the prescribed medications and use reminders such as pillboxes or phone or smartwatch alarms.
- State the names, doses, side effects, frequency, and schedule for all medications.
- Identify foods and other substances to avoid (e.g., food and drinks with extreme temperatures, coffee and other caffeinated beverages, alcohol, foods that were not tolerated in the past, nicotine).
- Identify side effects and complications that should be reported to primary provider:
 - Hemorrhage—cool skin, confusion, increased heart rate, labored breathing, blood in stool (either bright red or tarry black)
 - Penetration and perforation—severe abdominal pain, rigid and tender abdomen, vomiting, elevated temperature, increased heart rate
 - Gastric outlet obstruction—nausea and vomiting, distended abdomen, abdominal pain
- State how to reach primary provider with questions or complications.
- State time and date of follow-up appointments and testing.
- Identify the need for health promotion (e.g., cessation of use of tobacco products, stress management), disease prevention, and screening activities.

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

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

Chart 8-3	Health Promotion Nursing Strategies for Promoting Cognitive Function
<p>Nurses can support the processes by which older adults learn by using the following strategies:</p> <ul style="list-style-type: none">• Supply mnemonics to enhance recall of related data.• Encourage ongoing learning.• Link new information with familiar information.• Use visual, auditory, and other sensory cues.• Encourage learners to wear prescription glasses and hearing aids.• Provide glare-free lighting.• Provide a quiet, nondistracting environment.• Set short-term goals with input from the learner.• Prioritize the most important information and focus on the priority information.• Keep education periods short.• Pace learning tasks according to the endurance of the learner.• Encourage verbal participation by learners.• Reinforce successful learning in a positive manner.	

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 16-6	Ethical Dilemma Can Social Media Posts Hamper or Enhance Nurse–Patient Relationships?
<p>Case Scenario</p> <p>You work as a staff nurse in a hospital-based postanesthesia care unit (PACU) for the past 5 years. You enjoy your working environment, where you have cultivated solid working relationships. You follow several of your colleagues on their various social media sites. M.W. is a colleague you have worked closely with for many years and have occasionally socialized with outside of work. M.W. recently posted a video on their social media site of themselves in working scrubs dancing to music and singing voice-over to “Shake It Off.” In the video, M.W. moans that most patients recovering from surgery that they have seen “... cannot shake it off and get out of my recovery room fast enough! They whine, they cry, they puke!” M.W. has not identified any patients; nonetheless, you feel discomfort at having seen this video.</p> <p>Discussion</p> <p>Had any patient identification been disclosed by M.W. in the video that would have been a clear violation of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule (U.S. Department of Health and Human Services [HHS], 2003), which protects patient confidentiality (see Chapter 1 for further</p> <p>discussion). Although M.W. has not singled out any specific patients, they disparage patients under their care in the post. The American Nurses Association Code of Ethics (2015) espouses nursing practice that demonstrates compassion and respect for patients. A video such as one posted by M.W. clearly lacks compassion and is disrespectful of patients. Moreover, patients recovering from the effects of anesthesia are considered vulnerable, making M.W.’s posting even more difficult to reconcile with ethical nursing practice.</p> <p>Analysis</p> <ul style="list-style-type: none"> • Identify the ethical principles that are in conflict in this case (see Chapter 1, Chart 1-5). Is M.W.’s post potentially harmful to patients? Justify your position on whether or not you consider the post nonmaleficent, given that no individual patient was identified. • Is it ever justifiable (or perhaps even beneficent) for nurses to make generic posts about their nursing practice on social media sites, so long as the posts are HIPAA-compliant? Give some examples of how this might be achieved. • Describe what you might do at this juncture. Would you confront M.W. about the post? Would your interaction with M.W. depend upon whether or not your worksite (i.e., the hospital and the PACU) was identified in the post? Do you 	

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

Chart 3-3	Nursing Research Profile Usability of a Smartphone Medication Reminder
<p>Sherwin, L., Deroche, C., Yevu-Johnson, J., et al. (2021). Usability evaluation of a smartphone medication reminder application in patients treated with short-term antibiotic. <i>CIN: Computers, Informatics, Nursing</i>, 39(10), 547–553.</p> <p>Purpose</p> <p>The purpose of this study was to examine the usability and feasibility of the “MediSafe” medication reminder smartphone application (app) in adults with irritable bowel syndrome undergoing short-term antibiotic therapy. Each participant utilized the app with backup from a (human) “Medfriend” from their social support network. The study was completed to determine if use of the “MediSafe” app increased adherence with the three-times-per-day antibiotic therapy.</p> <p>Design</p> <p>In this mixed methods study, each of the 20 participants accessed the MediSafe application on their smartphone and identified a (human) “Medfriend” from their social support network. All patient participants used the MediSafe application daily for 14 days. Demographic data were collected, and app usage evaluation data were collected via a questionnaire, individual usage logs, and semi-structured interviews.</p> <p>Findings</p> <p>Patient participants rated the usefulness dimension favorably, whereas Medfriend participants rated the app’s usefulness slightly less favorably. Ease of use, ease of learning, and satisfaction scales were rated highest by both patient participants and Medfriends, whereas usefulness was rated lowest by both groups, with Medfriends’ usefulness rating significantly lower than that of patient participants. In the semi-structured interview qualitative portion of the study, the participants identified that having a Medfriend was beneficial. Two Medfriends identified that they believed by sending reminder texts they were instrumental in facilitating adherence.</p> <p>Nursing Implications</p> <p>Nurses should be aware that the MediSafe app is one of many health and medication reminder smartphone apps that are readily available free of charge. The MediSafe app is easy to use and accepted by both patients and their social support network. Additional research in larger studies is necessary to investigate the clinical effectiveness smartphone apps and other health tools have on medication adherence, social support engagement, and quality of life, especially in diverse patient populations.</p>	

Features to Facilitate Learning

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

- **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 (codeveloped by Laerdal Medical) and DocuCare products; however, each Unfolding Patient Story in the book stands alone, not requiring purchase of these products.

Unfolding Patient Stories: Skyler Hansen • Part 1



Skyler Hansen is an 18-year-old male recently diagnosed with type 1 diabetes. He lives with his parents and two younger siblings and is active in high school sports. He now requires insulin injections, glucose monitoring, and a diabetic diet.

Examine how the psychological, physical, and teaching needs for managing a new diagnosis can be a great source of stress to the patient and family. How can the nurse generate solutions for this patient to cope with and adapt to diabetes management? (Skyler Hansen's story continues in Chapter 47.)

Care for Skyler 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).

- **All new! Clinical Judgment Exercises** challenge you to apply textbook knowledge to clinical scenarios while using tenets of the CJMM.

CLINICAL JUDGMENT EXERCISES

1 A college student comes to the student health center where you work. They report trouble sleeping, not being able to concentrate on courses, and generally feeling very stressed. They used to exercise regularly but do not feel they have time now to do so, have gained 10 lb (4.5 kg) this semester, and are using cannabis daily to cope with stress. After analyzing these cues, what problem do you suspect this student is experiencing? What three priority nursing actions should you take to ensure the patient's safety? You also refer them to a campus mindfulness program. What measures will you use to evaluate if this program has helped the student to meet expected outcomes and goals?

2 A 75-year-old attends a health promotion fair in the local hospital clinic where you work. They tell the nurse coordinator, "I am only here to have my cholesterol checked as my doctor said that it is a little higher than it was at my last visit. I don't need to participate in anything else, as I'm doing just fine." One of the volunteers convinces them to have their blood pressure checked and it is 150/90 mm Hg. Which cues are concerning to you? What priority actions should you take?

- **References** cited are listed at the end of each chapter and include updated, current sources at the time of revision.
- **Resources** lists at the end of each chapter include sources of additional information, websites, agencies, and patient education materials all current at the time of revision.

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*Asterisk indicates nursing research.

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Resources

American Association of Colleges of Nursing, www.aacnnursing.org
American Nurses Association, www.nursingworld.org
American Nurses Association Center for Ethics and Human Rights, www.nursingworld.org/ethics
Campaign for Action: Future of Nursing, campaignforaction.org
Centers for Medicare & Medicaid Services, www.cms.hhs.gov
Healthy People 2030, www.healthypeople.gov
Institute for Healthcare Improvement, www.ihl.org
International Council of Nurses, www.icn.ch
Interprofessional Education Collaborative, www.ipecollaborative.org
NANDA International, www.nanda.org
National Academies of Sciences, Engineering, and Medicine, www.nationalacademies.org
National Center for Ethics in Health Care, www.ethics.va.gov
National League for Nursing, www.nln.org
QSEN Institute: Quality and Safety Education for Nurses, www.qsen.org
The Hastings Center, www.thehastingscenter.org
The Joint Commission, www.jointcommission.org
The TIGER Initiative, www.himss.org/professional-development/tiger-initiative
World Health Organization, www.who.int

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27 Assessment and Management of Patients With Vascular Disorders and Problems of Peripheral Circulation

28 Assessment and Management of Patients With Hypertension

Unit 6

Hematologic Function

29 Assessment of Hematologic Function and Treatment Modalities

30 Management of Patients With Nonmalignant Hematologic Disorders

31 Management of Patients With Hematologic Neoplasms

Unit 7

Immunologic Function

- 32 Assessment of Immune Function
- 33 Management of Patients With Immune Deficiency Disorders
- 34 Assessment and Management of Patients With Allergic Disorders
- 35 Assessment and Management of Patients With Inflammatory Rheumatic Disorders

Unit 8

Musculoskeletal Function

- 36 Assessment of Musculoskeletal Function
- 37 Management of Patients With Musculoskeletal Disorders
- 38 Management of Patients With Musculoskeletal Trauma

Unit 9

Digestive and Gastrointestinal Function

- 39 Assessment of Digestive and Gastrointestinal Function
- 40 Management of Patients With Oral and Esophageal Disorders
- 41 Management of Patients With Gastric and Duodenal Disorders
- 42 Management of Patients With Intestinal and Rectal Disorders

Unit 10

Metabolic and Endocrine Function

- 43 Assessment and Management of Patients With Obesity
- 44 Assessment and Management of Patients With Hepatic Disorders
- 45 Management of Patients With Biliary Disorders
- 46 Assessment and Management of Patients With Endocrine Disorders
- 47 Management of Patients With Diabetes

Unit 11 Kidney and Urinary Tract Function

- 48 Assessment of Kidney and Urinary Function
- 49 Management of Patients With Kidney Disorders
- 50 Management of Patients With Urinary Disorders

Unit 12 Reproductive Function

- 51 Assessment and Management of Patients With Female Physiologic Processes
- 52 Management of Patients With Female Reproductive Disorders
- 53 Assessment and Management of Patients With Breast Disorders
- 54 Assessment and Management of Patients With Male Reproductive Disorders
- 55 Assessment and Management of Patients Who Are LGBTQ+

Unit 13 Integumentary Function

- 56 Assessment of Integumentary Function
- 57 Management of Patients With Dermatologic Disorders and Wounds
- 58 Management of Patients With Burn Injury

Unit 14 Sensory Function

- 59 Assessment and Management of Patients With Eye and Vision Disorders
- 60 Assessment and Management of Patients With Hearing and Balance Disorders

Unit 15 Neurologic Function

- 61 Assessment of Neurologic Function
- 62 Management of Patients With Neurologic Dysfunction

- 63 Management of Patients With Cerebrovascular Disorders
- 64 Management of Patients With Neurologic Trauma
- 65 Management of Patients With Neurologic Infections, Autoimmune Disorders, and Neuropathies
- 66 Management of Patients With Oncologic or Degenerative Neurologic Disorders

Unit 16 Acute Community-Based Challenges

- 67 Management of Patients With Infectious Diseases
- 68 Emergency Nursing
- 69 Disaster Nursing

UNIT 1

Principles of Nursing Practice